

**COMPLIANCE STATUS REPORT**

**FORMER MACON 2 MGP FACILITY  
MACON, BIBB COUNTY, GEORGIA  
GEC JOB NO. 130659.241  
HSI #10692**

**SUBMITTED TO**

**MS. SUSAN KIBLER  
GEORGIA ENVIRONMENTAL PROTECTION DIVISION  
HAZARDOUS SITE RESPONSE PROGRAM  
2 MARTIN LUTHER KING, JR. DR., SUITE 1154  
ATLANTA, GEORGIA 30334-9000**

**PREPARED FOR**

**MR. JUDD DRAKE  
COUNTY ATTORNEY  
MACON-BIBB COUNTY GOVERNMENT  
700 POPLAR STREET  
MACON, GEORGIA 31202**

**AND**

**MR. ALEX MORRISON  
MACON-BIBB COUNTY URBAN DEVELOPMENT AUTHORITY  
200 CHERRY STREET, SUITE 100  
MACON, GEORGIA 31201**

**PREPARED BY**

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

**ISSUE DATE**

**NOVEMBER 2, 2018**

# GEC

GEOTECHNICAL  
&  
ENVIRONMENTAL  
CONSULTANTS, INC.

November 2, 2018

Ms. Susan Kibler  
Georgia Environmental Protection Division (EPD)  
Hazardous Site Response Program  
2 Martin Luther King, Jr. Dr., Suite 1154  
Atlanta, Georgia 30334-9000

**SUBJECT: Compliance Status Report (CSR)**  
Former Macon 2 MGP Facility  
HSI #10692  
Macon, Bibb County, Georgia  
GEC Job No. 130659.241

**Dear Ms. Kibler:**

Geotechnical & Environmental Consultants, Inc. (GEC) is pleased to present this Voluntary Remediation Program (VRP) Compliance Status Report (CSR) for the above referenced site. This report was prepared and submitted on behalf of the Macon Bibb County Urban Development Authority, the current property owner.

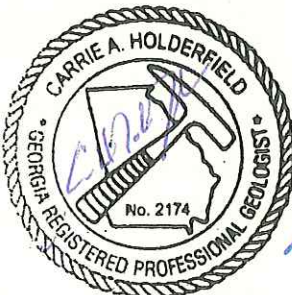
If you have any questions concerning this report or require additional information, please feel free to contact our office.

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

cc: Mr. Judd Drake, Macon-Bibb County Government



**FORMER MACON 2 MGP FACILITY  
MACON, BIBB COUNTY, GEORGIA  
GEC JOB NO. 130659.241  
HSI #10692**

**TABLE OF CONTENTS**

	<u><b>PAGE NO.</b></u>
EXECUTIVE SUMMARY.....	1
CERTIFICATION OF COMPLIANCE WITH RISK REDUCTION STANDARDS .....	5
GROUNDWATER SCIENTIST CERTIFICATION STATEMENT.....	6
1.0 INTRODUCTION.....	7
1.1 Purpose of CSR.....	7
1.2 Subject Property Location and Description .....	8
1.3 Qualifying Properties and Participant Eligibility .....	9
1.4 Site Utilization History .....	10
1.5 Prior Site Investigation and Reporting Summary .....	10
2.0 PHYSICAL SETTING.....	14
2.1 Regional Geology.....	14
2.2 Site Geology.....	15
2.3 Site Hydrology and Hydrogeology.....	16
3.0 CORRECTIVE ACTION .....	17
3.1 Soil Remediation Activities .....	17
3.2 Soil Disposal .....	19
3.3 Air Quality Monitoring .....	19
4.0 EXPOSURE ASSESSMENT .....	19
4.1 Potential Receptors .....	19
4.2 Exposure Media and Potential Exposure Pathways .....	19
4.2.1 Surface Soil.....	19
4.2.2 Subsurface Soil .....	20
4.2.3 Groundwater Exposure Pathway.....	20
4.2.4 Vapor Intrusion Exposure Pathway .....	20
5.0 RISK REDUCTION STANDARDS .....	21
5.1 Risk Reduction Standard Calculation .....	21
5.2 Risk Reduction Standards for Soil.....	22
5.3 Compliance with Risk Reduction Standards.....	23
6.0 CONCLUSION .....	23
7.0 REFERENCES .....	24

**FORMER MACON 2 MGP FACILITY  
MACON, BIBB COUNTY, GEORGIA  
GEC JOB NO. 130659.241  
HSI #10692**

**TABLE OF CONTENTS (cont.)**

**APPENDICES**

**Figures:**

Figure 1: Site Location Map  
Figure 2: Site Map  
Figure 3: Surface Water Draw Point Map  
Figure 4: PAH Soil Management Map  
Figure 5: Lead and Arsenic Soil Management Map  
Figure 6: A-A' Cross Section  
Figure 7: B-B' Cross Section  
Figure 8: Latent Contamination Map

**Tables:**

Table 1: Arsenic and Lead Analytical Summary  
Table 2: PAH Analytical Summary  
Table 3: Air Quality Monitoring Summary

Appendix I: Universal Environmental Covenant and Topographic Survey for Macon-Bibb  
County of 861 Willow Street and 815 Riverside Drive

Appendix II: Williams CSR

Appendix III: Updated VIRP and EPD Approval Correspondence

Appendix IV: Soil Management Plan

Appendix V: Bibb County Tax Assessor Maps and Reports

Appendix VI: RETEC CAP

Appendix VII: Results of Soil Sampling and Analysis-February 13, 2014

Appendix VIII: VRP First Semi-Annual Progress Report and EPD Comments and Correspondence

Appendix IX: VRP Second Semi-Annual Progress Report and EPD Comments and Correspondence

Appendix X: VRP Third Semi-Annual Progress Report and EPD Comments and Correspondence

Appendix XI: Project Update and EPD Approval Correspondence

Appendix XII: Sanborn Maps

Appendix XIII: Disposal Documentation

Appendix XIV: Sample Identification Guide and Analytical Laboratory Reports

## EXECUTIVE SUMMARY

This Voluntary Remediation Program (VRP) Compliance Status Report (CSR) has been prepared on behalf of the Macon Bibb County Urban Development Authority (“MBCUDA”) and Macon-Bibb County f/k/a City of Macon, the current property owners, for the Former Macon 2 MGP (hereafter site or MGP 2) Facility, located in Macon, Bibb County, Georgia. MBCUDA and Macon-Bibb County f/k/a City of Macon has completed remediation of the property as outlined in the Soil Management Plan approved by the Georgia EPD on November 9, 2017.

The MGP 2 was previously listed on the Hazardous Site Inventory (HSI) as Site #10692. The site was investigated and a CSR completed by Williams Environmental Services, Inc. (Williams, 2003), was approved on December 19, 2003. The EPD approval certified compliance with Type 4 Risk Reduction Standards (RRS) for soil. Groundwater was certified as compliant with Type 1 RRS. The EPD also approved a Corrective Action Plan (CAP) for the Macon 2 MGP on January 4, 2006, which required a deed notice on the property. In order to comply with the CAP, a Consent Order (No. EPD-HSR-548) was executed to prevent placing, permitting or approving any residential purpose on the site. The site was removed from the HSI on May 19, 2011.

In order to provide more opportunities for redevelopment while maintaining important limitations in some areas, MBCUDA and Macon-Bibb County f/k/a City of Macon sought to modify the site restrictions to allow residential use of the entire property. To that end, an updated Voluntary Investigation and Remediation Plan (VIRP) and Application, dated May 22, 2015, was submitted, which described additional investigation and possible corrective action that would be needed in order to demonstrate the site’s suitability for residential development and to provide the basis for changing the property use restrictions.

Per EPD approval, the updated VIRP and Application was not intended to revisit the basis for the delisting of the site, or to reevaluate the previously approved CSR completed by Williams. Instead, per EPD approval, the updated VIRP application served only to characterize contamination in the upper 15-feet of the site in order to enable the development of a remedial plan, which would result in remediation of soils within the Residential Use Target Zone (RUTZ) to Type 1 or 2 RRS (as appropriate).

Per EPD concurrence, completion of the proposed remedial activities would allow the site to be eligible for certification to residential RRS (surface to 15-feet), and soils located at depth greater than 15-feet would be controlled by a Universal Environmental Covenant (UEC) and Soil Management Plan (SMP).

Additionally, the EPD concurred that no further evaluation of groundwater was deemed necessary, based upon the results of groundwater sampling and analysis reported in the Williams CSR, since no groundwater contamination was encountered above Type 1 RRS.

This VRP CSR provides a summary of assessment and remedial activities completed following approval of the VRP and Application, which was approved in EPD correspondence dated June 22,

2015.

### **Qualifying Property**

All or portions of the following 11 tracts of approximately 10.8-acres of MGP 2 real property (hereafter referred to as “site”) are the subject of this CSR and are considered qualifying properties under the VRP:

1. 635 Riverside Drive/R073-0040 (“Tract 1”);
2. 695 Riverside Drive/R073-0039 (“Tract 2”);
3. First Street/R073-0038 (“Tract 3”);
4. 711 Riverside Drive/R073-0037 (“Tract 4”);
5. 711 Riverside Drive/R073-0036 (“Tract 5”);
6. 719 Riverside Drive/R073-0035 (“Tract 6”);
7. 721 Riverside Drive/R073-0034 (“Tract 7”);
8. 815 Riverside Drive/R073-0033 (“Tract 8”);
9. 815 Riverside Drive/R073-0398 (“Tract 9”);
10. 847 Riverside Drive/R073-0031 (“Tract 10”); and
11. 861 Willow Street/R071-0316 (“Tract 11”)

Note: The prior UEC implemented as part of the Williams CSR included additional MGP 2 properties, not included in the list above.

### **Chemicals of Interest**

As identified in the Williams CSR and VRP, research and the laboratory analytical data for the soil sampling completed as part of the assessment and delineation investigations performed at the site from March 2001 to August 2015 (delineation assessment), the following chemicals of interest (COIs) for the site:

<u>Metals</u>	<u>Soil SVOCs</u>	<u>VOCs</u>
Arsenic	Acenaphthene	Benzene
Barium	Acenaphthylene	Carbon Disulfide
Beryllium	Acetophenone	Ethylbenzene
Cadmium	Anthracene	Methyl Chloride
Chromium	Benzo(a) anthracene	Toluene
Copper	Benzo(a)pyrene	Xylenes, Total
Lead	Benzo(b) fluoranthene	
Mercury	Benzo(g,h,i)perylene	
Nickel	Benzo(k) fluoranthene	
Vanadium	Chrysene	
Zinc	Dibenz(a,h)anthracene	
Total Cyanide	Fluoranthene	
	Fluorene	
	Indeno(1,2,3-c,d) pyrene	
	Naphthalene	
	Phenanthrene	
	Phenol	
	Pyrene	

The COI for the site soils were based upon the information obtained from the Gas Research Institute (Management of Manufactured Gas Plant Sites, Volume I, Wastes and Constituents of Interest, October 1987 and later revisions) plus compounds detected above the Hazardous Site Response Act (HSRA) notification concentrations (NC).

### **Property Compliance with Risk Reduction Standards**

Risk Reduction Standards for organic and inorganic constituents in soil were previously determined in the Williams CSR (Section 9. Potential Receptor Study and Risk Reduction Standards – Table 9.2) and approved by the EPD in the June 2015 correspondence. Per EPD approval, the previously approved RRS remained in effect for the current assessment and remediation activities.

Areas with soil containing concentrations of contaminants within the RUTZ, where concentrations exceeded residential RRSs, were excavated and properly disposed of offsite at a regulated landfill. The soil laboratory analytical results of the prior assessments and recent delineation sampling conducted as part of the remediation activities indicate that the concentrations of contaminants in soil at depths from the surface to 15-feet below ground surface (bgs) measure below applicable RRS. Select contaminants located at depths greater than 15-feet bgs exceed applicable RRS and are



controlled by a pre-existing UEC and SMP.

### **Completed Corrective Action**

All areas identified as containing soil contamination above the residential RRSs, within the surface to 15-foot interval of the RUTZ, were excavated and properly disposed of at a regulated landfill. Following removal of the excavated material, confirmatory soil samples were collected from the base and sidewalls of each excavation. All known contaminated material in exceedance of residential RRS has been removed from the property, with the exception of soils exhibiting select COI concentrations exceeding the residential RRS at depths greater than 15-feet.

## CERTIFICATION OF COMPLIANCE WITH RISK REDUCTION STANDARDS

I certify 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 gathered and evaluated 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 upon 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), and implementation of the Uniform Environmental Covenant presented in Appendix 1, I have determined soil within the Residential Use Target Zone (RUTZ) at the property (as identified on the Site Survey presented in Appendix I) is in compliance with Type 2 (surface to 15-feet below ground surface) and Type 5 (soils located greater than 15-feet below ground surface) Risk Reduction Standards for soil.

Signature: Robert A. B. Reichert

Date: Dec. 18, 2018

Printed Name: Robert A.B. Reichert

Title: Mayor

Company: Macon-Bibb County, Georgia

~And~

Signature: 

Date: 12-19-18

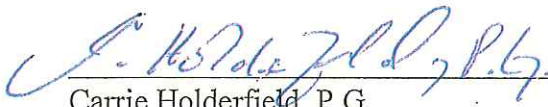
Printed Name: Alex Morrison

Title: Executive Director

Company: Macon-Bibb County Urban Development Authority

## GROUNDWATER SCIENTIST CERTIFICATION STATEMENT

I certify that I am a qualified groundwater scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and have sufficient training and experience in groundwater 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 this "Compliance Status Report" was prepared by myself and appropriate qualified subordinates working under my direction.

  
\_\_\_\_\_  
Carrie Holderfield, P.G.  
Senior Geologist  
Georgia Reg. #2174



11-26-2018  
\_\_\_\_\_  
Date

## **1.0 INTRODUCTION**

This Voluntary Remediation Program (VRP) Compliance Status Report (CSR) 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 the Macon Bibb County Urban Development Authority (“MBCUDA”) and Macon-Bibb County f/k/a City of Macon, the current property owners. The MGP 2 facility (hereafter referred to as site) is located in Macon, Bibb County, Georgia. A Site Location Map is presented as Figure 1.

The site was previously listed on the HSI as Site #10692. The site was investigated, and a CSR completed by Williams Environmental Services, Inc. (Williams, 2003), was approved on December 19, 2003. The EPD approval certified compliance with Type 4 Risk Reduction Standards (RRSs) for soil. Groundwater was certified as compliant with Type 1 RRS. EPD also approved a Corrective Action Plan (CAP) for the MGP 2, on January 4, 2006, which required a deed notice on the property. In order to comply with the CAP, a Consent Order (No. EPD-HSR-548) was executed to prevent placing, permitting or approving any residential purpose on the site. The site was removed from the HSI on May 19, 2011. A copy of the Williams CSR is located in Appendix II.

In order to provide more opportunities for redevelopment while maintaining important limitations in some areas, MBCUDA and Macon-Bibb County f/k/a City of Macon sought to modify the site restrictions to allow residential use of the entire property. To that end, an updated Voluntary Investigation and Remediation Plan (VIRP) and Application, dated May 22, 2015, was submitted, which described additional investigation and possible corrective action that would be needed in order to demonstrate the site’s suitability for residential development and to provide the basis for changing the property use restrictions.

Per EPD approval, the updated VIRP and Application was not intended to revisit the basis for the delisting of the site, or to reevaluate the previously approved CSR completed by Williams. Instead, per EPD approval, the updated VIRP application served only to characterize contamination in the upper 15-feet of the site in order to enable the development of a remedial plan, which would result in remediation of soils within the Residential Use Target Zone (RUTZ) to Type 1 or 2 RRS, as appropriate. A copy of the updated VIRP and EPD approval correspondence is provided in Appendix III.

Per EPD concurrence, completion of the proposed remedial activities would allow the site to be eligible for certification to residential RRS (surface to 15-feet), and soils located at depth greater than 15-feet below ground surface (bgs) would be controlled by a Universal Environmental Covenant (UEC) and Soil Management Plan (SMP).

Additionally, the EPD concurred that no further evaluation of groundwater was deemed necessary, based upon the results of groundwater sampling and analysis reported in the Williams CSR, since no groundwater contamination was encountered above Type 1 RRS.

### **1.1 Purpose of CSR**

On behalf of MBCUDA and Macon-Bibb County f/k/a City of Macon, Geotechnical and

Environmental Consultants, Inc. (GEC) has provided project management and oversight during completion of remediation activities at the property as outlined in the Soil Management Plan (SMP) approved by the Georgia EPD on November 9, 2017. This VRP CSR provides a summary of assessment and remedial activities completed following approval of the VIRP and Application, which was approved in EPD correspondence dated June 22, 2015.

Since approval of the Williams CSR, over 500 soil samples have been collected to provide additional assessment and delineation of soils within the surface to the 15-foot interval of the RUTZ. RRS for organic and inorganic constituents in soil were previously determined in the Williams CSR (Section 9. Potential Receptor Study and Risk Reduction Standards – Table 9.2) and approved by the EPD in the June 2015 correspondence. Per EPD approval, the previously approved RRSs remained in effect for the current assessment and remediation activities. All soil analytical results were compared to either Type 1 Type 2 RRS, as applicable.

As proposed in the SMP (dated August 2017), areas with soil containing concentrations of contaminants within the RUTZ, where concentrations exceeded residential RRS were excavated and properly disposed of offsite at a regulated landfill. The laboratory analytical results for soil samples collected during prior assessments and recent delineation sampling conducted as part of the remediation activities indicated that the concentrations of contaminants in soil at depths from the surface to 15-feet bgs measure below applicable RRS. Select contaminants located at depths greater than 15-feet bgs exceed applicable RRS, and are controlled by a UEC and SMP. A copy of the SMP is provided in Appendix IV.

This CSR provides a summary of assessment and remedial activities completed from 2014 to 2018 as part of the VIRP and remedial activities.

## **1.2 Subject Property Location and Description**

The properties defined as part of this Site include the parcel on which the former MGP facility was located, several adjacent and nearby parcels, and portions of street rights-of-way near the former MGP facility. Based upon the findings of the CSR prepared by Williams (2003), and in accordance with RRS of the Rules for Hazardous Site Response, Rule 391-3-19-.07, the EPD concurred that the following properties (identified by Bibb County, Georgia, Tax Parcel ID numbers, if applicable) were in compliance with Type 1 risk reduction standards for soil and groundwater:

1. 635 Riverside Drive/R073-0040 (“Tract 1”);
2. 695 Riverside Drive/R073-0039 (“Tract 2”);
3. First Street/R073-0038 (“Tract 3”);
4. 711 Riverside Drive/R073-0037 (“Tract 4”);
5. 711 Riverside Drive/R073-0036 (“Tract 5”);
6. 719 Riverside Drive/R073-0035 (“Tract 6”);
7. 721 Riverside Drive/R073-0034 (“Tract 7”);
8. 815 Riverside Drive/R073-0033 (“Tract 8”);
9. 815 Riverside Drive/R073-0398 (“Tract 9”);
10. 847 Riverside Drive/R073-0031 (“Tract 10”); and
11. 861 Willow Street/R071-0316 (“Tract 11”)



Parcel No. OC-98-5A  
Parcel No. OC-98-SC  
Parcel No. OC-98-5D  
Parcel No. OC-98-SG  
Parcel No. OC-98-SH  
Parcel No. OC-98-51  
Parcel No. OC-98-5JA (863 Willow Street)  
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) (847 Riverside Dr.)

*This parcel reference system reflects how the parcels are referenced in the UEC located in Appendix I. The Bibb County Appraisal District has since updated the parcel reference system.*

Further, the following properties were certified as in compliance with Type 4 risk reduction standards for soil and Type 1 RRS for groundwater:

Parcel No. OC-985J  
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

All or portions of the following parcels are located within the RUTZ, and are therefore the primary focus of this of this CSR.

Parcel No. OC-98-5J (R071-0316 (861 Willow Street)  
Parcel No. OC-99-4A (R073-0398 (Previously 725 Riverside, Currently East 815 Riverside  
Parcel No. OC-99-9-4AB (R073-0033 (West 815 Riverside)  
Portions of Right-of-Way of Willow Street  
Portions of Right-of-Way of Spring Street Lane

Copies of the on-line Bibb County Tax Assessor maps and reports are provided in Appendix V.

### **1.3 Qualifying Properties and Participant Eligibility**

The site is not listed on the National Priorities List (NPL), is not currently undergoing response activities required by an order of the Regional Administrator of the United States Environmental Protection Agency (USEPA), or is a facility required to have a permit under Official Code of Georgia (O.C.G.A) Section 12-8-66. There are currently no outstanding liens filed against the site pursuant to O.C.G.A Sections 12-8-96 and 12-13-12. Qualifying the site under the VRP would not

violate the terms and conditions under which the division operates and administers remedial programs by delegation or by similar authorization from the USEPA. In addition, qualification of the site would not violate any order, judgment, statute, rule or regulation subject to the enforcement authority of the Director of the EPD.

#### **1.4 Site Utilization History**

The 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 Map is provided as Figure 2.

The site previously operated as an 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 public utilities, asphalt surfaced areas and the concrete foundations of the former Central Services structures. The majority of the site is surfaced with grass. Property utilizations in the vicinity of the site are primarily commercial.

Historically, the former MGP facility and surrounding properties were backfilled on several occasions to reach the current topography. The results of soil assessment activities conducted by Williams indicated that fill thickness ranged 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.

#### **1.5 Prior Site Investigation and Reporting Summary**

***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. A copy of the LAW PA is not contained in GEC's archives and is therefore not included as an attachment to this CSR.

***Williams Environmental Services Studies:*** As noted previously, a CSR for the site was initiated by Williams, in June of 2002. The Revised CSR was submitted on September 5, 2003. According to the CSR, 36 Hazardous Site Response Act (HSRA) regulated substances were detected at the site, as follows:

	<u>Soil</u>	
<u>Metals</u>	<u>SVOCs</u>	<u>VOCs</u>
Arsenic	Acenaphthene	Benzene
Barium	Acenaphthylene	Carbon Disulfide
Beryllium	Acetophenone	Ethylbenzene
Cadmium	Anthracene	Methyl Chloride
Chromium	Benzo(a) anthracene	Toluene
Copper	Benzo(a)pyrene	Xylenes, Total
Lead	Benzo(b) fluoranthene	
Mercury	Benzo(g,h,i)perylene	
Nickel	Benzo(k) fluoranthene	
Vanadium	Chrysene	
Zinc	Dibenz(a,h)anthracene	
Total Cyanide	Fluoranthene	
	Fluorene	
	Indeno(1,2,3-c,d) pyrene	
	Naphthalene	
	Phenanthrene	
	Phenol	
	Pyrene	

Williams advanced over 35 soil borings within the total area of the site (including areas outside of the RUTZ) and collected soil samples, variously, from the surface to 60-feet 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 developed as part of assessment activities. Comparison of the soil sample analytical results to applicable RRS 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 copy of the Williams CSR is provided in Appendix II.

**GEC 2014:** GEC mobilized to the site on February 13, 2014, to conduct additional assessment of shallow soils within the RUTZ. 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 with the EPD and MBUDA pertaining to the potential 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. Additional sampling of soils within the upper 2-feet of the RUTZ was determined to be necessary in order 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 RUTZ) as identified in the Correction Action Plan prepared by RETEC Group, Inc. (RETEC, dated October 5, 2008). A copy of the RETEC CAP is provided in Appendix VI.

A total of 27 sampling locations (GB-1 through GB-27) were proposed for completion within the RUTZ. 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. In order 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 as noted in the table below. The results of the sampling and laboratory analysis were more fully reported in the Results of Soil Sampling and Analysis – February 13, 2014 report, which is provided in Appendix VII.

SAMPLE ID	Sample Depth (Top)	Sample Depth (Bottom)	Depth Units	MATRIX	ANALYTE	Result	UNITS	Type 1 RRS Standard (mg/kg)
GB-27	0	6	IN	SOIL	Arsenic	74.9	mg/kg	20
GB-11	0.5	2	FT	SOIL	Lead	465	mg/kg	75
GB-14	0.5	2	FT	SOIL	Lead	425	mg/kg	75
GB-15	0	6	IN	SOIL	Lead	95.1	mg/kg	75
GB-16	0.5	2	FT	SOIL	Lead	119	mg/kg	75
GB-18	0.5	2	FT	SOIL	Lead	147	mg/kg	75
GB-18	0	6	IN	SOIL	Lead	171	mg/kg	75
GB-26	0.5	2	FT	SOIL	Lead	76.8	mg/kg	75
GB-26	0	6	IN	SOIL	Lead	95.5	mg/kg	75
GB-27	0	6	IN	SOIL	Lead	172	mg/kg	75
GB-14	0.5	2	FT	SOIL	Mercury	0.743	mg/kg	0.5
GB-25	0.5	2	FT	SOIL	Mercury	0.879	mg/kg	0.5
GB-26	0.5	2	FT	SOIL	Mercury	0.735	mg/kg	0.5

**GEC 2015:** GEC proposed additional sampling in the updated VIRP (2015), including additional sampling and analysis of soils within the surface to the 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.

*General Approach:* 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 at various depths throughout the property. 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.

*Sample Handling and Decontamination:* All downhole apparatus was thoroughly decontaminated by steam cleaning and/or cleaning with a Liquinox detergent solution and rinsing with potable water, prior to introduction into the subsurface. On-site personnel wore new disposable latex or nitril gloves when handling any probe or sampling equipment in order to prevent cross-contamination of laboratory samples.

*Sample Collection, Shipping and Analysis:* During the soil boring installation, soil samples were collected from the borings utilizing a downhole sampling device. Upon retrieval from the borehole, the soil samples were placed into laboratory-supplied, vapor and fluid tight containers, labeled and preserved on ice. The samples were then packaged in a cooler, on ice, for overnight shipment, with appropriate chain-of-custody documentation, to the analytical laboratory. Sampling was performed in general accordance with Environmental Protection Agency (EPA) Region IV Standard Operating Procedures (SOPs). Proper sample handling and chain-of-custody was maintained at all times.

A total of 30 additional soil samples were collected from various intervals within the surface to 15-foot of soil interval, 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).

*Soil Analytical Results:* 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).

*Vapor Intrusion Assessment:* Additionally, potential vapor intrusion at the site was addressed by sampling in two locations; the area of the former Gas Holder No. 1 and the former Gas Holder No. 2. These locations were selected because 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 depths between 5 and 10-feet bgs.

Laboratory analytical results for the soil vapor sample identified numerous COCs, including those typically associated with MGPs, which included, but were not limited to BTEX. The EPA Vapor Intrusion Screening Level (VISL) Calculator 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 results of the additional assessment activities were provided in the First Annual Progress Report, which was submitted in March 2016. After completing a review of the Report, EPD offered comments in correspondence dated October 24, 2016. Responses to the EPD comments were provided in GEC correspondence dated December 7, 2016. Copies of the First Semi-Annual VIRP Progress Report, and GEC/EPD correspondence are provided in Appendix VIII.

**GEC Second Semi-Annual VIRP Progress Report:** The Second Semi-Annual VIRP Progress Report (dated April 18, 2017) provided a revision to the proposed depths of excavation, a Soil Excavation Plan, and a schedule for the proposed soil excavation activities. Previous plans had involved the excavation of soils to a total depth of 5-feet bgs. In order to provide the most opportunity for redevelopment, and to limit the potential for disturbing soils exhibiting elevated COIs, the MBCUDA and Macon-Bibb County f/k/a City of Macon elected to extend excavation activities to a maximum of 15-feet bgs. The EPD provided comments to the Progress Report in correspondence dated June 23, 2017. All comments were addressed and/or concurred with successfully in GEC and EPD correspondence dated September 5, 2017. Copies of the Second Semi-annual Progress Report, and GEC/EPD correspondence are provided in Appendix IX.

**GEC Third Semi-Annual VIRP Progress Report:** The Third Semi-Annual VIRP Progress Report (dated September 20, 2017) was submitted in abbreviated form, since no substantial changes or revisions had occurred since submission of the Second Semi-Annual Report. The EPD provided comments to the Progress Report in correspondence dated October 31, 2017. Letter and email correspondence regarding the EPD comments resulted in confirmation that “following completion of the proposed remedial activities, the RUTZ would be eligible for certification to residential RRS (surface to 15-feet bgs), soils greater than 15-feet would be controlled by the UEC and SMP, and the property would be suitable for residential redevelopment.” Copies of the Third Semi-annual Progress Report, and GEC/EPD correspondence are provided in Appendix X.

**GEC Fourth Semi-Annual VIRP Progress Report:** Per EPD approval, this CSR is being submitted in lieu of a Fourth Semi-Annual VIRP Progress Report. Copies of the EPD/GEC correspondence are provided in Appendix XI.

## 2.0 PHYSICAL SETTING

This section provides general information about local geology, hydrology, and hydrogeology as obtained from site assessments and published literature.

### 2.1 Regional Geology

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 site 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 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 site (Surface Water Draw Point Map is presented as Figure 3). 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).

## **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 from Williams CSR (2003), Appendix III). Cross sections A-A' through C-C' (Figures 7, 8, and 9 from Williams CSR (2003), Appendix III) 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, Appendix XII). 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.

### **2.3 Site Hydrology and Hydrogeology**

A Surface/Storm Water Flow Path map in the Williams CSR (Figure 5, Appendix III) 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 in Appendix III) 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 former 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, Appendix III).

Hydrogeology at the Site was evaluated by the use of six monitoring wells (this includes four installed during the SI and two 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, Appendix III) indicate the relationship of the top of groundwater with geologic units at the Site. Monitoring wells MW-1 through MW-5 are all screened within the fill material. 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. 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 March 29, 2001, the top of the water table ranges from 9.5 (MW-01) to 25.61 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.

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.

### 3.0 CORRECTIVE ACTION

#### 3.1 Soil Remediation Activities

All areas containing contaminated soil above residential risk reduction standards within the surface to the 15-foot interval were excavated and removed from the property. In all excavated areas, horizontal and vertical delineation was accomplished to below residential RRSs. All excavated areas were initially five (5) feet by five (5) feet areas excavated to varying depths. Sidewall samples were collected along all four walls and the bottom of the excavation pit and analyzed for the detected constituents in the area. If confirmatory results indicated the presence of the contaminant above residential RRSs, additional horizontal or vertical excavation was performed. The following table summarizes the excavated sample locations, detected contaminants, and size of excavation area.

COI	Boring ID	Dates of Excavation and Confirmation Sampling	Additional Excavation Required (Y/N)	Depth of Excavation (feet)	Approximate Excavation Dimensions (feet)	Total Estimated Volume of Excavated Soils (ft <sup>3</sup> )
Lead	GB-11	12/11/2017	Y	0.5-2	7 x 5 x 1.5	52.5
Lead	GB-14	12/12/2017	Y	0.5-2	7 x 5 x 5	175
Lead	GB-14	12/12/2017	Y	3-5		
Arsenic	GB-14	12/12/2017	Y	8-10	7 x 7 x 2	98
Arsenic	GB-27	12/11/2017	Y	0-2	7 x 5 x 2	70
Lead	GB-28	12/12/2017	Y	13-15	9 x 5 x 2	90
Benzo(a)anthracene	SB-17	12/12/2017	Y	13-15	7 x 7 x 2	98
Benzo(a)pyrene	SB-17	12/12/2017	Y	13-15		
Benzo(b)fluoranthene	SB-17	12/12/2017	Y	13-15		
Arsenic	SB-20	12/11/2017	N	0-2	5 x 5 x 2	50
Benzo(a)pyrene	SB-24	12/11/2017	N	2-4	5 x 5 x 2	50
Benzo(a)pyrene	SB-24	12/11/2017	N	4-6	5 x 5 x 2	50
Lead	SB-25	12/11/2017	N	2-4	5 x 5 x 2	50
Benzo(a)pyrene	SB-25	12/11/2017	N	2-4		
Lead	SB-27	12/12/2017	N	8-12	5 x 5 x 4	100
Benzo(a)pyrene	SB-42	12/11/2017	N	2-4	5 x 5 x 2	50
Lead	SB-45	12/12/2017	N	10-12	5 x 5 x 2	50

Following excavation of the impacted soils, confirmatory sampling as described below was performed to confirm that the base and sidewalls of the excavations did not exhibit impacts exceeding Type 1 and/or Type 2 RRS. As noted above, in the event that confirmation sampling showed impacts remaining above Type 1 and/or Type 2 RRS, additional localized excavation was conducted, as necessary, to remove the impacted soils. GEC measured and verified the excavation depths of each area during the removal of the contaminated soil.

Confirmatory soil samples were collected at the following intervals:

- One sample tested for every 20 linear feet of excavation sidewall
- The sampling interval in the base of an excavation; one sample between 500 and 1,000 sf.

Note: A minimum of five verification samples were collected for each excavation, including one sample per sidewall (total of 4 samples) and one sample per floor area.

The collected confirmatory soil samples were submitted for laboratory analysis of constituents of concern appropriate for each location. As noted above, a total of five areas (GB-11, GB-14, GB-27, GB-28, and SB-17) required additional excavation and sampling to achieve analytical results below appropriate RRS. The results of the laboratory analysis for arsenic and lead, and PAHs are summarized on Tables 1 and 2, respectively. Additionally, the results of the laboratory analysis for arsenic and lead, and PAHs are presented on Figures 4 and 5, respectively. Copies of Laboratory Analytical Reports are provided in Appendix XIV.

All known contaminated areas from the surface to 15-feet bgs have been excavated and the impacted soils have been removed from the site and properly disposed of in a regulated landfill. Soil contamination above Type 1 or 2 RRS, at depths greater than 15-feet, remain in 4 areas, as presented in the following table:

COC	Boring ID	Maximum Depth (feet)	Analytical Result	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)
Lead	SB-45	15-17	1070	75/204	400
	SB-41	24-29	484	75/204	400
Benzo(a)pyrene	SB-17	16-20	5.0	1.64	1.25
	SB-41	19-24	2.2	1.64	1.25
	SB-14	16-20	6.8	1.64	1.25
	SB-14	24-28	10.0	1.64	1.25
Benzo(b)fluoranthene	SB-17	16-20	2.3	2	1.25
Dibenzo(a,h)anthracene	SB-14	16-20	3.5	2	1.25
	SB-14	24-28	4.2	2	1.25

Cross-Sections Maps (A-A' and B-B') indicating the intervals of excavation and areas where concentrations exceed RRS are presented as Figures 6 and 7, respectively.



### **3.2 Soil Disposal**

The excavated materials were stockpiled on-site pending receipt of confirmatory and characterization sample results. The stockpiled material was stored in covered roll-offs while on-site. GEC collected four (4) composite samples of the stockpiled soils for TCLP analysis for disposal at the landfill. Analytical results were submitted to Republic Services in order to properly complete a waste profile for disposal. Following approval of the waste profile, the excavated materials were transported by A&D Environmental Services, LLC and disposed of at Pine Ridge Landfill in Griffin, Georgia. 115.82 tons of contaminated soils were removed from the site property in total. A copy of the TCLP analytical results, Republic Services waste profile, disposal manifests and haul tickets are included in Appendix XIII.

### **3.3 Air Quality Monitoring**

Background air quality samples were collected using an Environmental Monitoring Systems (EMS) MegaLite™ high volume sampling pumps five-days before remediation activities began. Additionally, air quality samples were collected from two downwind locations during initial excavation activities. The air samples were submitted to TestAmerica for analysis of arsenic and lead using the National Institute for Occupational Safety and Health (NIOSH) Method 7300. Both background and excavation air quality sample analytical results were reported as below reporting limits (BRL) or “not detected” for both arsenic and lead. The air quality analytical results are summarized in Table 3. The Laboratory Analytical Reports are presented in Appendix XIV.

## **4.0 EXPOSURE ASSESSMENT**

The former Williams CSR addressed the risk at the site for non-residential use. The subsequent investigations and corrective actions addressed and mitigated the potential for residential exposures at the site. Therefore, the remaining exposure would be to construction workers potentially disturbing soils located at depths greater than 15-feet bgs during future construction activities.

### **4.1 Potential Receptors**

The potential receptors are future residents living on the property and construction workers working in soil at depths greater than 15-feet bgs (if required for construction purposes).

### **4.2 Exposure Media and Potential Exposure Pathways**

The subject property is located in an area consisting of commercial property. The nearest residential property is located approximately 0.40 miles southwest of the subject site. This section identifies the potential exposure pathways and exposure routes (ingestion, dermal contact, inhalation) for COIs for the property, if applicable, and associated potential receptors.

#### **4.2.1 Surface Soil**

All identified contaminants within the surface to 15-foot bgs interval have been removed from the

RUTZ. Therefore, incidental ingestion and dermal contact with surface soil (i.e., the upper 2 feet of soil) are not considered potentially complete pathways for receptors in at the site.

#### **4.2.2 Subsurface Soil**

The risk of human exposure to the soil contamination is also deemed negligible, because daily human interaction will not interfere with these contaminants. In addition, the Universal Environmental Covenant controls the disturbance of subsurface soils located greater than 15-feet bgs.

Other potential receptors include construction workers that may be required to work in subsurface depths greater than 15-feet bgs. In this case, incidental ingestion and dermal contact are considered potentially complete pathways for receptors in areas where COIs remain present. Personal Protective Equipment, including the use of gloves and masks, will be worn when construction workers are required to be in contact with soils greater than 15-feet in depth.

For the purposes of potential future development and construction activities, the areas exhibiting concentrations exceeding RRS are presented on the Final Site Survey – Latent Contamination Map presented as Figure 8.

#### **4.2.3 Groundwater Exposure Pathway**

The prior CSR performed at the site confirmed that the Groundwater meets Type I RRS and is therefore not considered to be a risk for human exposure. No further actions or investigations relative to groundwater at the site are proposed.

Additionally, per prior EPD approval, information provided in the Williams CSR, Section 9.5.1.2 Leaching Potential Study were approved as appropriate for the site. Therefore, no further studies will be conducted with respect to leachability at the site.

#### **4.2.4 Vapor Intrusion Exposure Pathway**

As noted in Section 1.5, 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 and the former Gas Holder No. 2. TLM and 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 between 5 and 10-feet bgs.

Laboratory analytical results obtained for the soil vapor sample identified numerous COCs, including those typically associated with MGPs. 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 TCR ( $1.00 \times 10^{-5}$ ) and/or the THQ for Non-Carcinogens (1).

Based upon the results of the vapor intrusion sampling and groundwater, VOC concentrations did not exceed residential risk reduction standards, the risk for vapor intrusion is not a concern to future occupants of the property.

## **5.0 RISK REDUCTION STANDARDS**

### **5.1 Risk Reduction Standard Calculation**

Risk reduction standards were calculated by Williams utilizing the criteria set forth in the *Georgia Department of Natural Resources Environmental Protection Division: Hazardous Site Response, Chapter 391-3-19.07*. The calculations are generally based on risk assessment applied to one of two different exposure scenarios. The first scenario applies standard or default exposure assumptions to produce Type 1(residential) and Type 3 (non-residential) RRS, which are the most conservative. These RRS are based on assumptions that ensure that the onsite chemicals of concern pose no significant risk to residential/non-residential receptors, assuming that exposure exists. The second scenario involves the use of site-specific information/assumptions, which may result in less stringent Type 2 (residential) and Type 4 (non-residential) RRS. Since the site has been proposed for potential future residential redevelopment, Type 1 and 2 Residential Soil RRSs have been applied to the site. Per prior EPD approval, the Type 1 and 2 RRS applicable for the site were as follows:

Constituent	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)
METALS		
Arsenic	20	6.08
Barium	1,000	5,430
Beryllium	2	156
Cadmium	2	78.2
Total Chromium	100	234
Copper	100	3,130
Lead	75	400
Mercury	0.5	23.5
Nickel	50	1,506
Vanadium	100	548
Zinc	100	23,500
Total Cyanide	20	1,560
SVOCs		
Acenaphthene	300	4,690
Acenaphthylene	130	2,350
Anthracene	500	23,500
Benzo(a)anthracene	5	12.5
Benzo(a)pyrene	1.64	1.25
Benzo(b)fluoranthene	5	12.5
Benzo(k)fluoranthene	5	125
Benzo(g,h,i)perylene	500	2,350
Chrysene	5	1,250
Dibenz(a,h)Anthracene	2.00	1.25
Fluoranthene	500	3,130
Fluorene	360	3,130
Indeno(1,2,3-cd)pyrene	5	12.5
Naphthalene	100	59.9
Phenanthrene	110	2,350
Phenol	400	46,900
Pyrene	500	2,350
VOCs		
Benzene	0.5	8.37
Carbon Disulfide	400	228
Ethylbenzene	70.0	139
Methylene Chloride	0.500	96.5
Toluene	100	514
Xylenes	1,000	1,000

## **5.2 Risk Reduction Standards for Soil**

To comply with proper excavation sampling procedure, a confirmatory sample was collected from each side wall and bottom of the excavated pit. The concentrations of the PAHs and metals were compared to the approved Type 1 and/or Type 2 RRSs. Exceedances of these RRSs required further excavation until samples exhibiting concentrations below applicable RRSs were recorded.

### **5.3 Compliance with Risk Reduction Standards**

Following remediation activities throughout the RUTZ, all COIs for each area of soil sampling measure below applicable RRSs.

## **6.0 CONCLUSION**

EPD has approved the use of residential risk reduction standards calculated from the previously approved Williams CSR to be used to remediate contamination within the RUTZ. Previous delineation from the VIRP found 11 borings in the RUTZ which contained contamination of metals and PAHs greater than residential risk reduction standards in the upper 15 feet of soil. All known areas containing contaminated soil above residential risk reduction standards within the upper 15 foot interval were excavated and removed from the property. Following removal of the material, confirmatory samples were collected from the base and sidewalls of each excavated pit. All contaminated material in exceedance of residential RRS has been removed from the RUTZ. It is of GEC's opinion that no further action should be taken at the site at this time.

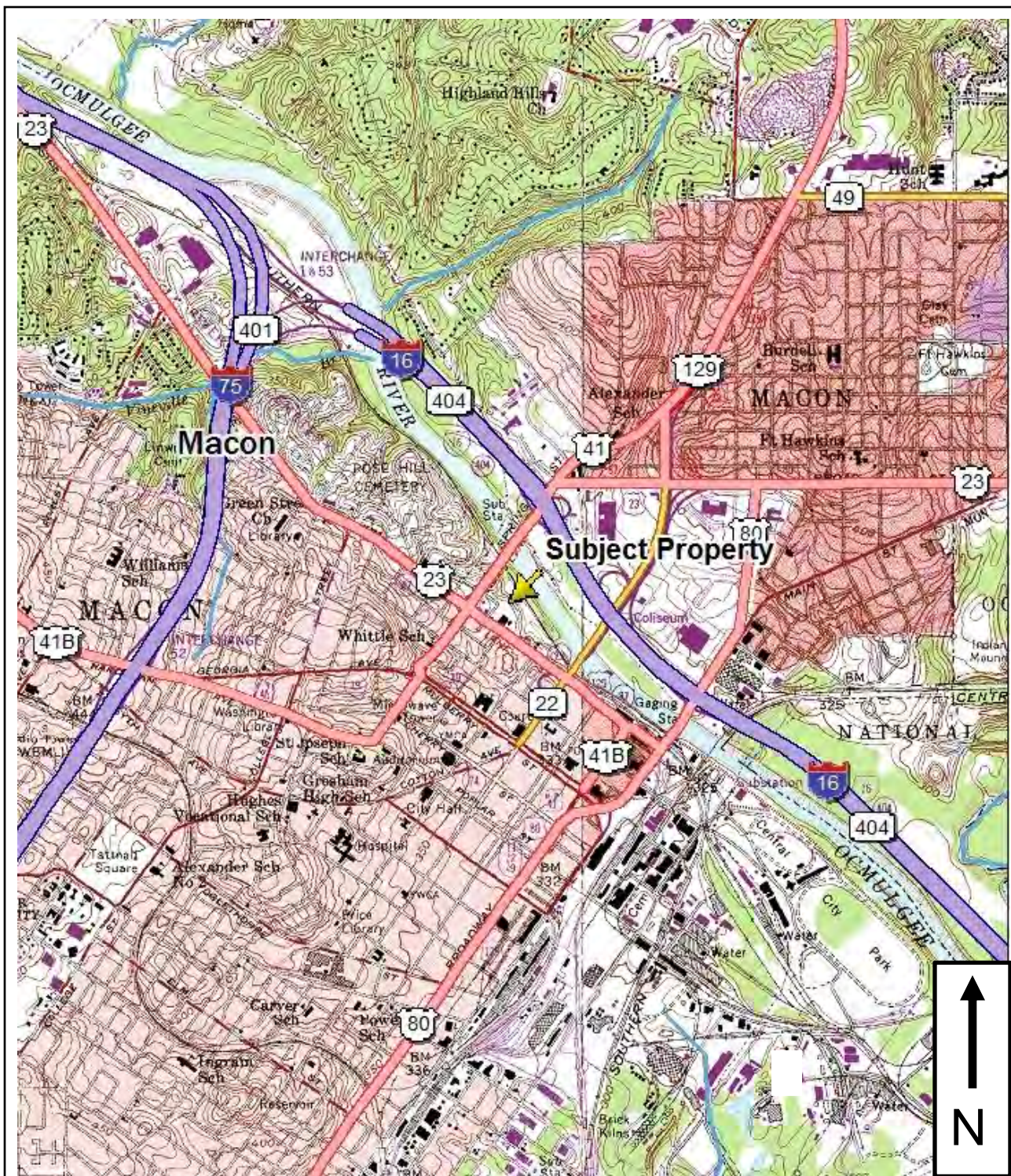
## 7.0 REFERENCES

- Compliance Status Investigation Report, Former Macon 2 MGP Facility, Macon, Ga. Williams Environmental Services, Inc. Preparation Date June 17, 2003, Revised September 5, 2003.
- Georgia Department of Natural Resources, Environmental Protection Division, Chapter 391-3-19 *Hazardous Site Response Act*
- Herrick, Vorhis, "Subsurface Geology of the Georgia Coastal Plain", Georgia Department of Natural Resources, Environmental Protection Division. 1963
- LeGrand, "Geology And Groundwater Resources of the Macon Area, Georgia", The Geological Survey Bulletin No. 72, Georgia State Division of Conservation, 1962
- Pollard, Varhis, "The Geohydrology of the Cretaceous Aquifer System in Georgia", Georgia Department of Natural Resources, Environmental Protection Division. 1980

# **APPENDICES**

# 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'**

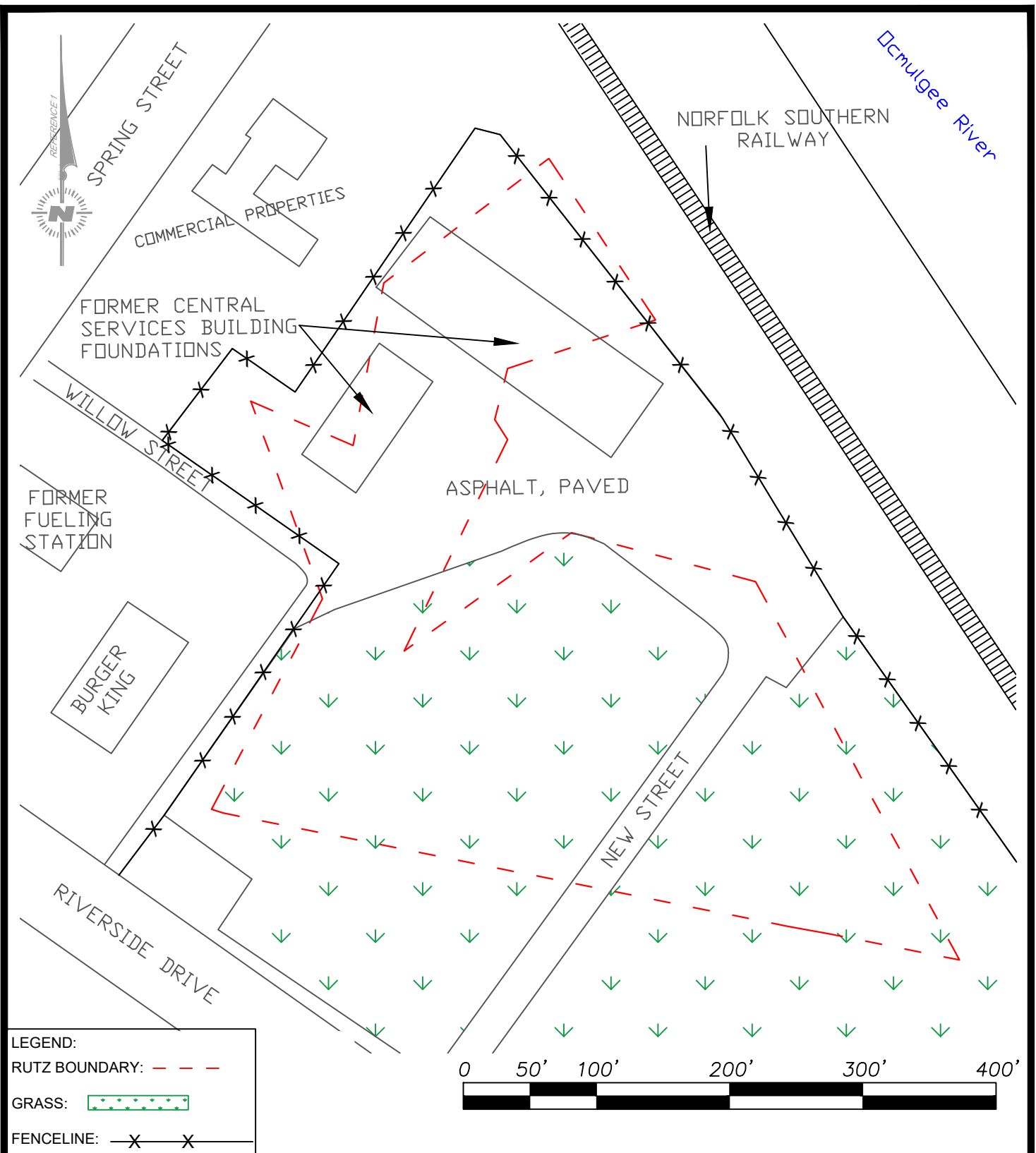
**Source: Macon West, GA Quadrangle (1985)**

**GEC**  
**GEOTECHNICAL**  
**&**  
**ENVIRONMENTAL**  
**CONSULTANTS, INC**

514 Hillcrest Industrial Boulevard, Macon, GA 31204 • Phone: (478) 757-1606 • Fax: (478) 757-1608

5031 Milgen Court, Columbus, GA 31907 • Phone: (706) 569-0008 • Fax: (706) 569-0940



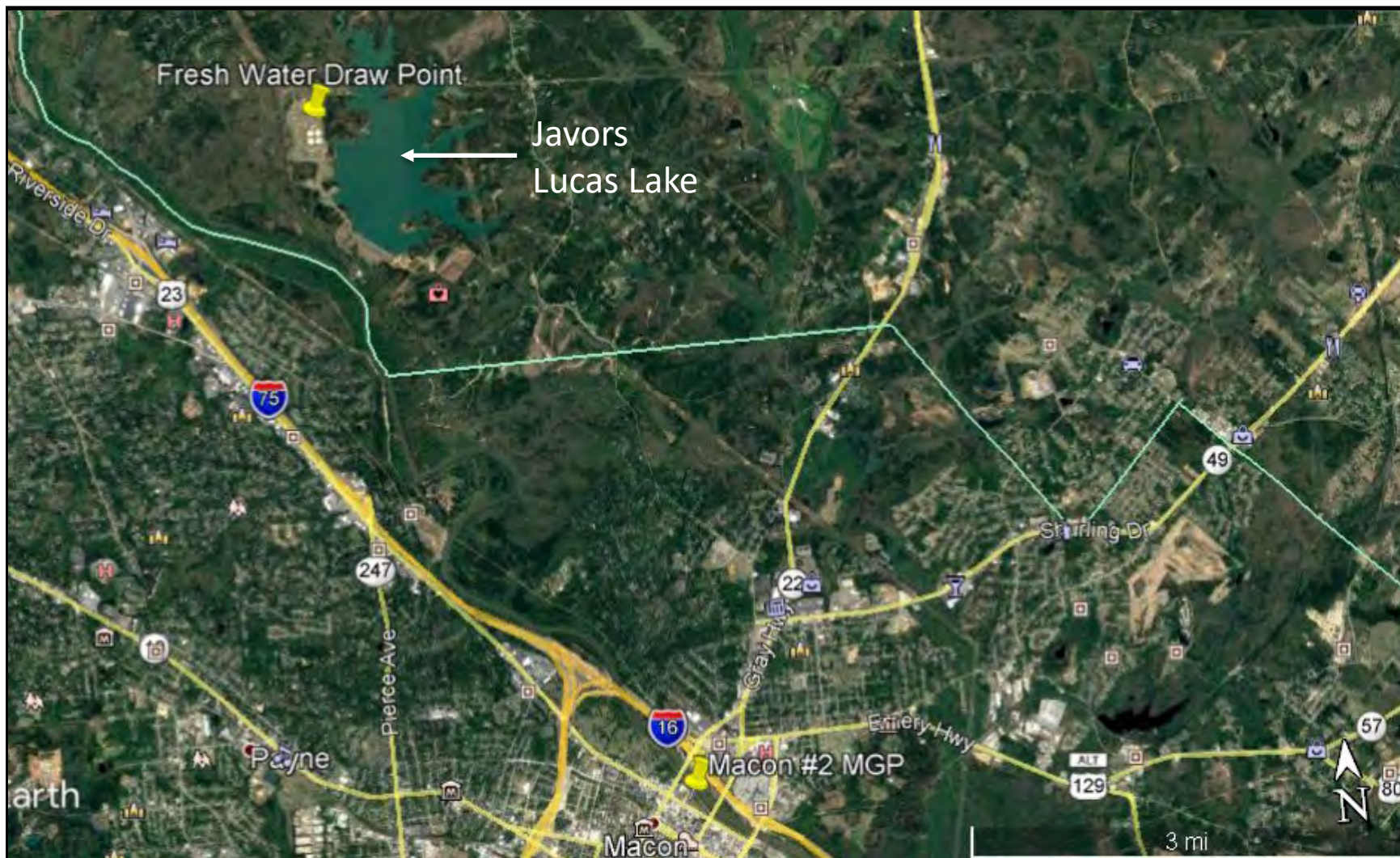


**Figure 2. Site Map**  
**Former Macon 2 MGP Facility**  
**Macon, Bibb County, Georgia**  
**GEC Project No. 130659.210**

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

514 Hillcrest Industrial Boulevard, Macon, GA 31204 • Phone: (478) 757-1606 • Fax: (478) 757-1608

5031 Migen Court, Columbus, GA 31907 • Phone: (706) 569-0008 • Fax: (706) 569-0940



**Figure 3 – Surface Water Draw Point  
Former Macon 2 MGP Facility  
815 Riverside Drive  
Macon, Bibb County, Georgia GEC  
Project #130659.210  
Source: Google Earth  
Scale: As Shown**

**GEC**  
GEOTECHNICAL  
&  
ENVIRONMENTAL  
CONSULTANTS, INC

514 Hillcrest Industrial Boulevard, Macon, GA 31204 • Phone: (478) 757-1606 • Fax: (478) 757-1608

5031 Milgen Court, Columbus, GA 31907 • Phone: (706) 569-0008 • Fax: (706) 569-0940



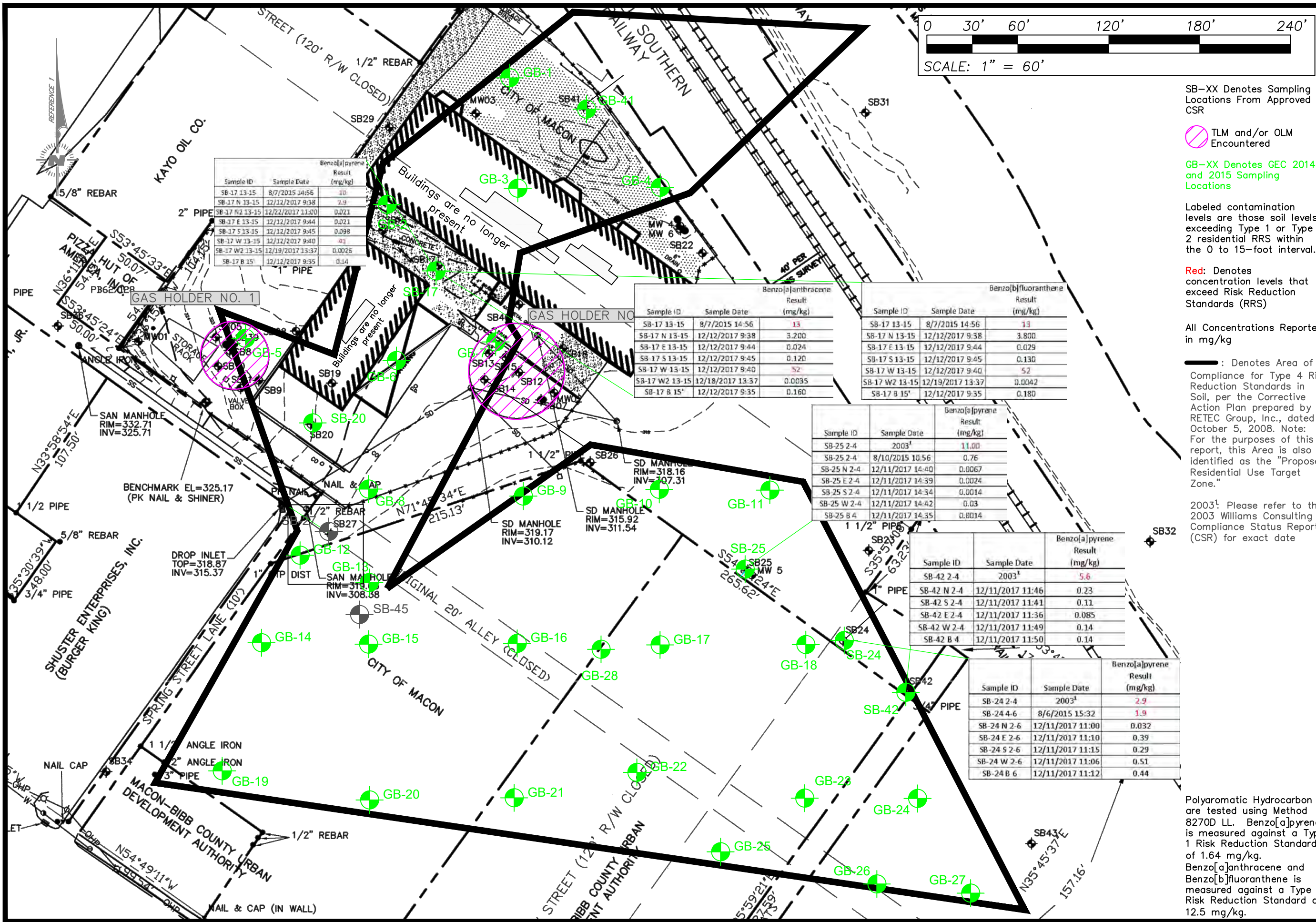


FIGURE 4: SOIL MANAGEMENT MAP  
0 TO 15-FOOT INTERVAL  
FORMER MACON 2 MPG SITE  
MACON, GEORGIA  
GEC PROJECT NO. 130659.241

GEC  
GEOTECHNICAL  
&  
ENVIRONMENTAL  
CONSULTANTS, INC.

514 HILLCREST INDUSTRIAL BLVD.  
MACON, GEORGIA 31204  
478-757-1606 (Fax) 478-757-1608  
WWW.GECONSULTANTS.COM



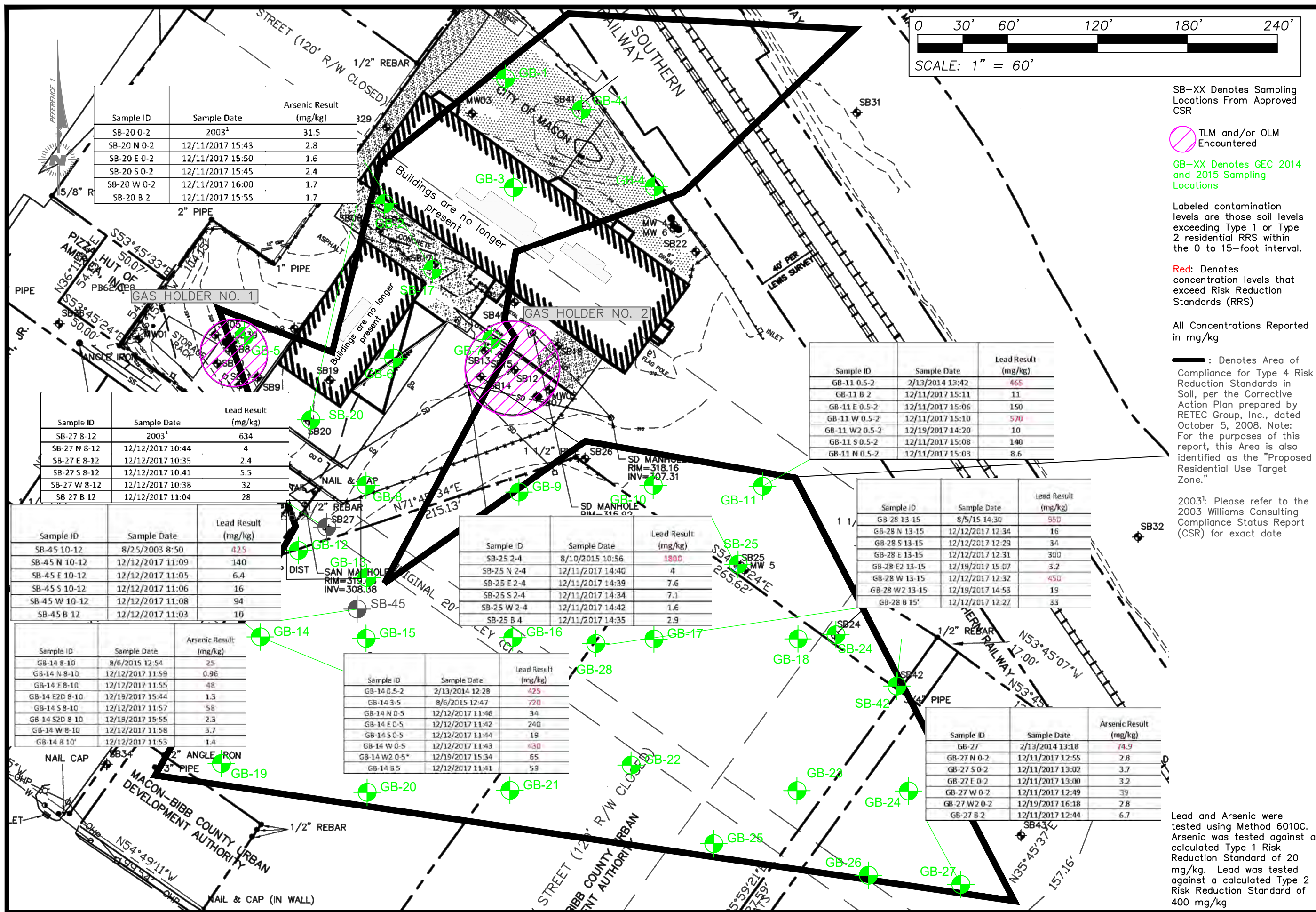


FIGURE 5: SOIL MANAGEMENT MAP  
0 TO 15-FOOT INTERVAL  
FORMER MACON 2 MPG SITE  
MACON, GEORGIA  
GEC PROJECT NO. 130659.241

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

514 HILLCREST INDUSTRIAL BLVD.  
MACON, GEORGIA 31204  
478-757-1606 (Fax) 478-757-1608  
WWW.GECONSULTANTS.COM



A

 $\Delta$ 

Explanation

BT=25' - Boring termination (feet below ground surface)

MW-03/SB-03 - Well/boring/sample designation

Ba 0.699 mg/L - COI detected in groundwater and concentration (August 2003)

 - Water Table (measured March 29, 2001)

- Top of water table (Based on Water Table Elevation Map for March 29, 2001)

- Concentration of VOCs in the soil exceeding upper background limit (UBL)

- Concentration of SVOCs in the soil exceeding UBL

- Concentration of inorganics in soil exceeding UBL

– Not analyzed

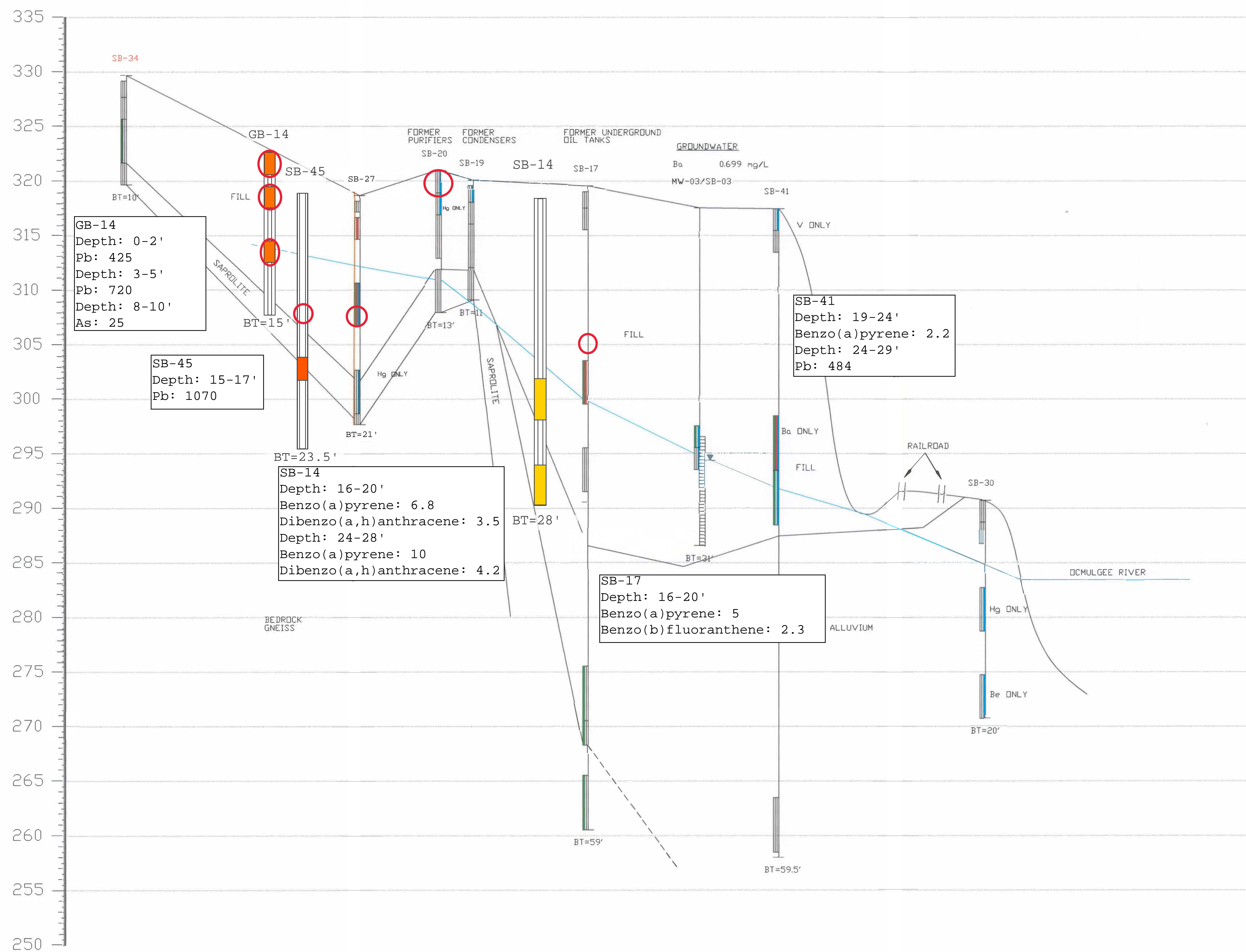
- Blank cells indicate sample did not exceed background

- Screened interval

- Inorganics > Type 2 RRS

- PAHs > Type 1 RRS

○ - Indicates soils exhibiting elevated (PAH,Pb, or As) concentrations were excavated during remedial activities.



All Concentrations Reported in mg/kg

Approx. HORIZONTAL SCALE 1" = 50'

Approx. VERTICAL SCALE 1' = 5'

Prepared By:

A Subsidiary of Williams G  
500 Chase Park South, Suite 150, Birmingham, Alabama 35244  
205-988-8305 Fax: 205-988-5249

E

CROSS SECTION A - A'

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

ENGINEERS' SEAL

DESIGNED	-
DRAWN	TCM
CHECKED	-
DATE	09/05/2003
FILENAME	FIGURE-7.DWG
PROJ. NUMBER	1100-2990
FIGURE NO.	6



NORTHWEST  
B

SOUTHEAST  
B'

Explanation

- BT=25' - Boring termination (feet below ground surface)
- MW-02/SB-02 - Well/boring/sample designation
- Ba 0.178 mg/L - COI detected in groundwater and concentration (August 2003)

- Water Table (measured March 29, 2001)
- Contact between lithologies (Dashed where inferred)
- Top of water table (Based on Water Table Elevation Map for March 29, 2001)
- Visual observations of Tar-Like material and/or Oil-Like material
- Concentration of VOCs in the soil exceeding upper background limit (UBL)
- Concentration of SVOCs in the soil exceeding UBL
- Concentration of inorganics in soil exceeding UBL
- Not analyzed
- Blank cells indicate sample did not exceed background
- Screened interval
- Inorganics > Type 2 RRS
- PAHs > Type 1 RRS
- Indicates soils exhibiting elevated (PAH, Pb, or As) concentrations were excavated during remedial activities.

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



CROSS SECTION B - B'

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

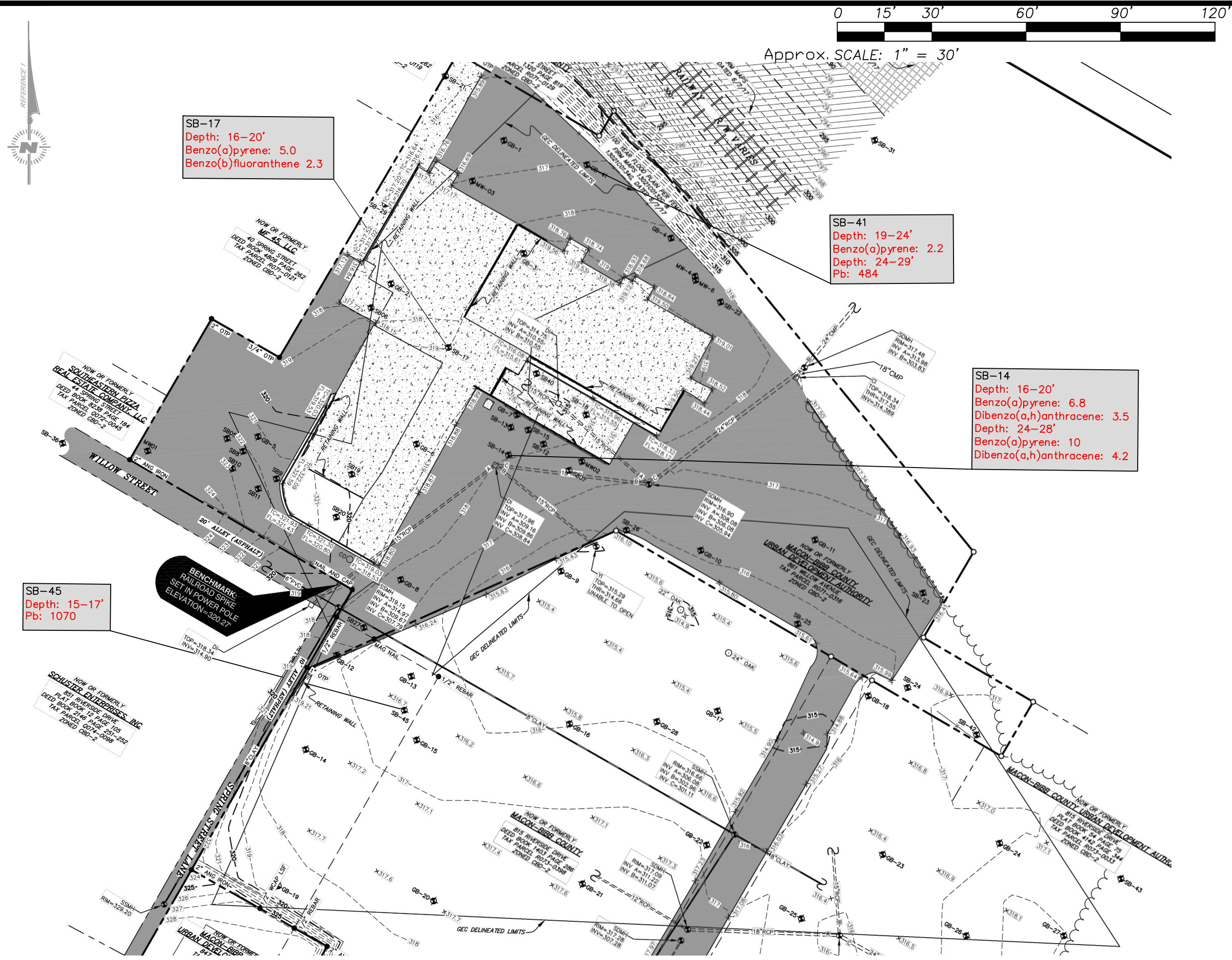
ENGINEERS' SEAL

DESIGNED	-
DRAWN	TCM
CHECKED	-
DATE	09/05/2003
FILENAME	FIGURE-8.DWG
PROJ. NUMBER	1100-2990
FIGURE NO.	7

Approx. HORIZONTAL SCALE 1' = 50'  
Approx. VERTICAL SCALE 1' = 5'

All Concentrations Reported in mg/kg





**Figure 8: Latent Contamination**  
**Map Former Macon 2 MGP Site**  
**861 Willow Street**  
**Macon, Bibb County, Georgia**  
**GEC Project No. 130659.241**



514 Hiltner Industrial Boulevard, Macon, GA 31204 • Phone (478) 757-1606 • Fax (478) 757-1608  
5031 Milgen Court, Columbus, GA 31907 • Phone (706) 559-0008 • Fax (706) 559-0940



# TABLES

Table 1. Arsenic and Lead Analytical Summary  
Former Macon 2 MGP Facility  
Macon, Bibb County, Georgia  
Project # 130659.241

Sample ID	Sample Date	Analyte	Analytical Result (mg/kg) by Method 6010C	Flag	RRS (Type 1 or Type 2)- (mg/kg)	CAS
GB-27	2/13/2014 13:18	Arsenic	74.9		Type 1 - 20	7440-38-2
GB-27 N 0-2	12/11/2017 12:55	Arsenic	2.8		Type 1 - 20	7440-38-2
GB-27 S 0-2	12/11/2017 13:02	Arsenic	3.7		Type 1 - 20	7440-38-2
GB-27 E 0-2	12/11/2017 13:00	Arsenic	3.2		Type 1 - 20	7440-38-2
GB-27 W 0-2	12/11/2017 12:49	Arsenic	39		Type 1 - 20	7440-38-2
GB-27 W2 0-2	12/19/2017 16:18	Arsenic	2.8		Type 1 - 20	7440-38-2
GB-27 B 2	12/11/2017 12:44	Arsenic	6.7		Type 1 - 20	7440-38-2
SB-25 2-4	8/10/2015 10:56	Lead	1800		Type 2 - 400	7439-92-1
SB-25 N 2-4	12/11/2017 14:40	Lead	4		Type 2 - 400	7439-92-1
SB-25 E 2-4	12/11/2017 14:39	Lead	7.6		Type 2 - 400	7439-92-1
SB-25 S 2-4	12/11/2017 14:34	Lead	7.1		Type 2 - 400	7439-92-1
SB-25 W 2-4	12/11/2017 14:42	Lead	1.6		Type 2 - 400	7439-92-1
SB-25 B 4	12/11/2017 14:35	Lead	2.9		Type 2 - 400	7439-92-1
GB-11 0.5-2	2/13/2014 13:42	Lead	465		Type 2 -400	7439-92-2
GB-11 B 2	12/11/2017 15:11	Lead	11		Type 2 - 400	7439-92-1
GB-11 E 0.5-2	12/11/2017 15:06	Lead	150		Type 2 - 400	7439-92-1
GB-11 W 0.5-2	12/11/2017 15:10	Lead	570		Type 2 - 400	7439-92-1
GB-11 W2 0.5-2	12/19/2017 14:20	Lead	10		Type 2 - 400	7439-92-1
GB-11 S 0.5-2	12/11/2017 15:08	Lead	140		Type 2 - 400	7439-92-1
GB-11 N 0.5-2	12/11/2017 15:03	Lead	8.6		Type 2 - 400	7439-92-1
SB-20 0-2	2003 <sup>+</sup>	Arsenic	31.5		Type 1 - 20	7440-38-2
SB-20 N 0-2	12/11/2017 15:43	Arsenic	2.8		Type 1 - 20	7440-38-2
SB-20 E 0-2	12/11/2017 15:50	Arsenic	1.6	J	Type 1 - 20	7440-38-2
SB-20 S 0-2	12/11/2017 15:45	Arsenic	2.4		Type 1 - 20	7440-38-2
SB-20 W 0-2	12/11/2017 16:00	Arsenic	1.7	J	Type 1 - 20	7440-38-2
SB-20 B 2	12/11/2017 15:55	Arsenic	1.7	J	Type 1 - 20	7440-38-2
SB-27 8-12	2003 <sup>+</sup>	Lead	634		Type 2 - 400	7439-92-1
SB-27 N 8-12	12/12/2017 10:44	Lead	4		Type 2 - 400	7439-92-1
SB-27 E 8-12	12/12/2017 10:35	Lead	2.4		Type 2 - 400	7439-92-1
SB-27 S 8-12	12/12/2017 10:41	Lead	5.5		Type 2 - 400	7439-92-1
SB-27 W 8-12	12/12/2017 10:38	Lead	32		Type 2 - 400	7439-92-1
SB-27 B 12	12/12/2017 11:04	Lead	28		Type 2 - 400	7439-92-1
SB-45 10-12	8/25/2003 8:50	Lead	425		Type 2 - 400	7439-92-1
SB-45 N 10-12	12/12/2017 11:09	Lead	140		Type 2 - 400	7439-92-1
SB-45 E 10-12	12/12/2017 11:05	Lead	6.4		Type 2 - 400	7439-92-1
SB-45 S 10-12	12/12/2017 11:06	Lead	16		Type 2 - 400	7439-92-1
SB-45 W 10-12	12/12/2017 11:08	Lead	94	F1	Type 2 - 400	7439-92-1
SB-45 B 12	12/12/2017 11:03	Lead	10		Type 2 - 400	7439-92-1
GB-14 0.5-2	2/13/2014 12:28	Lead	425		Type 2 - 400	7439-92-1
GB-14 3-5	8/6/2015 12:47	Lead	720		Type 2 - 400	7439-92-1
GB-14 N 0-5	12/12/2017 11:46	Lead	34		Type 2 - 400	7439-92-1
GB-14 E 0-5	12/12/2017 11:42	Lead	240		Type 2 - 400	7439-92-1
GB-14 S 0-5	12/12/2017 11:44	Lead	19		Type 2 - 400	7439-92-1
GB-14 W 0-5	12/12/2017 11:43	Lead	430		Type 2 - 400	7439-92-1
GB-14 W2 0-5*	12/19/2017 15:34	Lead	65		Type 2 - 400	7439-92-1
GB-14 B 5	12/12/2017 11:41	Lead	59		Type 2 - 400	7439-92-1
GB-14 8-10	8/6/2015 12:54	Arsenic	25		Type 1 - 20	7440-38-2
GB-14 N 8-10	12/12/2017 11:59	Arsenic	0.96	J	Type 1 - 20	7440-38-2
GB-14 E 8-10	12/12/2017 11:55	Arsenic	48		Type 1 - 20	7440-38-2
GB-14 E2D 8-10	12/19/2017 15:44	Arsenic	1.3	J	Type 1 - 20	7440-38-2
GB-14 S 8-10	12/12/2017 11:57	Arsenic	58		Type 1 - 20	7440-38-2
GB-14 S2D 8-10	12/19/2017 15:55	Arsenic	2.3		Type 1 - 20	7440-38-2

Table 1. Arsenic and Lead Analytical Summary  
Former Macon 2 MGP Facility  
Macon, Bibb County, Georgia  
Project # 130659.241

Sample ID	Sample Date	Analyte	Analytical Result (mg/kg) by Method 6010C	Flag	RRS (Type 1 or Type 2)- (mg/kg)	CAS
GB-14 W 8-10	12/12/2017 11:58	Arsenic	3.7		Type 1 - 20	7440-38-2
GB-14 B 10'	12/12/2017 11:53	Arsenic	1.4	J	Type 1 - 20	7440-38-2
GB-28 13-15	8/5/15 14:30	Lead	950		Type 2 - 400	7439-92-1
GB-28 N 13-15	12/12/2017 12:34	Lead	16		Type 2 - 400	7439-92-1
GB-28 S 13-15	12/12/2017 12:29	Lead	34		Type 2 - 400	7439-92-1
GB-28 E 13-15	12/12/2017 12:31	Lead	300		Type 2 - 400	7439-92-1
GB-28 E2 13-15	12/19/2017 15:07	Lead	3.2		Type 2 - 400	7439-92-1
GB-28 W 13-15	12/12/2017 12:32	Lead	450		Type 2 - 400	7439-92-1
GB-28 W2 13-15	12/19/2017 14:53	Lead	19		Type 2 - 400	7439-92-1
GB-28 B 15'	12/12/2017 12:27	Lead	33		Type 2 - 400	7439-92-1

Notes:

Red = Analytical result exceeds the greater of the Type 1 or 2 RRS.

"F1" Flag = MS and/or MSD Recovery is outside acceptance limits.

"J" Flag = Result is less than the Reporting Limit (RL) but greater than or equal to the Method Detection Limit (MDL) and the concentration is an approximate value.

RRS = Risk Reduction Standards

\* = GB-14 W2 0-5 was inadvertently labeled GB-14 E2 0-5 on the analytical reports

<sup>1</sup> = Refer to the Williams Consulting Compliance Status Report (CSR) for complete analytical information

Table 2. PAH Analytical Summary  
Former Macon 2 MGP Facility  
Macon, Bibb County, Georgia  
Project # 130659.241

Sample ID	Sample Date	Analyte	Analytical Result (mg/kg) by Method 8270D LL	Flag	RRS (Type 1 or Type 2) (mg/kg)	CAS
SB-24 2-4	2003 <sup>1</sup>	Benzo[a]pyrene	2.9		Type 1 - 1.64	50-32-8
SB-24 4-6	8/6/2015 15:32	Benzo[a]pyrene	1.9	J	Type 1 - 1.64	50-32-8
SB-24 N 2-6	12/11/2017 11:00	Benzo[a]pyrene	0.032		Type 1 - 1.64	50-32-8
SB-24 E 2-6	12/11/2017 11:10	Benzo[a]pyrene	0.39		Type 1 - 1.64	50-32-8
SB-24 S 2-6	12/11/2017 11:15	Benzo[a]pyrene	0.29		Type 1 - 1.64	50-32-8
SB-24 W 2-6	12/11/2017 11:06	Benzo[a]pyrene	0.51		Type 1 - 1.64	50-32-8
SB-24 B 6	12/11/2017 11:12	Benzo[a]pyrene	0.44		Type 1 - 1.64	50-32-8
SB-25 2-4	2003 <sup>1</sup>	Benzo[a]pyrene	11.00		Type 1 - 1.64	50-32-8
SB-25 2-4	8/10/2015 10:56	Benzo[a]pyrene	0.76		Type 1 - 1.64	50-32-8
SB-25 N 2-4	12/11/2017 14:40	Benzo[a]pyrene	0.0067	J	Type 1 - 1.64	50-32-8
SB-25 E 2-4	12/11/2017 14:39	Benzo[a]pyrene	0.0024	J	Type 1 - 1.64	50-32-8
SB-25 S 2-4	12/11/2017 14:34	Benzo[a]pyrene	0.0014	U	Type 1 - 1.64	50-32-8
SB-25 W 2-4	12/11/2017 14:42	Benzo[a]pyrene	0.03		Type 1 - 1.64	50-32-8
SB-25 B 4	12/11/2017 14:35	Benzo[a]pyrene	0.0014	U	Type 1 - 1.64	50-32-8
SB-42 2-4	2003 <sup>1</sup>	Benzo[a]pyrene	5.6		Type 1 - 1.64	50-32-8
SB-42 N 2-4	12/11/2017 11:46	Benzo[a]pyrene	0.23		Type 1 - 1.64	50-32-8
SB-42 S 2-4	12/11/2017 11:41	Benzo[a]pyrene	0.11		Type 1 - 1.64	50-32-8
SB-42 E 2-4	12/11/2017 11:36	Benzo[a]pyrene	0.085		Type 1 - 1.64	50-32-8
SB-42 W 2-4	12/11/2017 11:49	Benzo[a]pyrene	0.14		Type 1 - 1.64	50-32-8
SB-42 B 4	12/11/2017 11:50	Benzo[a]pyrene	0.14		Type 1 - 1.64	50-32-8
SB-17 13-15	8/7/2015 14:56	Benzo[a]pyrene	10		Type 1 - 1.64	50-32-8
SB-17 N 13-15	12/12/2017 9:38	Benzo[a]pyrene	2.9		Type 1 - 1.64	50-32-8
SB-17 N2 13-15	12/22/2017 11:00	Benzo[a]pyrene	0.021		Type 1 - 1.64	50-32-8
SB-17 E 13-15	12/12/2017 9:44	Benzo[a]pyrene	0.021		Type 1 - 1.64	50-32-8
SB-17 S 13-15	12/12/2017 9:45	Benzo[a]pyrene	0.098		Type 1 - 1.64	50-32-8
SB-17 W 13-15	12/12/2017 9:40	Benzo[a]pyrene	41.000		Type 1 - 1.64	50-32-8
SB-17 W2 13-15	12/19/2017 13:37	Benzo[a]pyrene	0.0026	J	Type 1 - 1.64	50-32-8
SB-17 B 15'	12/12/2017 9:35	Benzo[a]pyrene	0.14	F1 F2	Type 1 - 1.64	50-32-8
SB-17 13-15	8/7/2015 14:56	Benzo[a]anthracene	13		Type 2 - 12.5	56-55-3
SB-17 N 13-15	12/12/2017 9:38	Benzo[a]anthracene	3.200		Type 2 - 12.5	56-55-3
SB-17 E 13-15	12/12/2017 9:44	Benzo[a]anthracene	0.024		Type 2 - 12.5	56-55-3
SB-17 S 13-15	12/12/2017 9:45	Benzo[a]anthracene	0.120		Type 2 - 12.5	56-55-3
SB-17 W 13-15	12/12/2017 9:40	Benzo[a]anthracene	52.000		Type 2 - 12.5	56-55-3
SB-17 W2 13-15	12/18/2017 13:37	Benzo[a]anthracene	0.0035	U	Type 2 - 12.5	56-55-3
SB-17 B 15'	12/12/2017 9:35	Benzo[a]anthracene	0.160	F1 F2	Type 2 - 12.5	56-55-3
SB-17 13-15	8/7/2015 14:56	Benzo[b]fluoranthene	13		Type 2 - 12.5	205-99-2
SB-17 N 13-15	12/12/2017 9:38	Benzo[b]fluoranthene	3.800		Type 2 - 12.5	205-99-2
SB-17 E 13-15	12/12/2017 9:44	Benzo[b]fluoranthene	0.029		Type 2 - 12.5	205-99-2
SB-17 S 13-15	12/12/2017 9:45	Benzo[b]fluoranthene	0.130		Type 2 - 12.5	205-99-2
SB-17 W 13-15	12/12/2017 9:40	Benzo[b]fluoranthene	52.000		Type 2 - 12.5	205-99-2
SB-17 W2 13-15	12/19/2017 13:37	Benzo[b]fluoranthene	0.0042	J	Type 2 - 12.5	205-99-2
SB-17 B 15'	12/12/2017 9:35	Benzo[b]fluoranthene	0.180	F1 F2	Type 2 - 12.5	205-99-2

Notes:

Red = Analytical result exceeds the greater of the Type 1 or 2 RRS

"U" Flag = Indicates the analyte was analyzed for but not detected.

"J" Flag = Result is less than the Reporting Limit (RL) but greater than or equal to the Method Detection Limit (MDL) and the concentration is an approximate value.

"F1" Flag = MS and/or MSD Recovery is outside acceptance limits.

"F2" Flag = MS/MSD RPD exceeds control limits.

RRS = Risk Reduction Standards

<sup>1</sup> = Refer to the Williams Consulting Compliance Status Report (CSR) for complete analytical information

Table 3. Arsenic and Lead Air Quality Analytical Summary  
Former Macon 2 MGP Facility  
Macon, Bibb County, Georgia  
Project # 130659.241

Client Sample ID	Matrix	Collection Date	Analyte	Analytical Result by NIOSH 7300	Unit	CAS
Background	Air	12/6/2017	Arsenic	<2.50	ug/Sample	7440-38-2
MGP-1 pump #14 L40444	Air	12/11/2017	Arsenic	<0.00439	mg/m3	7440-38-2
MGP-1 pump #14 L40444	Air	12/11/2017	Arsenic	<2.50	ug/Sample	7440-38-2
MGP#2 pump # L40444	Air	12/12/2017	Arsenic	<0.00984	mg/m3	7440-38-2
MGP#2 pump # L40444	Air	12/12/2017	Arsenic	<2.50	ug/Sample	7440-38-2
Background	Air	12/6/2017	Lead	<0.310	ug/Sample	7439-92-1
MGP-1 pump #14 L40444	Air	12/11/2017	Lead	<0.000544	mg/m3	7439-92-1
MGP-1 pump #14 L40444	Air	12/11/2017	Lead	<0.310	ug/Sample	7439-92-1
MGP#2 pump # L40444	Air	12/12/2017	Lead	<0.00122	mg/m3	7439-92-1
MGP#2 pump # L40444	Air	12/12/2017	Lead	<0.310	ug/Sample	7439-92-1

# **APPENDIX I**

**Universal Environmental Covenant and Topographic  
Survey for Macon-Bibb County of 861 Willow Street and  
815 Riverside Drive**

After Recording Return to:

Macon Bibb County Urban Development Authority  
815 Riverside Drive  
Macon, GA 312012-629  
Phone: (478) 803-2402

CROSS-REFERENCE: Deed Book: Page:

### **Environmental Covenant**

This instrument is an Environmental Covenant executed pursuant to the Georgia Uniform Environmental Covenants Act, OCGA § 44-16-1, *et seq.* as may be amended from time to time (hereinafter “Act”). This Environmental Covenant is entered into by the entities Macon Bibb County Urban Development Authority and Macon-Bibb County f/k/a City of Macon and State of Georgia Department of Natural Resources Environmental Protection Division and subjects the property identified below to the activity and/or use limitations and other requirements. This Environmental Covenant further grants such other rights in favor of EPD and EPD as set forth herein.

**Fee Simple Owner of Property/Grantor:** Macon Bibb County Urban Development Authority  
 (“MBCUDA”)  
815 Riverside Drive  
Macon, GA 31201-2629

Macon-Bibb County  
f/k/a City of Macon  
700 Poplar Street  
Macon, GA 31201

**Grantee/Holder/Entity with  
the express power to enforce:** State of Georgia  
Department of Natural Resources  
Environmental Protection Division  
2 Martin Luther King Jr. Drive, SE  
Suite 1456 East Tower  
Atlanta, GA 30334

**Parties with interest in the Property:** MBCUDA  
815 Riverside Drive  
Macon, GA 31201-2629

**Property:**

The properties subject to this Environmental Covenant are the following parcels:

1. 635 Riverside Drive/R073-0040 (“Tract 1”);
2. 695 Riverside Drive/R073-0039 (“Tract 2”);
3. First Street/R073-0038 (“Tract 3”);
4. 711 Riverside Drive/R073-0037 (“Tract 4”);
5. 715 Riverside Drive/R073-0036 (“Tract 5”);

6. 719 Riverside Drive/R073-0035 (“Tract 6”);
7. 721 Riverside Drive/R073-0034 (“Tract 7”);
8. 725 Riverside Drive/R073-0033 (“Tract 8”);
9. 815 Riverside Drive/R073-0398 (“Tract 9”);
10. 847 Riverside Drive/R073-0031 (“Tract 10”); and
11. 861 Willow Street/R071-0316 (“Tract 11”)

(hereinafter referred to collectively as “Property”).

Tract 1 was conveyed on November 20, 2006 from Bibb County, Georgia to MBCUDA recorded in Deed Book 7323, Page 125, Bibb County Records. Tract 1 is located in District 8 of Bibb County, Georgia and is comprised of .73 acres.

Tract 2 was conveyed on April 9, 1999 from Barnes, A. E. III to MBCUDA recorded in Deed Book 4412, Page 283, Bibb County Records. Tract 2 is located in District 8 of Bibb County, Georgia and is comprised of .85 acres.

Tract 3 was conveyed on January 27, 2004 from the City of Macon to MBCUDA recorded in Deed Book 6089, Page 107, Bibb County Records. Tract 3 is located in District 8 of Bibb County, Georgia and is comprised of .59 acres.

Tract 4 was conveyed on September 25, 1998 from Prentiss S. Edwards to MBCUDA recorded in Deed Book 4268, Page 288, Bibb County Records. Tract 4 is located in District 8 of Bibb County, Georgia and is comprised of .5 acres.

Tract 5 was conveyed on April 9, 1999 from Barnes, A. E. III to MBCUDA recorded in Deed Book 4412, Page 283, Bibb County Records. Tract 5 is located in District 8 of Bibb County, Georgia and is comprised of .21 acres.

Tract 6 was conveyed on April 9, 1999 from Barnes, A. E. III to MBCUDA recorded in Deed Book 4412, Page 283, Bibb County Records. Tract 6 is located in District 8 of Bibb County, Georgia and is comprised of .61 acres.

Tract 7 was conveyed on April 9, 1999 from Barnes, A. E. III to MBCUDA recorded in Deed Book 4412, Page 283, Bibb County Records. Tract 7 is located in District 8 of Bibb County, Georgia and is comprised of .23 acres.

Tract 8 was conveyed on March 30, 1998 from James L. Brown to MBCUDA recorded in Deed Book 4142, Page 344, Bibb County Records. Tract 8 is located in District 8 of Bibb County, Georgia and is comprised of 1.63 acres.

Tract 9 was conveyed on March 31, 1981 from the City of Macon to MBCUDA recorded in Deed Book 1403, Page 286, Bibb County Records. Tract 9 is located in District 8 of Bibb County, Georgia and is comprised of 2.75 acres.

Tract 10 was conveyed on February 29, 2000 from Roscoe J. Douglas to MBCUDA recorded in Deed Book 4621, Page 79, Bibb County Records. Tract 10 is located in District 8 of Bibb County, Georgia and is comprised of .15 acres.



Tract 11 was conveyed on December 4, 2013 from MBCUDA to the City of Macon recorded in Deed Book 9180, Page 322-326, Bibb County Records. Tract 11 is located in District 8 of Bibb County, Georgia and is comprised of 2.55 acres.

Complete legal descriptions of the Property are attached as Exhibit A and a map of the Property is attached as Exhibit B.

**Tax Parcel Number(s):**

- Tract 1: R0730040OC102 1A of Bibb County, Georgia
- Tract 2: R0730039OC102 2A of Bibb County, Georgia
- Tract 3: R0730038OC99 7B of Bibb County, Georgia
- Tract 4: R0730037OC58 4A of Bibb County, Georgia
- Tract 5: R0730036OC99 1B of Bibb County, Georgia
- Tract 6: R0730035OC99 2A of Bibb County, Georgia
- Tract 7: R0730034OC99 2AA of Bibb County, Georgia
- Tract 8: R0730033OC99 4A of Bibb County, Georgia
- Tract 9: R0730398OC99 4AB of Bibb County, Georgia
- Tract 10: R0730031OC98 2A of Bibb County, Georgia
- Tract 11: R0710316OC98 5J of Bibb County, Georgia

**Environmental Covenant Runs with the Land and is Perpetual**

Pursuant to the Act, this Environmental Covenant shall run with the land shall be perpetual unless terminated or amended pursuant to terms herein or in accordance with provisions of the Act. This Environmental Covenant shall be binding upon Macon Bibb County Urban Development Authority, Macon Bibb-County f/k/a City of Macon, State of Georgia Department of Natural Resources Environmental Protection Division, and all successors, assigns and transferees of any interest in the Property or any portion thereof.

**Name and Location of Administrative Records:**

This Environmental Covenant imposes activity and/or use limitations and other requirements on the Property that arise under corrective action performed and/or being performed at the Riverside Drive site. Records pertaining to this corrective action are available at the following EPD locations(s):

- Compliance Status Report prepared by Geotechnical & Environmental Consultants, Inc. dated November 2, 2018.

These documents are available at the following locations in the files for HSI No. 10692:

Georgia Environmental Protection Division  
Response and Remediation Program  
2 MLK Jr. Drive, SE, Suite 1054 East Tower  
Atlanta, GA 30334  
M-F 8:00 AM to 4:30 PM excluding state holidays

### **Description of Contamination and Corrective Action:**

**The first fifteen (15) feet of soil depth on this Property has been tested and rendered suitable for residential use without the need for additional soil testing or remediation. Accordingly, and as verified by the Georgia Environmental Protection Division (“EPD”) and restricted by this Covenant, the Property is in compliance with Type 1, 2, 3 and 4 Risk Reduction Standards as defined in the Georgia Rules of Hazardous Site Response. Previously, this Property had been listed on the state’s hazardous site inventory as needing corrective action due to the presence of hazardous wastes, hazardous constituents, or hazardous substances regulated under state law. After completion of a Corrective Action Plan, EPD removed the Property from the hazardous site inventory on May 19, 2011.**

**Contact the property owner or the EPD for further information concerning this Property. This notice is provided in compliance with the Georgia Hazardous Site Response Act and the Georgia Voluntary Remediation Program.**

The Voluntary Remediation Program (VRP) Compliance Status Report (CSR) has been prepared on behalf of the Macon Bibb County Urban Development Authority (“MBCUDA”), the current property owner, for the Former Macon 2 MGP (hereinafter site or MGP 2) Facility, located in Macon, Bibb County, Georgia. MBCUDA has completed remediation of the property as outlined in the Soil Management Plan approved by the Georgia EPD on November 9, 2017.

The MGP 2 was previously listed on the Hazardous Site Inventory (HIS) as Site #10692. The site was investigated and a CSR completed by Williams Environmental Services, Inc. (Williams, 2003), was approved on December 19, 2003. The EPD approval certified compliance with Type 4 Risk Reduction Standards (RRS) for soil. Groundwater was certified as compliant with Type 1 RRS. The EPD also approved a Corrective Action Plan (CAP) for the Macon 2 MGP on January 5, 2006, which required a deed notice on the property. In order to comply with the CAP, a Consent Order (No. EPD-HSR-548) was executed to prevent placing, permitting or approving any residential purpose on the site. The site was removed from the HIS on May 19, 2011.

Per EPD concurrence, the remedial activities allow the site to be certified to residential RRS (surface to 15-feet), and soils located at depth greater than 15-feet are controlled by a Universal Environmental Covenant (UEC) and Soil Management Plan (SMP). Additionally, the EPD concurred that no further evaluation of groundwater was deemed necessary, based up the results of groundwater sampling and analysis reported in the Williams CSR, since no groundwater contamination was encountered above Type 1 RRS.

This Declaration of Covenant is made pursuant to the Georgia Uniform Environmental Covenants Act, O.C.G.A. § 44-16-1 *et seq.* by MBCUDA, its successors and assigns and the State of Georgia, Department of Natural Resources, EPD, its successors and assigns. This Environmental Covenant is required because the Property has been subject to contamination located greater than 15-feet below ground surface. Anthracene, arsenic, benzene, chromium, cyanides, soluble salts and complex(s), ethyl benzene, fluoranthene, lead, mercury, naphthalene, pyrene, toluene, xylenes, one-dichloride ethane, one, one, one-trichloro ethane, acenaphthene, acetone, benzo(a) anthracene, benzo(a)(pyrene), benzo(b)fluoranthene, benzo(k) fluoranthene, chrysene, dibenzo(a)(h) anthracene, indeno(1,2,3-cd) pyrene, and phenanthrene are “regulated substances” as defined under the Georgia Hazardous Site Response Act, O.C.G.A. § 12-8-90 *et seq.*, and the rules promulgated thereunder (hereinafter “HSRA” and “Rules”, respectively). The Corrective Action consisted of soil remediation activities, soil disposal and air quality monitoring.

Grantor, MBCUDA, hereby binds Grantor, its successors and assigns to the activity and use restriction(s) for the Property identified herein and grants such other rights under this Environmental Covenant in favor of the EPD. EPD shall have full right of enforcement of the rights conveyed under this Environmental Covenant pursuant to HSRA, O.C.G.A. § 12-8-90 *et seq.*, and the rules promulgated thereunder. Failure to timely enforce compliance with this Environmental Covenant or the use or activity limitations contained herein by any person shall not bar subsequent enforcement by such person and shall not be deemed a waiver of the person's right to take action to enforce any non-compliance. Nothing in this Environmental Covenant shall restrict EPD from exercising any authority under applicable law.

MBCUDA makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, pursuant to O.C.G.A. § 44-16-5(a); is perpetual, unless modified or terminated pursuant to the terms of this Covenant pursuant to O.C.G.A. § 44-16-9 and 10; and shall be binding on all parties and all persons claiming under them, including all current and future owners of any portion of or interest in the Property (hereinafter "Owner"). Should a transfer or sale of the Property occur before such time as this Environmental Covenant has been amended or revoked then said Environmental Covenant shall be binding on the transferee(s) or purchaser(s).

The Environmental Covenant shall inure to the benefit of EPD, MBCUDA and their respective successors and assigns and shall be enforceable by the Director or his agents or assigns, MBCUDA or its successors and assigns, and other party(ies) as provided for in O.C.G.A. § 44-16-11 in a court of competent jurisdiction.

**Notice:**

This property has been listed on the State's Hazardous Site Inventory at HSI #10692 and has been designated as needing correction action due to the presence of hazardous wastes, hazardous constituents, or hazardous substances regulated under state law. Contact the Property owner or the Georgia Environmental Protection Division for further information concerning this Property. This notice is provided in compliance with the Georgia Hazardous Site Response Act.

**Activity and/or Use Limitation(s)**

The Property is subject to the following activity and/or use limitations:

- A. Real Property.
- B. Groundwater.
- C. Interference with Remedy.

The Property may be used for residential uses, as defined in Section 391-3-19-.02 of the Rules as of the date of this Environmental Covenant provided subsurface soils greater than 15 feet in depth are not disturbed unless approved by EPD. Any activity on the Property that may result in the release or exposure to the regulated substances that were contained as part of the Corrective Action, or create a new exposure pathway, is prohibited, unless otherwise approved by EPD. With the exception of work necessary for the maintenance, repair, replacement of engineering controls, or as otherwise approved by EPD, activities that are prohibited below 15 feet in depth are the following: drilling, digging, placement of any objects or use of any equipment.

### **Other Requirements.**

The Property is subject to the following additional requirements.

- A. Notice of Limitations and Requirements in Future Conveyances. Each instrument hereafter conveying any interest in the Property or any portion thereof that may affect the activity and use limitations described herein shall include a statement that the Property is subject to this Environmental Covenant (and any amendments thereto), the location (County, Deed Book and Page) in the deed records were this Environmental Covenant (and any amendments thereto).
- B. Notice to EPD of Future Conveyances. Within thirty (30) days after each conveyance of a fee simple interest in the Property or any portion thereof, a notice shall be sent to EPD. The notice shall include the new owner's name, address, telephone number and other pertinent contact information, the date of the conveyance and the location (County, Deed Book and Page) where the conveyance is recorded, and, if the conveyance is a portion of the Property, a survey map showing the boundaries of the real property conveyed.
- C. Notice of Change of Use. If such activity will materially affect any required monitoring or maintenance of any institutional or engineering controls described herein, the owner of the Property must provide to EPD thirty (30) days' advance written notice of the owner's intent to change the use of the Property, to apply for a building permit for construction at the Property, or to perform any site work.

### **Environmental Covenant Does Not Authorize Use Otherwise Prohibited**

Pursuant to the Act, this Environmental Covenant shall not be construed to authorize a use of the Property that is otherwise prohibited by zoning, ordinance, local law or general law or by a recorded instrument that has priority over this Environmental Covenant.

### **Rights of Access and Enforcement**

Authorized representatives of EPD shall have the right to enter the Property at reasonable times in connection with implement, compliance, or enforcement of this Environmental Covenant, including but not limited to the right to conduct inspections, examine related records, or to take samples.

### **No Interest in Real Property in EPD**

EPD's rights under this Environmental Covenant and the Act shall not be considered an interest in real property.

### **Recording of Environmental Covenant and Service on Other Persons**

Within thirty (30) days after the execution of this Environmental Covenant by the Director of EPD, Macon Bibb County Urban Development Authority and Macon Bibb County f/k/a City of Macon shall record the Environmental Covenant in every county in which any portion of the Property is located in accordance with the law governing the recording and priority of interests in real property. Upon recording of the Environmental Covenant, Macon Bibb County Urban Development Authority and Macon Bibb County f/k/a City of Macon shall provide in a manner deemed acceptable by EPD a copy of the executed recorded Environmental Covenant to each of the persons or entities identified in O.C.G.A. §44-16-7.

## **Representations and Warranties.**

Macon Bibb County Urban Development Authority and Macon Bibb County f/k/a City of Macon (“Grantor”) hereby represents and warrants that all of the following are true and correct:

- a) Grantor holds fee simple title to the Property.
- b) Grantor has the authority to enter into this Environmental Covenant, has the authority to grant any rights granted by it within, has the ability to carry out the obligations described within and, based upon information and belief after reasonable inquiry, does not know of any anticipated material change in the practices, ownership, or authority of Grantor that will alter this representation and warranty.
- c) The execution and delivery of this Environmental Covenant and carrying out the obligations described within will not conflict with any of the provisions of the organizational documents, operating agreement of Grantor nor will it violate, contravene and/or constitute a breach of default under any agreement, contract, order or instrument to which Grantor is a party or by which Grantor may be bound.
- d) That the Grantor is the sole owner of the Property and holds fee simple title which is free, clear and unencumbered;
- e) That this Environmental Covenant does not authority a use of the Property that is otherwise prohibited by zoning, ordinance, local law or general law or by a recorded instrument that has priority over this Environmental Covenant.
- f) At least thirty (30) days prior to presenting this Environmental Covenant to EPD for execution, Grantor served a copy of the proposed final text of this Environmental Covenant on all persons or entities required to be noticed in accordance with O.C.G.A. §44-16-7.

## **Notices.**

Any document or communication required to be sent pursuant to the terms of this Environmental Covenant shall be sent to the following persons:

Georgia Environmental Protection Division  
Branch Chief  
Land Protection Branch  
2 Martin Luther King Jr. Drive SE  
Suite 1054 East Tower  
Atlanta, GA 30334

## **EPD’s Environmental Covenants Registry**

This Environmental Covenant and any amendment thereto or termination thereof may be included in EPD’s registry for environmental covenants.

## **Severability**

Should any provision of this Environmental Covenant be found by a court of competent jurisdiction to be invalid and/or unenforceable in any respect, the remaining provisions shall continue in full force and effect.

## **Effective Date**

This Environmental Covenant shall be effective on the date the fully executed Environmental Covenant is recorded in accordance with O.C.G.A. §44-16-8(a).

Grantor has caused this Environmental Covenant to be executed pursuant to The Georgia Uniform Environmental Covenants Act, on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signed, sealed, and delivered in the presence of:

**For the Grantor MBCUDA:**

\_\_\_\_\_  
Unofficial Witness *(Signature)*

\_\_\_\_\_  
Name of Grantor *(Print)*

\_\_\_\_\_  
Unofficial Witness Name *(Print)*

\_\_\_\_\_  
Grantor's Authorized Representative *(Signature)*

(Seal)

\_\_\_\_\_  
Unofficial Witness Address *(Print)*

\_\_\_\_\_  
Authorized Representative Name *(Print)*

\_\_\_\_\_  
Notary Public *(Signature)*

\_\_\_\_\_  
Title of Authorized Representative *(Print)*

My Commission Expires: \_\_\_\_\_

Dated: \_\_\_\_\_  
(NOTARY SEAL)

Signed, sealed and delivered in the presence of:

**For the Grantor Macon-Bibb County f/k/a  
City of Macon**

\_\_\_\_\_  
Unofficial Witness *(Signature)*

\_\_\_\_\_  
Name of Grantor *(Print)*

\_\_\_\_\_  
Unofficial Witness *(Print)*

\_\_\_\_\_  
Grantor's Authorized Representative *(Signature)*

(Seal)

\_\_\_\_\_  
Unofficial Witness Address *(Print)*

\_\_\_\_\_  
Authorized Representative Name *(Print)*

\_\_\_\_\_  
Notary Public *(Signature)*

\_\_\_\_\_  
Title of Authorized Representative *(Print)*

My Commission Expires: \_\_\_\_\_

Dated: \_\_\_\_\_  
(NOTARY SEAL)

Signed, sealed, and delivered in the presence  
of:

\_\_\_\_\_  
Unofficial Witness *(Signature)*

\_\_\_\_\_  
Unofficial Witness Name *(Print)*

\_\_\_\_\_  
Unofficial Witness Address *(Print)*

\_\_\_\_\_  
Notary Public *(Signature)*

My Commission Expires:\_\_\_\_\_

**For the State of Georgia**  
**Environmental Protection Division:**

\_\_\_\_\_  
*(Signature)*

Richard Dunn  
Director

Dated:\_\_\_\_\_

(NOTARY SEAL)

(Seal)

Exhibit A  
Legal Description

- 635 Riverside Drive (“Tract 1”);
- 695 Riverside Drive (“Tract 2”);
- First Street (“Tract 3”);
- 711 Riverside Drive (“Tract 4”);
- 715 Riverside Drive (“Tract 5”);
- 719 Riverside Drive (“Tract 6”);
- 721 Riverside Drive (“Tract 7”);
- 725 Riverside Drive (“Tract 8”);
- 815 Riverside Drive (“Tract 9”);
- 847 Riverside Drive (“Tract 10”); and
- 861 Willow Street (“Tract 11”)

All that tract or parcel of land situate, lying and being in the City of Macon, Bibb County, Georgia, and comprising all of First Street lying northeasterly of the northeast right-of-way line of Riverside Drive and a 20 foot and 10-foot alley in Square 99 of the City of Macon, said street and alley being more particularly described as follows:

Beginning at a point on the northeasterly right-of-way line of Riverside Drive where the same is intersected by the present southeasterly line of First Street as the same now exists after previous encroachments granted into First Street, and from said beginning point run thence in a northeasterly direction along the present southeasterly right of way line of First Street a distance of 268.5 feet, more or less, to the right of way of the Norfolk Southern Railroad; thence in a northwesterly direction along the southwesterly right of way line of the Norfolk Southern Railroad a distance of 146.5 feet, more or less, to a point where the southeast line of property acquired by the Macon-Bibb County Urban Development Authority from A.E. Barnes, III, in a deed recorded in Deed Book 4412, page 283, Clerk’s Office, Bibb Superior Court, intersects the southwesterly right of way line of said railroad; thence in a southwesterly direction along the northwesterly right of way line of First Street a distance of 47.3 feet to a point which is the intersection of the northwest right-of-way line of First Street with the northeasterly right-of-way line of a 20 foot alley running through Square 99; thence in a northwesterly direction along the northeasterly right-of-way line of said 20 foot alley a distance of 208.5 feet, more or less, to a point which is the intersection of the northeasterly right-of-way line of said 20 foot alley with the southeasterly right-of-way line of a 10 foot alley in Square 99; thence in a northeasterly direction along the southeasterly right-of-way line of said 10 foot alley a distance of 126.6 feet to a point on the southwesterly right-of-way line of the Norfolk Southern Railroad; thence in a northwesterly direction along the southwesterly right-of-way line of said railroad a distance of 10 feet, more or less, to a point where the northwesterly right-of-way line of said 10 foot alley intersects the southwesterly right-of-way line of said railroad; thence in a southwesterly direction along the northwesterly right-of-way line of said 10 foot alley a distance of 126.6 feet to a point which is the intersection of the northwesterly right-of-way line of said 10 foot alley with a prolongation of the northeasterly right-of-way line of said 20 foot alley; thence at right angles in a southeasterly direction a distance of 5 feet to the center of said 10 foot alley; thence at right angles in a southwesterly direction a distance of 20 feet to the southwesterly right-of-way line of said 20 foot alley; thence in a southeasterly direction along the southwesterly right-of-way line of said 20 foot alley and along the northeasterly line of parcels of land purchased by the Macon-Bibb County Urban Development Authority in a deed A. E. Barnes, III, recorded in Deed Book 4412, page 283, said Clerk’s Office, and from Prentiss S. Edwards in a Warranty Deed recorded in Deed Book 4268, Page 288, said Clerk’s Office,



a distance of 268.5 feet, more or less, to a point where the northeasterly line of said tract purchased from Prentiss S. Edwards intersects the northwesterly line of First Street; thence in a southwesterly direction along the southeasterly line of the said property purchased from Prentiss S. Edwards and which is also the northwesterly right-of-way line of First Street as established by encroachments into First Street a distance of 250 feet, more or less, to the northeasterly right-of-way line of Riverside Drive; thence in a southeasterly direction along the northeasterly right-of-way line of Riverside Drive a distance of 73 feet, more or less, to the point of beginning.

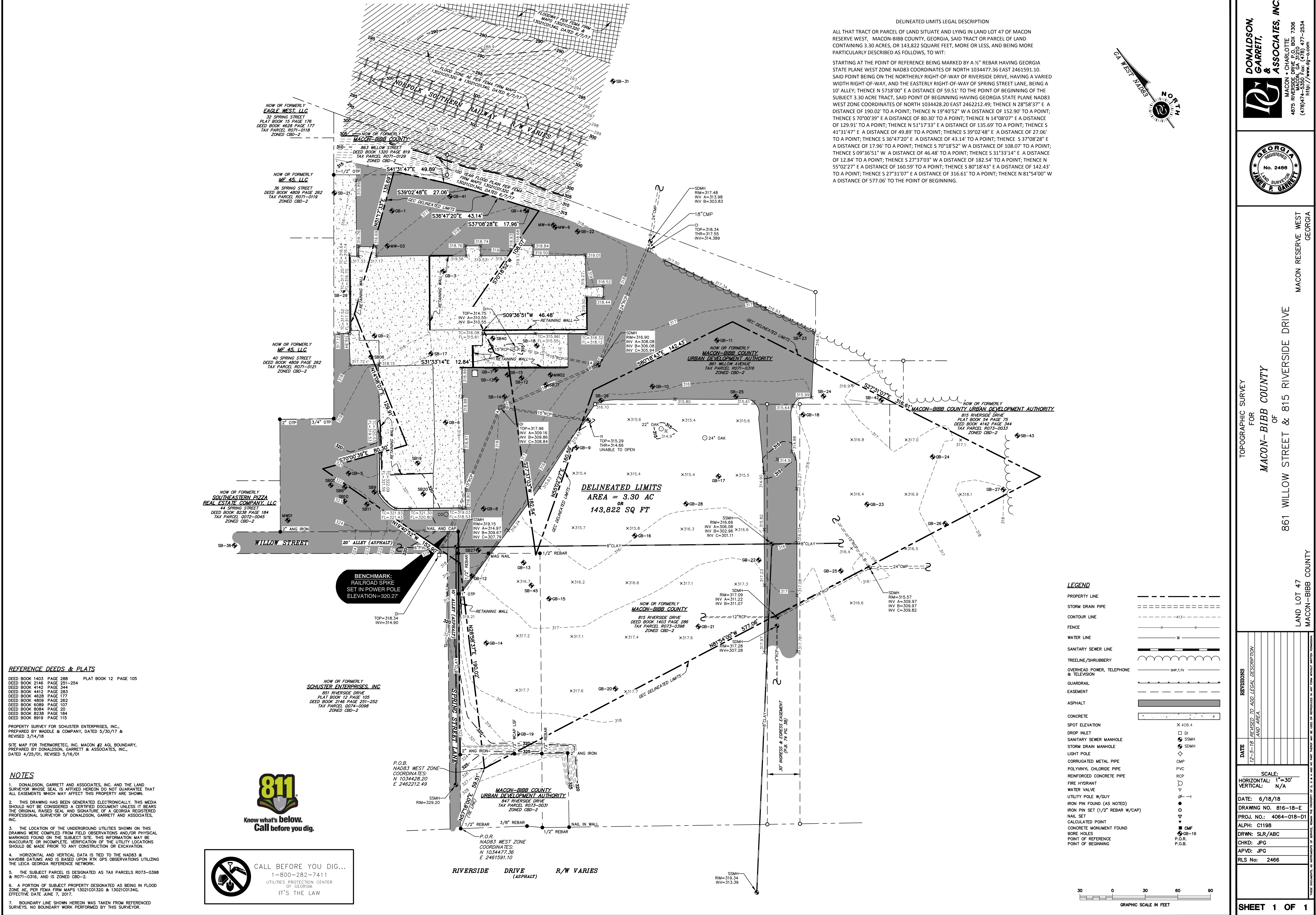
The above-described property comprises all of the remaining right-of-way of First Street lying northeasterly of Riverside Drive and all of the remaining 20 foot and 10 foot alleys in Square 99 of the City of Macon.

All that tract or parcel of land situate, lying and being in the City of Macon, Bibb County, Georgia, being known as all of Lot 3 and part of Lots 4, 5, and 6 in Square 99 of the Old City as more particularly shown on a plat recorded in Plat Book 54, Page 75, Clerk's Office, Bibb Superior Court and also an encroachment into Riverside Drive and a portion of alleys adjacent to said described lots. Said property is more particularly described as follows: Beginning at an iron pin at the southeasterly corner of Lot 6 in Square 99 where the same is intersected by the northwesterly side of a 10-foot alley and the northeasterly side of a 20 foot alley as shown on the original plats of the whole city, thence south 54 degrees 00 minutes east, a distance of 5.0 feet to the center line of a 10 foot alley; thence south 36 degrees 00 minutes west a distance of 267.3 feet to an iron pin on the northeasterly right of way of Riverside Drive as extended by an encroachment; thence north 54 degrees 57 minutes west along the northeasterly side of Riverside Drive a distance of 167.5 feet to a point, thence north 36 degrees 00 minutes east a distance of 427.6 feet to a point, thence south 54 degrees 00 minutes east a distance of 162.5 feet to an iron pin, thence south 36 degrees 00 minutes west a distance of 157.5 feet to an iron pin and the point of beginning.

Less and Except: All that tract or parcel of land situate, lying and being in Square 99 of Old City, Macon, Bibb County, Georgia, being more particularly described as follows: Beginning at a railroad iron located at a point where the northeasterly line of the original 20-foot alley through Square 98 intersects with the southeasterly line of the original 10-foot alley running through said Square 98; and from said beginning point running south 36 degrees 00 minutes west, a distance of 57.2 feet; thence angle right and run south 54 degrees 00 minutes east a distance of 248.60 feet to the Point of Beginning, thence continue running south 54 degrees 00 minutes east a distance of 17.0 feet, thence angle right and run south 36 degrees 00 minutes west a distance of 387.32 feet, thence angle right and run north 54 degrees 57 minutes west a distance of 17.0 feet, thence angle right and run north 36 degrees 00 minutes east a distance of 387.60 feet to the Point of Beginning, all according to a plat recorded in Plat Book 74, page 38, Clerk's Office, Bibb Superior Court.

Said property is known as 725 Riverside Drive, Macon, GA. This is the same property described in a Warranty Deed dated November 26, 1996, from Empire Financial Services, Inc. to James L. Brown, recorded in Deed Book 2977, Page 76, Said Clerk's Office.







#### DELINEATED LIMITS LEGAL DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND SITUATE AND LYING IN LAND LOT 47 OF MACON RESERVE WEST, MACON-BIBB COUNTY, GEORGIA, SAID TRACT OR PARCEL OF LAND CONTAINING 3.30 ACRES OR 143,822 SQUARE FEET, MORE OR LESS, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS, TO WIT:

STARTING AT THE POINT OF REFERENCE BEING MARKED BY A ½" REBAR HAVING GEORGIA STATE PLANE WEST ZONE NAD83 COORDINATES OF NORTH 1034477.36 EAST 2461591.10. SAID POINT BEING ON THE NORTHERLY RIGHT-OF-WAY OF RIVERSIDE DRIVE, HAVING A VARIED WIDTH RIGHT-OF-WAY, AND THE EASTERLY RIGHT-OF-WAY OF SPRING STREET LANE, BEING A 10' ALLEY; THENCE N 57°18'00" E A DISTANCE OF 59.51' TO THE POINT OF BEGINNING OF THE SUBJECT 3.30 ACRE TRACT, SAID POINT OF BEGINNING HAVING GEORGIA STATE PLANE NAD83 WEST ZONE COORDINATES OF NORTH 1034428.20 EAST 2462212.49; THENCE N 28°58'37" E A DISTANCE OF 190.02' TO A POINT; THENCE N 19°40'52" W A DISTANCE OF 152.90' TO A POINT; THENCE S 70°00'39" E A DISTANCE OF 80.30' TO A POINT; THENCE N 14°08'07" E A DISTANCE OF 129.91' TO A POINT; THENCE N 51°17'33" E A DISTANCE OF 135.69' TO A POINT; THENCE S 41°31'47" E A DISTANCE OF 49.89' TO A POINT; THENCE S 39°02'48" E A DISTANCE OF 27.06' TO A POINT; THENCE S 36°47'20" E A DISTANCE OF 43.14' TO A POINT; THENCE S 37°08'28" E A DISTANCE OF 17.96' TO A POINT; THENCE S 70°18'52" W A DISTANCE OF 108.07' TO A POINT; THENCE S 09°36'51" W A DISTANCE OF 46.48' TO A POINT; THENCE S 31°33'14" E A DISTANCE OF 12.84' TO A POINT; THENCE S 27°37'03" W A DISTANCE OF 182.54' TO A POINT; THENCE N 55°02'27" E A DISTANCE OF 160.59' TO A POINT; THENCE S 80°18'43" E A DISTANCE OF 142.43' TO A POINT; THENCE S 27°31'07" E A DISTANCE OF 316.61' TO A POINT; THENCE N 81°54'00" W A DISTANCE OF 577.06' TO THE POINT OF BEGINNING.

# **APPENDIX II**

## **Williams CSR**

# **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

---

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:

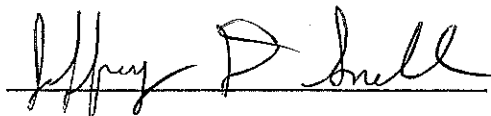
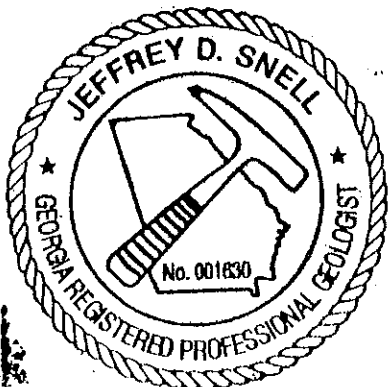
Date:

\_\_\_\_\_  
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
--------------	-------------------------



---

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

**SECTION 1  
INTRODUCTION**

---

# 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).



---

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

**SECTION 2  
SITE BACKGROUND**

---

## SECTION 2

### SITE BACKGROUND

---

#### 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**

---

### **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

---

### 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

---

### 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 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 E-04 ft/min and 3.60 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:

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

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<sub>e</sub> = 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**

GROUNDWATER	
INORGANICS	
ANALYTE	UPPER BACKGROUND LIMIT (mg/L)
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**

---

### **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

---

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**

## 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**

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
organics												
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**

---

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**

---

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

---

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.

Geology and Ground-Water Resources of the Macon Area, Georgia, H. E. LeGrand, Georgia Geologic Survey Bulletin 72, 1962.

Geology and Ground-Water Resources of Central-East Georgia, H. E. LeGrand, A. S. Furcron, R. F. Carter, and A. C. Lendo, Georgia Geologic Survey Bulletin 64, 1956.

Subsurface Geology of the Georgia Coastal Plain, Stephen M. Herrick and Robert C. Vorhis, Georgia Geologic Survey Information Circular 25, 1963.

The Geohydrology of the Cretaceous Aquifer System in Georgia, Lin D. Pollard and Robert C. Vorhis, Georgia Geologic Survey Hydrologic Atlas 3, 1980.

Groundwater Hydrogeology and Hydraulics, D. B. McWhorter and D. K. Sunada, 1977.

Preliminary Assessment, Former Manufactured Gas Plant Site, Macon, Georgia, LAW Environmental, Inc., 1991.

Site Inspection, Former Manufactured Gas Plant Site, Macon, Georgia, LAW Environmental, Inc., 1992.

An Introduction to the Rock-Forming Minerals, W.A. Deer, R.A. Howie, and J. Zussman, 1971.

Igneous and Metamorphic Petrology, F.J. Turner and J. Verhoogen, 1960.

Solutions, Minerals, and Equilibria, R.M. Garrels and C.L. Christ, 1965.

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

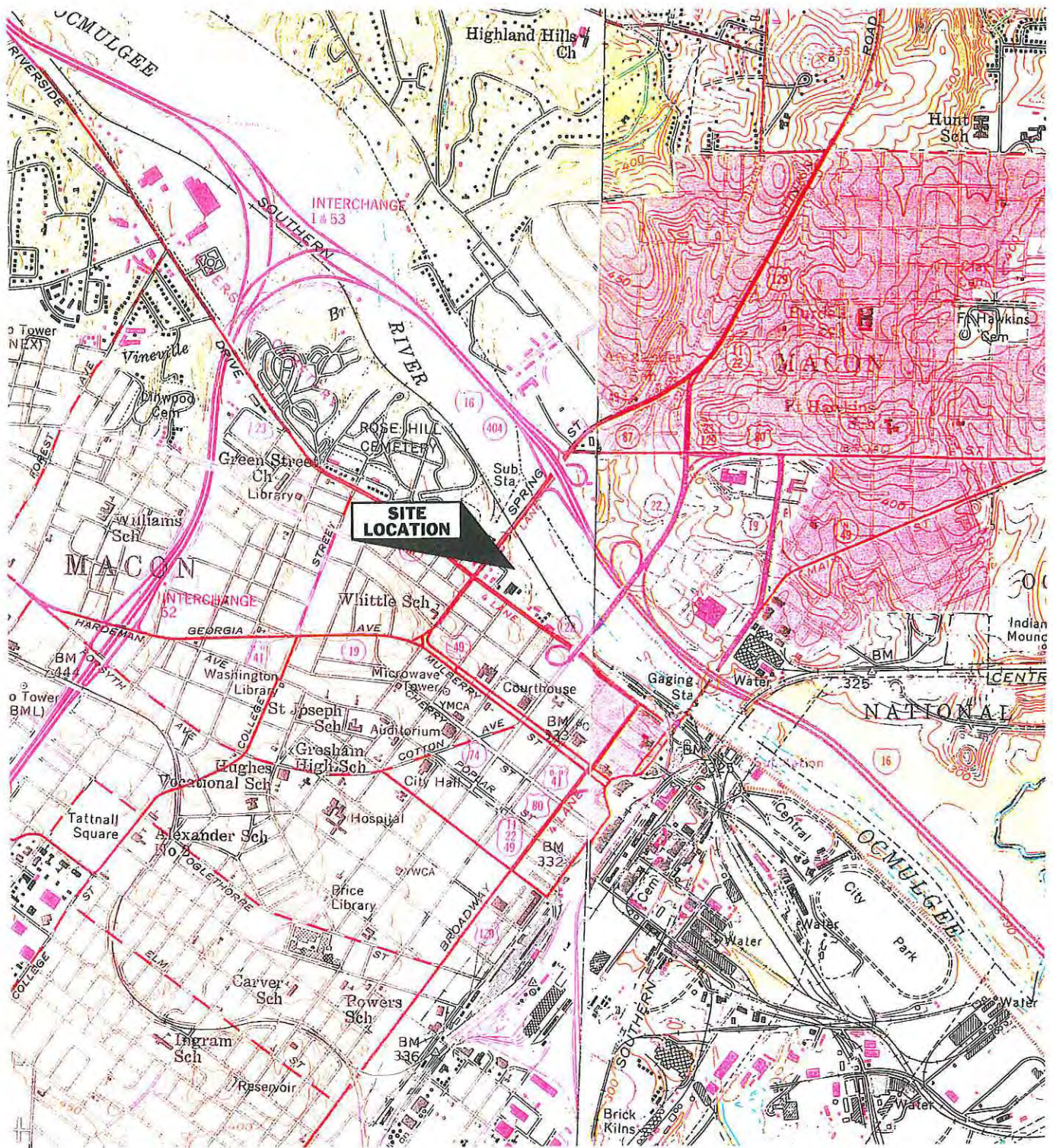
"Determination of Background Concentrations of Inorganics in Soils and Sediments at Hazardous Waste Sites." Breckenridge, R. P., and Crockett, A. B. (1995). U.S. Environmental Protection Agency. Washington, D. C.

"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.



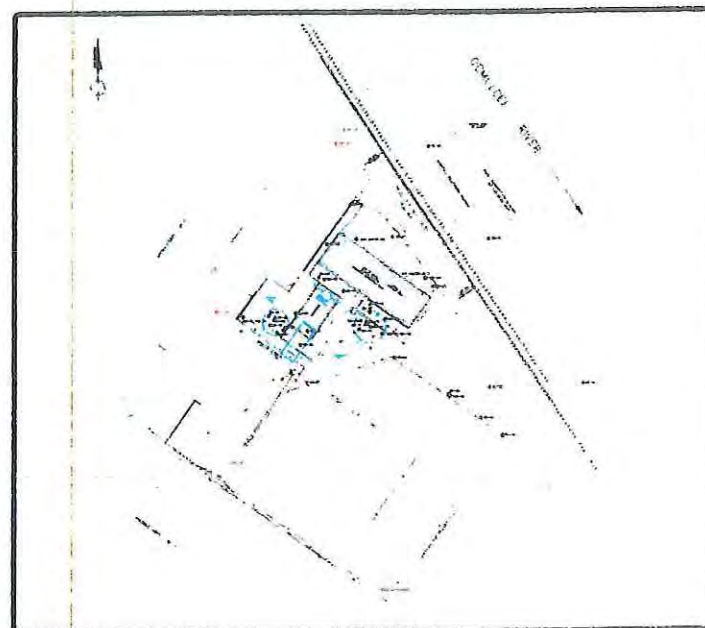
A Williams Group International Company  
500 Chase Park South, Suite 150, Birmingham, Alabama 35244  
205-988-8305 Fax: 205-988-5249



# 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 UGGS IN SOIL
8	SOIL DETECTED HEAVYMETALS AND UGGS IN SOIL
9	LEAD AND MERCURY IN SOIL
10	ARSENIC, COPPER AND ZINC IN SOIL
11	CHROMIUM AND CYANIDE IN SOIL
12	WATER TABLE ELEVATION MAP FOR AUGUST 20, 2003
13	TOTAL DETECTED ARSENIC, CHROMIUM, AND CYANIDE IN SOIL
14	LEADS EXCEEDING RIAA (100 PPM) IN SOIL

DRAWING INDEX

*prepared by*

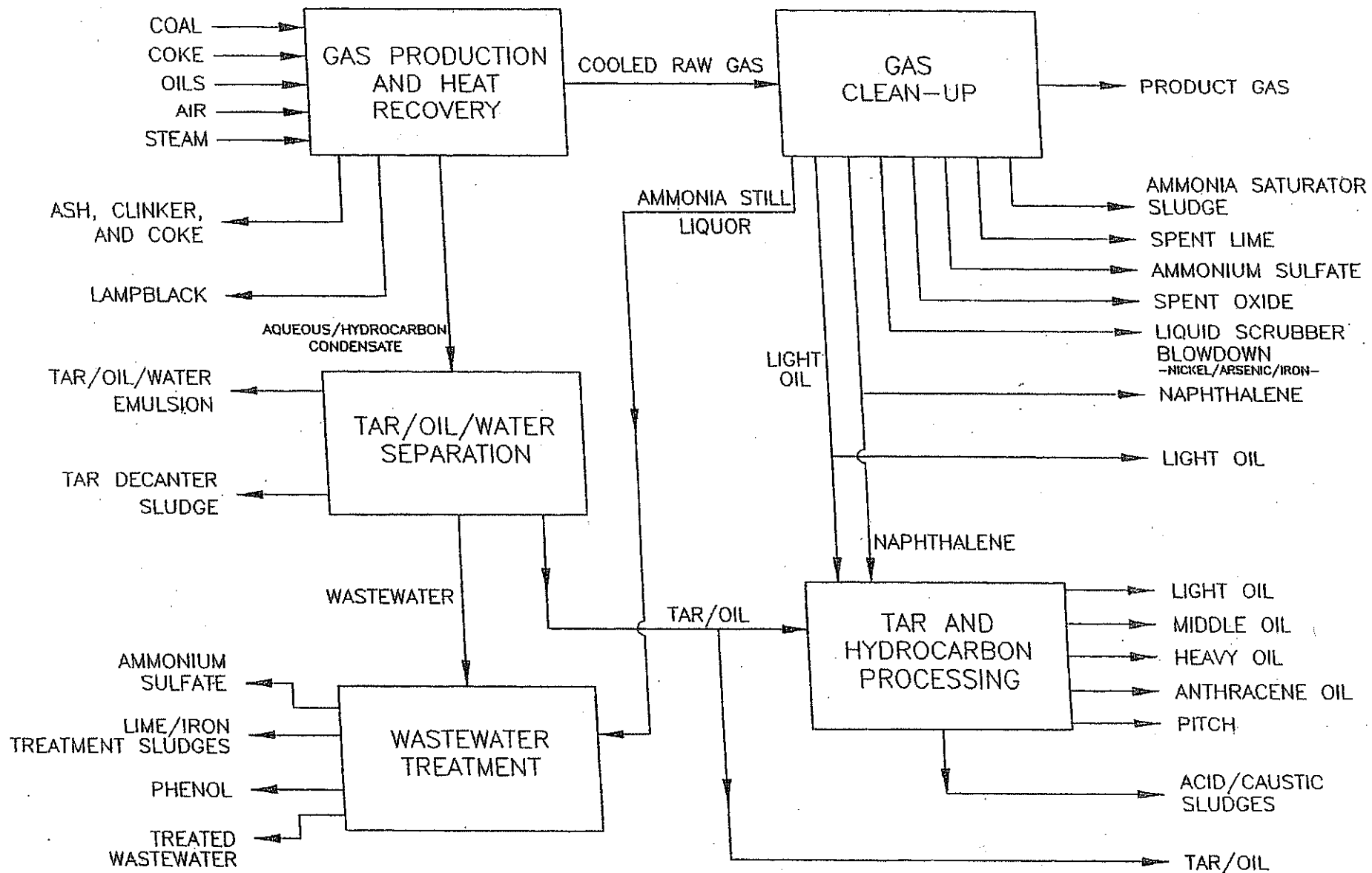
## WILLIAMS ENVIRONMENTAL SERVICES, INC.

Consulting Engineers and Scientists

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







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

MANUFACTURED GAS PROCESS AND GENERATED RESIDUALS (SOURCE: GAS RESEARCH INSTITUTE)

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

Prepared By:

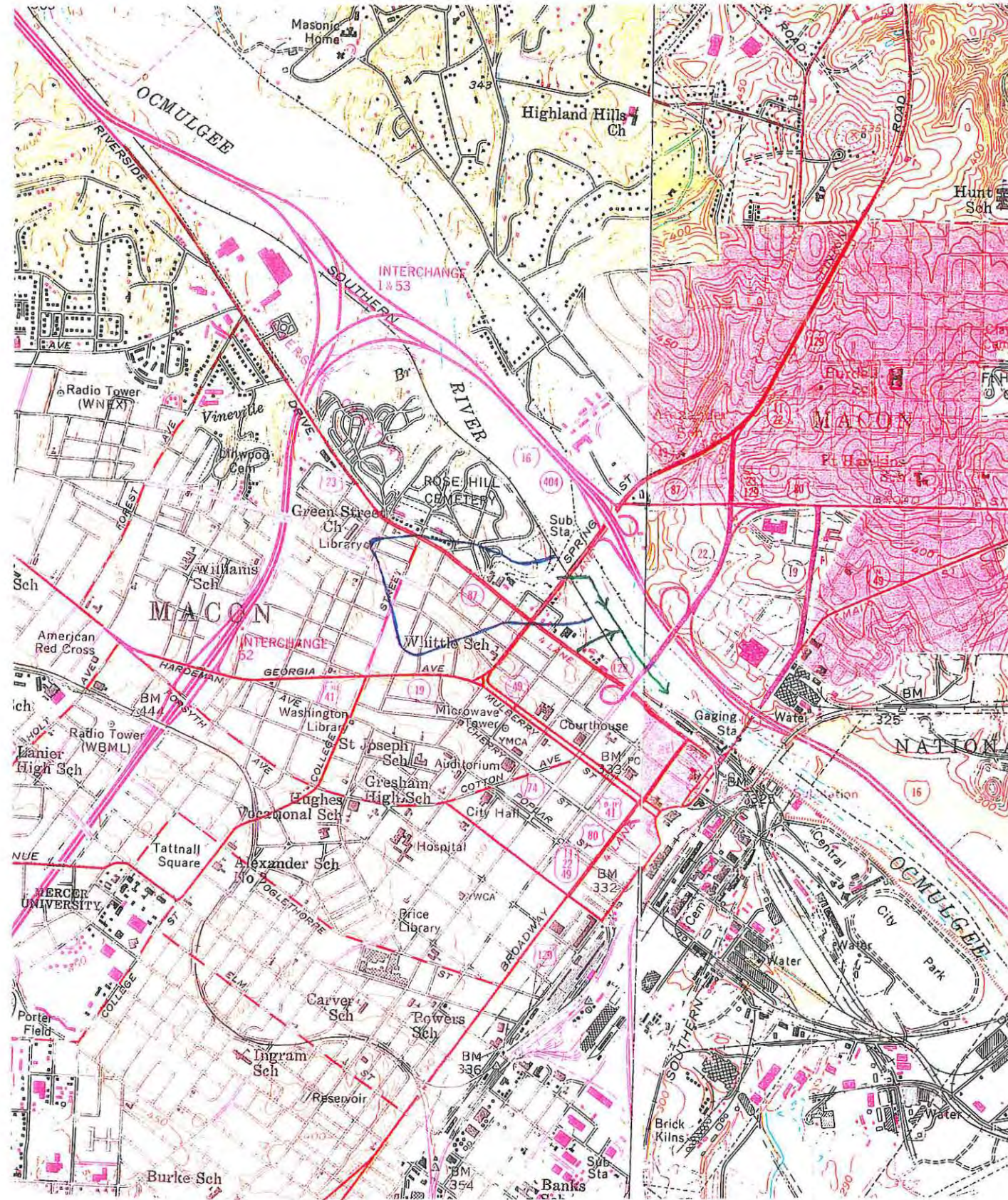
**WILLIAMS ENVIRONMENTAL SERVICES, INC.**



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

LTR.	DATE	REVISIONS	BY	





APPROXIMATE DRAINAGE BASIN FOR  
OUTFALL

**DRAFT**

DATE	REVISIONS	BY


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



SURFACE/STORM WATER FLOW PATH

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

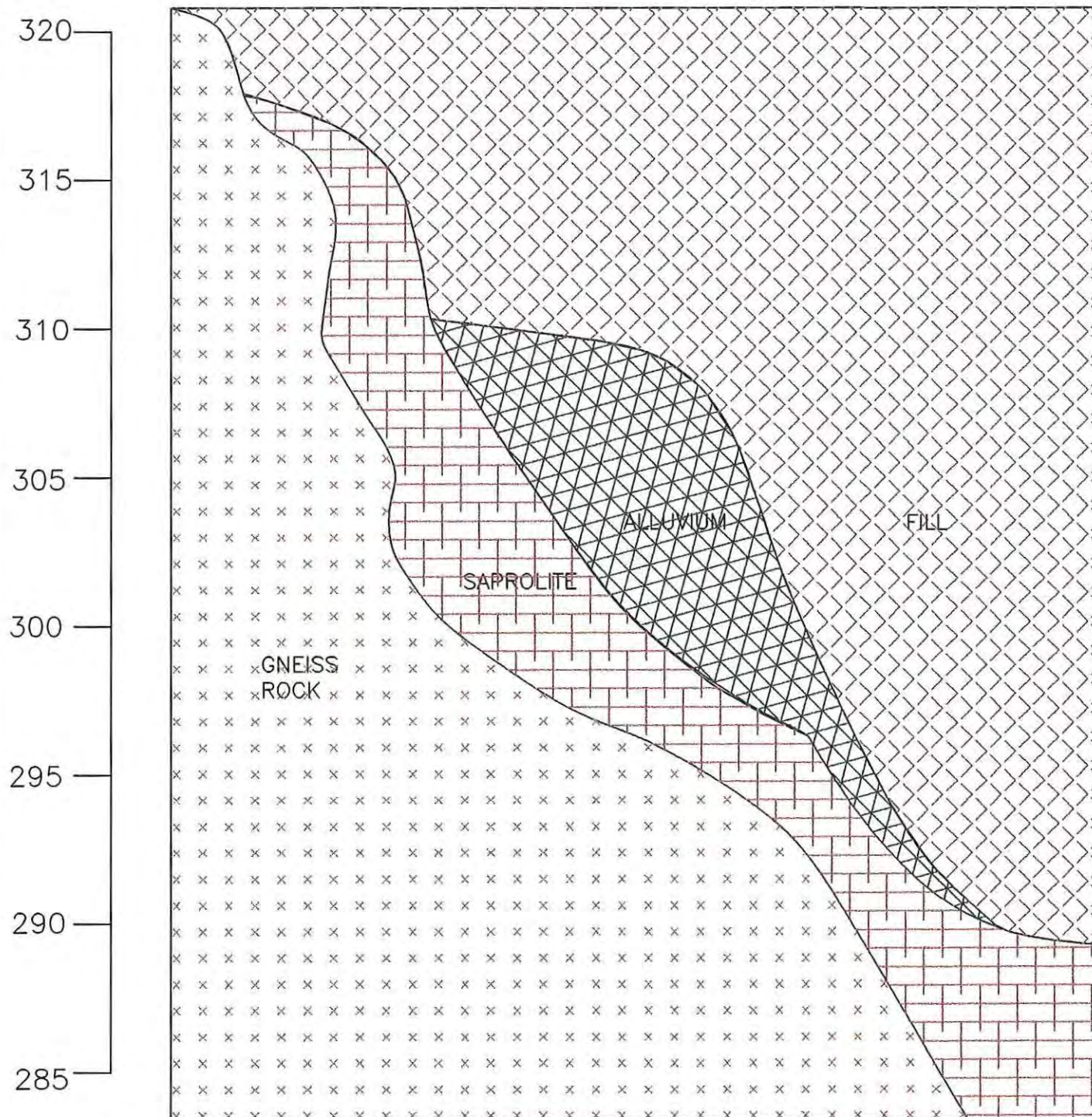
DESIGNED	-
DRAWN	TCM
SCALE	1" = 2000'
DATE	06/18/2001
PROJ. NUMBER	1100-2990
FIGURE NO.	5



ELEVATION (FEET ABOVE  
MEAN SEA LEVEL)

W

E



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

Prepared By:

WILLIAMS ENVIRONMENTAL SERVICES, INC.

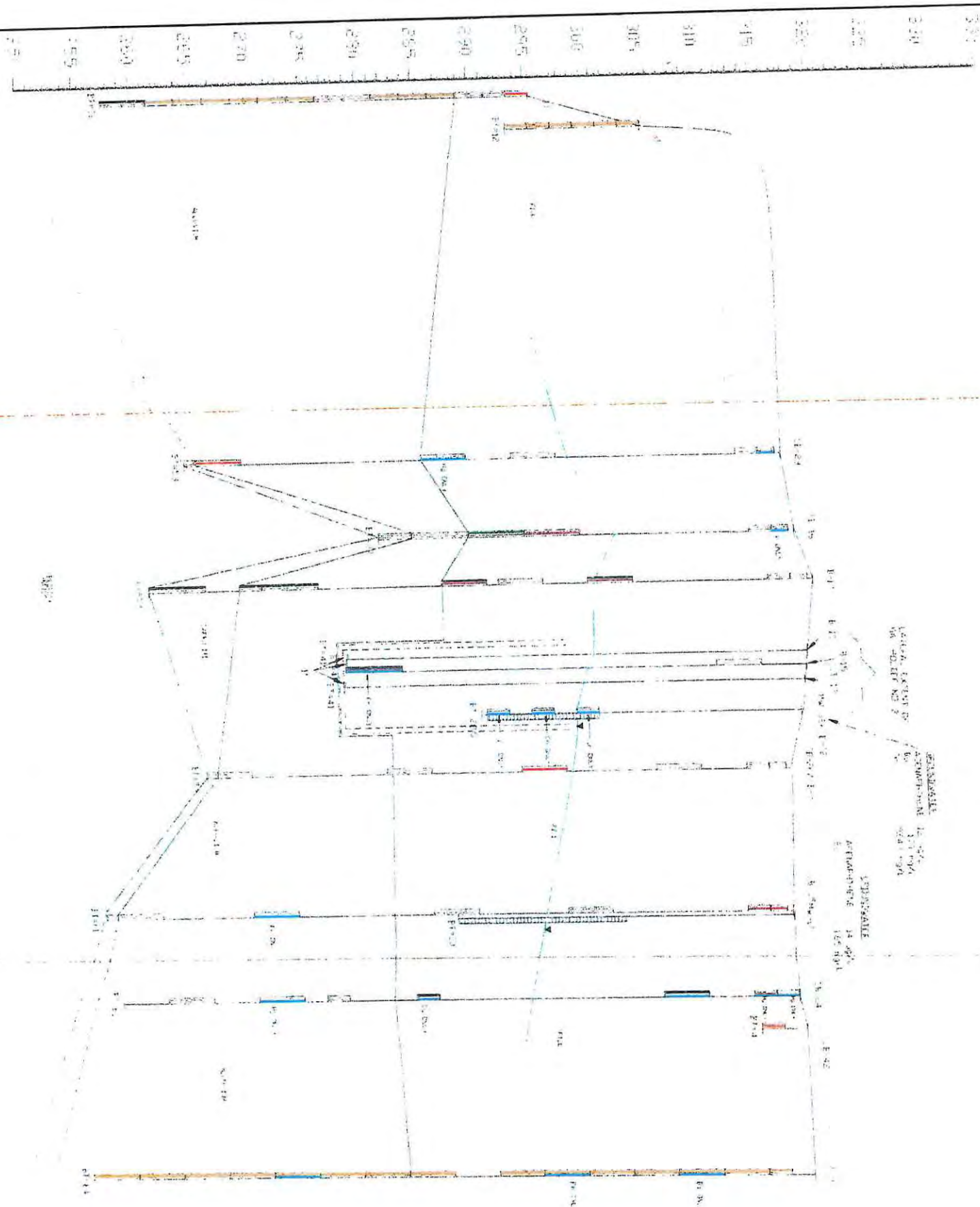


A Williams Group International Company  
500 Chase Park South, Suite 150, Birmingham, Alabama 35244  
205-988-8305 Fax: 205-988-5249









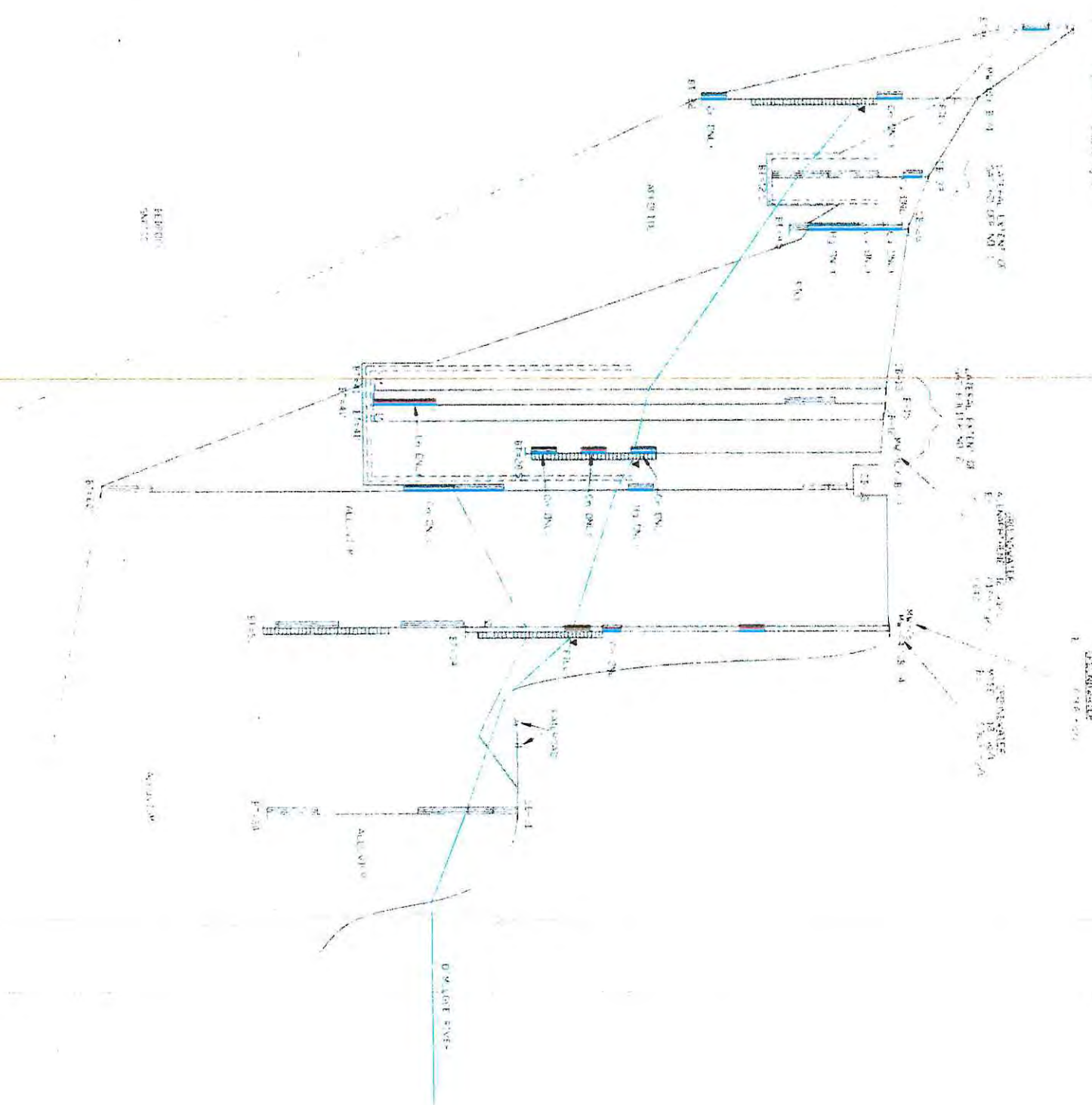
CROSS SECTION B - B'

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA



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



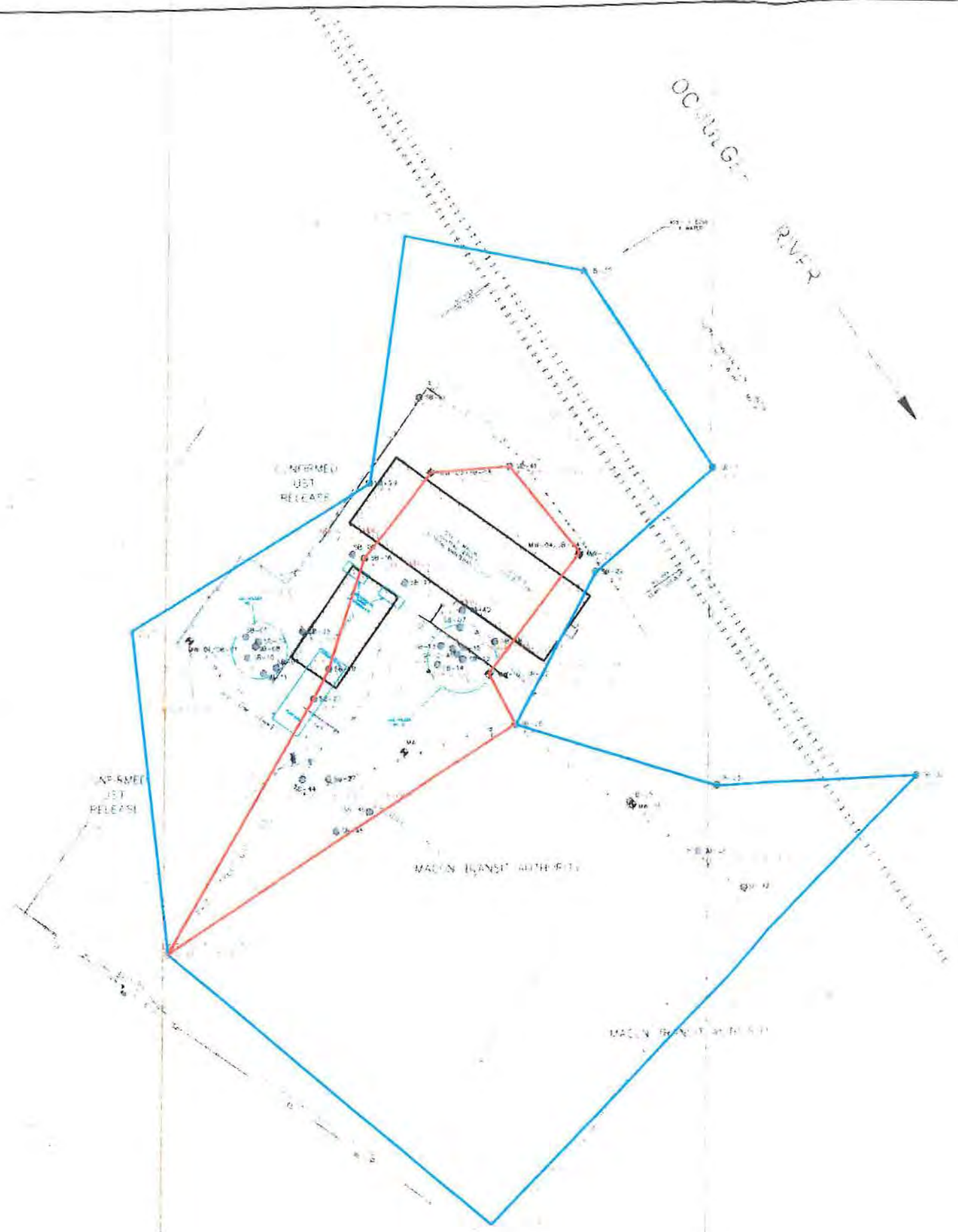
**Williams Environmental Services, Inc.**  
A Subsidiary of Williams Group International, Inc.  
500 Chase Park South, Suite 150, Birmingham, Alabama 35244  
205-988-8305 Fax: 205-988-5249

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

5016

$$C_{\text{eff}} = \frac{C_{\text{eff}}^{\text{eff}}}{C_{\text{eff}}^{\text{eff}}}$$





# 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



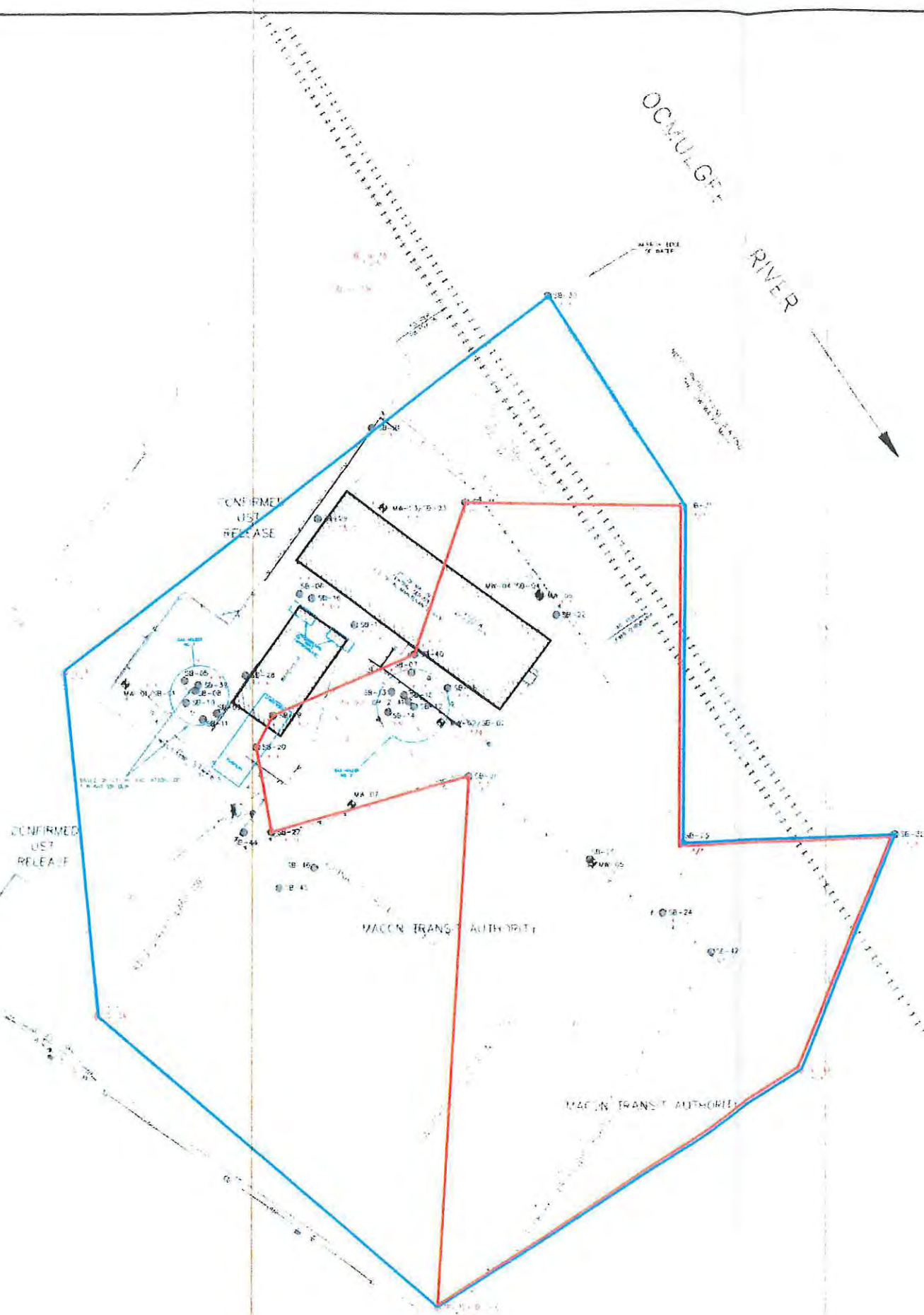
TOTAL DETECTED BENZENE AND VOCs IN SOIL

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

Prepared By:

**Williams Environmental Services, Inc.**  
A Subsidiary of Williams Group International, Inc.  
500 Chase Park South, Suite 150, Birmingham, Alabama 35244  
205-988-3305 Fax: 205-988-5249





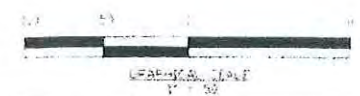
# LEGEND

- 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)	
	PAH INTERNAL	NAPHTH. SOIL
NAPHTHALENE	0.56	10
1-METHYLNAPHTHALENE	0.09	20
2-METHYLNAPHTHALENE	0.01	10
3-METHYLNAPHTHALENE	0.01	20
4-METHYLNAPHTHALENE	0.01	10
5-METHYLNAPHTHALENE	0.01	10
6-METHYLNAPHTHALENE	0.01	10
7-METHYLNAPHTHALENE	0.01	10
8-METHYLNAPHTHALENE	0.01	10
9-METHYLNAPHTHALENE	0.01	10
10-METHYLNAPHTHALENE	0.01	10
11-METHYLNAPHTHALENE	0.01	10
12-METHYLNAPHTHALENE	0.01	10
13-METHYLNAPHTHALENE	0.01	10
14-METHYLNAPHTHALENE	0.01	10
15-METHYLNAPHTHALENE	0.01	10
16-METHYLNAPHTHALENE	0.01	10
17-METHYLNAPHTHALENE	0.01	10
18-METHYLNAPHTHALENE	0.01	10
19-METHYLNAPHTHALENE	0.01	10
20-METHYLNAPHTHALENE	0.01	10
21-METHYLNAPHTHALENE	0.01	10
22-METHYLNAPHTHALENE	0.01	10
23-METHYLNAPHTHALENE	0.01	10
24-METHYLNAPHTHALENE	0.01	10
25-METHYLNAPHTHALENE	0.01	10
26-METHYLNAPHTHALENE	0.01	10
27-METHYLNAPHTHALENE	0.01	10
28-METHYLNAPHTHALENE	0.01	10
29-METHYLNAPHTHALENE	0.01	10
30-METHYLNAPHTHALENE	0.01	10
31-METHYLNAPHTHALENE	0.01	10
32-METHYLNAPHTHALENE	0.01	10
33-METHYLNAPHTHALENE	0.01	10
34-METHYLNAPHTHALENE	0.01	10
35-METHYLNAPHTHALENE	0.01	10
36-METHYLNAPHTHALENE	0.01	10
37-METHYLNAPHTHALENE	0.01	10
38-METHYLNAPHTHALENE	0.01	10
39-METHYLNAPHTHALENE	0.01	10
40-METHYLNAPHTHALENE	0.01	10
41-METHYLNAPHTHALENE	0.01	10
42-METHYLNAPHTHALENE	0.01	10
43-METHYLNAPHTHALENE	0.01	10
44-METHYLNAPHTHALENE	0.01	10
45-METHYLNAPHTHALENE	0.01	10
46-METHYLNAPHTHALENE	0.01	10
47-METHYLNAPHTHALENE	0.01	10
48-METHYLNAPHTHALENE	0.01	10
49-METHYLNAPHTHALENE	0.01	10
50-METHYLNAPHTHALENE	0.01	10
51-METHYLNAPHTHALENE	0.01	10
52-METHYLNAPHTHALENE	0.01	10
53-METHYLNAPHTHALENE	0.01	10
54-METHYLNAPHTHALENE	0.01	10
55-METHYLNAPHTHALENE	0.01	10
56-METHYLNAPHTHALENE	0.01	10
57-METHYLNAPHTHALENE	0.01	10
58-METHYLNAPHTHALENE	0.01	10
59-METHYLNAPHTHALENE	0.01	10
60-METHYLNAPHTHALENE	0.01	10
61-METHYLNAPHTHALENE	0.01	10
62-METHYLNAPHTHALENE	0.01	10
63-METHYLNAPHTHALENE	0.01	10
64-METHYLNAPHTHALENE	0.01	10
65-METHYLNAPHTHALENE	0.01	10
66-METHYLNAPHTHALENE	0.01	10
67-METHYLNAPHTHALENE	0.01	10
68-METHYLNAPHTHALENE	0.01	10
69-METHYLNAPHTHALENE	0.01	10
70-METHYLNAPHTHALENE	0.01	10
71-METHYLNAPHTHALENE	0.01	10
72-METHYLNAPHTHALENE	0.01	10
73-METHYLNAPHTHALENE	0.01	10
74-METHYLNAPHTHALENE	0.01	10
75-METHYLNAPHTHALENE	0.01	10
76-METHYLNAPHTHALENE	0.01	10
77-METHYLNAPHTHALENE	0.01	10
78-METHYLNAPHTHALENE	0.01	10
79-METHYLNAPHTHALENE	0.01	10
80-METHYLNAPHTHALENE	0.01	10
81-METHYLNAPHTHALENE	0.01	10
82-METHYLNAPHTHALENE	0.01	10
83-METHYLNAPHTHALENE	0.01	10
84-METHYLNAPHTHALENE	0.01	10
85-METHYLNAPHTHALENE	0.01	10
86-METHYLNAPHTHALENE	0.01	10
87-METHYLNAPHTHALENE	0.01	10
88-METHYLNAPHTHALENE	0.01	10
89-METHYLNAPHTHALENE	0.01	10
90-METHYLNAPHTHALENE	0.01	10
91-METHYLNAPHTHALENE	0.01	10
92-METHYLNAPHTHALENE	0.01	10
93-METHYLNAPHTHALENE	0.01	10
94-METHYLNAPHTHALENE	0.01	10
95-METHYLNAPHTHALENE	0.01	10
96-METHYLNAPHTHALENE	0.01	10
97-METHYLNAPHTHALENE	0.01	10
98-METHYLNAPHTHALENE	0.01	10
99-METHYLNAPHTHALENE	0.01	10
100-METHYLNAPHTHALENE	0.01	10



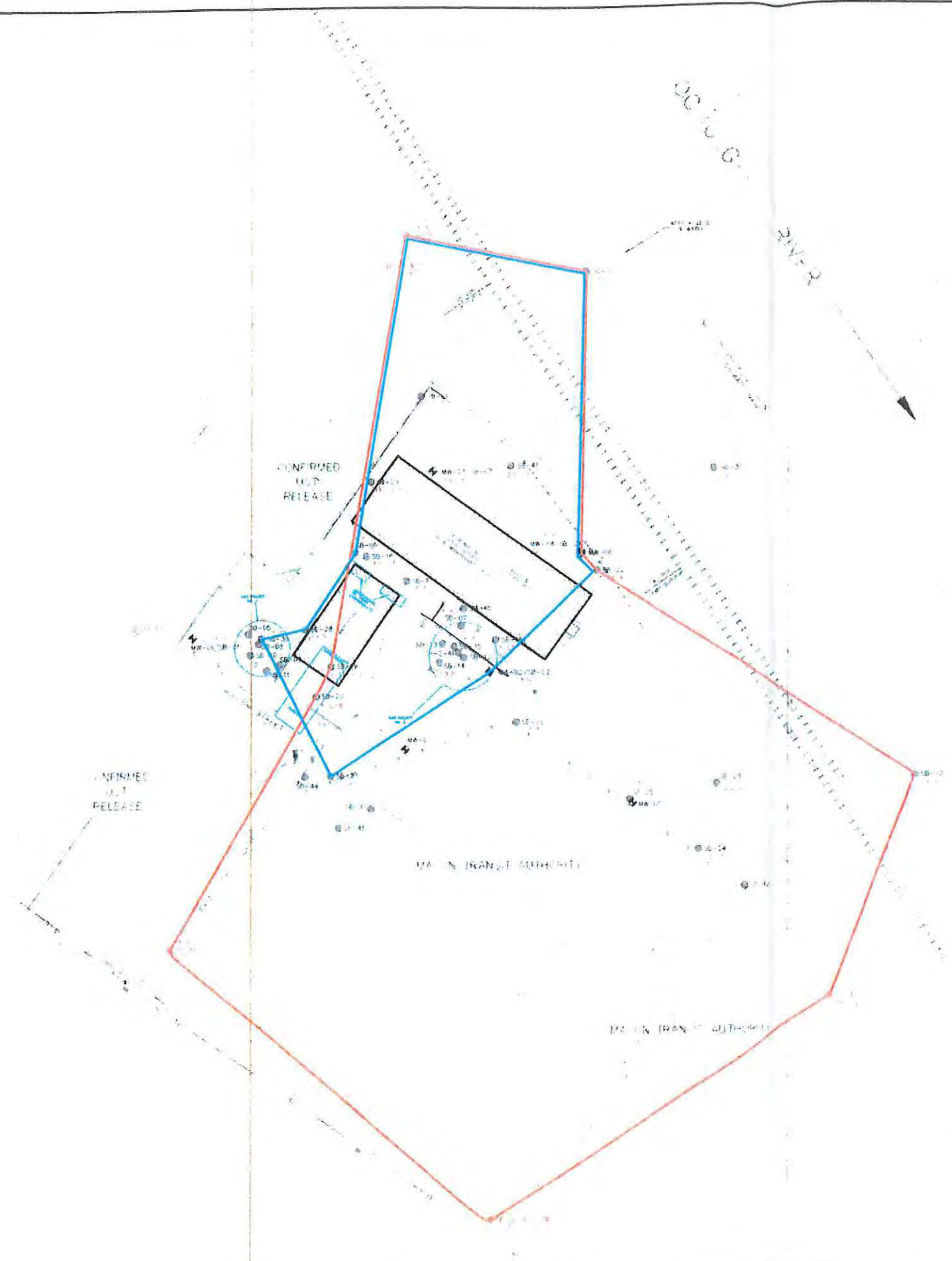
TOTAL DETECTED NAPHTHALENE AND SVOCs IN SOIL

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

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







# 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
- SPINE SAMPLE RECOVERY NOT WITHIN RECOVERY LIMITS
- INDICATES AN ESTIMATED VALUE

COMPOUND	UBL (mg/kg)	
	RES. WATERS	NONRES. SOILS
BARIUM	115	275
VANADIUM	24.9	120



Prepared By:

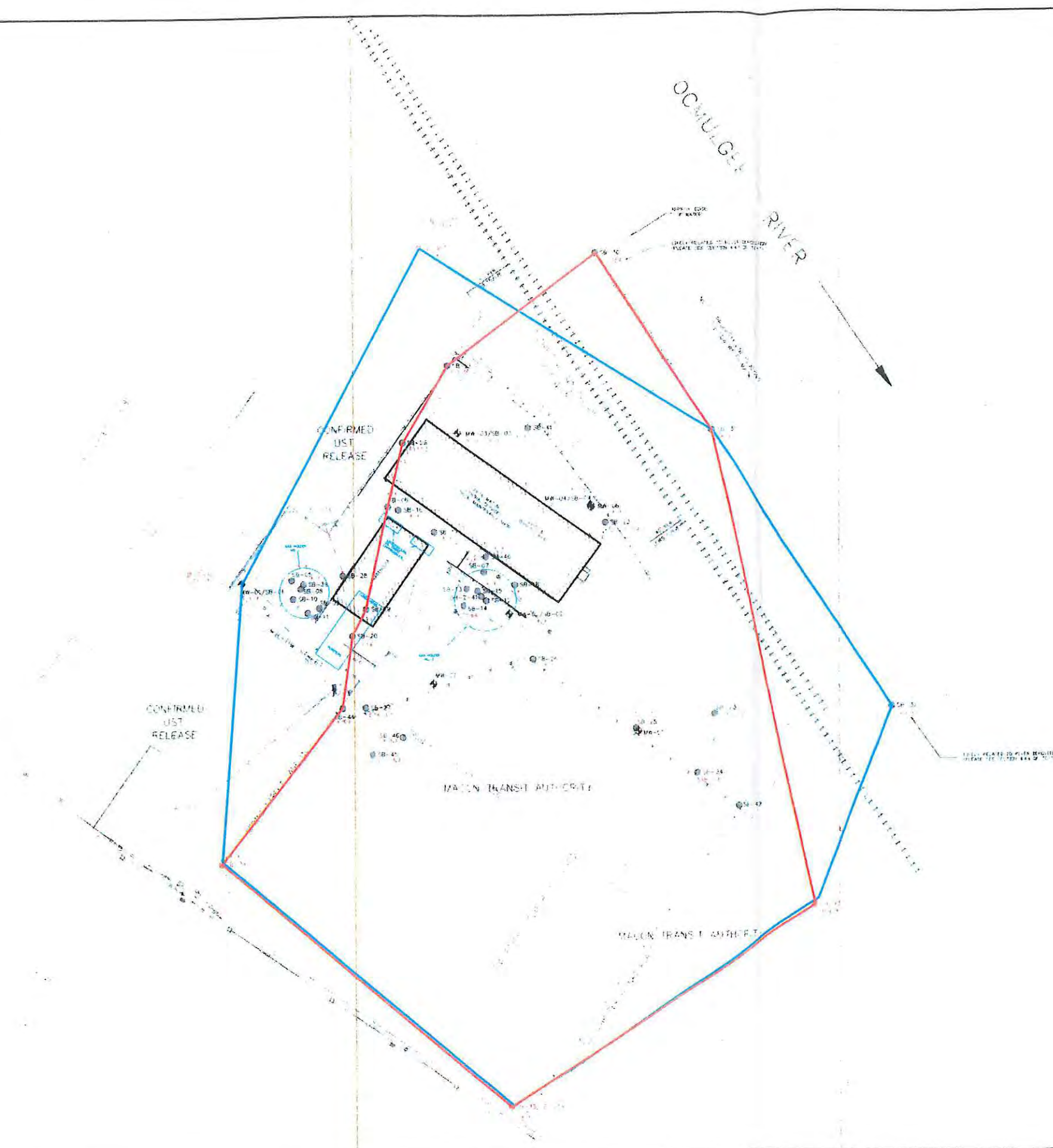
**Williams Environmental Services, Inc.**  
A subsidiary of Williams Group International, Inc.  
500 Chase Park South, Suite 150, Birmingham, Alabama 35244  
205-988-8305 Fax: 205-988-5249



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	0.5
DL - DETECTION LIMIT		

Prepared By:

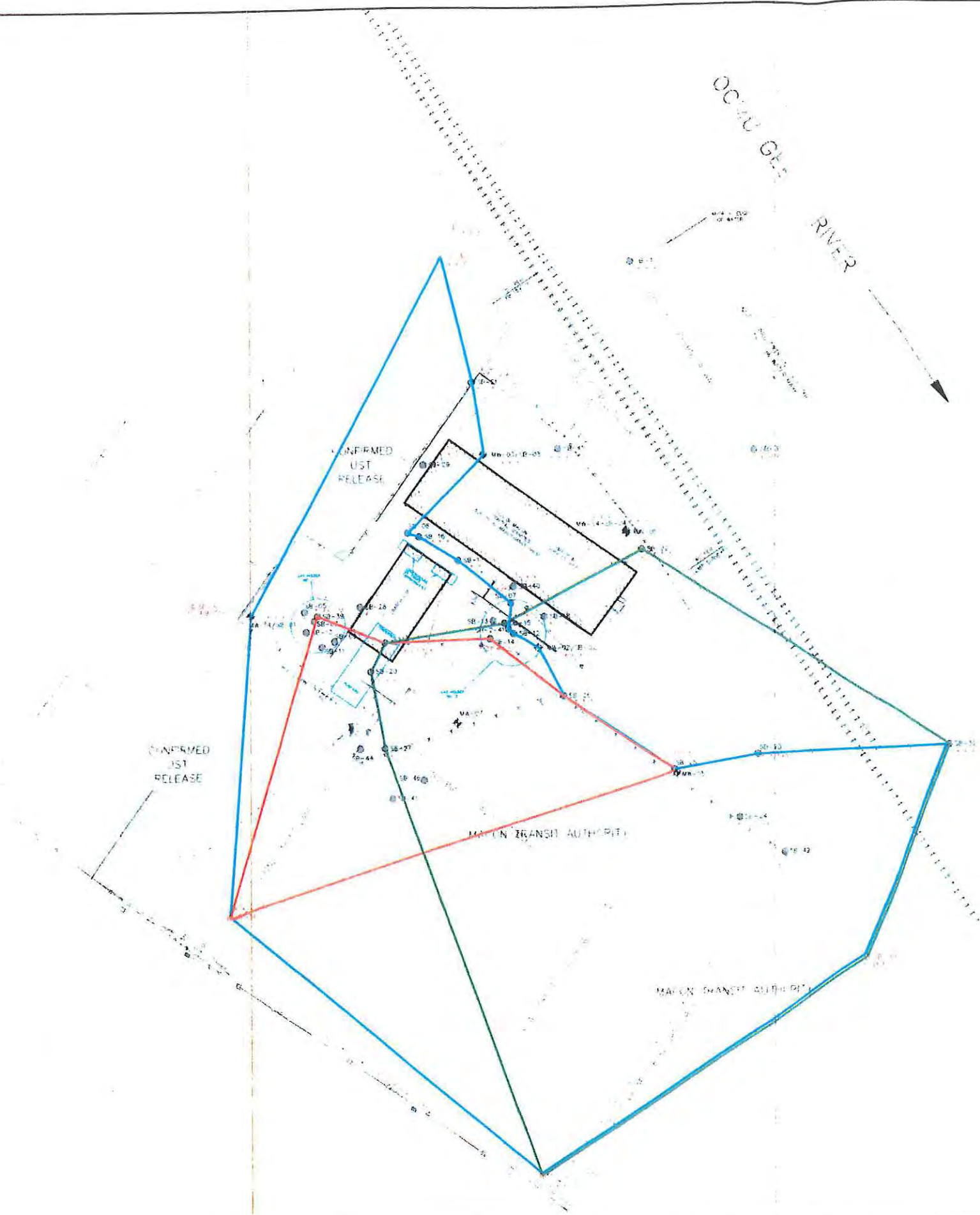
**Williams Environmental Services, Inc.**  
A Subsidiary of Williams Group International, Inc.  
500 Chase Park South, Suite 150, Birmingham, Alabama 35244  
205-988-9305 Fax: 205-988-5249



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)	
	PER MATERIAL	NATURAL SOILS
ARSENIC	15	15
COPPER	40	15
ZINC	25	15
DL - DETECTION LIMIT		



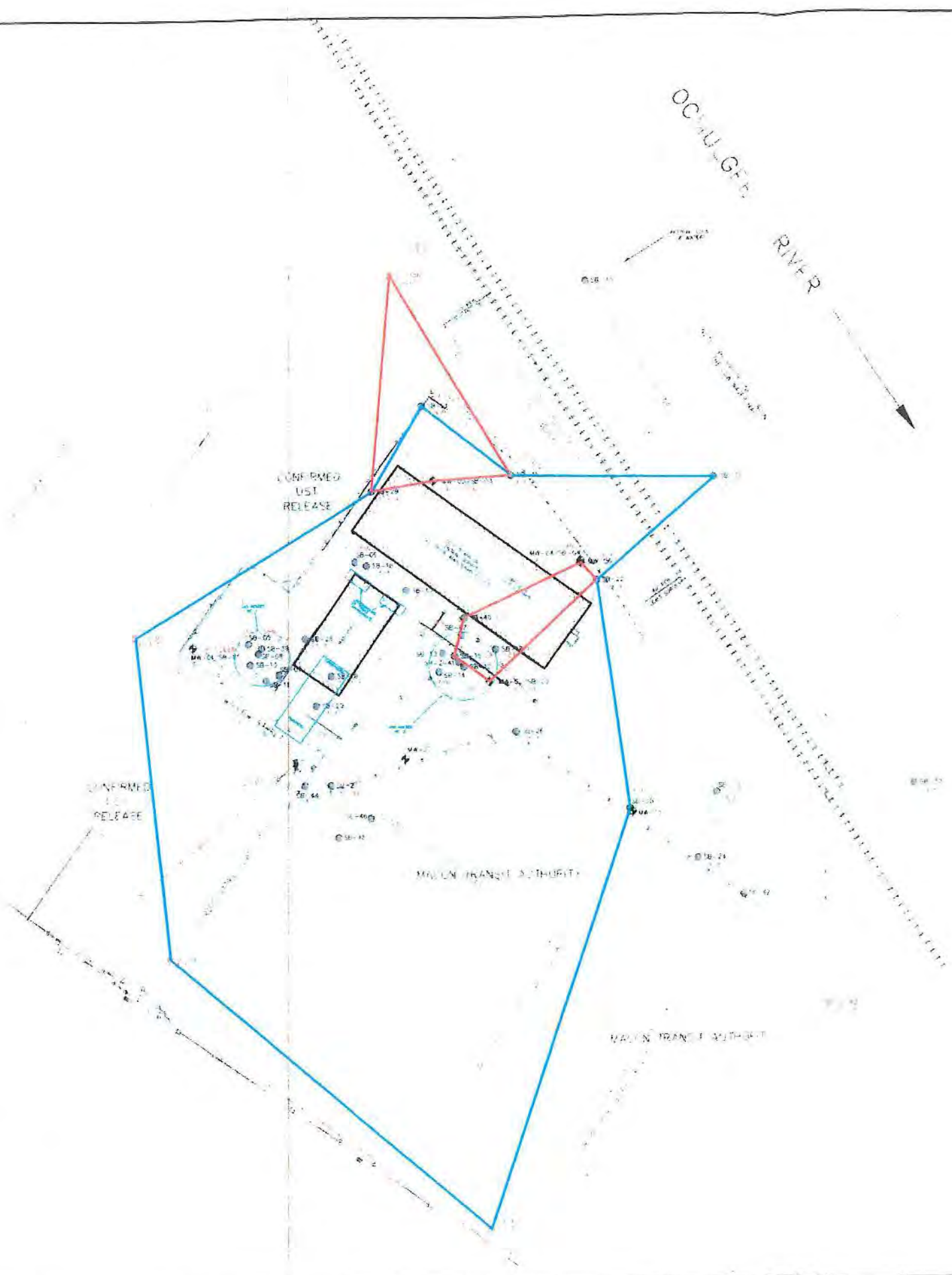
Prepared By:

**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



ARSENIC, COPPER, AND ZINC 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)
- 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

UPPER BACKGROUND LIMITS		
COMPOUND	UBL (mg/kg)	
	100 MGD	100 MGD
CHROMIUM	10	10
CYANIDE	10	10



CHROMIUM AND CYANIDE IN SOILS

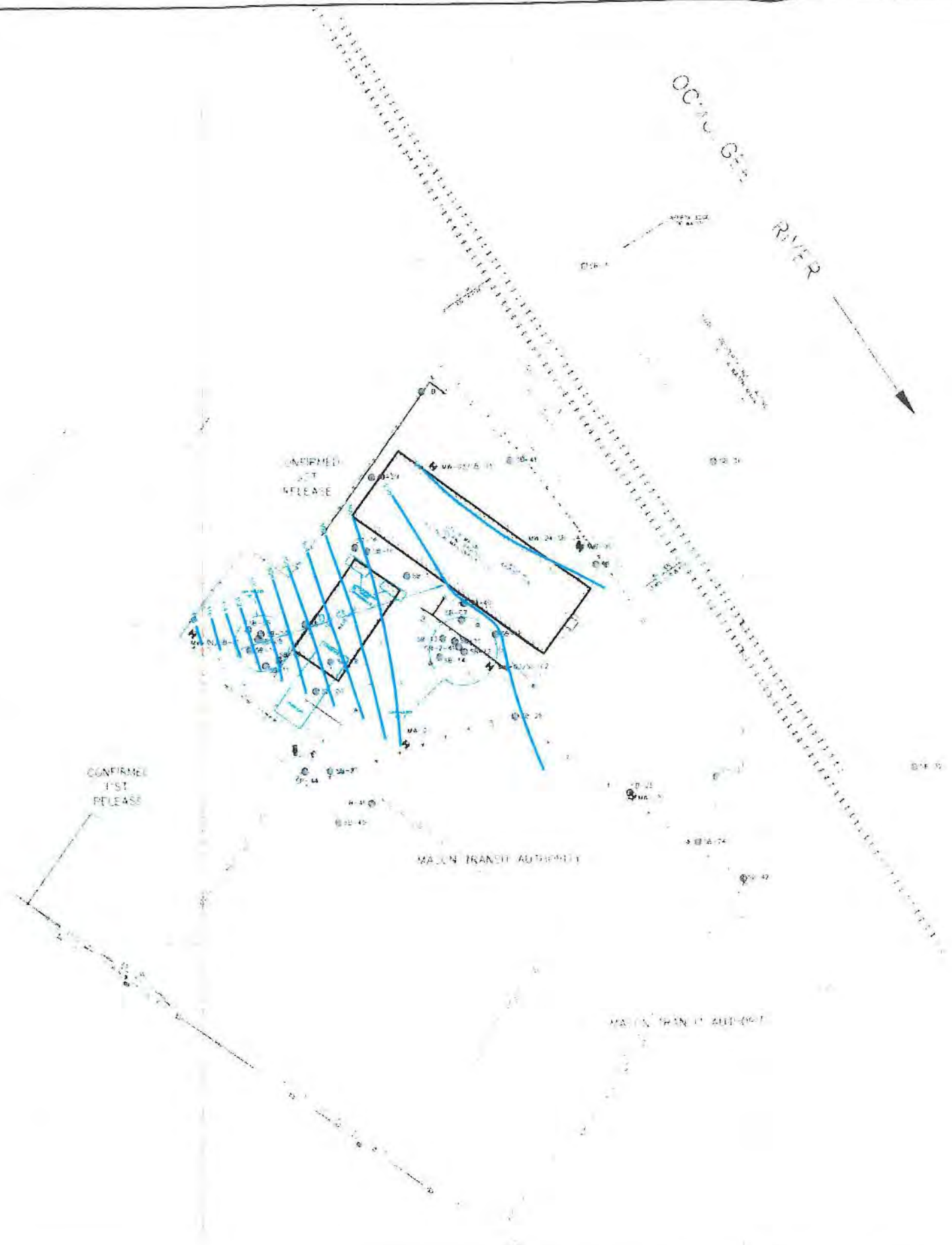
FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

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







# 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

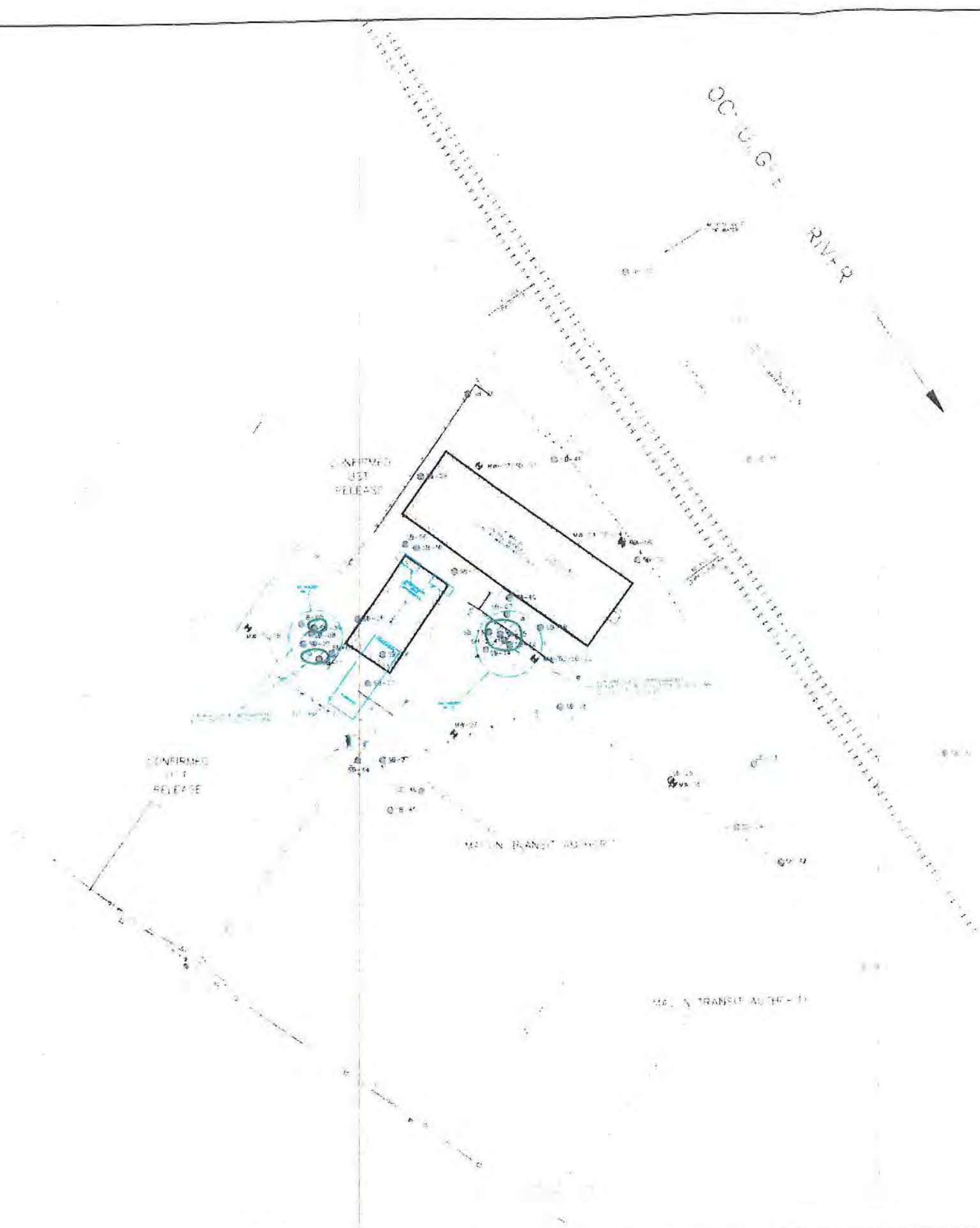
Prepared By:



**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







# 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)
- VISUAL INDICATION OF TLM AND/OR 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



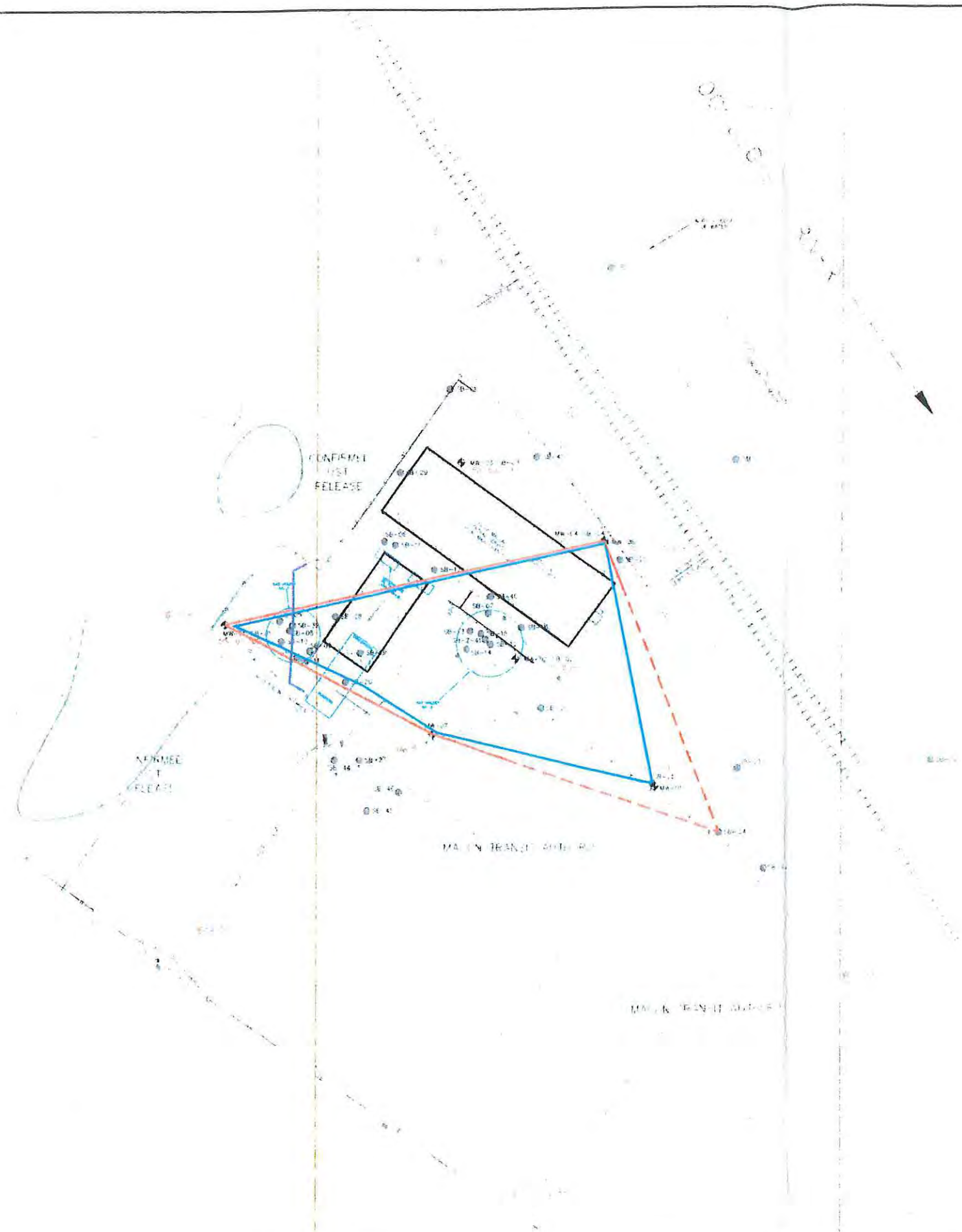
VISUAL INDICATION OF TLM AND OLM IN SOILS

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

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



# 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 INFERRED)
- 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

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



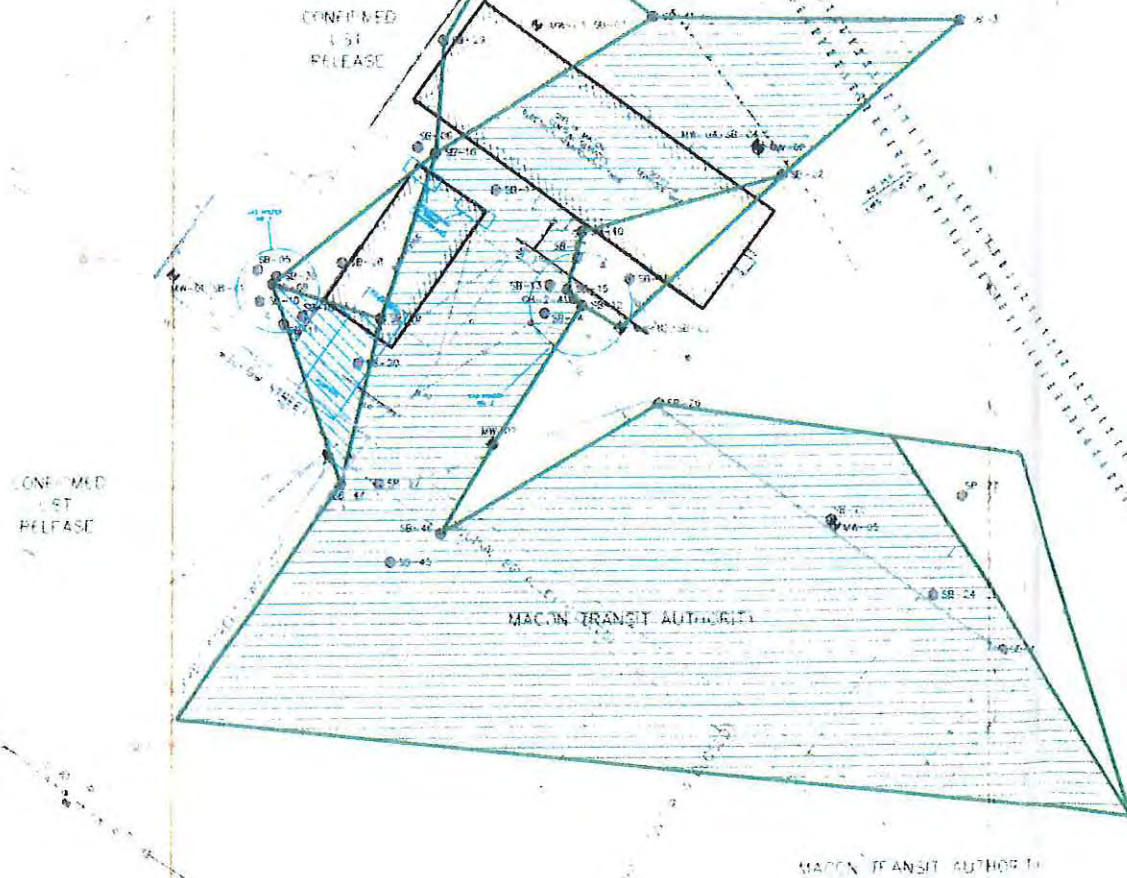




OCHULGE RIVER

# 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)
- 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



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 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)**

																				Total Detected SVOCs Exceeding Background	Total Detected SVOCs
			DL	DL	DL	560	690	610	690	570	680	DL	1,200	DL	580	DL	560	DL	920	-	-
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-14-0.5-2	U	Fill	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	0	0
SB-14-16-20	U	Fill	2,200	370U	3,700	6,600	6,800	5,600	5,000	5,800	6,000	3,500	14,000	2,300	6,100	2,100	13,000	370U	11,000	94,000	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	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	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	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	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	0
SB-16-19-24	U	Fill	380U	380U	380U	670	740	630	380U	700	680	380U	1,500	380U	380U	380U	1,000	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	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	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	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	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	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	11,000	1,300	4,700	400U	7,500	400U	7,400	67,000	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	0
SB-17-29-33	S	Fill	420U	450	420U	870	910	680	1,300	940	900	420U	3,000	420U	540	420U	2,600	420U	3,900	16,000	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	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	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	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	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	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	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	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	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	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	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	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)**

[illegible]

VALUES LISTED IN MICROGRAMS PER KILOGRAM (ug/kg)

[illegible]

**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
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	520	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
SB-31-2-4	U	Nat. Soil				410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	0	0
SB-31-4-8	U	Nat. Soil				430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	0	0
SB-31-8-12	U	Nat. Soil				440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	0	0
SB-31-16-20	S	Nat. Soil				430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	0	0
SB-32-0-2	U	Nat. Soil				400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0	0
SB-32-2-4	U	Nat. Soil				430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	0	0
SB-32-4-8	U	Nat. Soil				410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	0	0
SB-32-16-20	S	Nat. Soil				420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	0	0
SB-33-0.5-2	U	Fill				360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	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)**

			Total Detected SVOCs Exceeding Background																Total Detected SVOCs			
			Pyrene																Total Detected SVOCs Exceeding Background		Total Detected SVOCs	
			Phenol																Total Detected SVOCs Exceeding Background		Total Detected SVOCs	
			Phenanthrene																Total Detected SVOCs Exceeding Background		Total Detected SVOCs	
			Naphthalene																Total Detected SVOCs Exceeding Background		Total Detected SVOCs	
			Indeno(1,2,3-cd)pyrene																Total Detected SVOCs Exceeding Background		Total Detected SVOCs	
			Fluorene																Total Detected SVOCs Exceeding Background		Total Detected SVOCs	
			Fluoranthene																Total Detected SVOCs Exceeding Background		Total Detected SVOCs	
			Dibenzo(a,h)anthracene																Total Detected SVOCs Exceeding Background		Total Detected SVOCs	
			Chrysene																Total Detected SVOCs Exceeding Background		Total Detected SVOCs	
			Benzo(k)fluoranthene																Total Detected SVOCs Exceeding Background		Total Detected SVOCs	
			Benzo(g,h,i)perylene																Total Detected SVOCs Exceeding Background		Total Detected SVOCs	
			Benzo(b)fluoranthene																Total Detected SVOCs Exceeding Background		Total Detected SVOCs	
			Benzo(a)pyrene																Total Detected SVOCs Exceeding Background		Total Detected SVOCs	
			Benzo(a)anthracene																Total Detected SVOCs Exceeding Background		Total Detected SVOCs	
			Anthracene																Total Detected SVOCs Exceeding Background		Total Detected SVOCs	
			Acenaphthylene																Total Detected SVOCs Exceeding Background		Total Detected SVOCs	
			Acenaphthene																Total Detected SVOCs Exceeding Background		Total Detected SVOCs	
			Unit																Total Detected SVOCs Exceeding Background		Total Detected SVOCs	
			Saturated/Unsaturated																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-33-2-4	U	Fill	370U	420	370U	2,300	3,200	2,500	1,900	2,200	2,300	520	3,200	370U	1,300	370U	1,300	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	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	360U	0	0	
SB-33B-2-4	U	Fill	370U	370U	370U	490	690	540	690	430	540	370U	970	370U	580	370U	530	370U	850	0	6,310	
SB-34-0.5-2	U	Fill	350U	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	360U	360U	0	1,100	
SB-34-4-8	U	Fill	360U	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	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	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	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	460U	0	0	
SB-38-0-2	U	Fill	370U	370U	370U	470	450	590	540	370U	490	370U	1,000	370U	380	370U	480	370U	920	0	5,300	
DUP041201B	U	Fill	370U	370U	370U	370U	420	420	440	370U	370	370U	870	370U	370U	370U	670	370U	670	670	3,900	
SB-38-2-4	U	Fill	370U	370U	370U	560	590	610	370U	570	680	370U	1,200	370U	370U	370U	560	370U	900	0	5,700	
SB-38-4-6.5	U	Fill	400U	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	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	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	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	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	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	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	390U	0	0	
SB-40-16-20	U	Fill	360U	360U	360U	540	550	380	360U	510	570	360U	1,300	360U	360U	360U	960	360U	760	2,300	5,600	
SB-40-24-28	S	Fill	390U	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	450U	0	0	
DUP032001A	S	Nat. Soil	430U	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	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)**

																			Total Detected SVOCs Exceeding Background	Total Detected SVOCs
		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	
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	530	380U	1,300	2,300	2,200	2,200	630	1,700	2,100	380U	4,800	690	710	380U	4,100	380U	3,600	26,000
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	1,100	370U	1,800	6,100	5,600	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	0
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	0.824	3.61U	23.6	62.6	1.11U
SB-18-28-32	S	Fill		5.96U	111	2.98U	2.98U	29.1	18.3	14.0	0.0988U	10.1	65.7	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	63.7	13.5	0.105U	6.72	67.0	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			31.5	47.5	2.47U	2.47U	25.0	21.8	117	0.825	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	1.14	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	73.6	73.8	1.07U
SB-21-2-4	U	Fill			6.04U	184	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	1.36	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	9.164	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	0.554	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	1.18	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

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-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	958	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	36.3	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	5.93U	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	89	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**  
**SOIL SAMPLES - COMPLIANCE STATUS INVESTIGATION**  
**MACON 2 FORMER MGP FACILITY/ WILLIAMS PROJECT NO. 1100-2990**  
**VALUES LISTED IN MILLIGRAMS PER KILOGRAM (mg/kg)**

			Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Vanadium	Zinc	T-Cyanide
		Saturated/Unsaturated	Unit											
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	119	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	2.15	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**  
**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-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	46.3	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	44.5	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	279	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	126	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	3.86	25.3	55.7	1.09U

**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	T-Cyanide
UBL - Fill Material				7.05	115	DL	DL	28.7	43.4	204	0.541	14.4	58.9	257
UBL - Nat. Soils				DL	275	DL	DL	52.8	35.7	26.5	DL	29.7	120	80.3
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
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
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
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
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
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
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
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
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
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
SB-44-0-2	U	Fill		NA	NA	NA	NA	NA	NA	12.1	NA	NA	NA	NA
SB-44-5-7	U	Fill		NA	NA	NA	NA	NA	NA	25.3	NA	NA	NA	NA
SB-44-10-12	U	Fill		NA	NA	NA	NA	NA	NA	181	NA	NA	NA	NA
SB-44-15-17	U	Nat. Soil		NA	NA	NA	NA	NA	NA	5.53U	NA	NA	NA	NA
SB-44-20-21	U	Nat. Soil		NA	NA	NA	NA	NA	NA	5.54U	NA	NA	NA	NA
SB-45-0-2	U	Fill		NA	NA	NA	NA	NA	NA	58.5	NA	NA	NA	NA
SB-45-5-7	U	Fill		NA	NA	NA	NA	NA	NA	35.6	NA	NA	NA	NA
SB-45-10-12	U	Fill		NA	NA	NA	NA	NA	NA	425	NA	NA	NA	NA
SB-45-15-17	U	Fill		NA	NA	NA	NA	NA	NA	1070	NA	NA	NA	NA
SB-45-18.5-20	U	Fill		NA	NA	NA	NA	NA	NA	38.6	NA	NA	NA	NA
DUP082003A	U	Fill		NA	NA	NA	NA	NA	NA	37.8	NA	NA	NA	NA
SB-46-0-2	U	Fill		NA	NA	NA	NA	NA	NA	15.6	NA	NA	NA	NA
SB-46-0-2	U	Fill		NA	NA	NA	NA	NA	NA	70.6	NA	NA	NA	NA
SB-46-0-2	U	Fill		NA	NA	NA	NA	NA	NA	34.5	NA	NA	NA	NA
SB-46-0-2	U	Fill		NA	NA	NA	NA	NA	NA	20.0	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
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



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

---

**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)**

	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
UBL	--	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	-
MW-1	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-2	March-01	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
	August-03	12	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	13	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	13
Dup032901A	March-01	12	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	12
	August-03	14	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)**

	Date	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Vanadium	Zinc	T-Cyanide
UBL	--	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	0.0680
	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	0.868	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**





## 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							3-3.5' Clayey sandy silt - dark yellowish orange, fine sand, slightly cohesive, dry
		5-7	740	100%				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							8.5-12' Gravelly silty sand - dusky yellowish brown, dry, gravel size brick, glass, fine sand, wood
		10-12	750	80%				
15							SAP	
	13.5-18.5							13.5-18.5' Clayey silty sand - saprolite - mottled grayish orange and pale red, dry, relict foliation almost vertical friable
		15-17	800	95%				
20								
	18.5-21							18.5-21 Same as above; less friable, more cohesive, dry
		20-21	810	95%				
								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
5	3.5-8.5	5-7	840	80%				3.5-5' Same as above
								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
15	13.5-18.5	15-17	900	80%				13.5-17.5' Same as above - abundant particle board
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%				
20	18.5-23.5			25%				1.25' of Gravelly sand - dusky yellowish brown, gravel size rocks & brick, medium sand, glass, saturated (difficult to determine depth)
25								Boring Termination 23.5'

(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							Logged from Cuttings	FILL	Asphalt Clay - light brown, cohesive, plastic, dry Gravelly sand - moderate yellowish brown, dry, fine sand, medium size gravel																						
5									Same as above; slight cohesiveness, slightly moist																						
10									Gravelly clay - plastic, moderate brown, small gravel																						
15									Sandy clay - dark yellowish brown, stiff, medium sand, plastic, dry																						
20									Clayey fine sand - dusky yellowish brown, cohesive, dry																						
25									Gravelly sandy clay - dusky yellowish brown, gravel rock & brick fragments, glass, wet																						

(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
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. 1100-2990**  
**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	Liner	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB030201A	Liner	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB030501A	Liner	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB030601A	Liner	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB030701A	Liner	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB031401A	Liner	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB032001A	Split spoon	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB032101A	Liner	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB032201A	Liner	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB032601A	Split spoon	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB032901A	Peristaltic pump and tubing	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB041201A	Liner	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB041201B	Gloves	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB041301A	Liner	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
RB082103	Tubing	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	0
TAP WATER	Loading dock spicket	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	0.108	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.02U	0.01U	0.01U
RB030201A	Liner	0.02U	0.107	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.02U	0.01U	0.01U
RB030501A	Liner	0.02U	0.109	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.02U	0.01U	0.01U
RB030601A	Liner	0.02U	0.109	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	0.0106	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	0.0196	0.01U	0.0254	0.0005U	0.02U	0.02U	0.01U	0.01U
RB032901A	Peristaltic pump and tubing	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
TAP WATER	Loading dock spicket	0.02U	0.0216	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**



## 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

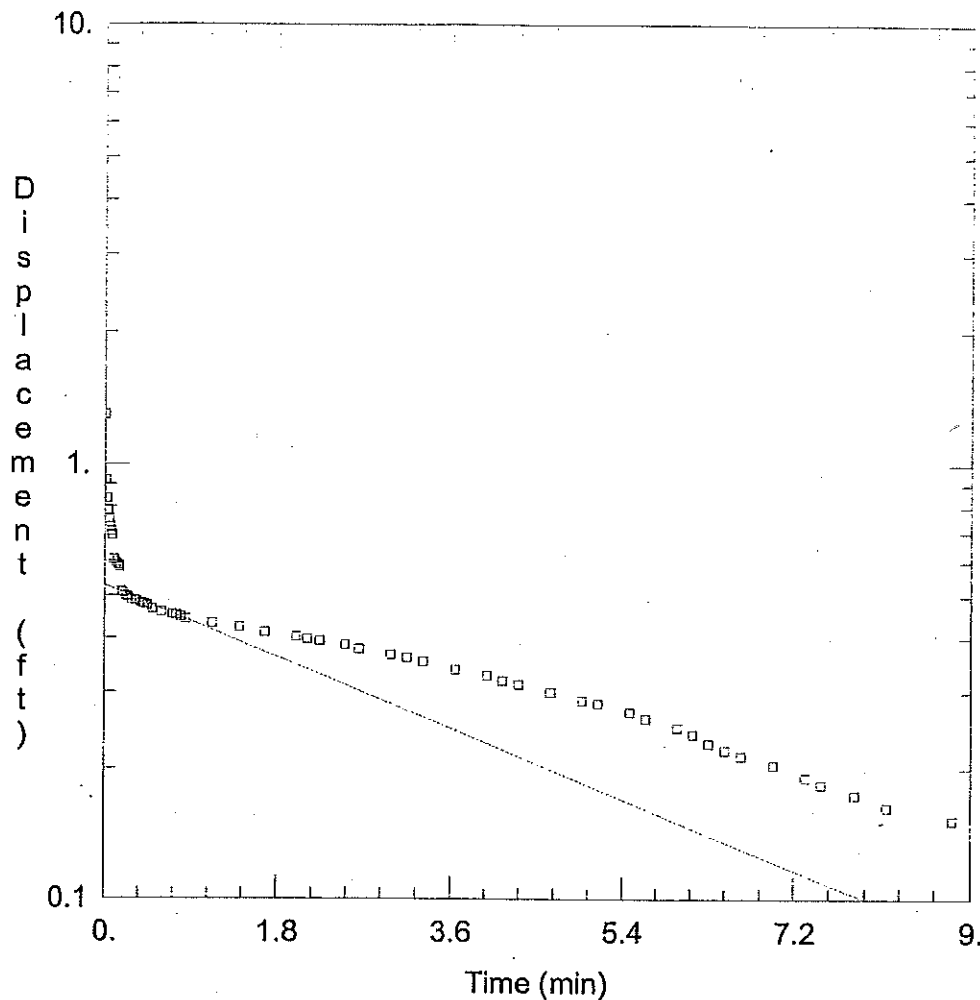
**Equipment Blank Result Less Than Laboratory Reporting Limits:** No equipment blank  
collected.

**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

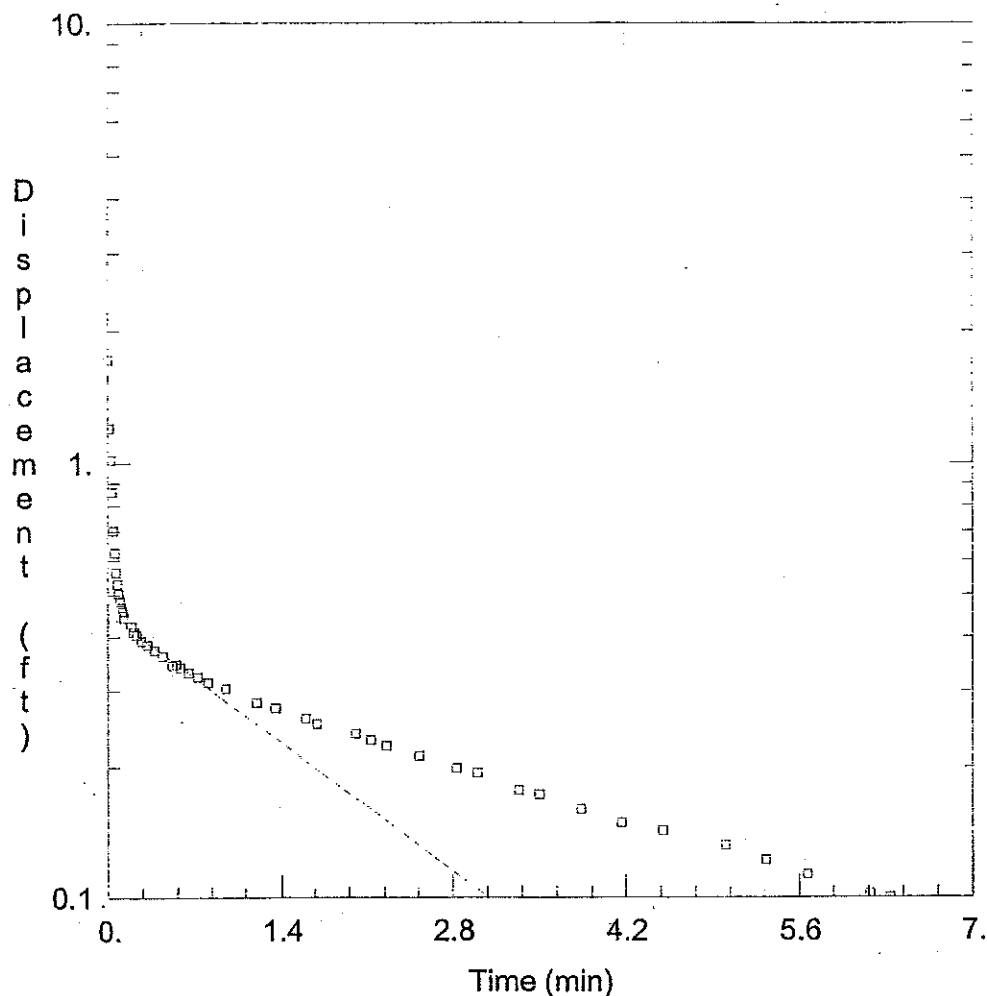
### SOLUTION

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

$K = 0.001612$  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

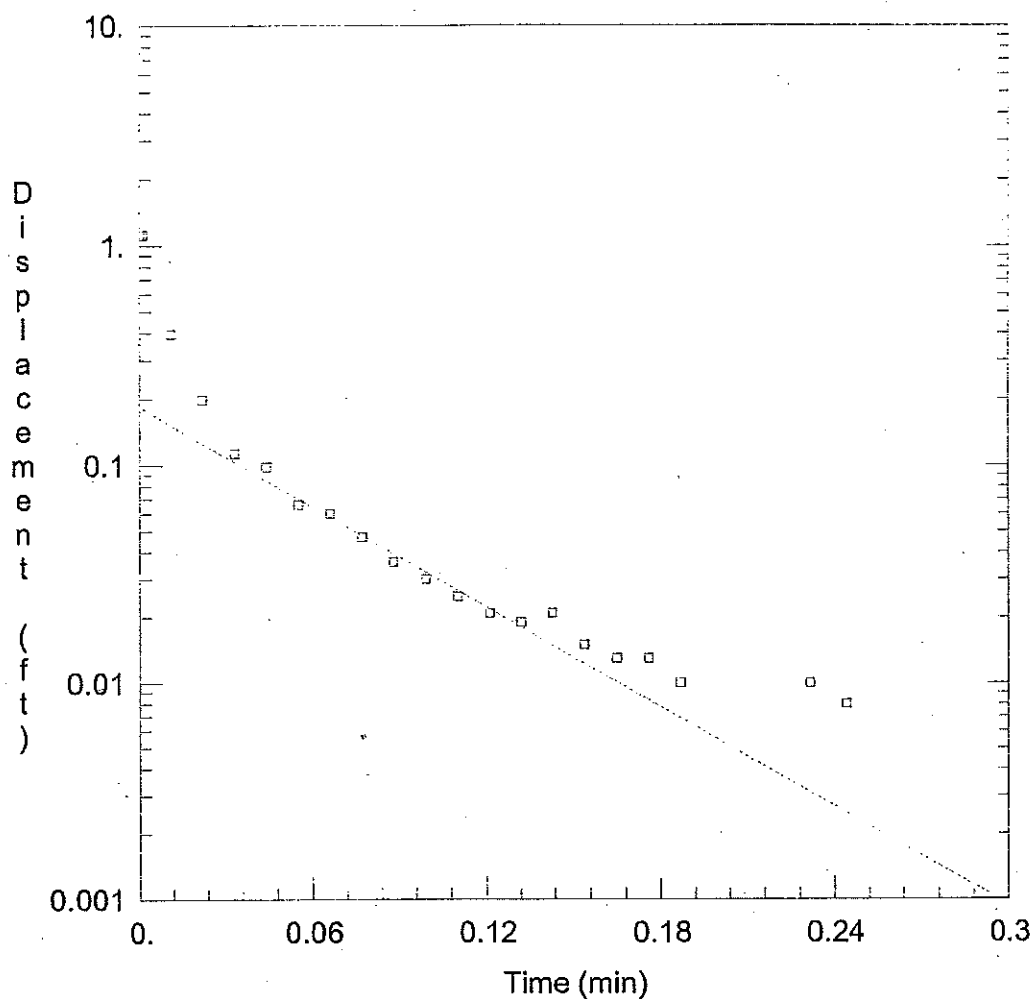
Aquifer Model: Unconfined  
 Solution Method: Bouwer-Rice

### 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 ( $K_z/K_r$ ): 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		

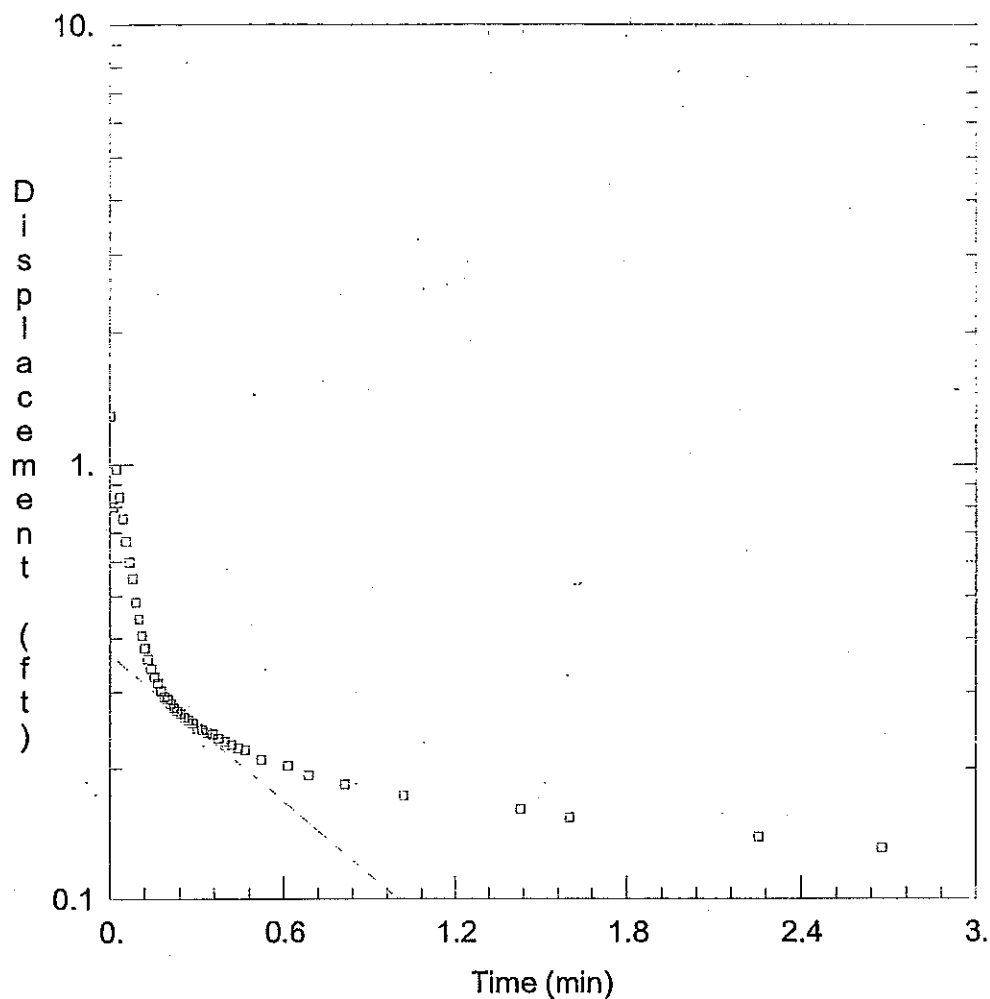
### SOLUTION

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		

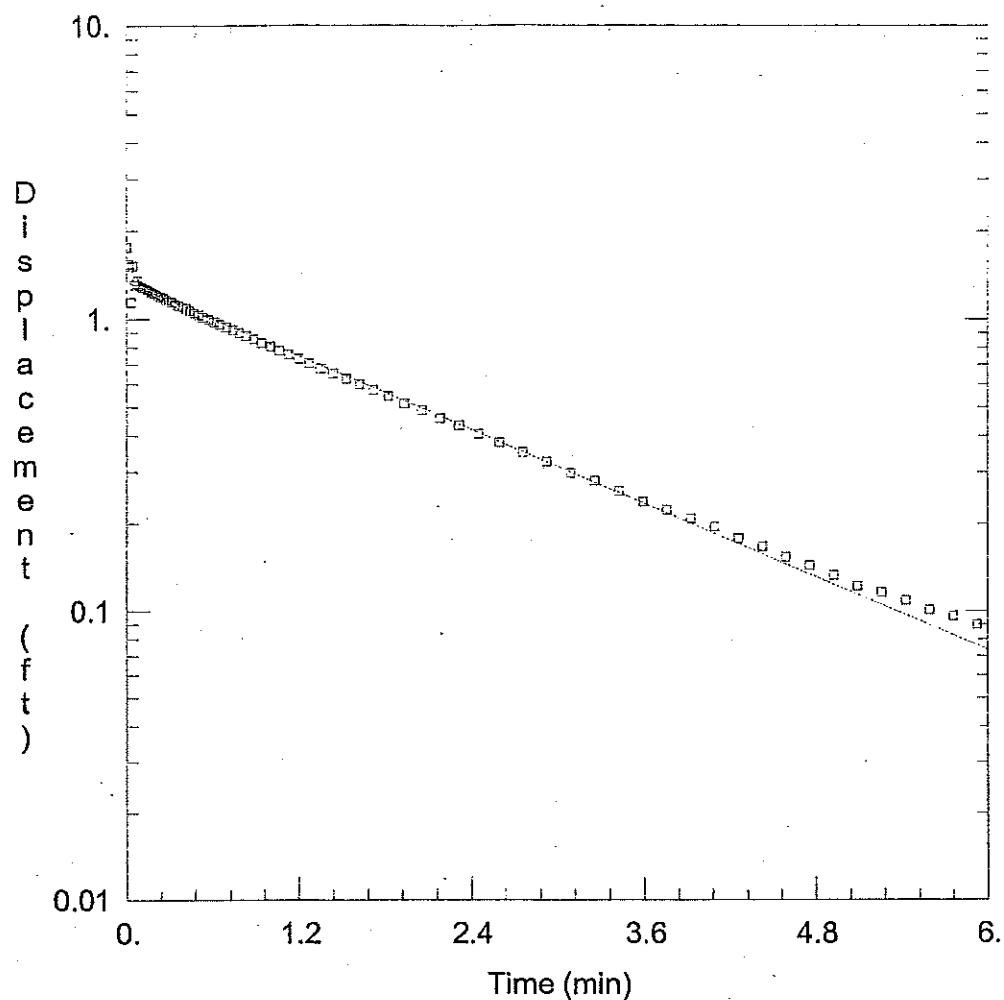
### SOLUTION

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 (Kz/Kr): 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

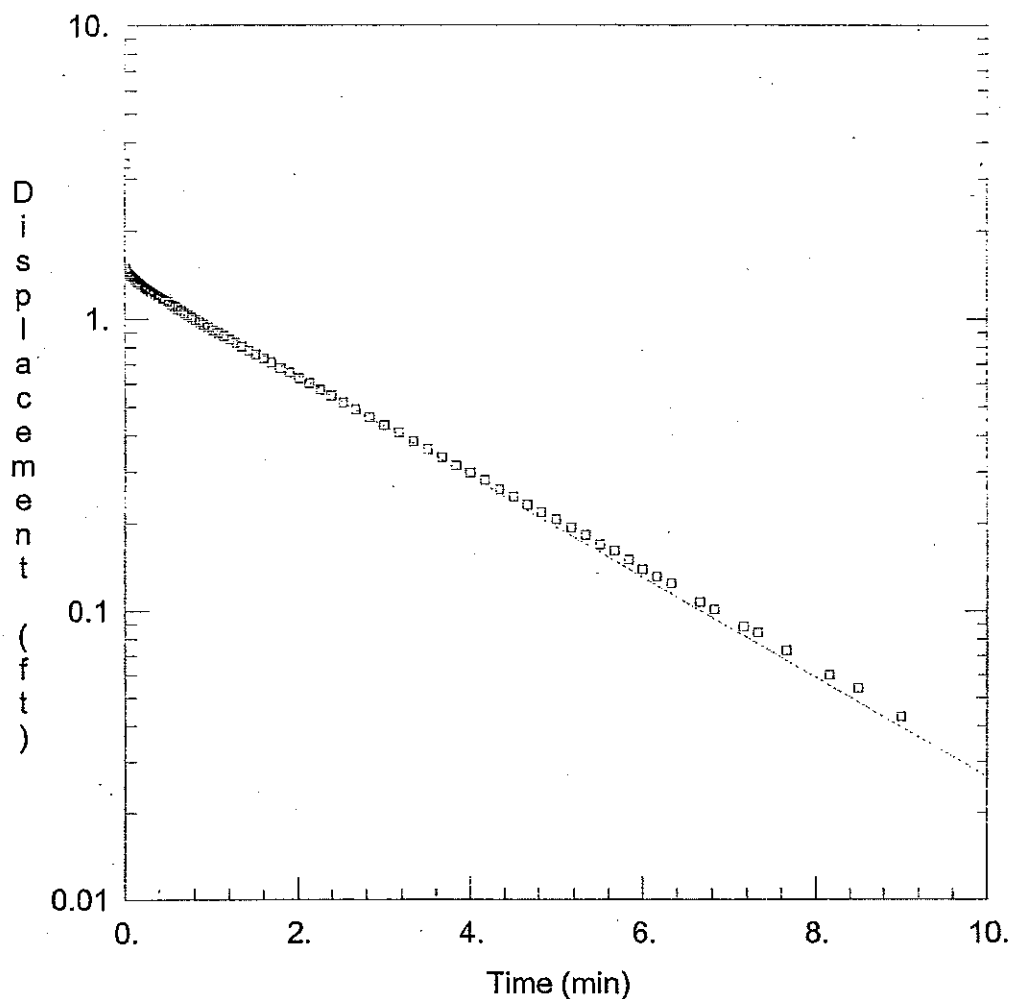
---

Solution Method: Bouwer-Rice

---

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

WELL NUMBER		FLUSH MOUNTED PROTECTIVE CASING LOCKING AIR/WATER SEALED CAP		TYPE OF SURFACE SEAL	
MW-07				Flush	
DRILLER	Georgia Power	RISER PIPE ID		2"	
DRILLING METHOD	HSA 8.25" OD	TYPE OF RISER PIPE		PVC	
DEVELOPMENT METHOD	Pump				
<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		DEPTH OF TOP OF SEAL		13.8'	
BUCKETS OF BENTONITE PELLETS	1	TYPE OF SEAL		Bentonite	
BAGS OF CEMENT		DEPTH OF TOP OF SAND PACK		15.8'	
BAGS OF CONCRETE MIX		DEPTH OF TOP OF SCREEN		17.5'	
HOLE COVERS		DEPTH OF TOP OF GROUNDWATER		approx. 22'	
OTHER		TYPE OF SCREEN		PVC 0.01 slot	
		LENGTH OF SCREEN		15'	
		DEPTH TO BOTTOM OF SCREEN		32.5'	
		DEPTH TO BOTTOM OF BORING		32.5'	

**DATE INSTALLED**  
08/19/2003

**PROJECT NO.**  
1100-2990

**WELL NO.**  
MW-07

**Williams Environmental Services, Inc.**  
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 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	 <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-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	 Williams Environmental Services, Inc. <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

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

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-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      CN
Container Size and Type:	2@40ml      2@1liter      500ml      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
Container Size and Type:	2@40ml	2@1liter	500ml
Preservative:	HCL	ICE	HNO3

## 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-7

## **APPENDIX M**

# **POTENTIAL RECEPTOR STUDY**

# SECTION 1

## INTRODUCTION

---

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) $^{-1}$

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

### 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 bluesripe shiner (*Cyprinella callitaenia*), purple bankclimber mussel (*Elliptioideus 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

---

Centers for Disease Prevention and Control (CDC), 1985. Preventing Lead Poisoning in Children, U.S. Department of Health and Human Services, Atlanta, Georgia.

Georgia Department of Natural Resources, Environmental Protection Division (GEPD), 1998. Georgia Adult Lead Model. March 23, 1998.

Georgia Department of Natural Resources, Environmental Protection Division (GEPD), 2003. Rules of GEPD Chapter 391-3-19 Hazardous Site Response.

Health Effect Assessment Summary Tables, 1997. Office of Research and Development U.S. Environmental Protection Agency, Washington, D.C. FY-1995 Annual.

Integrated Risk Information System (IRIS), 2000. U.S. Environmental Protection Agency, Office of Health and Environmental Assessment, Cincinnati, Ohio.

U.S. Environmental Protection Agency (USEPA), 1991a. Risk Assessment Guidance for Superfund: Volume I - Human Health Evaluation Manual (Part B): Development of Risk-Based Preliminary Remediation Goals, Interim. Office of Emergency and Remedial Response, Washington, DC. OSWER Dir. 9285.7-01B. December 1991.

U.S. Environmental Protection Agency (USEPA), 1991b. Exposure Factors Handbook. Interim final. OSWER Directive No. 9285.6-03.

U.S. Environmental Protection Agency (USEPA), 1994a. Interim Guidance on Establishing Soil Lead Cleanup Levels at RCRA Facilities. OSWER Directive #9355.4-12.

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):**

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

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>ei</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>ei</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:

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

Carcinogens:

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

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.

$$PbB = \frac{PbB_{fetal}}{R * GSD^{1.645}}$$

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

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 callitaenia</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>Elliptoideus 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 temmincki</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/r4gafo/>

(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*

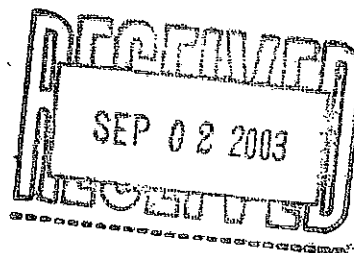




ANALYTICAL ENVIRONMENTAL SERVICES, INC.

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  
Project Manager

Date: 8/29/03 Page 1 of 2

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

785 Presidential Pkwy, Atlanta, GA 30340-3704

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

Date: 8/25/05 Page 2 of 2

[illegible]

ATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) O = Other (specify)

RESERVATIVE CODES: H = Hydrochloric acid + ice I = Ice only N = Nitric acid + ice S = Sulfuric acid + ice O = Other (specify) NA = None

PROGRAM: FLUST FLUC ALUST TNUST MSUST NCUST SCUST GAUST GA CONV FL CONV

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

Client Sample ID: SB-45-0-2

Lab Order: 0308662

Collection Date: 8/20/2003 8:36:00 AM

Project: Macon II MGP

Lab ID: 0308662-006

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>						Analyst: <b>CDW</b>
Lead	38.6	4.48	SW6010B	mg/Kg-dry	1	8/25/2003 1:49:00 AM
<b>PERCENT MOISTURE</b>						Analyst: <b>DCC</b>
Percent Moisture	17.7	0	D2216	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	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:** 0308662-015

**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 Ayrene Ogburn 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.

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					
------	-------	------	----	---	------	----	-----	---	---	--	--	--	--	--

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					
------	-------	------	-------	-------	-----	----	-----	---	---	--	--	--	--	--

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

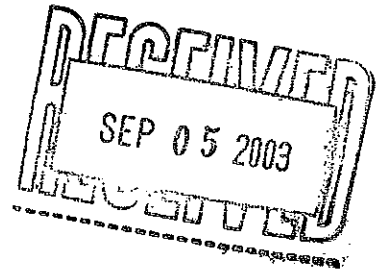
Lead	42.63	3.73	0	0	0	0	0	37.76	12.1	20				
------	-------	------	---	---	---	---	---	-------	------	----	--	--	--	--

Qualifiers:	B	Analyte detected in the associated Method Blank	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 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



Date: 8/21/03 Page 1 of 2

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

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>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>		Analyst: SSS		
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>		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 1:03:00 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>		Analyst: AD		
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

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:** 0308663-006

**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>		Analyst: AD		
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>		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: 0308663-007

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	0	98	71.8	143	0	0		
Surr: Dibromofluoromethane	57.34	0	50	0	115	80.3	123	0	0		
Surr: Toluene-d8	52.42	0	50	0	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		

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: 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
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		SampType: 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		SampType: 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		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
Benzene	BRL	5.0									

<b>Qualifiers:</b> 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: 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		

<b>Qualifiers:</b> 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:** 37292

Sample ID: MB-37292		SampType: 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		
Surr: 2-Fluorobiphenyl	47.61	0	50	0	95.2	26	115	0	0		
Surr: 2-Fluorophenol	92.27	0	100	0	92.3	10	121	0	0		
Surr: 4-Terphenyl-d14	49.27	0	50	0	98.5	18	137	0	0		
Surr: Nitrobenzene-d5	47.42	0	50	0	94.8	15	120	0	0		
Surr: Phenol-d5	69.67	0	100	0	69.7	18	113	0	0		

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
Acenaphthene	85.07	10	100	0	85.1	47	145	0	0		
Phenol	66.02	10	100	0	66	5	112	0	0		
Pyrene	97.49	10	100	0	97.5	52	115	0	0		

<b>Qualifiers:</b>	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	98.58	0	100	0	98.6	19	124	0	0		
Surr: 2-Fluorobiphenyl	43.48	0	50	0	87	26	115	0	0		
Surr: 2-Fluorophenol	83.96	0	100	0	84	10	121	0	0		
Surr: 4-Terphenyl-d14	48.94	0	50	0	97.9	18	137	0	0		
Surr: Nitrobenzene-d5	40.59	0	50	0	81.2	15	120	0	0		
Surr: Phenol-d5	72.88	0	100	0	72.9	18	113	0	0		

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	79.45	10	100	0	79.4	47	145	0	0		
Phenol	56.12	10	100	0	56.1	5	112	0	0		
Pyrene	85.02	10	100	0	85	52	115	0	0		
Surr: 2,4,6-Tribromophenol	94.98	0	100	0	95	19	124	0	0		
Surr: 2-Fluorobiphenyl	40.05	0	50	0	80.1	26	115	0	0		
Surr: 2-Fluorophenol	71.33	0	100	0	71.3	10	121	0	0		
Surr: 4-Terphenyl-d14	42.67	0	50	0	85.3	18	137	0	0		
Surr: Nitrobenzene-d5	38.17	0	50	0	76.3	15	120	0	0		
Surr: Phenol-d5	60.84	0	100	0	60.8	18	113	0	0		

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	85.02	10	100	0	85	47	145	79.45	6.77	0	
Phenol	60.89	10	100	0	60.9	5	112	56.12	8.15	0	
Pyrene	90.53	10	100	0	90.5	52	115	85.02	6.28	0	
Surr: 2,4,6-Tribromophenol	94.16	0	100	0	94.2	19	124	94.98	0	0	
Surr: 2-Fluorobiphenyl	40.28	0	50	0	80.6	26	115	40.05	0	0	
Surr: 2-Fluorophenol	74.29	0	100	0	74.3	10	121	71.33	0	0	

<b>Qualifiers:</b> 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:** 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	
Surr: Nitrobenzene-d5	38.16	0	50	0	76.3	15	120	38.17	0	0	
Surr: Phenol-d5	63.7	0	100	0	63.7	18	113	60.84	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: 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		
---------	-------	------	-----	-------	-----	----	-----	---	---	--	--

<b>Qualifiers:</b>	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	

<b>Qualifiers:</b>	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		

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		

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		

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	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

**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		

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		

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		

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	

<b>Qualifiers:</b>	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		

<b>Qualifiers:</b>	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		
Surr: Dibromofluoromethane	47.82	0	50	0	95.6	80.3	123	0	0		
Surr: Toluene-d8	49.24	0	50	0	98.5	70.1	142	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		

**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		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
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		SampType: 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		

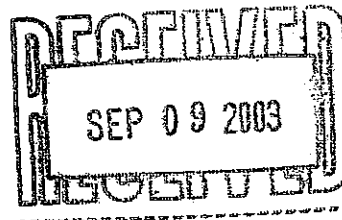
Sample ID: LCS-37356-1		SampType: LCS	TestCode: 8260B_W_CL Units: µg/L			Prep Date: 8/23/2003			RunNo: 41894		
Client ID:		Batch ID: 37356	TestNo: SW8260B			Analysis Date: 8/25/2003			SeqNo: 762726		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	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		

<b>Qualifiers:</b>	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

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

Work Order: 0308662

Date: 8/20/03 Page 1 of 2

COMPANY: Williams Env. Services		ADDRESS: 500 CHASE PARK, Ste 150 B'ham, AL 35244		ANALYSIS REQUESTED												REMARKS	No. of Containers		
PHONE: 205-988-8305		FAX: 5249		TOTAL PB															
SAMPLED BY: Mike Dillon		SIGNATURE: <i>Mike Dillon</i>																	
#	SAMPLE ID	SAMPLED			Grab	Composite	Matrix (See codes)	PRESERVATION											
		DATE	TIME																
	SB-44-0-2	8/20/03	0730	X		50													
	SB-44-5-7		0740	X															
	SB-44-10-12		0750	X															
	SB-44-15-17		0800	X															
	SB-44-20-21		0816	X															
	SB-45-0-2		0836	X															
	SB-45-5-7		0840	X															
	SB-45-10-12		0850	X															
	SB-45-15-17		0900	X															-001
	SB-45-18.5-20		0910	X															
	SB-46-0-2		0950	X															
	SB-46-5-7		1000	X															
	SB-46-10-12		1010	X															
	SB-46-15-17	✓	1020	X		✓													
RELINQUISHED BY: <i>Mike Dillon</i>		DATE/TIME: 8/20/03 1:50	RECEIVED BY: <i>MM</i>		DATE/TIME: 8/21/03 9:50	PROJECT INFORMATION												RECEIPT	
1:		2:		3:		PROJECT NAME: MALON II MGP												Total # of Containers	
2:		3:		3:		PROJECT #: 1100 2990												<input checked="" type="radio"/> Turnaround Time Request <input type="radio"/> Standard 3-5 Business Days <input type="radio"/> Same Day Rush (auth req.) <input type="radio"/> Next Business Day Rush <input type="radio"/> 2 Business Day Rush <input type="radio"/> Other	
3:		3:		3:		FAC ID#:													
3:		3:		3:		SITE ADDRESS: Spring St Ln, Malon GA													
SPECIAL INSTRUCTIONS COMMENTS:		SHIPMENT METHOD		PROJECT MANAGER: Mike Dillon		INVOICE TO: (IF DIFFERENT FROM ABOVE)												PROGRAM (see codes):	
OUT		VIA:																	
IN		VIA:																	
CLIENT		FedEx		UPS MAIL COURIER															
PO#:		GREYHOUND		OTHER															
QUOTE CONTRACT #:														DATA PACKAGE: I II III IV					

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 ALUS1 INUS1 MSUS1 NCUS1 SCUS1 GAUS1 GAONV FLONV

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

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

SD6082003A

Work Order: 0208662

Date: 8/20/03 Page 2 of 2

[illegible]

PROGRAM: FLUST FLDC ALUST FNUST MSUST NCUST SCUST GAUST GACONV FLCONV

White Copy - ORIGINAL; Yellow Copy - LAB. 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	SampType: 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	SampType: 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	SampType: 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	SampType: 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		



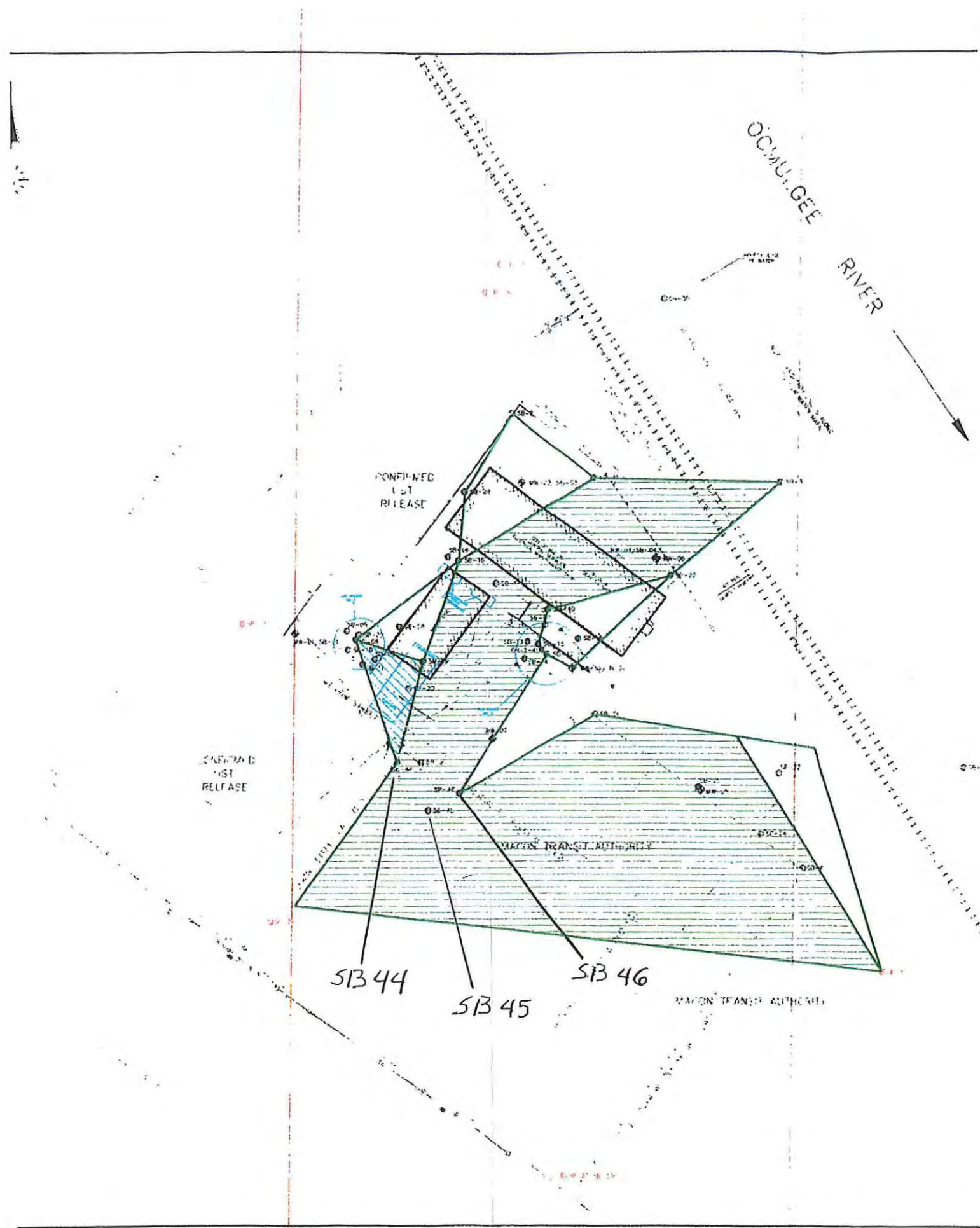
**Analytical Environmental Servs, Inc.**

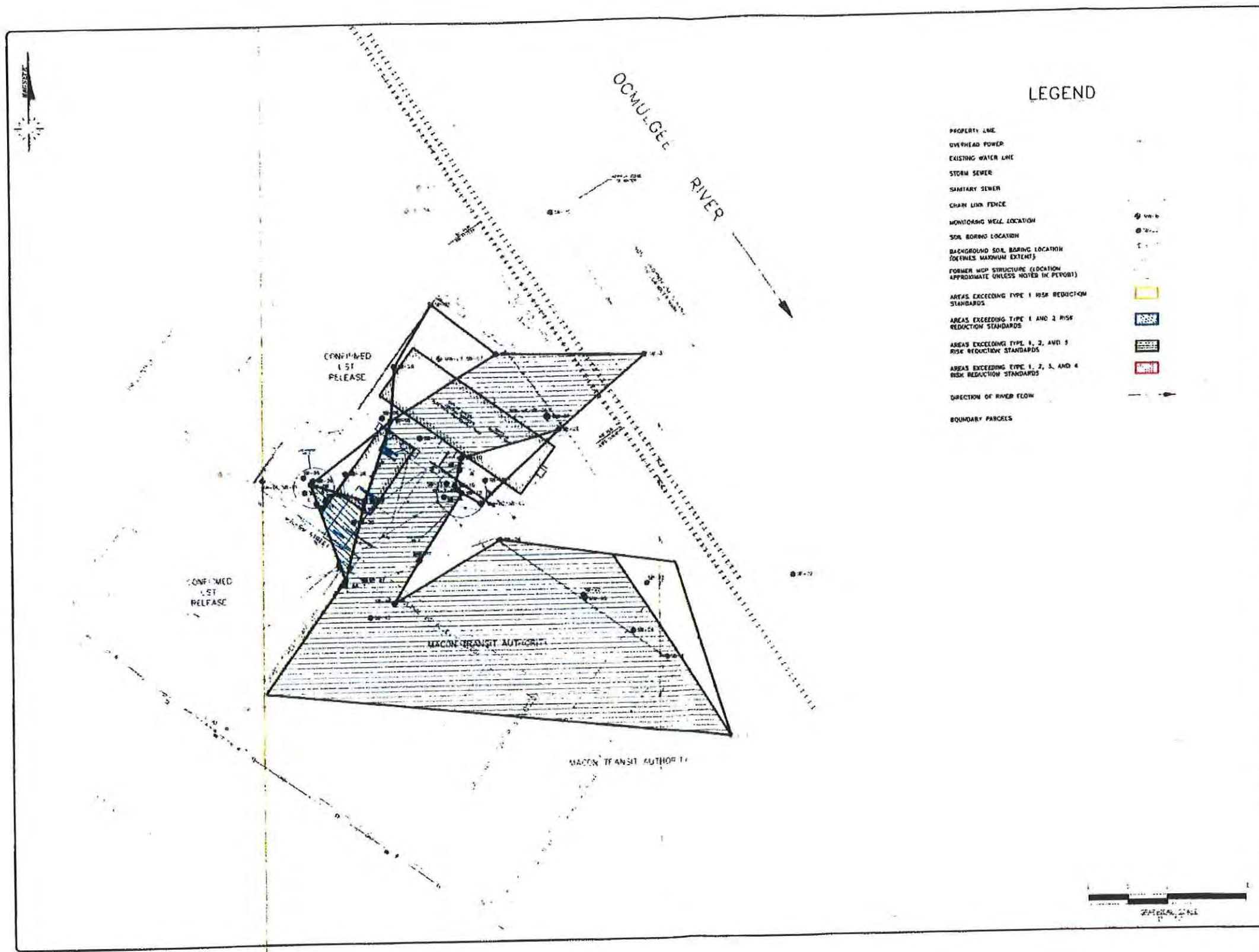
Date: 29-Aug-03

**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.





DATE: 11/11/04  
 DRAWN BY: J. H. HARRIS  
 CHECKED BY: J. H. HARRIS

Prepared By:  
**Williams Environmental Services, Inc.**  
 A Subsidiary of Williams Group International, Inc.  
 2000 Old Peachtree Road, Suite 200, Atlanta, Georgia 30341  
 404.255.5555 Fax: 404.255.5556

AREAS EXCEEDING RISK REDUCTION STANDARDS IN SOIL

FORMER MACON 2 MGP FACILITY  
 MACON, GEORGIA

DATE: 11/11/04  
 DRAWN BY: J. H. HARRIS  
 CHECKED BY: J. H. HARRIS





CONFIDENTIAL  
NOT  
FOR RELEASE

CONFIDENTIAL  
NOT  
FOR RELEASE

MACON TRANSIT AUTHORITY

MACON TRANSIT AUTHORITY

OCWU/CEA

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)
- 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



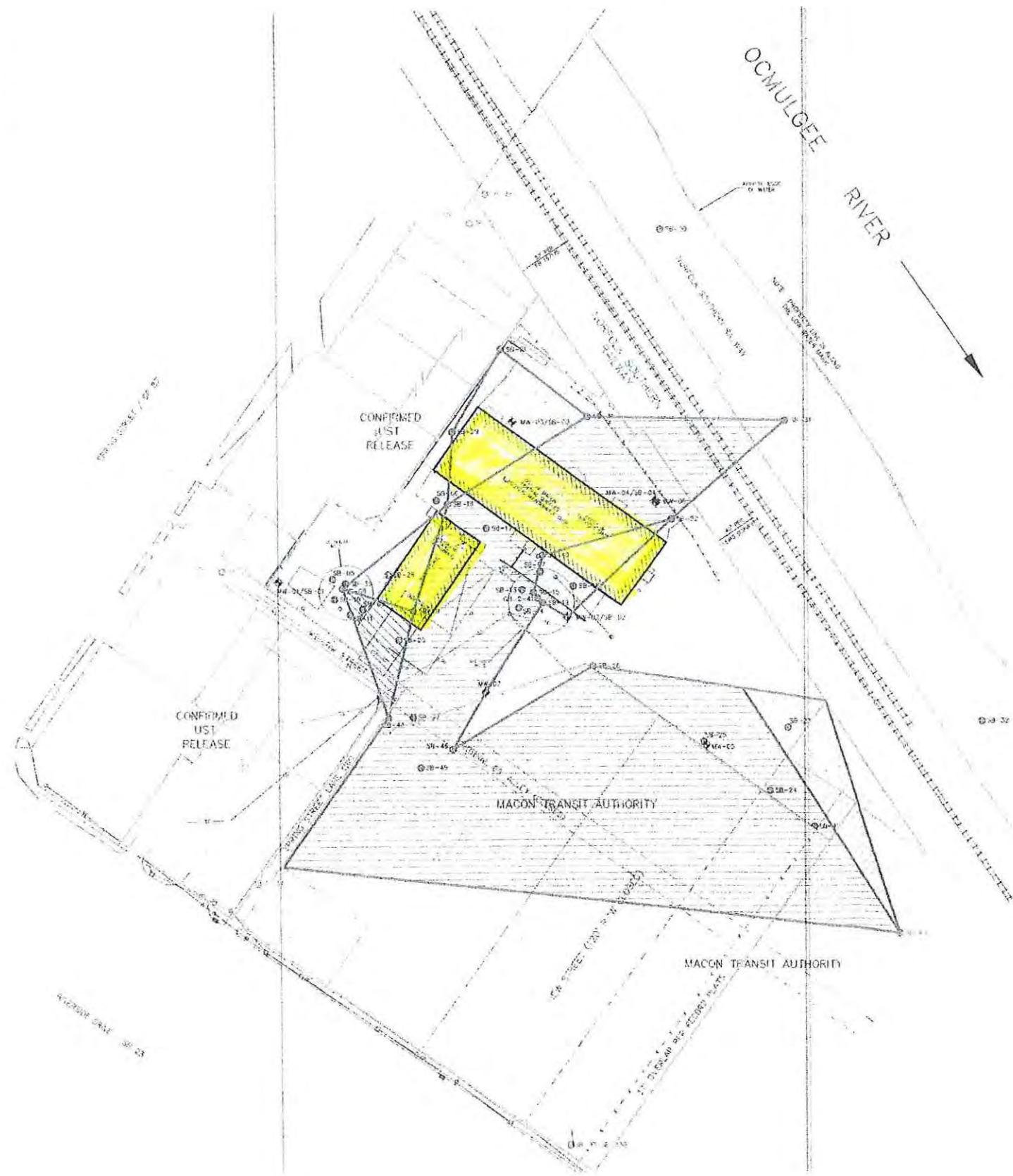
AREAS EXCEEDING RISK REDUCTION STANDARDS IN SOIL

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

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



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



DESIGNED	
DRAWN	TCM
CHECKED	
DATE	02/05/2003
FILENAME	FIGURE POINT
PROJECT NUMBER	1100 2950

# **APPENDIX III**

## **Updated VIRP and EPD Approval Correspondence**





May 22, 2015

Mr. David Hayes  
Response and Remediation Program Georgia Department of  
Natural Resources  
2 Martin Luther King Jr. Drive, SE, Suite 1462 East Atlanta, Georgia 30334

**Subject: Voluntary Investigation and Remediation Plan  
Former Macon 2 MGP Facility Macon, Georgia  
HSI #10692  
GEC Project No.: 130659.241**

Dear Mr. Hayes:

Attached please find one hard copy and two cd copies of the ***Voluntary Investigation and Remediation Plan*** for the Macon 2 MGP Facility located in Macon Georgia.

Should you have any questions, please do not hesitate to contact me. Sincerely,

A handwritten signature in black ink, appearing to read "Thomas E. Driver", is written over a light gray rectangular background.

Thomas E. Driver, P.E.  
President  
Ga. Reg. #17394

Attachments



# **Voluntary Investigation and Remediation Plan**

## **PREPARED FOR**

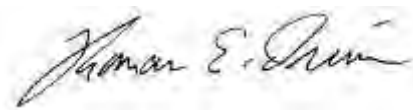
**Former Macon 2 MGP Facility  
Macon, Georgia HSI #10692**

## **PREPARED BY**

**Geotechnical & Environmental Consultants, Inc.  
514 Hillcrest Industrial Boulevard  
Macon, Georgia 31204-3472  
(478) 757-1606**

## **ISSUE DATE**

**May 22, 2015**



---

**Thomas E. Driver, P.E.  
President  
GA Reg. #17394**

## **TABLE OF CONTENTS**

<b>1.0</b>	<b>INTRODUCTION</b>	<b>1</b>
1.1	PURPOSE	1
1.2	QUALIFYING PROPERTIES & PARTICIPANT ELIGIBILITY	2
<b>2.0</b>	<b>SITE BACKGROUND AND HISTORY</b>	<b>2</b>
2.1	MANUFACTURED GAS PLANT SITE HISTORY	2
2.2	SOURCES OF RELEASE	3
2.3	REGULATORY HISTORY	3
2.3.1	Summary of Previous Investigations	3
2.3.1.1	Law Environmental Studies	3
2.3.1.2	Williams Environmental	3
<b>3.0</b>	<b>CONCEPTUAL SITE MODEL</b>	<b>4</b>
3.1	GEOLOGY	4
3.1.1	Regional Geology	4
3.1.2	Site Geology	5
3.2	SITE HYDROLOGY & HYDROGEOLOGY	6
3.3	EXPOSURE ASSESSMENT	7
3.3.1	Potential Receptors	7
3.3.2	Exposure Media and Potential Exposure Pathways	7
3.3.2.1	Surface Soil	8
3.3.2.2	Subsurface Soil	8
3.3.2.3	Groundwater	8
3.3.2.4	Indoor Air	8
<b>4.0</b>	<b>PLANNED INVESTIGATIONS</b>	
4.1	SOIL SAMPLING	8
4.2	GROUNDWATER SAMPLING	10
4.3	VAPOR INTRUSION	11
<b>5.0</b>	<b>TYPE 1 RISK REDUCTION STANDARDS</b>	<b>11</b>
<b>6.0</b>	<b>PROJECT SCHEDULE</b>	<b>12</b>
<b>7.0</b>	<b>REFERENCES</b>	<b>13</b>

## ***APPENDICES***

- A VRP APPLICATION AND CHECKLIST
- B WARRANTY DEEDS
- C FIGURE 1 Site Location Map  
FIGURE 2 GEC Proposed Soil Sampling Location Plan  
Sampling Results from Williams Environmental Services, Inc. CSR dated  
June 17, 2002, Revised September 5, 2003.
- D Compliance Status Investigation Report, Dated June 17, 2002, Revised  
September 5, 2003 by Williams Environmental Services, Inc.

## **1.0 INTRODUCTION**

### **1.1 PURPOSE**

The Macon 2 MGP which is owned by Macon-Bibb County (County) was previously listed on the Hazardous Site Inventory (HSI) as Site #10692. The site was investigated and a Compliance Status Report (CSR) was approved on 12/19/2003 certifying compliance with Type 4 Risk Reduction Standards (RRS) for soil. Groundwater was certified as compliant with Type 1 RRS. EPD also approved a Corrective Action Plan (CAP) for the Macon 2 MGP 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. The "Site" is defined as the area shown within the polygon shaped area depicted on Figure 2 (Appendix C).

For the purpose of this VIRP, only three parcels and two right-of-ways are subject to the Type 4 RRS and consequently restricted to nonresidential uses. These include the following:

Parcel No. OC-98-5J (R071-0316 in tax map included in Appendix B)  
Parcel No. OC-99-4A (R073-0398 in tax map included in Appendix B)  
Parcel No. OC-99-9-4AB (R073-0033 in tax map included in Appendix B)  
Portions of Right-of-Way of Willow Street  
Portions of Right-of-Way of Spring Street Lane

Macon-Bibb County now wishes to modify the current site restrictions to allow residential use of the entire property in order to provide more opportunities for redevelopment while maintaining important limitations in some areas. The extent of contamination has been defined both horizontally and vertically; however Macon-Bibb County is submitting this Voluntary Remediation Program (VRP) Application to describe additional investigation and possible corrective action that will be needed in order to demonstrate the Site's suitability for residential development to a depth of fifteen feet and provide the basis for changing the current property use restrictions.

This VRP application is not designed to revisit the basis for the delisting or previously approved CSR, only to further characterize contamination in the upper fifteen feet of the Site in order to enable a corrective action plan to be developed that will result in remediation to Residential Risk Reduction Standards within these depths at the site.

It is anticipated that once the upper 15 feet of soils within the polygon are

approved for residential use, a Uniform Environmental Covenant (UEC) will be issued and the current Consent Order will be revised to include restrictions below 15 feet, including a corrective action plan which will detail requirements necessary for any excavation or other disturbance of soil below 15 feet in the existing polygon. This corrective action plan will be designed to insure the protection of construction workers.

## **1.2            *QUALIFYING PROPERTIES & PARTICIPANT ELIGIBILITY***

The site meets the eligibility criteria for the VRP. The qualifying properties included in the VRP application are provided on Figure 2 (Appendix C). The properties are all owned by Macon-Bibb County.

The property is not listed on the National Priorities List (NPL), is not currently undergoing response activities required by an order of the Regional Administrator of the United States Environmental Protection Agency (USEPA), or is a facility required to have a permit under Official Code of Georgia (O.C.G.A) Section 12-8-66. There are currently no outstanding liens filed against the property pursuant to O.C.G.A Sections 12-8-96 and 12-13-12. Qualifying the property under the VRP would not violate the terms and conditions under which the division operates and administers remedial programs by delegation or by similar authorization from the USEPA. In addition, qualification of the indicated property would not violate any order, judgment, statute, rule or regulation subject to the enforcement authority of the Director of the EPD. In the event additional affected properties are identified, Macon-Bibb County will notify EPD and revise the VIRP accordingly.

## **2.0            *SITE BACKGROUND AND HISTORY***

### **2.1            *MANUFACTURED GAS PLANT 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 site description and location was addressed in the approved CSR for the site and will not be addressed herein. For the purpose of this evaluation, the VIRP is focused on the upper 15 feet of fill above the former MGP site and the properties included in the CSR. Some samplings up to 18 feet below grade will also be performed to concerns of potential vapor intrusion.

## **2.2            *SOURCES OF RELEASE***

Sources which potentially have or are contributing to a release of a hazardous constituent or substance at the former MGP facility were defined during several investigations at the site and were addressed in the CSR.

As stated in the CSR, in addition to the former MGP structures, fill material used to develop the property 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. The upper fifteen to 18 feet of this fill material will be the subject of this investigation.

## **2.3            *REGULATORY HISTORY***

### **2.3.1        *Summary of Previous Investigations***

#### **2.3.1.1      *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.

#### **2.3.1.2      *Williams Environmental Services Studies***

The Compliance Status Investigation Report (CSR) for the site was initiated by Williams Environmental Services in June of 2002 and the Revised CSR was submitted on September 5, 2003. According to the CSR, thirty-five HSRA regulated substances were detected in soil or groundwater at the site.

The soil contaminants encountered during the site investigation and shown to be within the area of non-residential RRS were compared to Type 1 and/or Type 2 RRS. Type 1 or 2 RRS for soils at the site were exceeded by two semi-volatile organic compounds: benzo(a)pyrene and dibenzo(a,h)anthracene. Type 1 or 2 RRS for soils were exceeded by two inorganics: arsenic and lead.

The area in which residential RRS are exceeded in soil are shown on Figure 2.

The groundwater contaminants encountered at the site were compared to Type 1 RRS. None of the constituents encountered in the groundwater sampling performed at the site were above Type 1 RRS.

### **3.0            *CONCEPTUAL SITE MODEL***

A Conceptual Site Model (CSM) will be developed based on the data obtained during the implementation of the VIRP and prior data obtained during historic documentation from previous reports. The objective of the CSM will be to illustrate current site conditions and describe the processes that control the transport, migration, and possible impacts to potential human ecological receptors. A discussion of the various components to be included in the CSM are included in the sections below.

### **3.1            *GEOLOGY***

#### **3.1.1            *Regional Geology***

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 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).

### **3.1.2      *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 *SITE HYDROLOGY AND HYDROGEOLOGY*

Figure 5 (Site Map and Surface/Storm Water Flow Path) in the Williams CSR (Appendix D) 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 in Appendix D) 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, Appendix D).

Hydrogeology at the Site was evaluated by the use of six monitoring wells (this includes four installed during the SI and two 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, Appendix D) indicate the relationship of the top of groundwater with geologic units at the Site. Monitoring wells MW-1 through MW-5 are all screened within the fill material. 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. 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 March 29, 2001, the top of the water table ranges from 9.5 (MW-01) to 25.61 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. 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.

### **3.3      *EXPOSURE ASSESSMENT***

The former CSR addressed the risk at the site for non-residential use. The investigation and subsequent VRP application will address the potential for residential use on the property. Therefore, the potential exposure will be to a resident living on the property. The investigation to be performed will be on the upper 15 to 18 feet of soil at the site to determine the potential for residential use.

In addition to the evaluation of the site for residential use, the VRP application will address the potential exposure of construction workers at the site and will propose corrective action needed during construction to protect these workers.

#### **3.3.1      *Potential Receptors***

The potential receptors are future residents residing on the property. In addition, potential exposure of construction workers at the site will be addressed.

#### **3.3.2      *Exposure Media and Potential Exposure Pathways***

This section identifies the potential exposure pathways and exposure routes (ingestion, dermal contact, inhalation) for COIs for the property, if applicable, and associated potential receptors.

##### **3.3.2.1      *Surface Soil***

Incidental ingestion and dermal contact with surface soil (i.e., the upper 2 feet of soil) are considered potentially complete pathways for receptors in areas where COI's are present in surface soil.

The potential receptors are future residents on the property.

#### **3.3.2.2        *Subsurface Soil***

The potential receptors are future residents living on the property and construction workers working in soil below the 15 foot depth approved for residential development.

#### **3.3.2.3        *Groundwater***

The prior CSR performed at the site confirmed that the Groundwater meets Type I RRS. No actions or investigations relative to groundwater at the site are proposed.

#### **3.3.2.4        *Indoor Air***

The former Macon 2 MGP site is identified to have a low potential for Vapor Intrusion (VI.) It is recognized that EPD requires consideration of the VI pathway for VRP sites. A technical evaluation of the VI pathway will be performed using the results from the sampling for volatile organic components, including benzene, toluene, ethylbenzene, and xylenes (BTEX) and Naphthalene, which are highly volatile and are often encountered at MGP sites. In addition, vapor samples will be collected at varying depths in two locations on the site as described below.

### **4.0            *PLANNED INVESTIGATIONS***

The following Sections describe planned investigations to fulfill VRP requirements.

#### **4.1            *Soil Sampling***

As discussed, the goal of the VRP is to allow for the development of the site for residential use. To that end, the soil sampling plan is focused on the upper fifteen feet of soil at the site. Based on the CSR (samples shown as SB-xx) reports, the

only samples above the highest Residential RRS for the particular constituents at the site include the following:

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  
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-24 2-4' Benzo(a)pyrene at 2.9 mg/kg  
SB-25 2-4' Benzo(a)pyrene at 11.0 mg/kg  
SB-41 19-24' Benzo(a)pyrene at 2.2 mg/kg  
SB-42 2-4' Benzo(a)pyrene at 5.6 mg/kg  
SB-20 0-2' Arsenic at 31.5 mg/kg  
SB-23 14-19 Lead at 298 mg/kg  
SB-24 8-12' Lead at 338 mg/kg  
SB-27 8-12' Lead at 634 mg/kg  
SB-41 24-29' Lead at 484 mg/kg  
SB-45 10-12' Lead at 425 mg/kg  
SB-45 15-17' Lead at 1070 mg/kg

The test locations are shown on the attached Figure 2 in Appendix C.

Based on our review of the CSR report, and in consideration of the above, the following sampling locations are proposed (see attached Figure 2 in Appendix C for test locations):

GB-1	0-0.5', 0.5'-2'
GB-2	0-0.5', 0.5'-2'
GB-3	0-0.5', 0.5'-2', 8-10', 13-15'
GB-4	0-0.5', 0.5'-2'
GB-5	0-0.5', 0.5'-2', 8-10', 13-15', 18'
GB-6	0-0.5', 0.5'-2'
GB-7	0-0.5', 0.5'-2', 8-10', 13-15', 18'
GB-8	0-0.5', 0.5'-2'
GB-9	0-0.5', 0.5'-2', 8-10', 13-15'
GB-10	0-0.5', 0.5'-2'
GB-11	0-0.5', 0.5'-2', 3-5', 8-10', 13-15'

GB-12	0-0.5', 0.5'-2'
GB-13	0-0.5', 0.5'-2'
GB-14	0-0.5', 0.5'-2', 3-5', 8-10', 13-15'
GB-15	0-0.5', 0.5'-2'
GB-16	0-0.5', 0.5'-2'
GB-17	0-0.5', 0.5'-2'
GB-18	0-0.5', 0.5'-2'
GB-19	0-0.5', 0.5'-2', 8-10', 13-15'
GB-20	0-0.5', 0.5'-2'
GB-21	0-0.5', 0.5'-2', 8-10', 13-15'
GB-22	0-0.5', 0.5'-2'
GB-23	0-0.5', 0.5'-2'
GB-24	0-0.5', 0.5'-2'
GB-25	0-0.5', 0.5'-2'
GB-26	0-0.5', 0.5'-2'
GB-27	0-0.5', 0.5'-2', 3-5', 8-10', 13-15'
GB-28	2-4', 8-10', 13-15'
SB-17	8-10', 13-15'
SB-20	0-2', 2-4'
SB-24	2-4', 4-6', 8-10', 13-15'
SB-25	0-2', 2-4', 4-6', 8-10', 13-15'
SB-41	4-6', 8-10', 13-15'
SB-42	2-4', 4-6', 8-10', 13-15'

All samples will be tested for SVOC's and metals. Test locations GB-5 and GB-7, both located in the area of former Gas Holders from the MGP site will also be sampled and tested for the BTEX constituents.

All soil samples will be collected with a skid steer mounted Geoprobe rig or tracked CME 45 drill rig. All downhole equipment will be decontaminated prior to use and between sampling locations. All samples will be collected by on site environmental professionals using approved sampling methods and procedures and shipped using proper protocols. All analysis will be performed by a laboratory certified in the State of Georgia.

## 4.2 *Groundwater Sampling*

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

## 4.3 *Vapor Intrusion*

Potential vapor intrusion at the site will be addressed by sampling in two locations at the site. The locations are 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 in both of these areas during previous studies at the site at depths of 13 feet or greater. Sampling at depths of 9-10' and 4-5' will be performed using a nested tube methodology. This method consists of the burial of a small diameter Teflon tube at the required depth and the collection of a soil gas sample after a 24 hour stabilization period. The tubing will be buried using either a direct push system or drilled borehole. Clean sand will be used around the sample tip, and the remainder of the borehole will be sealed with a bentonite-water slurry.

A sample of the gas in each sampling point will be collected into a 1 liter stainless steel Summa Canister with a pre-set flow controller set for a 10 minute collection period. The canister will then be sealed and labeled, and submitted to the laboratory for VOC and SVOC analysis.

In addition, Vapor intrusion studies will be performed using the sampling data obtained during the onsite investigations. The vapor evaluation will be performed using the Johnson & Ettinger (1991) Model (JEM) for Subsurface Vapor Intrusion into buildings to assess the potential vapor risk. The JEM estimates indoor air concentrations and associated health risks associated with vapor intrusion based on site specific characteristics.

## 5.0 *Type I Risk Reduction Standards*

The following Type I Risk Reduction Standards in soil are proposed for delineation of contamination at the site. Remediation standards will be proposed in future correspondence.

Constituent	Type 1 RRS (mg/kg)
<b><i>Inorganics</i></b>	
Arsenic	20
Barium	1,000
Beryllium	2
Cadmium	2
Chromium	100
Copper	100
Lead	75
Mercury	0.5
Nickel	50



Vanadium	100
Zinc	100
Total Cyanide	20
Constituent	Type 1 RRS (mg/kg)
<b><i>VOC's</i></b>	
Benzene	0.5
Ethylbenzene	70
Toluene	100
Xylenes	1000
Carbon Disulfide	400
Methylene chloride	0.5
<b><i>SVOC's</i></b>	
Acenaphthene	300
Acenaphthylene	130
Acetophenone	400
Anthracene	500
Benzo(a)anthracene	5
Benzo(a)pyrene	1.64
Benzo(b)fluoranthene	5
Benzo(k)fluoranthene	5
Benzo(g,h,i)perylene	500
Chrysene	5
Dibenz(a,h)Anthracene	2
Fluoranthene	500
Fluorene	360
Indeno(1,2,3-cd)pyrene	5
Naphthalene	100
Phenanthrene	110
Phenol	400
Pyrene	500

## 6.0

### ***PROJECT SCHEDULE***

The site investigation for the Site will be completed within 90 days of acceptance into the VRP Program. Corrective action, if necessary, will be completed and the Site will be certified as meeting Risk Reduction Standards within five years of acceptance into the VRP Program.

## **7.0**

### ***REFERENCES***

Compliance Status Investigation Report, Former Macon 2 MGP Facility, Macon, Ga. Williams Environmental Services, Inc. Preparation Date June 17, 2003, Revised September 5, 2003.

# APPENDICES

# APPENDIX A

# APPENDIX B

# APPENDIX C

# APPENDIX D



# Georgia Department of Natural Resources

## Environmental Protection Division-Land Protection Branch

2 Martin Luther King Jr., Dr., Suite 1054 East, Atlanta, Georgia 30334

(404) 657-8600; Fax (404) 657-0807

Judson H. Turner, Director

June 22, 2015

### VIA E-MAIL AND U.S. MAIL

Macon-Bibb County  
c/o Mayor Robert Reichert  
700 Poplar Street  
P.O. Box 247  
Macon, Georgia 31202-0247

Subject: Voluntary Investigation and Remediation Plan and Application, May 22, 2015  
Macon Former Manufactured Gas Plant 2, former HSI Site No. 10692  
Intersection of Willow Street and Spring Street Lane, Macon-Bibb County  
Parcels R071-0316 (OC98-5J), R073-0033 (OC99-4A), and R073-0398 (OC99-4AB)  
Portions of Right-of-Way of Willow Street and Spring Street Lane

Dear Mayor Reichert:

The Georgia Environmental Protection Division (EPD) has reviewed the Voluntary Investigation and Remediation Plan (VIRP) dated May 22, 2015 submitted pursuant to the Georgia Voluntary Remediation Program Act (the Act). EPD is approving your VIRP, which specifies investigation and remediation consisting of the following:

- Evaluation of exposure pathways
- Soil remediation if necessary
- Institutional controls

Therefore, EPD is accepting Macon-Bibb County as a participant as defined in the Act for the following qualifying properties:

801 Riverside Drive  
Macon, Bibb County  
Tax Parcel: R071-0316 (OC98-5J)

725 Riverside Drive  
Macon, Bibb County  
Tax Parcel: R073-0033 (OC99-4A)

815 Riverside Drive  
Macon, Bibb County  
Tax Parcel: R073-0398 (OC99-4AB)

Portions of Right-of-Way of Willow Street  
and Spring Street Lane

EPD requires that Macon-Bibb County and the professional engineer/geologist specified in the VIRP oversee the implementation of the VIRP in accordance with the provisions, purposes, standards and policies of the Act. EPD may, at its sole discretion, review and comment on documents submitted by Macon-Bibb County. However, failure of EPD to respond to a submittal within any timeframe does not relieve Macon-Bibb County from complying with the specified schedule and the provisions, purposes, standards and policies of the Act. Should Macon-Bibb County fail to comply with the schedule as provided by the Act, the VIRP, and this letter, EPD may terminate enrollment of the participant and the qualifying properties from the Voluntary Remediation Program.

The first semi-annual progress report is due by December 22, 2015, and the final Compliance Status Report is due by June 22, 2020. If you have any questions regarding this matter, please contact David Hayes of the Response and Remediation Program at 404-656-3851.

Sincerely,

A handwritten signature in black ink, appearing to read "Charles D. Williams", written in a cursive style.

Charles D. Williams  
Program Manager  
Response and Remediation Program

c: Tom Driver (via email)  
Jim Ussery (via email)  
Andy Welch (via email)

File: 259-0104

# **APPENDIX IV**

## **Soil Management Plan**

**SOIL MANAGEMENT PLAN  
FORMER MACON 2 MGP FACILITY  
MACON, BIBB COUNTY, GEORGIA  
GEC JOB NO. 130659.241**

**PREPARED FOR**

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

**SUBMITTED TO**

**MS. ANTONIA BEAVERS  
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**

**PREPARED BY**

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

**AUGUST 31, 2017**

## Table of Contents

---

1.0 INTRODUCTION .....	1
2.0 SITE INFORMATION .....	1
3.0 SITE BACKGROUND .....	1
4.0 SOIL AND GROUNDWATER IMPACTS WITHIN THE RUTZ.....	2
5.0 PURPOSE.....	3
6.0 PROJECT PERSONELL .....	3
7.0 ENVIRONMENTAL ACTIVITIES FOR EXCAVATION, CONFIRMATION SAMPLING, AND BACKFILLING .....	4
8.0 SITE CONROL MEASURES .....	5
9.0 FINAL REPORT .....	5

## List of Figures

---

### **Appendix A**

Figure 1. Site Location Map

Figure 2. Site Plan

Figure 3. Soil Management Map

## **Soil Management Plan**

---

### **1.0 INTRODUCTION**

This Soil Management Plan (SMP) has been prepared to provide procedures to guide soil management during excavation, confirmation sampling, disposal, and backfilling operations at the Former Macon 2 Manufactured Gas Plant (MGP 2) facility (Hazardous Site Inventory [HSI] #10692) in Macon, Georgia. A Site Location Map is provided as Figure 1, in Appendix A.

### **2.0 SITE INFORMATION**

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.

The site previously operated as an 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 except for public utilities, asphalt roadways and the concrete foundations of the former structures. The majority of the site is surfaced with grass. Property utilizations near the site are primarily commercial. A Site Map is Provided as Figure 2, in Appendix A.

### **3.0 SITE 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. The Georgia EPD approved an “Area of Compliance for Type 4 Risk Reduction Standards in Soil,” as identified in the CAP, prepared by RETEC Group, Inc., dated October 5, 2008.

Due to interest in mixed residential and commercial redevelopment of the property, Macon-Bibb County elected to modify the existing site restrictions to allow residential use of the site. To that end, Macon-Bibb County submitted an updated VRP Application (December 2014), which included additional investigation and possible corrective action of soils from the surface to 15-feet below ground surface (bgs). The “Area of Compliance for Type 4 Risk Reduction Standards in Soil” was subsequently revised to the “Residential Use Target Zone (RUTZ), and is defined by a polygon shaped area depicted on the Site Map presented as Figure 2, in Appendix A.

Per EPD approval, Type 2 soil RRS are being utilized to address soil contamination within the RUTZ, which will allow for redevelopment under residential use standards. The EPD has also approved revision to the proposed depths of excavation, which will address soil contamination to a maximum depth of 15-feet bgs, rather than the previously approved 5-feet bgs.

## Soil Management Plan

### 4.0 SOIL AND GROUNDWATER IMPACTS WITHIN THE RUTZ

Soil: Excavation and disposal of soils are proposed at 11 locations (SB-17, SB-20, SB-24, SB-25, SB-27, SB-28, SB-42, SB-45, GB-11, GB-14, and GB-27), within the RUTZ. Excavation of varying soil intervals will be conducted, where arsenic, lead, and PAH concentrations were detected above Type 1 and/or Type 2 RRS, in the upper 15-foot interval.

Details regarding the location (Boring ID), proposed excavation depths, and contaminant of interest (COI) are provided in the table below:

Table 1.

COI	Boring ID	Maximum Depth (feet)	Analytical Result	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Proposed Action
Arsenic	GB-27	0-0.5	74.9	20.0	6.08	excavation of soil from surface to 0.5-feet
	GB-14	8-10	25	20.0	6.08	excavation of soil from 8 to 10-feet
	SB-20	0-2	31.5	20.0	6.08	excavation of soil from the surface to 2-feet
Lead	GB-14	0.5-2	425	75/204	400	excavation of soil 0.5 to 2-feet
	GB-11	0.5-2	465	75/204	400	excavation of soil 0.5 to 2-feet
	GB-14	3-5	720	75/204	400	excavation of soil from 3 to 5-feet
	SB-25	2-4	1800	75/204	400	excavation of soil from 2 to 4-feet
	SB-45	10-12	425	75/204	400	excavation of soil from 10 to 12-feet
	SB-27	8-12	634	75/204	400	excavation of soil from 8 to 12-feet
	GB-28	13-15	950	75/204	400	excavation of soil from 13 to 15-feet
Benzo(a)anthracene	SB-17	13-15	13	5.00	12.5	excavation of soil from 13 to 15-feet
Benzo(a)pyrene	SB-17	13-15	10	1.64	1.25	excavation of soil from 13 to 15-feet
	SB-24	2-4	2.9	1.64	1.25	excavation of soil from 2 to 4-feet
	SB-24	4-6	1.9	1.64	1.25	excavation of soil from 4 to 6-feet
	SB-25	2-4	11.0	1.64	1.25	excavation of soil from 2 to 4-feet
	SB-42	2-4	5.6	1.64	1.25	excavation of soil from 2 to 4-feet
Benzo(b)fluoranthene	SB-17	13-15	13	5	12.5	excavation of soil from 13 to 15-feet

Notes: PCL: Protective Concentration Level; RRS: Risk Reduction Standards

A Soil Management Map, which identifies the areas proposed for excavation is provided as Figure 3, in Appendix A.

Additionally, soil concentrations exceeded applicable RRS levels, at depths greater than 15-feet below ground surface, in four locations (SB-14, SB-17, SB-41, and SB-45). Excavation and disposal activities will not be completed in these areas, as proposed construction activities will not disturb soils at depths greater than 15-feet below ground surface. Per EPD approval, excavation of soils in these areas is not required, due to the depth of the soils (no exposure pathway) and prior leachability studies, which confirm they do not represent a threat to health or the environment.



## Soil Management Plan

---

Details regarding the location (Boring ID), depths of contamination, and COI are provided in the table below:

Table 2.

COI	Boring ID	Maximum Depth (feet)	Analytical Result	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)
Lead	SB-45	15-17	1070	75/204	400
	SB-41	24-29	484	75/204	400
Benzo(a)pyrene	SB-17	16-20	5.0	1.64	1.25
	SB-41	19-24	2.2	1.64	1.25
	SB-14	16-20	6.8	1.64	1.25
	SB-14	24-28	10.0	1.64	1.25
Benzo(b)fluoranthene	SB-17	16-20	2.3	2	1.25
Dibenzo(a,h)anthracene	SB-14	16-20	3.5	2	1.25
	SB-14	24-28	4.2	2	1.25

Notes: PCL: Protective Concentration Level; RRS: Risk Reduction Standards

An amendment to this Soil Management Plan will be prepared, and construction worker oversight/air monitoring will be conducted if soils greater than 15-feet below ground surface will be disturbed during proposed construction activities.

Groundwater: Groundwater contamination has not been encountered above Type 1 RRS, and proposed construction activities are not anticipated to encounter groundwater. Therefore, no groundwater recovery or disposal is expected.

### 5.0 PURPOSE

This SMP provides procedures for the effective handling of soils, during, site excavation, confirmation sampling, and backfilling activities.

### 6.0 PROJECT PERSONELL

#### Geotechnical and Environmental Consultants, Inc. (GEC)

The SMP project manager and field coordinator for this project is:

- Carrie Holderfield (478-757-1606)

#### Georgia Environmental Protection Division

- Ms. Antonia Beavers (404-657-0487)
- Mr. Kevin Collins (404-657-8600)

## **Soil Management Plan**

---

### **Field Responsibilities and Recordkeeping - GEC**

GEC field personnel will be responsible for:

- Conducting daily health and safety meetings;
- Establishing excavation boundaries;
- Directing and monitoring excavation activities;
- Conducting field screening, both visually and utilizing appropriate monitoring equipment;
- Collection of confirmation samples and submission of samples for laboratory analyses;
- Collection of photographic documentation;
- Collection of soil sample locations utilizing GPS coordinates; and
- Tracking of soil disposal transportation and manifests.

All GEC personnel working at the Site will have current HAZWOPER training.

### **7.0 ENVIRONMENTAL ACTIVITIES FOR EXCAVATION, CONFIRMATION SAMPLING, AND BACKFILLING**

The following presents the activities that will be performed prior to, during, and following the excavation, confirmation sampling, and backfilling activities:

#### **Health and Safety Plan (HSP)**

GEC will prepare a limited site-specific HSP to protect site workers and subcontractors from chemicals that might be encountered during the excavation, sampling, disposal, and backfilling activities. All field personnel will review and sign the HSP, prior to commencing field activities.

#### **Soil Excavation, Transport, and Disposal**

##### Soil Excavation

Corrective action for soils will include excavation and off-site disposal at an authorized landfill. Initial excavation will extend 5-feet laterally in each direction from the original soil sample location, and vertically to the depth identified in Table 1, of Section 4.0.

Following excavation of the impacted soils, confirmatory sampling as described below will be performed to confirm that the base and sidewalls of the excavations do not exhibit impacts exceeding Type 1 and/or Type 2 RRS. If confirmation sampling shows impacts remaining above Type 1 and/or Type 2 RRS, additional localized excavation will be conducted, as necessary, to remove the impacted soils. GEC will measure and verify the excavation depth of each area during the removal of the contaminated soil.

Confirmatory soil sampling will be performed on any excavation completed for corrective action purposes at the property. Confirmatory soil samples will be collected and analyzed for appropriate constituents of concern, at the following intervals:

- One sample tested for every 20 linear feet of excavation sidewall
- The sampling interval in the base of an excavation is proposed for one sample between 500 and 1,000 sf.

## Soil Management Plan

Note: A minimum of five verification samples will be required for each excavation, including one sample per sidewall (total of 4 samples) and one sample per floor area. Additionally, for each 20-linear feet of sidewall sample area, one sample should be collected for every five feet of depth within the zone of contamination.

The excavated material will be stockpiled on-site pending confirmatory and characterization sample results. The stockpiled material will be placed in covered rolloffs or on, and covered by, polyethylene sheeting while on-site. Additionally, appropriate best management practices will be placed around the stockpile(s) and excavation(s) to prevent erosion or runoff from the stockpile(s) or excavation(s).

Following receipt of confirmatory sample results indicating that all soils impacted above Type 1 and/or Type 2 RRS have been removed, the stockpiled material will be transported in an appropriate container, to an approved disposal facility. Depending upon client requirements, the on-site excavations may then be backfilled with clean material obtained from off-site or other areas within the RUTZ. In the event that backfill material is obtained from an off-site source; the materials will be sampled to verify that the fill material complies with Type 1 and/or Type 2 RRS.

GEC anticipates that approximately 53.47 tons of contaminated soil will be generated during the remediation activities, as presented in the following Excavation Summary table:

COI	Boring ID	Analytical Result (mg/kg)	Depth of Excavation (feet)	Approximate Excavation Dimensions (feet)	Total Volume of Excavated Soils (ft <sup>3</sup> )
Lead	GB-11	465	0.5-2	5 x 5 x 1.5	37.5
Lead	GB-14	425	0.5-2	5 x 5 x 1.5	37.5
Lead	GB-14	720	3-5	5 x 5 x 2	50
Arsenic	GB-14	25	8-10	5 x 5 x 2	50
Arsenic	GB-27	74.9	0-0.5	5 x 5 x 0.5	12.5
Lead	GB-28	950	13-15	5 x 5 x 2	50
Benzo(a)anthracene	SB-17	13	13-15	5 x 5 x 2	50
Benzo(a)pyrene	SB-17	10	13-15		
Benzo(b)fluoranthene	SB-17	13	13-15		
Arsenic	SB-20	31.5	0-2	5 x 5 x 2	50
Benzo(a)pyrene	SB-24	2.9	2-4	5 x 5 x 2	50
Benzo(a)pyrene	SB-24	1.9	4-6	5 x 5 x 2	50
Lead	SB-25	1800	2-4	5 x 5 x 2	50
Benzo(a)pyrene	SB-25	11.0	2-4		
Lead	SB-27	634	8-12	5 x 5 x 4	100
Benzo(a)pyrene	SB-42	5.6	2-4	5 x 5 x 2	50
Lead	SB-45	425	10-12	5 x 5 x 2	50
<b>Total Volume of Soil (ft<sup>3</sup>)</b>					<b>687.50</b>
<b>Total Volume of Soil (yd<sup>3</sup>)</b>					<b>25.46</b>
<b>Total Volume of Soil with Soil Expansion (yd<sup>3</sup>)</b>					<b>35.65</b>
<b>Total Estimated Volume of Soil with Expansion (tons)</b>					<b>53.47</b>

## **Soil Management Plan**

---

Any remediation/excavation will be performed in compliance with applicable OSHA regulations, and in accordance with a site-specific HSP. Any soil and/or source material generated during corrective action would be managed in such a way to (i) prevent contamination of the surrounding environment (soil, water, and air); (ii) comply with federal, state, and local laws; and (iii) protect personnel.

### **Sample Handling**

All sampling will be conducted in accordance with EPD Region 4 Field Branches Quality System and Technical procedures (FBQSTP), and protocols intended to obviate the potential for cross-contamination. As such, sampling equipment will be thoroughly decontaminated prior to use, and the appropriate documentation will be maintained. Samples will be packaged in laboratory-provided containers with preservative appropriate to the analytical methods to be used, and shipped overnight via priority carrier, along with the appropriate Chain-of-Custody documentation.

### **Soil Transportation**

The soil transport vehicles or rollofs will be equipped with plastic sheeting and will be loaded using a standard front-end loader. After the soil is loaded, the soil will be covered with secured tarps according to applicable Department of Transportation standards to limit soil from spilling during transport to the disposal facility.

## **8.0 SITE CONTROL MEASURES**

Once excavation has begun, the following activities will be performed.

### Dust Control

GEC personnel will monitor excavation operations for fugitive dust and take measures, as necessary, such as the application of water or a change in operations or equipment in order to reduce the potential of dust leaving the site.

### Field Instruments

A photoionization detector (PID) will be utilized to measure organic vapors, explosive, and oxygen levels during field activities.

### Groundwater Control

The excavation is unlikely to encounter groundwater. If groundwater is encountered during excavation or backfilling activities, then groundwater will be pumped into a holding tank, characterized for disposal, and removed from the site by an appropriate disposal company based on its characterization.

### Notification and Identification of Unknown Environmental Features

If unknown environmental features are encountered and additional investigations or remediation are required, GEC will contact the client to obtain approval to conduct a limited excavation to identify the feature. If the unknown environmental feature is stained and/or odorous soil or other unregulated feature, the feature will be addressed according to standard operating procedures.

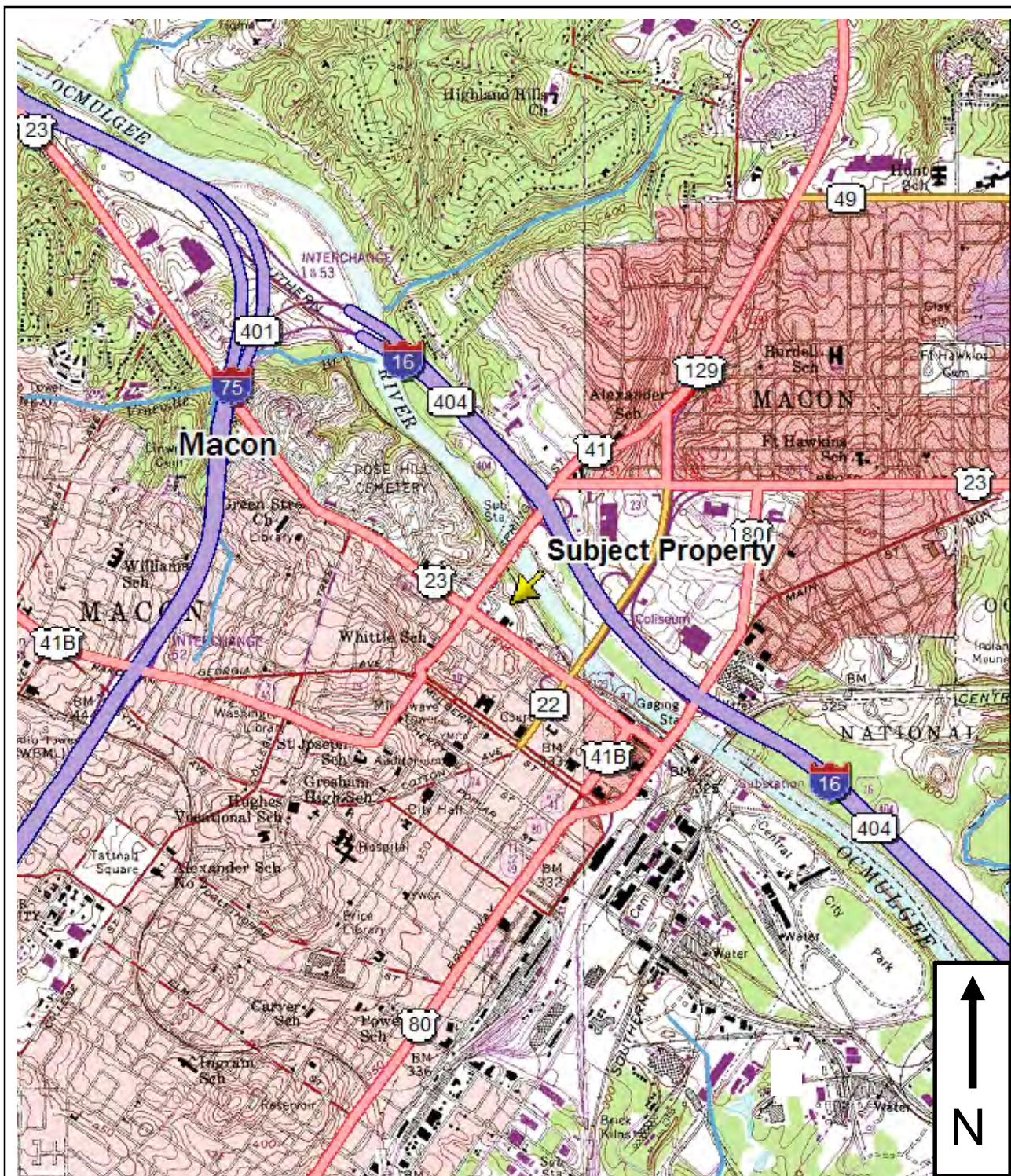
### **9.0 REPORTING**

Following completion of the excavation, confirmation sampling, and backfilling activities, GEC will prepare a Remedial Action Report, which includes a summary of the remedial activities.

## **APPENDIX A**

### **Figures**





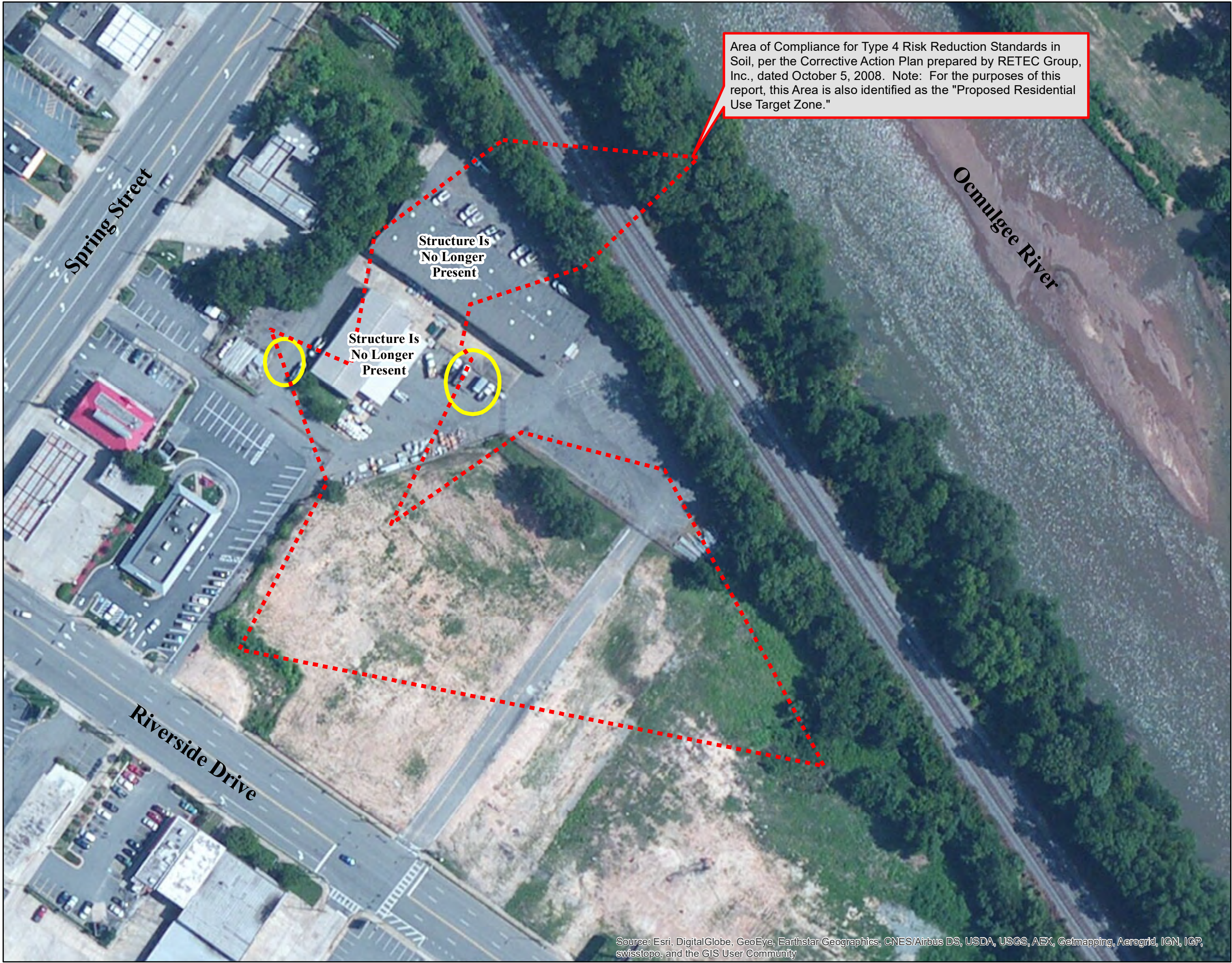
**Figure 1**  
**Site Location Map**  
**Former Macon 2 MGP Facility**  
**Macon, Bibb County, Georgia**  
**GEC Project No. 130659.241**  
**Approximate Scale: 1" = 2,000'**  
**Source: Macon West, GA Quadrangle (1985)**

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

514 Hillcrest Industrial Boulevard, Macon, GA 31204 • Phone: (478) 757-1606 • Fax: (478) 757-1608

5031 Milgen Court, Columbus, GA 31907 • Phone: (706) 569-0008 • Fax: (706) 569-0940





**Figure 2. Site Map**

Former Macon 2 MGP Facility  
Macon, Bibb County, Georgia

GEC Project No. 130659.241

**Prepared For:**





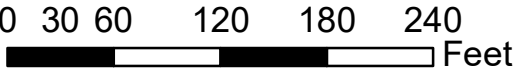
Macon-Bibb County Georgia

**Prepared By:**

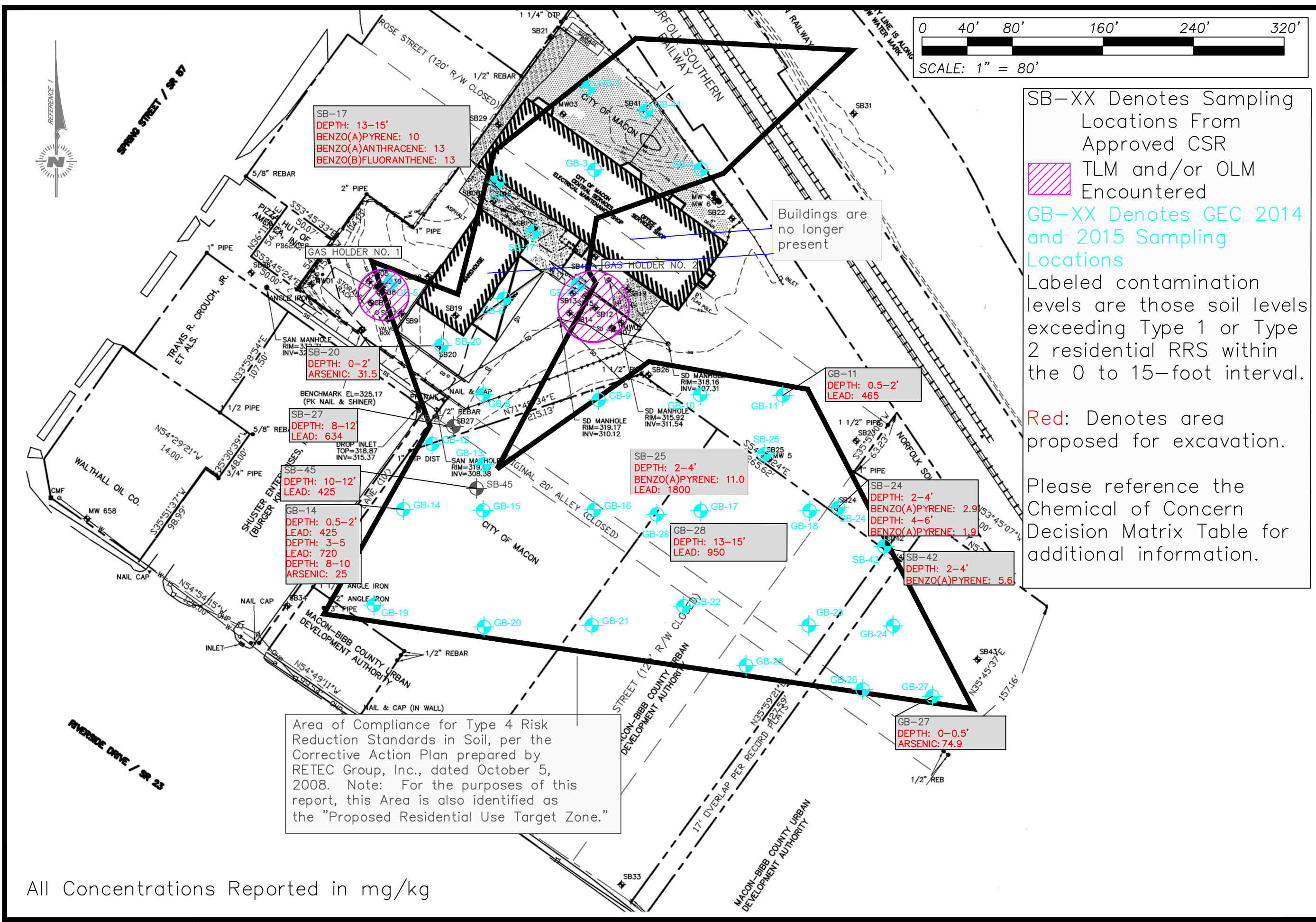


Geotechnical and Environmental  
Consultants, Inc.  
514 Hillcrest Industrial Blvd  
Macon, Ga

- Legend**
-  Proposed Residential Use Target Zone
  -  Former Gas Holders





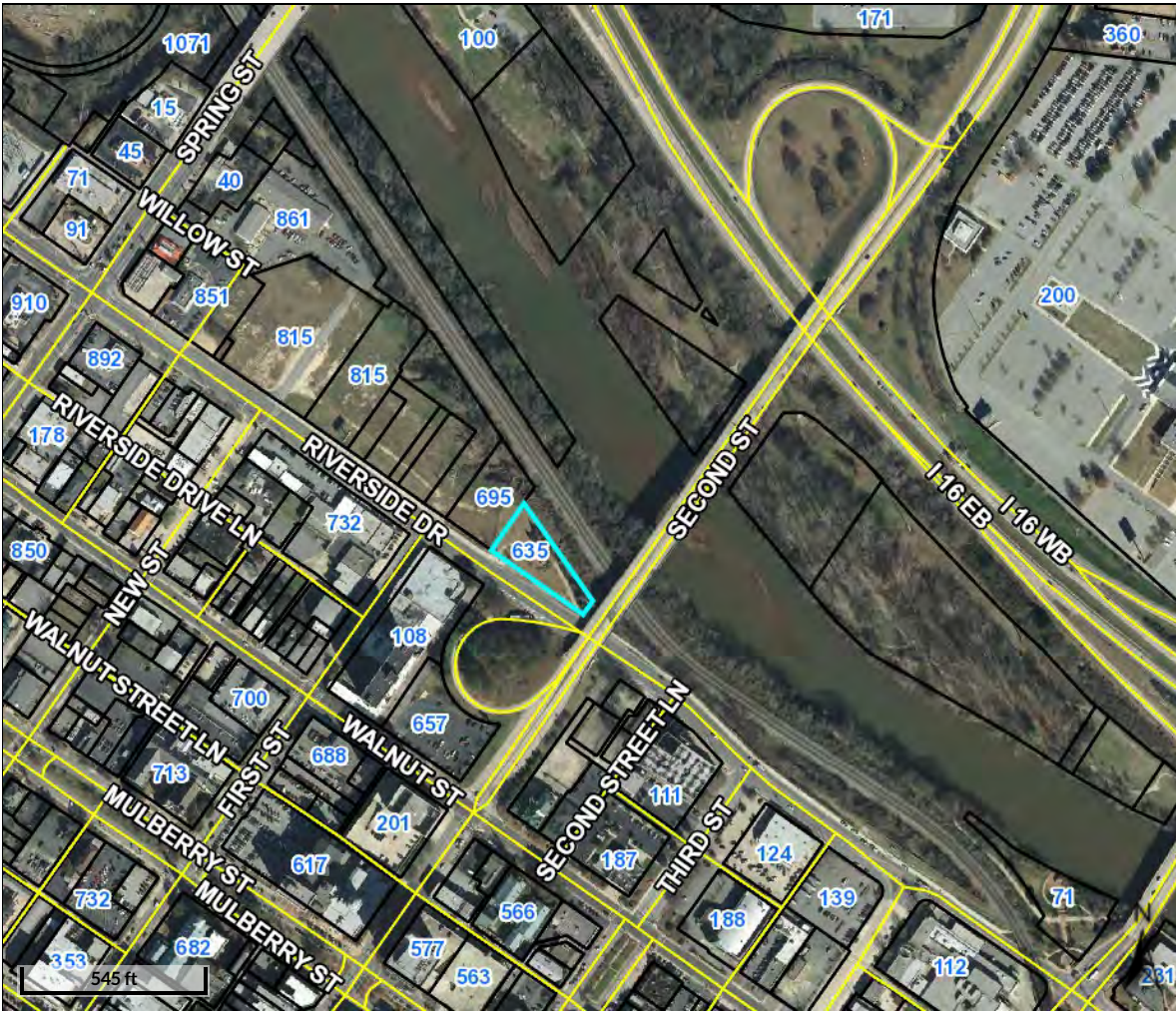


All Concentrations Reported in mg/kg

# **APPENDIX V**

## **Bibb County Tax Assessor Maps and Reports**





#### Overview



#### Legend

- Parcels
- Address Numbers
- Roads

<b>Parcel ID</b>	R0730040OC102 1A	<b>Owner</b>	MACON-BIBB CO URBAN DEV	<b>Last 2 Sales</b>			
<b>Class Code</b>	Exempt		AUTH	<b>Date</b>	<b>Price</b>	<b>Reason</b>	<b>Qual</b>
<b>Taxing</b>	RENAISSANCE		635 RIVERSIDE DR	11/20/2006	\$1	UQ	U
<b>District</b>	TAD/DOWNTOWN BID		MACON GA 31211	7/1/2003	\$367600	UQ	U
	RENAISSANCE	<b>Physical</b>	635 RIVERSIDE DR				
	TAD/DOWNTOWN BID	<b>Address</b>					
<b>Acres</b>	0.73	<b>Assessed</b>	Value \$185164				
		<b>Value</b>					

(Note: Not to be used on legal documents)

Date created: 10/30/2018

Last Data Uploaded: 10/30/2018 12:43:33 AM

Developed by  **Schneider**  
GEOSPATIAL



## Bibb County, GA

## Summary

Parcel Number	R073-0040
Location Address	635 RIVERSIDE DR
Legal Description	N/A
Class	E1-Exempt
	(Note: This is for tax purposes only. Not to be used for zoning.)
Zoning	CBD-1
Tax District	RENAISSANCE TAD/DOWNTOWN BID (District 18)
Millage Rate	N/A
Acres	0.73
Neighborhood	3111 (3111)
Homestead Exemption	No (S0)
Landlot/District	N/A

[View Map](#)

## Owner

MACON-BIBB CO URBAN DEV AUTH  
635 RIVERSIDE DR  
MACON, GA 31211

## Land

Type	Description	Calculation Method	Square Footage	Frontage	Depth	Acres	Lots
Exempt	3101	Square Feet	31,652	193	164	0.73	0

## Permits

Permit Date	Permit Number	Type	Description
10/13/2003	C 04174	NEW CONSTRUCT	BLDG PERMIT 2004
10/01/1991	C 6745	NEW CONSTRUCT	ALTERATION

## Sales

Sale Date	Deed Book / Page	Plat Book / Page	Sale Price	Reason	Grantor	Grantee
11/20/2006	0723200125		\$1	Un-qualified		MACON-BIBB CO URBAN DEV
7/1/2003	0582100115		\$367,600	Un-qualified		

## Valuation

	2018	2017	2016	2015
Previous Value	\$185,164	\$185,164	\$185,164	\$37,982
Land Value	\$185,164	\$185,164	\$185,164	\$185,164
+ Improvement Value	\$0	\$0	\$0	\$0
+ Accessory Value	\$0	\$0	\$0	\$0
= Current Value	\$185,164	\$185,164	\$185,164	\$185,164

**No data available for the following modules:** Rural Land, Conservation Use Rural Land, Residential Improvement Information, Commercial Improvement Information, Mobile Homes, Accessory Information, Prebill Mobile Homes, Photos, Sketches.

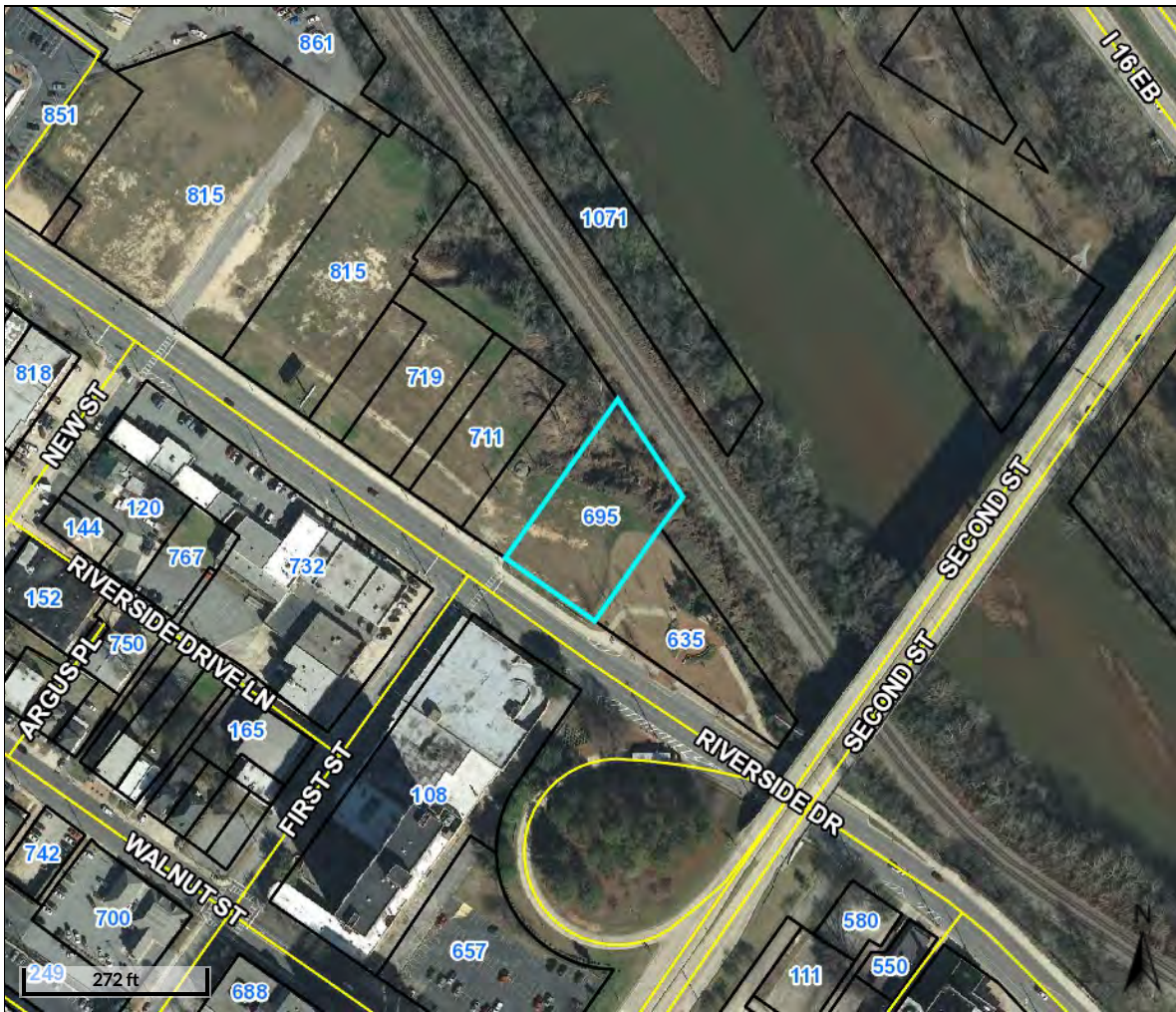
The Bibb County Assessor makes every effort to produce the most accurate information possible. No warranties, expressed or implied are provided for the data herein, its use or interpretation. The assessment information is from the last certified tax roll. All other data is subject to change.

Last Data Upload: 10/30/2018 12:43:33 AM

Developed by








## Overview



### Legend

- ☐ Parcels  
 Address Numbers  
 Roads

Parcel ID	R0730039OC 102 2A
Class Code	Exempt
Taxing	RENAISSANCE TAD/DOWNTOWN
District	BID
	RENAISSANCE TAD/DOWNTOWN
	BID
Acres	0.85

Owner	MACON-BIBB CO URBAN DEV AUTH 815 RIVERSIDE DR MACON GA 312012629
Physical Address	695 RIVERSIDE DR
Assessed Value	Value \$333405

Date	Price	Reason	Qual
4/9/1999	0	CP	U
n/a	0	n/a	n/a

(Note: Not to be used on legal documents)

Date created: 10/30/2018

Last Data Uploaded: 10/30/2018 12:43:33 AM

Developed by  **Schneider**  
GEOSPATIAL



## Bibb County, GA

## Summary

**Parcel Number** R073-0039  
**Location Address** 695 RIVERSIDE DR  
**Legal Description** N/A  
**Class** E1-Exempt  
 (Note: This is for tax purposes only. Not to be used for zoning.)  
**Zoning** CBD-1  
**Tax District** RENAISSANCE TAD/DOWNTOWN BID (District 18)  
**Millage Rate** N/A  
**Acres** 0.85  
**Neighborhood** Major Strip, 3100, Acres (3121)  
**Homestead Exemption** No (S0)  
**Landlot/District** N/A

[View Map](#)


## Owner

MACON-BIBB CO URBAN DEV AUTH  
 815 RIVERSIDE DR  
 MACON, GA 31201-2629

## Land

Type	Description	Calculation Method	Square Footage	Frontage	Depth	Acres	Lots
Exempt	3101	Square Feet	37,045	155	239	0.85	0

## Permits

Permit Date	Permit Number	Type	Description
11/19/2010	02917	Building Permits	
06/04/2010	99999	Fire Damage	2010: NVC GP 10/06/10....TS 10/25/10.
08/01/1992	C 1925	NEW CONSTRUCT	ALTERATIONS

## Sales

Sale Date	Deed Book / Page	Plat Book / Page	Sale Price	Reason	Grantor	Grantee
4/9/1999	4412 283	35 70	\$0	CONVERSION OF PAST SALES	BARNES, A E III	MACON BIBB COUNTY URBAN DEV

## Valuation

	2018	2017	2016	2015
Previous Value	\$333,405	\$333,405	\$333,405	\$333,405
Land Value	\$333,405	\$333,405	\$333,405	\$333,405
+ Improvement Value	\$0	\$0	\$0	\$0
+ Accessory Value	\$0	\$0	\$0	\$0
= Current Value	\$333,405	\$333,405	\$333,405	\$333,405

## Photos



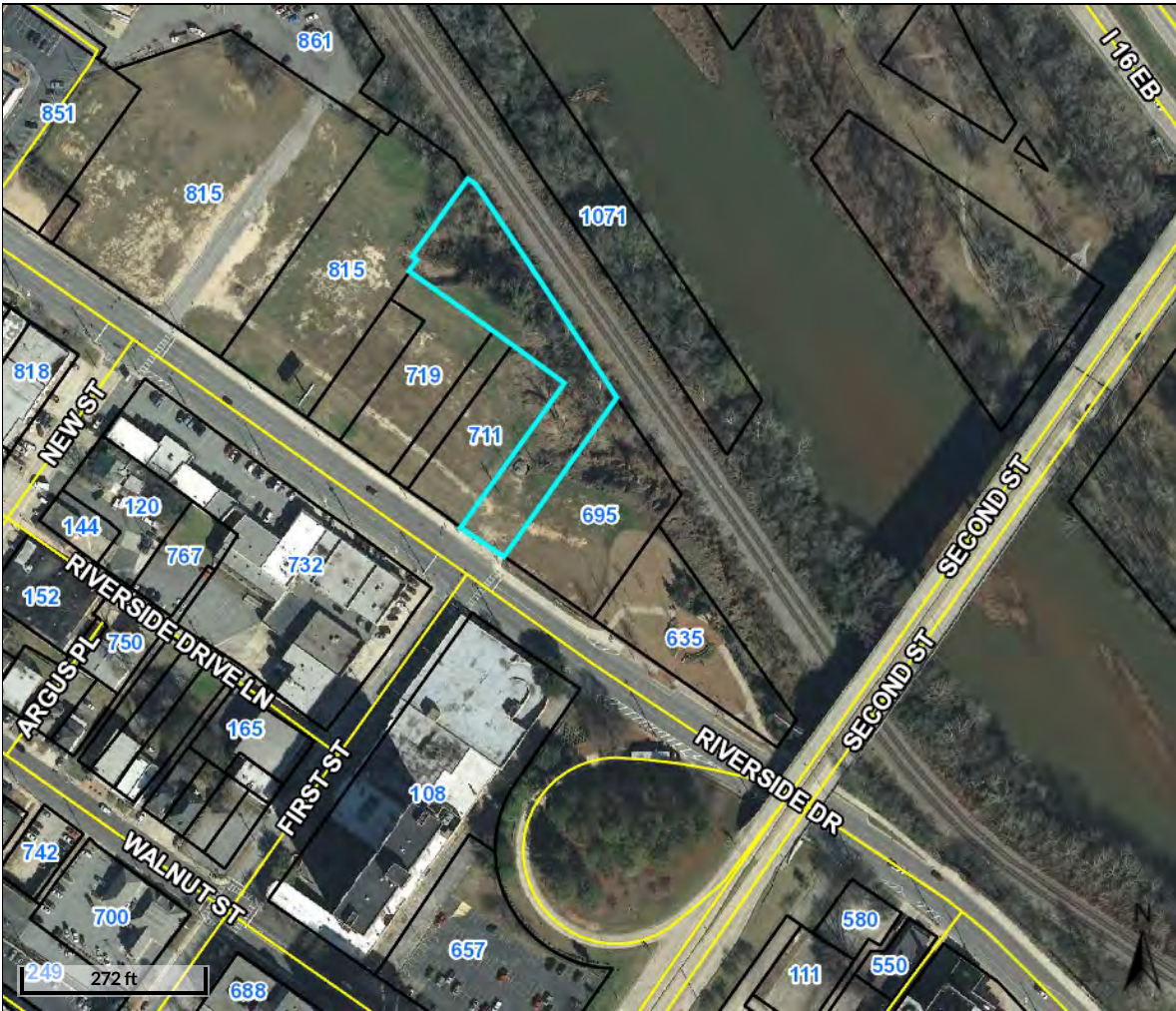


**No data available for the following modules:** Rural Land, Conservation Use Rural Land, Residential Improvement Information, Commercial Improvement Information, Mobile Homes, Accessory Information, Prebill Mobile Homes, Sketches.

The Bibb County Assessor makes every effort to produce the most accurate information possible. No warranties, expressed or implied are provided for the data herein, its use or interpretation. The assessment information is from the last certified tax roll. All other data is subject to change.

Last Data Upload: 10/30/2018 12:43:33 AM

Developed by  
 Schneider  
GEOSPATIAL



Overview



Legend

- Parcels
- Address Numbers
- Roads

Parcel ID R0730038OC99 7B  
Class Code Exempt  
Taxing RENAISSANCE TAD/DOWNTOWN  
District BID  
RENAISSANCE TAD/DOWNTOWN  
BID  
Acres 0.59

Owner MACON WATER AUTHORITY  
790 SECOND ST  
MACON GA 31201  
Physical Address FIRST ST  
Assessed Value Value \$52668

Last 2 Sales			
Date	Price	Reason	Qual
1/27/2004	\$1	UQ	U
n/a	0	n/a	n/a

(Note: Not to be used on legal documents)

Date created: 10/30/2018  
Last Data Uploaded: 10/30/2018 12:43:33 AM

Developed by Schneider  
GEOSPATIAL



## Bibb County, GA

## Summary

**Parcel Number** R073-0038  
**Location Address** FIRST ST  
**Legal Description** N/A  
**Class** E1-Exempt  
 (Note: This is for tax purposes only. Not to be used for zoning.)  
**Zoning** CBD-2  
**Tax District** RENAISSANCE TAD/DOWNTOWN BID (District 18)  
**Millage Rate** N/A  
**Acres** 0.59  
**Neighborhood** Secondary Strip, 3100, Acres (3122)  
**Homestead Exemption** No (S0)  
**Landlot/District** N/A

[View Map](#)


## Owner

MACON WATER AUTHORITY  
 790 SECOND ST  
 MACON, GA 31201

## Land

Type	Description	Calculation Method	Square Footage	Frontage	Depth	Acres	Lots
Exempt	3106	Square Feet	16,800	60	280	0.39	0
Exempt	3106	Square Feet	8,505	81	105	0.2	0

## Sales

Sale Date	Deed Book / Page	Plat Book / Page	Sale Price	Reason	Grantor	Grantee
1/27/2004	0608900107		\$1	Un-qualified		MACON BIBB COUNTY URBAN DEV

## Valuation

	2018	2017	2016	2015
Previous Value	\$52,668	\$52,668	\$52,668	\$52,668
Land Value	\$52,668	\$52,668	\$52,668	\$52,668
+ Improvement Value	\$0	\$0	\$0	\$0
+ Accessory Value	\$0	\$0	\$0	\$0
= Current Value	\$52,668	\$52,668	\$52,668	\$52,668

## Photos



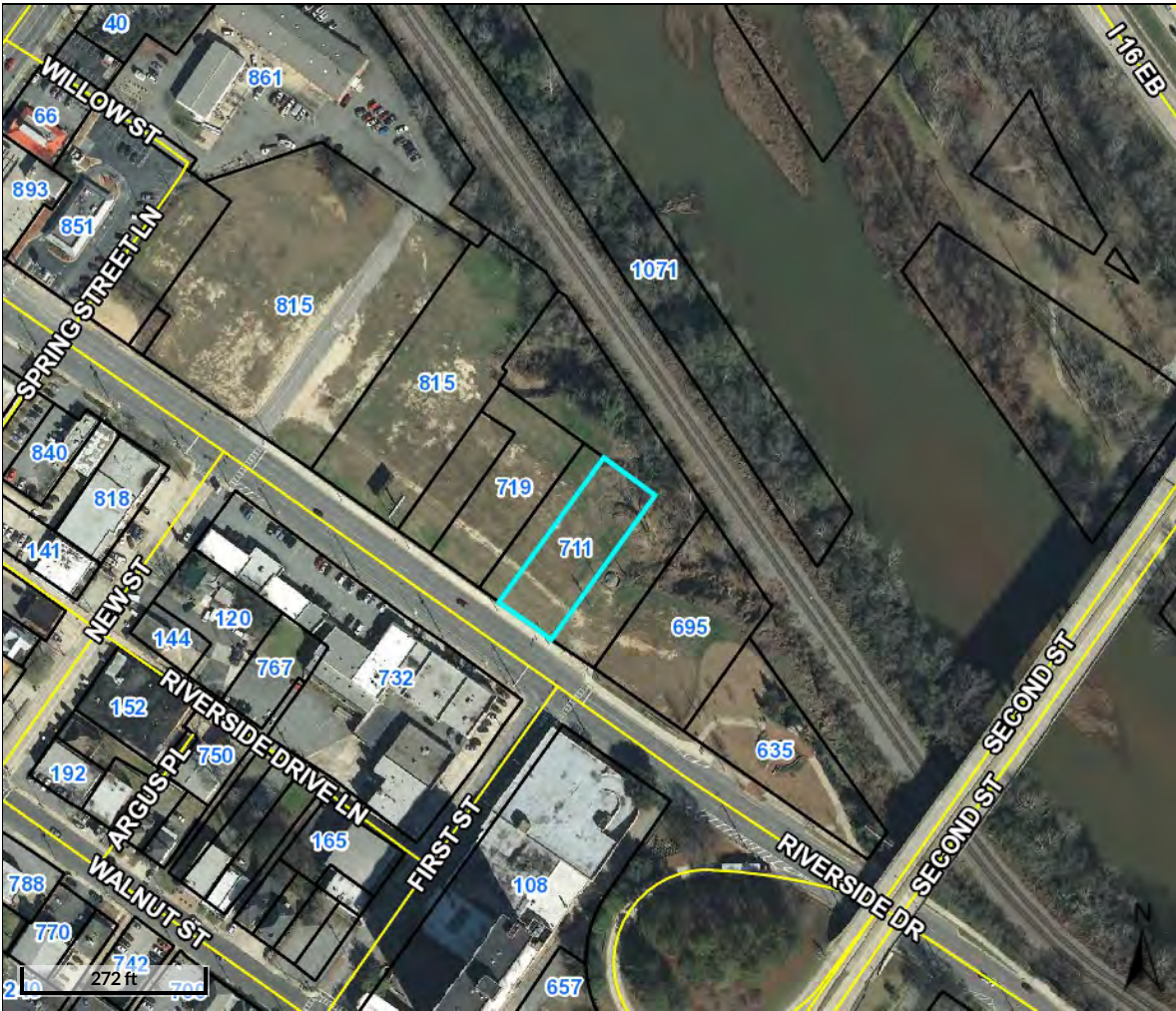
No data available for the following modules: Rural Land, Conservation Use Rural Land, Residential Improvement Information, Commercial Improvement Information, Mobile Homes, Accessory Information, Prebill Mobile Homes, Permits, Sketches.

The Bibb County Assessor makes every effort to produce the most accurate information possible. No warranties, expressed or implied are provided for the data herein, its use or interpretation. The assessment information is from the last certified tax roll. All other data is subject to change.

Last Data Upload: 10/30/2018 12:43:33 AM







Overview



Legend

- Parcels
- Address Numbers
- Roads

Parcel ID	R07300370C58 4A	Owner	MACON-BIBB CO URBAN DEV	Last 2 Sales			
Class Code	Exempt		AUTH	Date	Price	Reason	Qual
Taxing	RENAISSANCE		815 RIVERSIDE DR	9/25/1998	\$330000	CP	U
District	TAD/DOWNTOWN BID		MACON GA 312012629	n/a	0	n/a	n/a
	RENAISSANCE	Physical	711 RIVERSIDE DR				
	TAD/DOWNTOWN BID	Address					
Acres	0.5	Assessed	Value \$41760				
		Value					

(Note: Not to be used on legal documents)

Date created: 10/30/2018

Last Data Uploaded: 10/30/2018 12:43:33 AM

Developed by  Schneider  
GEOSPATIAL



### Summary

**Parcel Number** R073-0037  
**Location Address** 711 RIVERSIDE DR  
**Legal Description** N/A  
**Class** E1-Exempt  
 (Note: This is for tax purposes only. Not to be used for zoning.)  
**Zoning** CBD-2  
**Tax District** RENAISSANCE TAD/DOWNTOWN BID (District 18)  
**Millage Rate** N/A  
**Acres** 0.5  
**Neighborhood** 3117 (3117)  
**Homestead Exemption** No (S0)  
**Landlot/District** N/A

[View Map](#)



### Owner

MACON-BIBB CO URBAN DEV AUTH  
 815 RIVERSIDE DR  
 MACON, GA 31201-2629

### Land

Type	Description	Calculation Method	Square Footage	Frontage	Depth	Acres	Lots
Exempt	3106	Square Feet	21,750	87	250	0.5	0

### Sales

Sale Date	Deed Book / Page	Plat Book / Page	Sale Price	Reason	Grantor	Grantee
9/25/1998	4268 288	29 132	\$330,000	CONVERSION OF PAST SALES	EDWARDS, PRENTISS	MACON BIBB COUNTY URBAN DEV

### Valuation

	2018	2017	2016	2015
Previous Value	\$41,760	\$41,760	\$41,760	\$41,760
Land Value	\$41,760	\$41,760	\$41,760	\$41,760
+ Improvement Value	\$0	\$0	\$0	\$0
+ Accessory Value	\$0	\$0	\$0	\$0
= Current Value	\$41,760	\$41,760	\$41,760	\$41,760

### Photos



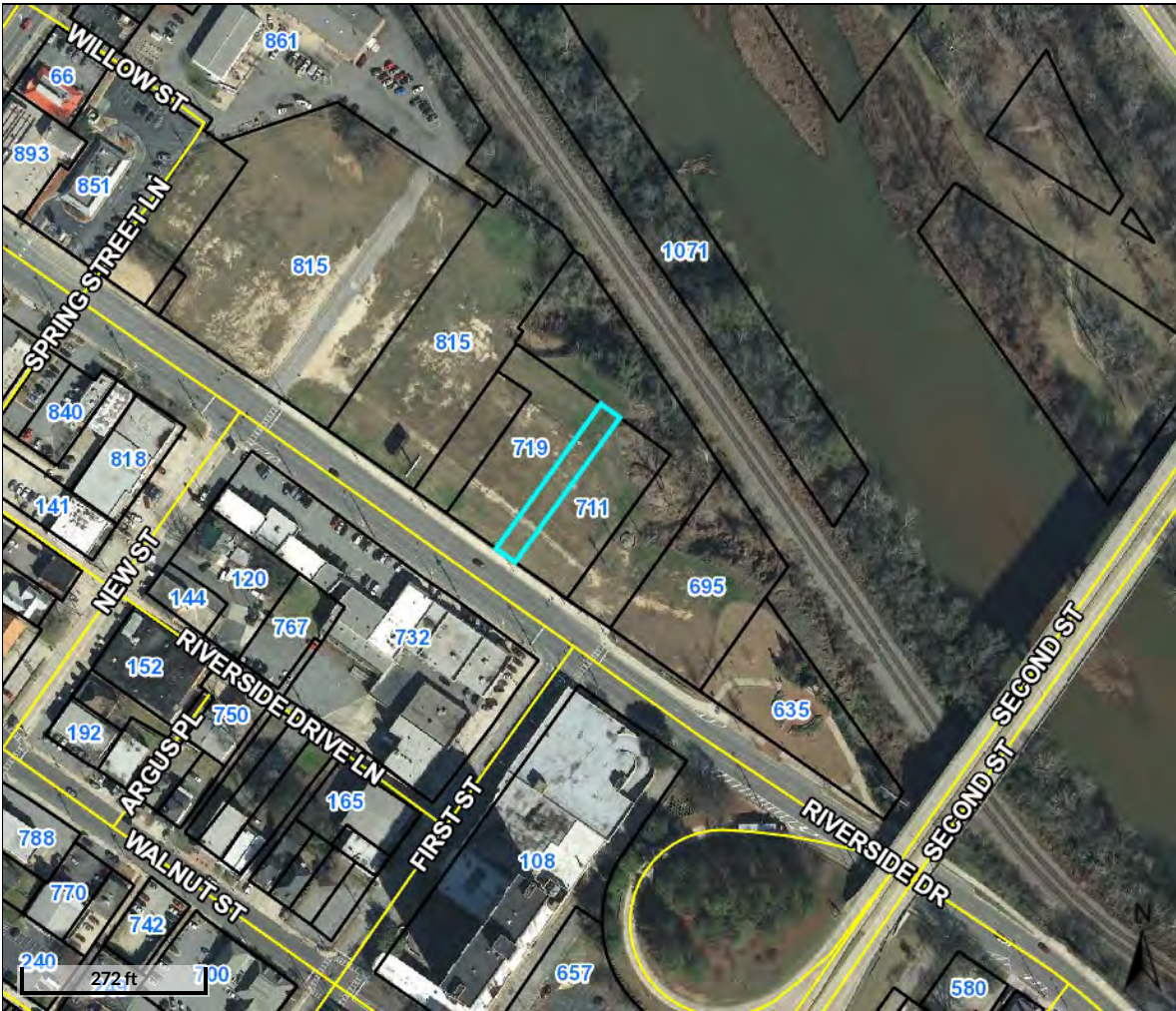
**No data available for the following modules:** Rural Land, Conservation Use Rural Land, Residential Improvement Information, Commercial Improvement Information, Mobile Homes, Accessory Information, Prebill Mobile Homes, Permits, Sketches.

The Bibb County Assessor makes every effort to produce the most accurate information possible. No warranties, expressed or implied are provided for the data herein, its use or interpretation. The assessment information is from the last certified tax roll. All other data is subject to change.

Last Data Upload: 10/30/2018 12:43:33 AM







#### Overview



#### Legend

- Parcels
- 815 Address Numbers
- Roads

Parcel ID R0730036OC99 1B  
 Class Code Exempt  
 Taxing RENAISSANCE TAD/DOWNTOWN  
 District BID  
 RENAISSANCE TAD/DOWNTOWN  
 BID  
 Acres 0.21

Owner MACON-BIBB CO URBAN DEV  
 AUTH  
 815 RIVERSIDE DR  
 MACON GA 312012629  
 Physical Address 711 RIVERSIDE DR  
 Assessed Value Value \$41625

Last 2 Sales			
Date	Price	Reason	Qual
4/9/1999	0	CP	U
n/a	0	n/a	n/a

(Note: Not to be used on legal documents)

Date created: 10/30/2018  
 Last Data Uploaded: 10/30/2018 12:43:33 AM

Developed by **Schneider**  
 GEOSPATIAL



## Bibb County, GA

## Summary

**Parcel Number** R073-0036  
**Location Address** 711 RIVERSIDE DR  
**Legal Description** N/A  
**Class** E1-Exempt  
 (Note: This is for tax purposes only. Not to be used for zoning.)  
**Zoning** CBD-2  
**Tax District** RENAISSANCE TAD/DOWNTOWN BID (District 18)  
**Millage Rate** N/A  
**Acres** 0.21  
**Neighborhood** Secondary Strip, 3100, SF (3102)  
**Homestead Exemption** No (S0)  
**Landlot/District** N/A

[View Map](#)


## Owner

MACON-BIBB CO URBAN DEV AUTH  
 815 RIVERSIDE DR  
 MACON, GA 31201-2629

## Land

Type	Description	Calculation Method	Square Footage	Frontage	Depth	Acres	Lots
Exempt	3102	Square Feet	9,250	37	250	0.21	0

## Sales

Sale Date	Deed Book / Page	Plat Book / Page	Sale Price	Reason	Grantor	Grantee
4/9/1999	4412 283	29 132	\$0	CONVERSION OF PAST SALES	BARNES, A E III	MACON BIBB COUNTY URBAN DEV

## Valuation

	2018	2017	2016	2015
Previous Value	\$41,625	\$41,625	\$41,625	\$41,625
Land Value	\$41,625	\$41,625	\$41,625	\$41,625
+ Improvement Value	\$0	\$0	\$0	\$0
+ Accessory Value	\$0	\$0	\$0	\$0
= Current Value	\$41,625	\$41,625	\$41,625	\$41,625

## Photos



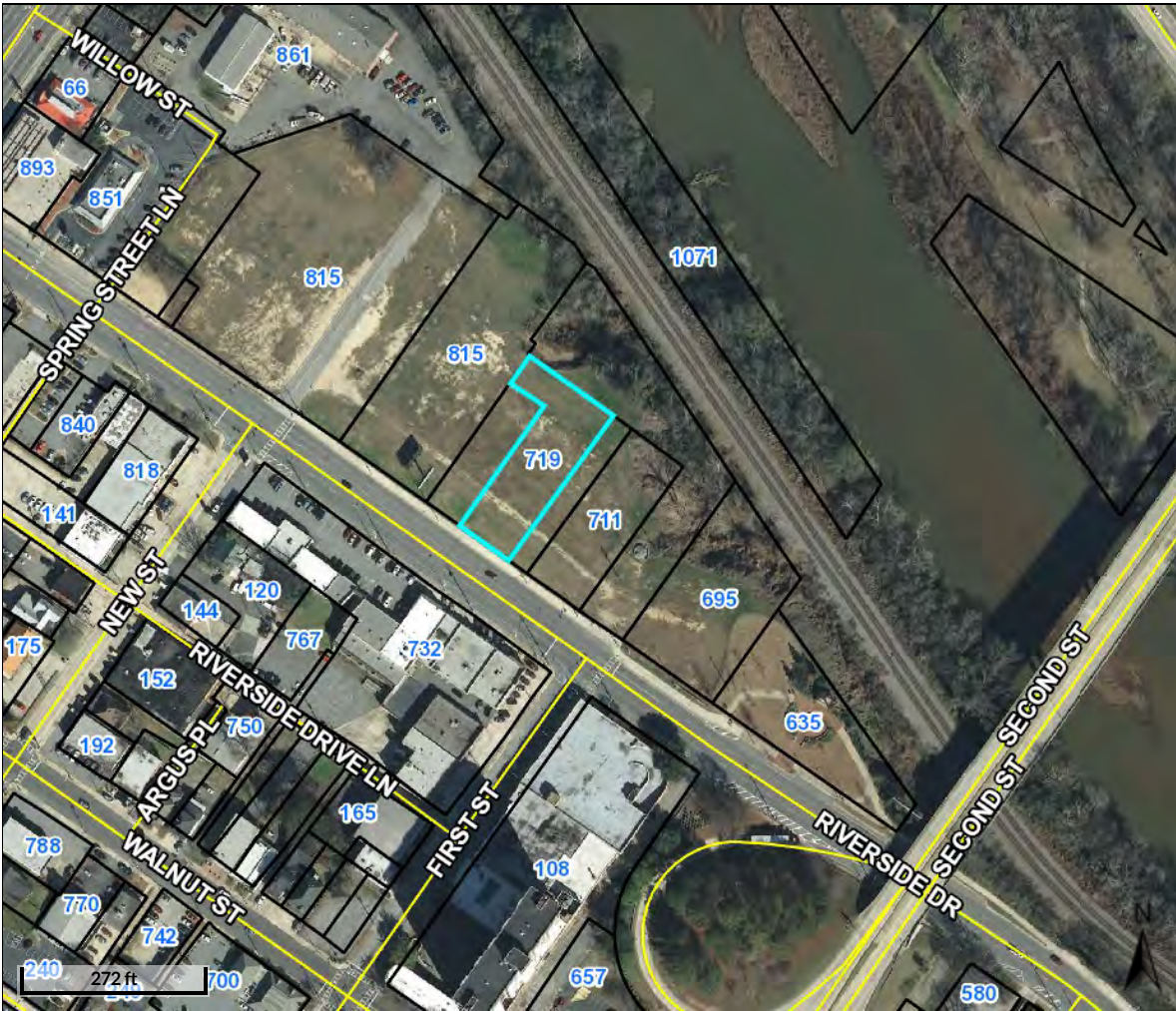
No data available for the following modules: Rural Land, Conservation Use Rural Land, Residential Improvement Information, Commercial Improvement Information, Mobile Homes, Accessory Information, Prebill Mobile Homes, Permits, Sketches.

The Bibb County Assessor makes every effort to produce the most accurate information possible. No warranties, expressed or implied are provided for the data herein, its use or interpretation. The assessment information is from the last certified tax roll. All other data is subject to change.

Last Data Upload: 10/30/2018 12:43:33 AM







#### Overview



#### Legend

- Parcels
- 815 Address Numbers
- Roads

**Parcel ID** R0730035OC99 2A  
**Class Code** Exempt  
**Taxing District** RENAISSANCE TAD/DOWNTOWN  
 BID  
**Acres** 0.61

**Owner** MACON-BIBB CO URBAN DEV  
 AUTH  
 815 RIVERSIDE DR  
 MACON GA 312012629  
**Physical Address** 719 RIVERSIDE DR  
**Assessed Value** Value \$120375

Last 2 Sales			
Date	Price	Reason	Qual
4/9/1999	0	CP	U
n/a	0	n/a	n/a

(Note: Not to be used on legal documents)

Date created: 10/30/2018  
 Last Data Uploaded: 10/30/2018 12:43:33 AM

Developed by  **Schneider**  
GEOSPATIAL



## Bibb County, GA

## Summary

**Parcel Number** R073-0035  
**Location Address** 719 RIVERSIDE DR  
**Legal Description** N/A  
**Class** E1-Exempt  
 (Note: This is for tax purposes only. Not to be used for zoning.)  
**Zoning** CBD-2  
**Tax District** RENAISSANCE TAD/DOWNTOWN BID (District 18)  
**Millage Rate** N/A  
**Acres** 0.61  
**Neighborhood** Secondary Strip, 3100, Acres (3122)  
**Homestead Exemption** No (S0)  
**Landlot/District** N/A

[View Map](#)


## Owner

MACON-BIBB CO URBAN DEV AUTH  
 815 RIVERSIDE DR  
 MACON, GA 31201-2629

## Land

Type	Description	Calculation Method	Square Footage	Frontage	Depth	Acres	Lots
Exempt	3102	Square Feet	26,750	97	250	0.61	0

## Permits

Permit Date	Permit Number	Type	Description
12/01/1992	C 2571	NEW CONSTRUCT	ALTERATIONS

## Sales

Sale Date	Deed Book / Page	Plat Book / Page	Sale Price	Reason	Grantor	Grantee
4/9/1999	4412 283		\$0	CONVERSION OF PAST SALES	BARNES, A E III	MACON BIBB COUNTY URBAN DEV

## Valuation

	2018	2017	2016	2015
Previous Value	\$120,375	\$120,375	\$120,375	\$120,375
Land Value	\$120,375	\$120,375	\$120,375	\$120,375
+ Improvement Value	\$0	\$0	\$0	\$0
+ Accessory Value	\$0	\$0	\$0	\$0
= Current Value	\$120,375	\$120,375	\$120,375	\$120,375

## Photos



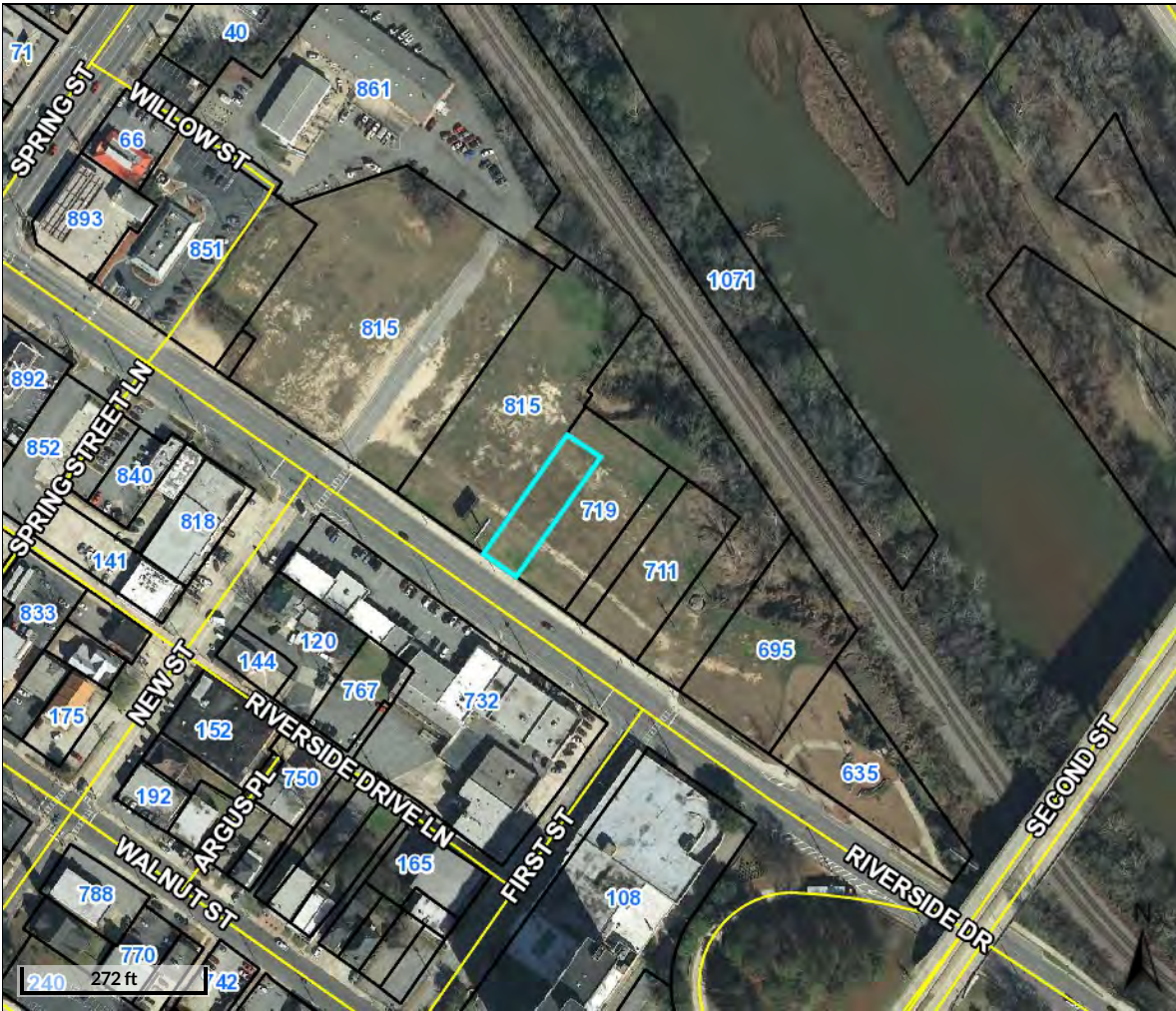
**No data available for the following modules:** Rural Land, Conservation Use Rural Land, Residential Improvement Information, Commercial Improvement Information, Mobile Homes, Accessory Information, Prebill Mobile Homes, Sketches.

The Bibb County Assessor makes every effort to produce the most accurate information possible. No warranties, expressed or implied are provided for the data herein, its use or interpretation. The assessment information is from the last certified tax roll. All other data is subject to change.

Last Data Upload: 10/30/2018 12:43:33 AM







#### Overview



#### Legend

- Parcels
- 815 Address Numbers
- Roads

**Parcel ID** R0730034OC99 2AA  
**Class Code** Exempt  
**Taxing District** RENAISSANCE TAD/DOWNTOWN  
 BID  
**Acres** 0.23

**Owner** MACON-BIBB CO URBAN DEV  
 AUTH  
 815 RIVERSIDE DR  
 MACON GA 312012629  
**Physical Address** 721 RIVERSIDE DR  
**Assessed Value** Value \$21600

Last 2 Sales			
Date	Price	Reason	Qual
4/9/1999	0	CP	U
n/a	0	n/a	n/a

(Note: Not to be used on legal documents)

Date created: 10/30/2018  
 Last Data Uploaded: 10/30/2018 12:43:33 AM

Developed by  **Schneider**  
GEOSPATIAL





## Bibb County, GA

## Summary

**Parcel Number** R073-0034  
**Location Address** 721 RIVERSIDE DR  
**Legal Description** N/A  
**Class** E1-Exempt  
 (Note: This is for tax purposes only. Not to be used for zoning.)  
**Zoning** CBD-2  
**Tax District** RENAISSANCE TAD/DOWNTOWN BID (District 18)  
**Millage Rate** N/A  
**Acres** 0.23  
**Neighborhood** 3117 (3117)  
**Homestead Exemption** No (S0)  
**Landlot/District** N/A

[View Map](#)


## Owner

MACON-BIBB CO URBAN DEV AUTH  
 815 RIVERSIDE DR  
 MACON, GA 31201-2629

## Land

Type	Description	Calculation Method	Square Footage	Frontage	Depth	Acres	Lots
Exempt	3106	Square Feet	10,000	50	200	0.23	0

## Permits

Permit Date	Permit Number	Type	Description
01/30/2003	00400	NEW CONSTRUCT	BLDG PERMIT 2004
02/01/1987	C 0032	NEW CONSTRUCT	ADDN-88 RECK FOR 1989

## Sales

Sale Date	Deed Book / Page	Plat Book / Page	Sale Price	Reason	Grantor	Grantee
4/9/1999	4412 283		\$0	CONVERSION OF PAST SALES	BARNES, A E III	MACON BIBB COUNTY URBAN DEV

## Valuation

	2018	2017	2016	2015
Previous Value	\$21,600	\$21,600	\$21,600	\$21,600
Land Value	\$21,600	\$21,600	\$21,600	\$21,600
+ Improvement Value	\$0	\$0	\$0	\$0
+ Accessory Value	\$0	\$0	\$0	\$0
= Current Value	\$21,600	\$21,600	\$21,600	\$21,600

## Photos



**No data available for the following modules:** Rural Land, Conservation Use Rural Land, Residential Improvement Information, Commercial Improvement Information, Mobile Homes, Accessory Information, Prebill Mobile Homes, Sketches.

The Bibb County Assessor makes every effort to produce the most accurate information possible. No warranties, expressed or implied are provided for the data herein, its use or interpretation. The assessment information is from the last certified tax roll. All other data is subject to change.

Last Data Upload: 10/30/2018 12:43:33 AM

Developed by  
 **Schneider**  
GEOSPATIAL

## Summary

**Parcel Number** R073-0033  
**Location Address** 815 RIVERSIDE DR  
**Legal Description** N/A  
**Class** E1-Exempt  
 (Note: This is for tax purposes only. Not to be used for zoning.)  
**Zoning** CBD-2  
**Tax District** RENAISSANCE TAD/DOWNTOWN BID (District 18)  
**Millage Rate** N/A  
**Acres** 1.63  
**Neighborhood** 3100 (3100)  
**Homestead Exemption** No (S0)  
**Landlot/District** N/A

[View Map](#)



## Owner

MACON-BIBB CO URBAN DEV AUTH  
 815 RIVERSIDE DR  
 MACON, GA 31201-2629

## Land

Type	Description	Calculation Method	Square Footage	Frontage	Depth	Acres	Lots
Exempt	3106	Square Feet	71,355	167	426	1.63	0

## Permits

Permit Date	Permit Number	Type	Description
01/01/1998	C 54117	NEW CONSTRUCT	BLDG PERMIT 1999

## Sales

Sale Date	Deed Book / Page	Plat Book / Page	Sale Price	Reason	Grantor	Grantee
3/30/1998	4142 344	54 75	\$400,000	CONVERSION OF PAST SALES	BROWN JAMES L	MACON BIBB COUNTY URBAN DEV

## Valuation

	2018	2017	2016	2015
Previous Value	\$171,252	\$171,252	\$171,252	\$168,696
Land Value	\$171,252	\$171,252	\$171,252	\$171,252
+ Improvement Value	\$0	\$0	\$0	\$0
+ Accessory Value	\$0	\$0	\$0	\$0
= Current Value	\$171,252	\$171,252	\$171,252	\$171,252

## Photos

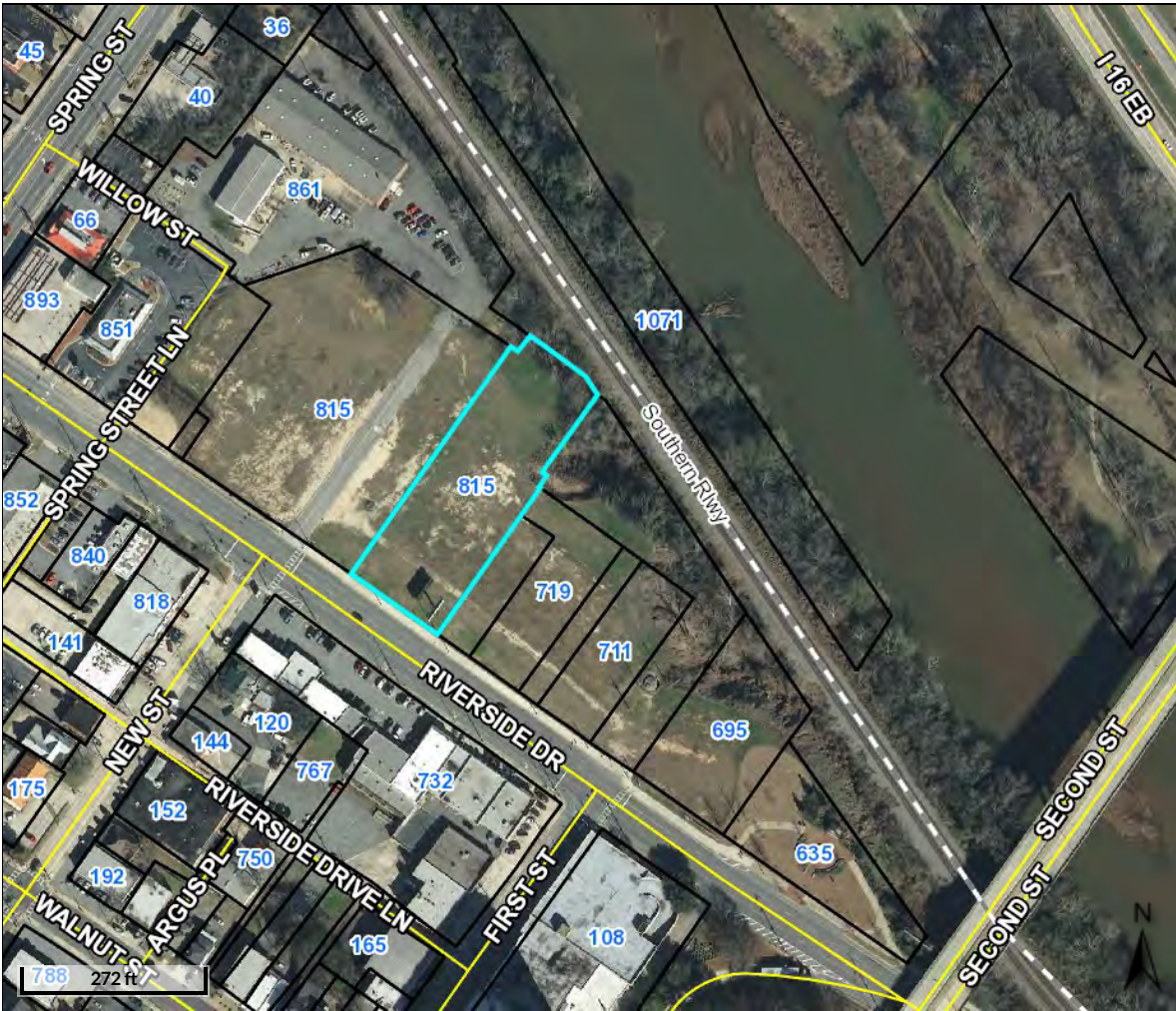


**No data available for the following modules:** Rural Land, Conservation Use Rural Land, Residential Improvement Information, Commercial Improvement Information, Mobile Homes, Accessory Information, Prebill Mobile Homes, Sketches.

The Bibb County Assessor makes every effort to produce the most accurate information possible. No warranties, expressed or implied are provided for the data herein, its use or interpretation. The assessment information is from the last certified tax roll. All other data is subject to change.

Developed by  
 **Schneider**  
GEOSPATIAL

Last Data Upload: 10/3/2018 12:49:26 AM



Overview



Legend

- Parcels
- Address Numbers
- Roads
- Railroads

Parcel ID	R0730033OC99 4A	Owner	MACON-BIBB CO URBAN DEV	Last 2 Sales			
Class Code	Exempt		AUTH	Date	Price	Reason	Qual
Taxing	RENAISSANCE		815 RIVERSIDE DR	3/30/1998	\$400000	CP	U
District	TAD/DOWNTOWN BID		MACON GA 312012629	n/a	0	n/a	n/a
	RENAISSANCE	Physical	815 RIVERSIDE DR				
	TAD/DOWNTOWN BID	Address					
Acres	1.63	Assessed	Value \$171252				
		Value					

(Note: Not to be used on legal documents)

Date created: 10/3/2018

Last Data Uploaded: 10/3/2018 12:49:26 AM

Developed by Schneider  
GEOSPATIAL



## Summary

Parcel Number	R073-0398
Location Address	815 RIVERSIDE DR
Legal Description	O C (Note: Not to be used on legal documents)
Class	E1-Exempt (Note: This is for tax purposes only. Not to be used for zoning.)
Zoning	CBD-2
Tax District	RENAISSANCE TAD/DOWNTOWN BID (District 18)
Millage Rate	N/A
Acres	2.44
Neighborhood	Major Strip, 3100, SF (3101)
Homestead Exemption	No (S0)
Landlot/District	N/A

[View Map](#)

## Owner

MACON-BIBB COUNTY  
700 POPLAR STREET  
MACON, GA 31202

## Land

Type	Description	Calculation Method	Square Footage	Frontage	Depth	Acres	Lots
Exempt	3110	Square Feet	106,461	292	388	2.44	0

## Permits

Permit Date	Permit Number	Type	Description
11/02/2014	4049	Electrical	BILLBOARD
12/10/2008	03534	Building Permits	

## Sales

Sale Date	Deed Book / Page	Plat Book / Page	Sale Price	Reason	Grantor	Grantee
3/31/1981	1403 286		\$10	CONVERSION OF PAST SALES	MACON-BIBB COUNTY URBAN DEV AUTHORITY	CITY OF MACON

## Valuation

	2018	2017	2016	2015
Previous Value	\$923,463	\$923,463	\$923,463	\$923,463
Land Value	\$923,463	\$923,463	\$923,463	\$923,463
+ Improvement Value	\$0	\$0	\$0	\$0
+ Accessory Value	\$0	\$0	\$0	\$0
= Current Value	\$923,463	\$923,463	\$923,463	\$923,463

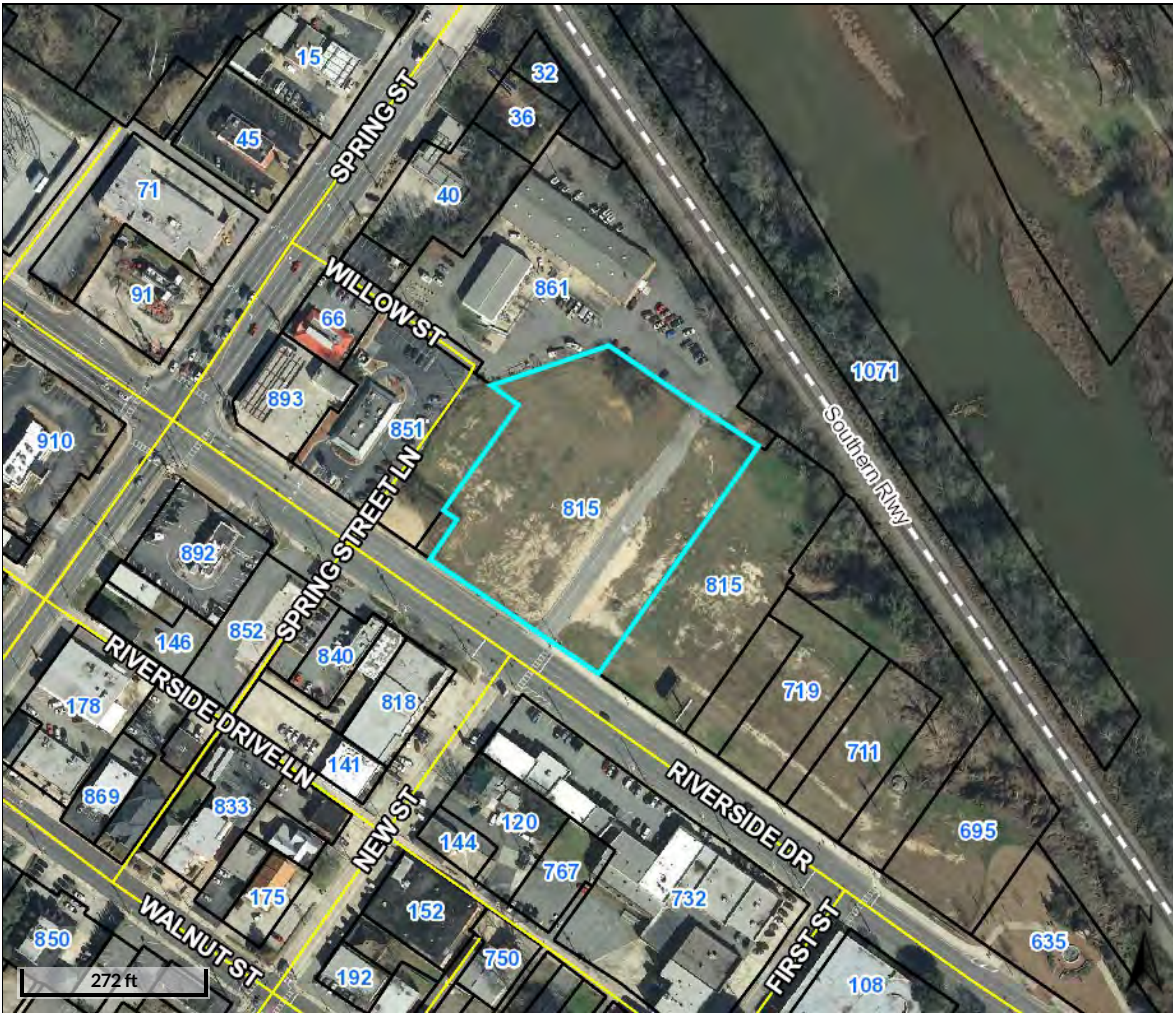
**No data available for the following modules:** Rural Land, Conservation Use Rural Land, Residential Improvement Information, Commercial Improvement Information, Mobile Homes, Accessory Information, Prebill Mobile Homes, Photos, Sketches.

The Bibb County Assessor makes every effort to produce the most accurate information possible. No warranties, expressed or implied are provided for the data herein, its use or interpretation. The assessment information is from the last certified tax roll. All other data is subject to change.

Developed by  
 **Schneider**  
GEOSPATIAL

Last Data Upload: 10/3/2018 12:49:26 AM





#### Overview



#### Legend

- Parcels
- Address Numbers
- Roads
- Railroads

Parcel ID R0730398OC99 4AB  
Class Code Exempt  
Taxing District RENAISSANCE TAD/DOWNTOWN BID  
RENAISSANCE TAD/DOWNTOWN BID  
Acres 2.44

Owner MACON-BIBB COUNTY  
700 POPLAR STREET  
MACON GA 31202  
Physical Address 815 RIVERSIDE DR  
Assessed Value Value \$923463

Last 2 Sales			
Date	Price	Reason	Qual
3/31/1981	\$10	CP	U
n/a	0	n/a	n/a

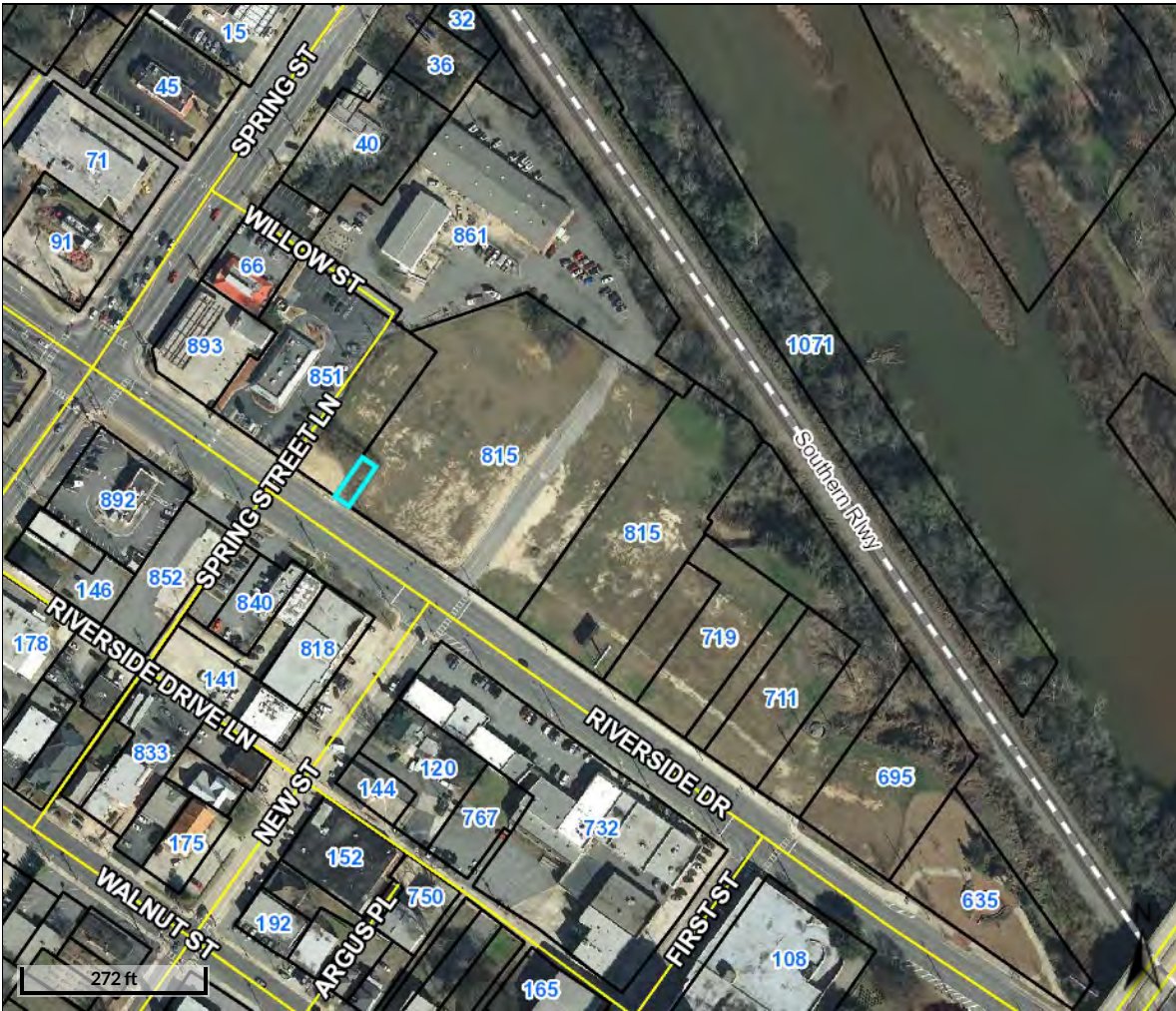
(Note: Not to be used on legal documents)

Date created: 10/3/2018

Last Data Uploaded: 10/3/2018 12:49:26 AM

Developed by Schneider  
GEOSPATIAL





#### Overview



#### Legend

- Parcels
- Address Numbers
- Roads
- Railroads

Parcel ID	R0730031OC 98 2A	Owner	MACON-BIBB CO URBAN DEV	Last 2 Sales			
Class Code	Exempt		AUTH	Date	Price	Reason	Qual
Taxing	RENAISSANCE		815 RIVERSIDE DR	8/14/2018	0	GG	U
District	TAD/DOWNTOWN BID		MACON GA 312012629	2/29/2000	\$215000	CP	U
	RENAISSANCE	Physical	847 RIVERSIDE DR				
	TAD/DOWNTOWN BID	Address					
Acres	0.04	Assessed	Value \$15994				
		Value					

(Note: Not to be used on legal documents)

Date created: 10/3/2018

Last Data Uploaded: 10/3/2018 12:49:26 AM

Developed by Schneider  
GEOSPATIAL

## Summary

**Parcel Number** R073-0031  
**Location Address** 847 RIVERSIDE DR  
**Legal Description** N/A  
**Class** E1-Exempt  
 (Note: This is for tax purposes only. Not to be used for zoning.)  
**Zoning** CBD-2  
**Tax District** RENAISSANCE TAD/DOWNTOWN BID (District 18)  
**Millage Rate** N/A  
**Acres** 0.04  
**Neighborhood** 3117 (3117)  
**Homestead Exemption** No (S0)  
**Landlot/District** N/A

[View Map](#)



## Owner

MACON-BIBB CO URBAN DEV AUTH  
 815 RIVERSIDE DR  
 MACON, GA 31201-2629

## Land

Type	Description	Calculation Method	Square Footage	Frontage	Depth	Acres	Lots
Exempt	3106	Square Feet	1,655	98	68	0.04	0

## Permits

Permit Date	Permit Number	Type	Description
01/30/2003	00398	NEW CONSTRUCT	BLDG PERMIT 2004

## Sales

Sale Date	Deed Book / Page	Plat Book / Page	Sale Price	Reason	Grantor	Grantee
8/14/2018	10193 162	25 46	\$0	GOVERNMENT TO GOV'T	MACON-BIBB CO URBAN DEV AUTH	MACON-BIBB COUNTY, GEORGIA
2/29/2000	4621 79	25 46	\$215,000	CONVERSION OF PAST SALES	DOUGLAS, ROSCOE J	MACON BIBB COUNTY URBAN DEV

## Valuation

	2018	2017	2016	2015
Previous Value	\$15,994	\$15,994	\$15,994	\$15,994
Land Value	\$15,994	\$15,994	\$15,994	\$15,994
+ Improvement Value	\$0	\$0	\$0	\$0
+ Accessory Value	\$0	\$0	\$0	\$0
= Current Value	\$15,994	\$15,994	\$15,994	\$15,994

## Photos



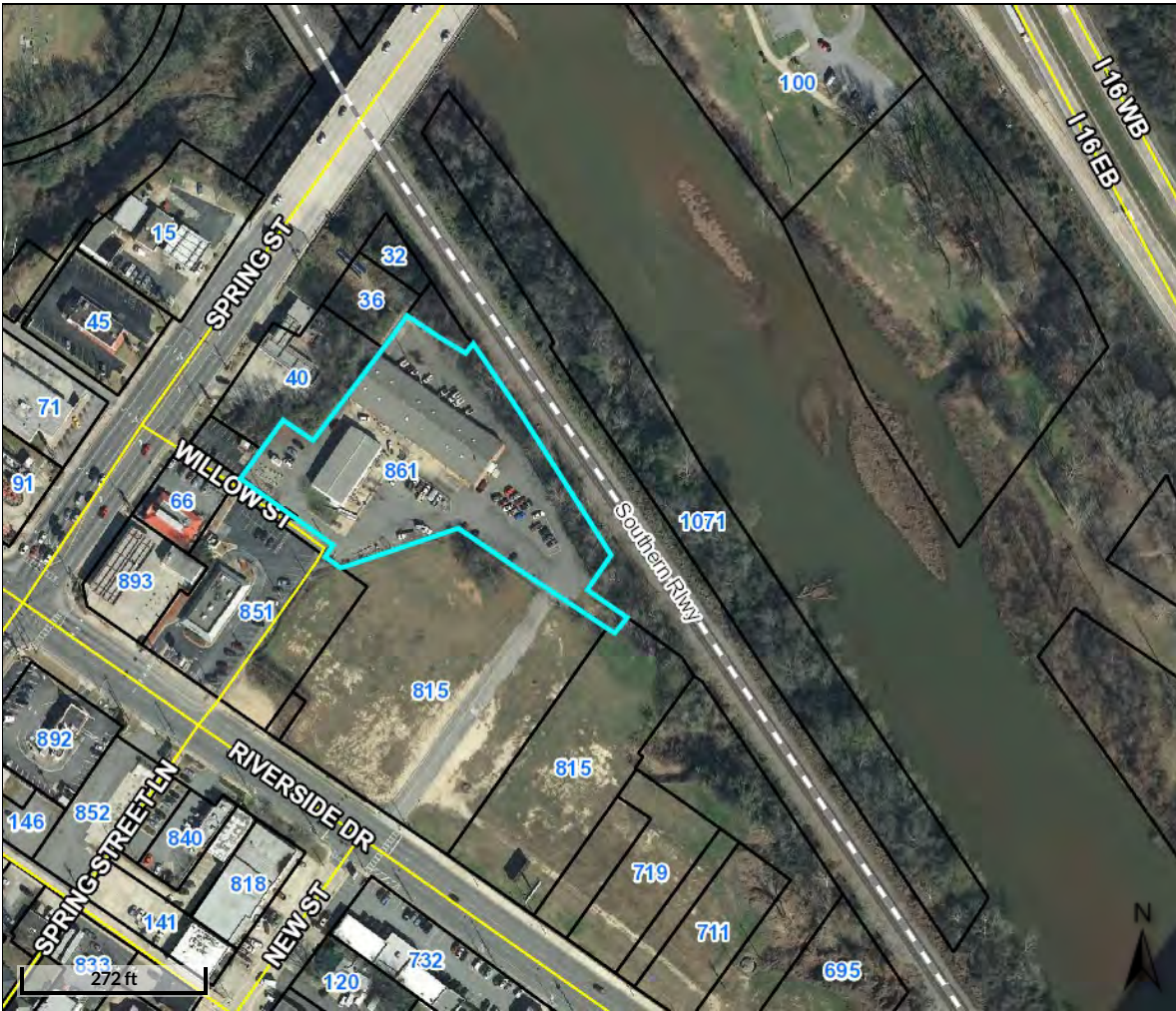
**No data available for the following modules:** Rural Land, Conservation Use Rural Land, Residential Improvement Information, Commercial Improvement Information, Mobile Homes, Accessory Information, Prebill Mobile Homes, Sketches.

The Bibb County Assessor makes every effort to produce the most accurate information possible. No warranties, expressed or implied are provided for the data herein, its use or interpretation. The assessment information is from the last certified tax roll. All other data is subject to change.

Last Data Upload: 10/3/2018 12:49:26 AM

Developed by  
 **Schneider**  
GEOSPATIAL





#### Overview



#### Legend

- Parcels
- 100 Address Numbers
- Roads
- Railroads

<b>Parcel ID</b>	R0710316OC98 5J	<b>Owner</b>	MACON-BIBB CO URBAN DEV			
<b>Class Code</b>	Exempt		AUTH			
<b>Taxing District</b>	RENAISSANCE TAD/DOWNTOWN		305 COLISEUM DRIVE			
	BID		MACON GA 31201			
	RENAISSANCE TAD/DOWNTOWN	<b>Physical Address</b>	861 WILLOW ST			
	BID	<b>Assessed Value</b>	Value \$1099349			
<b>Acres</b>	2.54					

Last 2 Sales			
Date	Price	Reason	Qual
1/24/2013	0	GG	U
10/17/1977	\$10	CP	U

(Note: Not to be used on legal documents)

Date created: 10/3/2018

Last Data Uploaded: 10/3/2018 12:49:26 AM

Developed by  **Schneider**  
GEOSPATIAL

## Summary

**Parcel Number** R071-0316  
**Location Address** 861 WILLOW ST  
**Legal Description** N/A  
**Class** E1-Exempt  
 (Note: This is for tax purposes only. Not to be used for zoning.)  
**Zoning** CBD-2  
**Tax District** RENAISSANCE TAD/DOWNTOWN BID (District 18)  
**Millage Rate** N/A  
**Acres** 2.54  
**Neighborhood** Residual, 1100, SF (1106)  
**Homestead Exemption** No (S0)  
**Landlot/District** N/A

[View Map](#)



## Owner

MACON-BIBB CO URBAN DEV AUTH  
 305 COLISEUM DRIVE  
 MACON, GA 31201

## Land

Type	Description	Calculation Method	Square Footage	Frontage	Depth	Acres	Lots
Exempt	1102	Square Feet	110,555	0	0	2.54	0

## Permits

Permit Date	Permit Number	Type	Description
06/10/2013	01917	Building Permits	

## Sales

Sale Date	Deed Book / Page	Plat Book / Page	Sale Price	Reason	Grantor	Grantee
1/24/2013	8919 115		\$0	GOVERNMENT TO GOV'T	CITY OF MACON	MACON-BIBB COUNTY URBAN DEVELOPMENT AUTH
10/17/1977	1308 308	1308	\$10	CONVERSION OF PAST SALES	MACON-BIBB COUNTY URBAN DEV AUTHORITY	CITY OF MACON

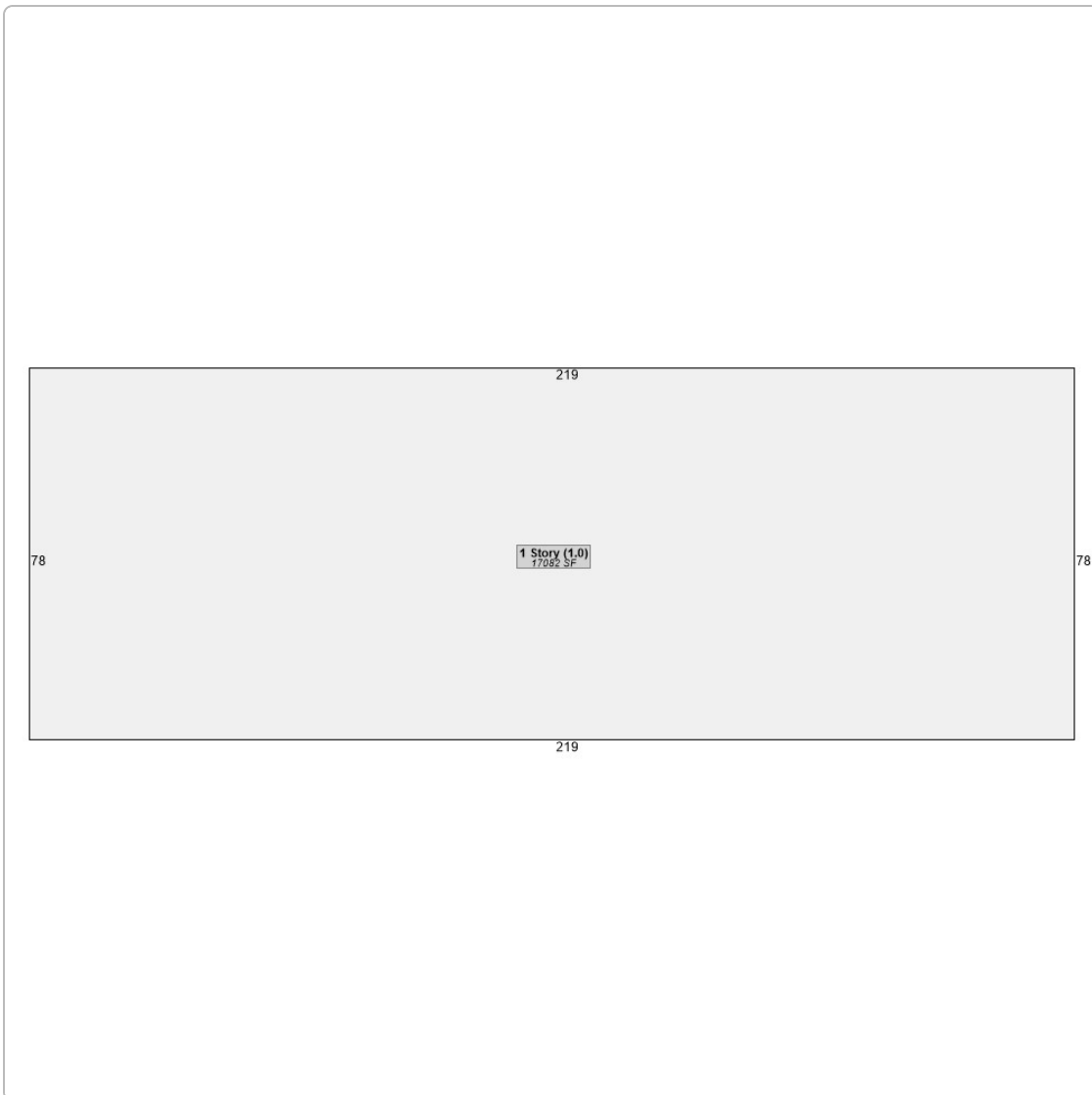
## Valuation

	2018	2017	2016	2015
Previous Value	\$1,099,349	\$1,099,349	\$1,099,349	\$1,099,349
Land Value	\$305,911	\$305,911	\$305,911	\$305,911
+ Improvement Value	\$791,216	\$791,216	\$791,216	\$791,216
+ Accessory Value	\$2,222	\$2,222	\$2,222	\$2,222
= Current Value	\$1,099,349	\$1,099,349	\$1,099,349	\$1,099,349

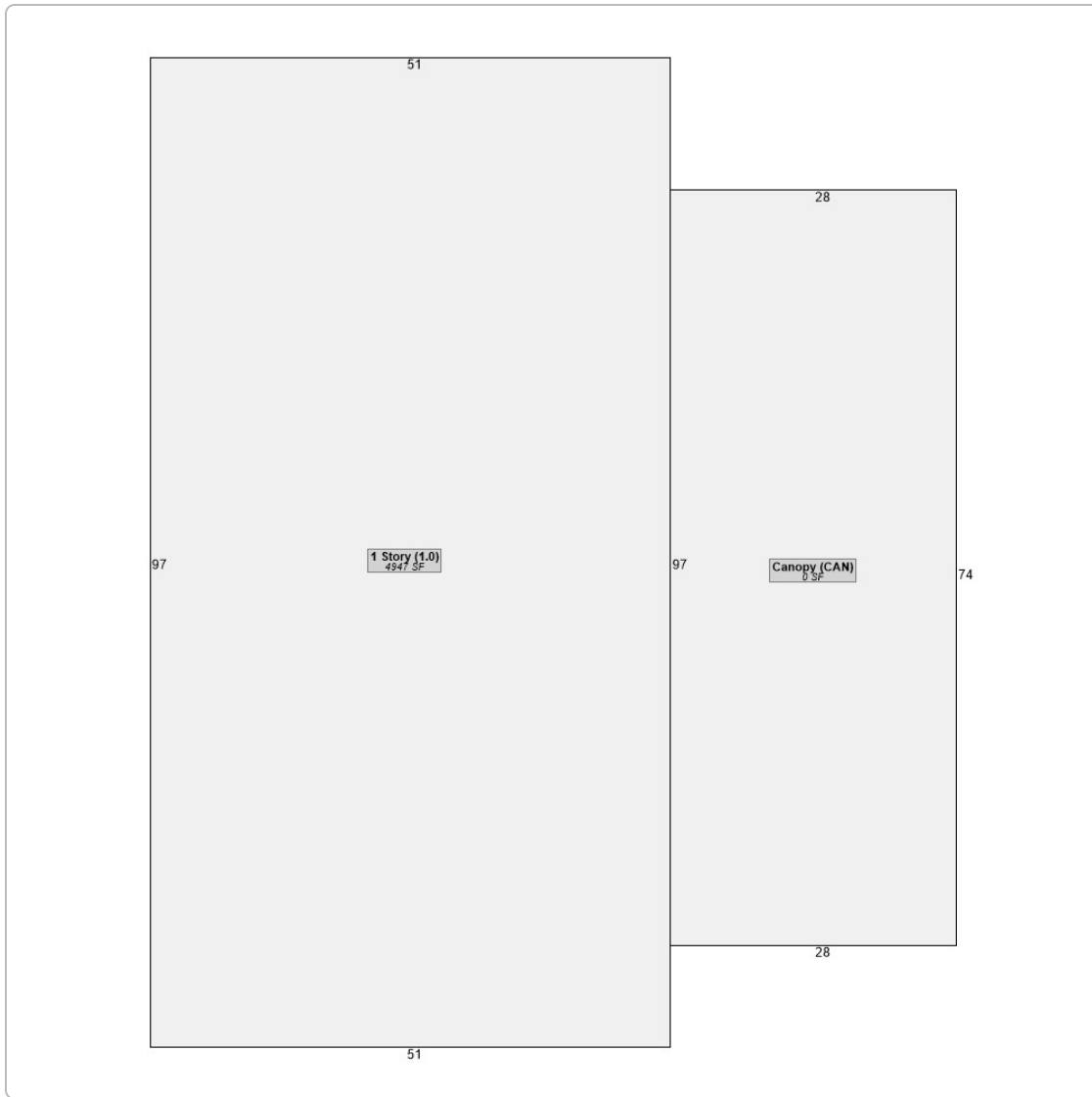
## Photos



## Sketches







**No data available for the following modules:** Rural Land, Conservation Use Rural Land, Residential Improvement Information, Commercial Improvement Information, Mobile Homes, Accessory Information, Prebill Mobile Homes.

The Bibb County Assessor makes every effort to produce the most accurate information possible. No warranties, expressed or implied are provided for the data herein, its use or interpretation. The assessment information is from the last certified tax roll. All other data is subject to change.

Last Data Upload: 10/3/2018 12:49:26 AM

Developed by  
 **Schneider**  
GEOSPATIAL

# **APPENDIX VI**

## **RETEC CAP**

LAW OFFICES  
**ANDERSON, WALKER & REICHERT, LLP**  
SUITE 500, FICKLING & COMPANY BUILDING  
577 MULBERRY STREET  
POST OFFICE BOX 6497  
**MACON, GEORGIA 31208-6497**  
(478) 743-8651  
TELECOPIER: (478) 743-9636

**FILE COPY**

THOMAS L. BASS  
ALBERT P. REICHERT, JR.  
EUGENE S. HATCHER  
ROBERT A.B. REICHERT  
JONATHAN A. ALDERMAN  
WILLIAM C. PRATHER  
JEFFERY O. MONROE  
W. DONALD HANDBERRY, JR.  
EDGELEY A. MYERS  
JEREMY M. ATTAWAY

ROBERT L. ANDERSON  
(1871-1959)  
CHARLES W. WALKER  
(1905-1984)  
R. LANIER ANDERSON JR.  
(1899-1984)  
MALLORY C. ATKINSON, JR.  
(1930-1990)  
ALBERT P. REICHERT  
OF COUNSEL

October 10, 2005

Mr. David Reuland  
Unit Coordinator  
Hazarous Sites Response Program  
Georgia Department of Natural Resources  
2 Martin Luther King, Jr., Dr., SW  
Suite 1462 East  
Atlanta, GA 30334

**RECEIVED**

OCT 12 2005

HAZ. SITES RESPONSE PROG.

RE: Former Manufactured Gas Plant Site - Macon No. 2HSI 10692

Dear Mr. Reuland:

Enclosed, please find the original and one copy of a revised Corrective Action Plan which should address the concerns raised in your correspondence of August 2, 2005.

If you have any questions, please don't hesitate to give me a call.

Yours truly,  
ANDERSON, WALKER & REICHERT, LLP  
  
Robert A.B. Reichert

RABR:hdj

Enclosures

cc: Honorable C. Jack Ellis  
J. Pope Langstaff, Esq.  
Hollister A. Hill, Esq.  
Carol R. Geiger, Esq.



**Corrective Action Plan:  
Continuing Actions For Maintaining  
Compliance With Risk Reduction Standards**

**Former Manufactured Gas Plant Site  
Macon #2  
Macon, Georgia  
HSI # 10692**

**Prepared by:**

**The RETEC Group, Inc.  
1899 Powers Ferry Road, Suite 375  
Atlanta, Georgia 30339**

**RETEC Project Number: AGLC0-57858-003**

**RECEIVED**

**OCT 12 2005**

**HAZ. SITES RESPONSE PROG.**

**FILE COPY**

**Prepared for:**

**City of Macon  
700 Poplar Street, PO BOX 247  
Macon, Georgia 31202**

**July 14, 2005  
Revised October 5, 2005**

**Corrective Action Plan:  
Continuing Actions For Maintaining  
Compliance With Risk Reduction Standards**

**Former Manufactured Gas Plant Site  
Macon #2  
Macon, Georgia  
HSI # 10692**

**Prepared by:**

**The RETEC Group, Inc.  
1899 Powers Ferry Road, Suite 375  
Atlanta, Georgia 30339**

**RETEC Project Number: AGLC0-57858-003**

**Prepared for:**

**City of Macon  
700 Poplar Street, PO Box 247  
Macon, Georgia 31202**

**Prepared by:**

  
Christie J. Batterhouse, P.G., Project Geologist

**Reviewed by:**

  
Jorge Salcedo, P.G., Project Manager

**July 14, 2005  
Revised October 5, 2005**

## Professional Geologist Certification

"I certify that I am a qualified groundwater scientist who has received a baccalaureate and post-graduate degree in geology and have sufficient training and experience in groundwater hydrology and related fields, as demonstrated by Georgia registration and completion of accredited university courses, that enable me to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that I have technically reviewed this report."

---



Christie J. Battenhouse, P.G.  
Registered Professional Geologist  
Georgia Registration #1681





# **Table of Contents**

---

1	Introduction.....	1-1
2	Continuing Actions .....	2-1

## **List of Tables**

---

Table 1-1	Risk Reduction Standards for Soil and Methods Used in Calculations
-----------	--

## **List of Figures**

---

Figure 1-1	Compliance Area for Type 4 Risk Reduction Standards for Soil
------------	--

# 1 Introduction

A former manufactured gas plant (MGP) facility was located at the intersection of Spring Street Lane and Willow Street, Macon, Bibb County, Georgia (Georgia Hazardous Site Inventory [HSI] Site Number 10692). The facility is designated as "Macon 2" to distinguish it from another former MGP facility in Macon (Macon 1) located at 137 Mulberry Street, Macon, Georgia. This property is currently owned by the City of Macon (the City) and is used by the City of Macon Central Services as an office, service shop, and equipment storage area and is adjacent to the City's Transit Maintenance Facility.

In June 2002, Atlanta Gas Light Company (AGLC), Georgia Power Company (GPC), and the City of Macon submitted a Compliance Status Report (CSR) for the Macon 2 site as requested by the EPD in 2001 (the Parties). Additional data was collected during the June 2002 compliance status investigation, and was used in conjunction with data collected during the previous investigations to prepare a CSR as set forth by HSRA regulations in Section 391-3-19-06(3). The CSR was submitted in June 2002, with subsequent revisions in July and September 2003. The property has been certified to Type 4 Risk Reduction Standards (RRS) for soil under HSRA (Table 1-1). Figure 1-1 shows the area of the site that is in compliance with Type 4 RRS for soil. As prescribed in Parcel Certifications submitted to EPD with the approved CSR, groundwater is compliant with Type 1 RRS. The final revision of the CSR was approved by EPD on December 19, 2003.

## **2 Continuing Actions**

### **Inspection and Notice**

The City of Macon will undertake an inspection program to maintain compliance with non-residential property use required under Section 391-3-19-.07(9)(b). Under this provision, the City will conduct or cause to be conducted an annual inspection of the property using visual observation to determine the property use status of the Site, beginning with the initial inspection to occur prior to August 31, 2005.

The City, as property owner will provide written notice of the status of the Site under HSRA to any prospective purchaser, new owner or through any instrument which creates an interest in or grants a use of the Site property in accordance with Section 391-3-19-.06(b)(2) of the Rules.

### **Reporting**

The City of Macon will submit a completed Site Evaluation Form (Attachment A) and a cover letter to EPD by August 30<sup>th</sup> of each year, which documents the visual observation conducted by the City at the Site. In the event that the City of Macon decides to sell, lease or otherwise transfer control of the Site property, the City will provide notice to Georgia EPD thirty days prior to the sale, along with a schedule for sale, lease or other transfer of control of the property. Additionally, the contact information for the new property user will be provided within 30 days after the closing of the transaction.

## Tables

**Table 1-1**  
**Risk Reduction Standards for Soil and**  
**Methods Used in Calculations**  
**Macon 2, Former Manufactured Gas Plant Site**  
**Macon, Georgia**

Constituent	Highest Concentration*		Type 1		Type 2		Type 3 0-2'	Type 3 >2'		Type 4 0-2'	Type 4 >2'	
	0-2'	>2'										
Volatile Organic Compounds												
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	0.0055 0	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
Semivolatile Organic Compounds												
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
Inorganic Compounds												
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	0.500/0.54 0	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

**NOTES:**

\* - 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.

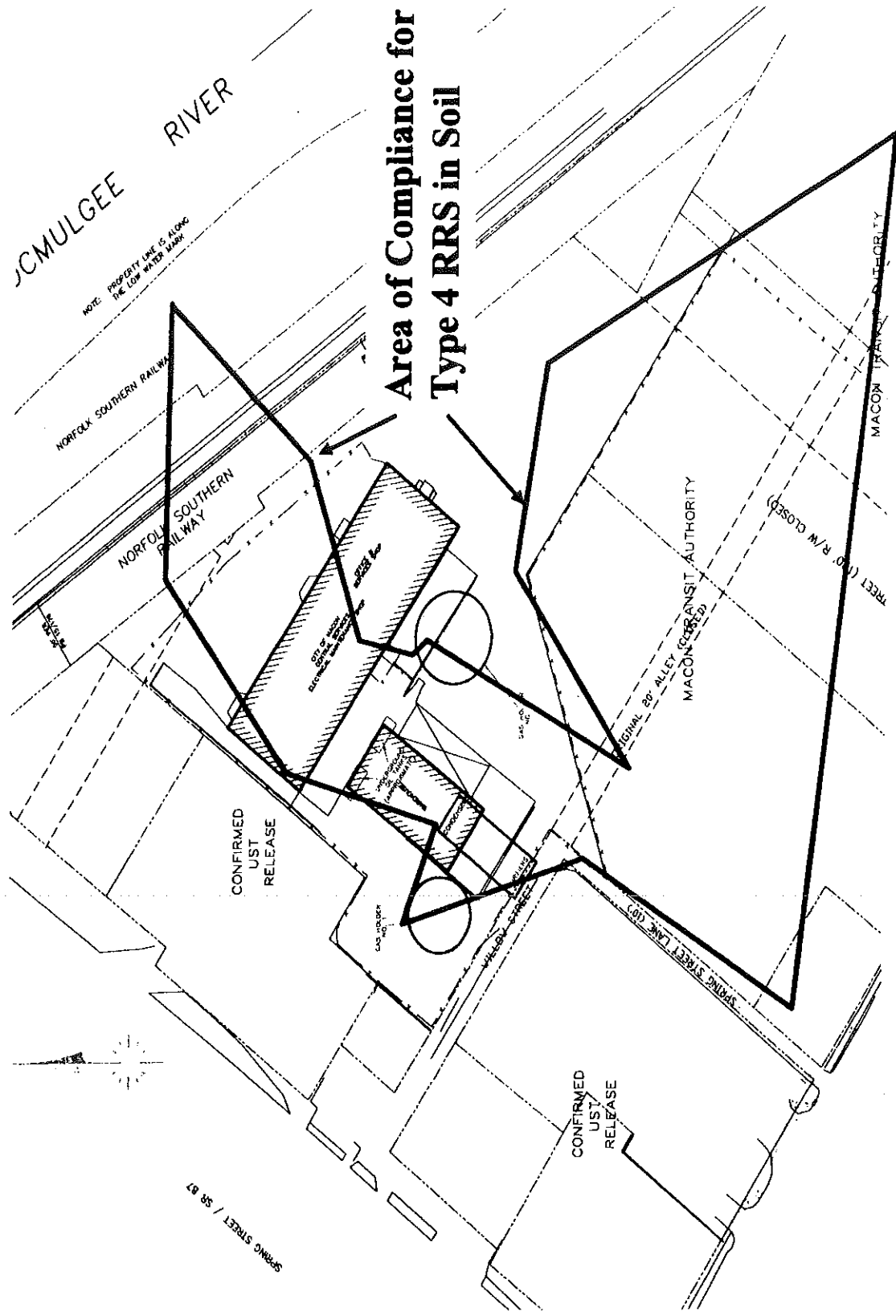
Values listed in milligrams per kilogram (mg/Kg)

Values rounded to three significant digits

## Figures



**Figure 1-1**  
**Compliance Area for Type 4 Risk Reduction Standards for Soil**  
**Macon 2 Former Manufactured Gas Plant**  
**Macon, Georgia**



**Attachment A**  
**Evaluation Form for HSRA Site**

EVALUATION FORM FOR HSRA SITE  
CITY OF MACON  
MACON #2 MGP  
HSI SITE #10692

	YES	NO
<b>LAND USE</b>		
<p>1. Does this HSRA Site meet the definition of non-residential property as defined in HSRA Rule 391-3-19.02(2)?</p> <p><i>"Non-residential property means any real property or portion of a property not currently being used for human habitation or for other purposes with a similar potential for human exposure, at which activities have been or are being conducted that can be categorized in one of the 1987 Standard Industrial Classification major groups..."</i></p> <p>If no, please attach written explanation to this certification form.</p>		

**CERTIFICATION FOR CITY OF MACON**

I certify that I have personally examined and am familiar with the information in this evaluation form and all attachments and that based on my inquiry of those persons immediately responsible for completion of this evaluation, I believe the information is true, accurate, and complete.

\_\_\_\_\_  
Name and Official Title – CITY OF MACON

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

# **APPENDIX VII**

**Results of Soil Sampling and Analysis - February 13, 2014**



February 24, 2014

Mr. Alex Morrison  
Macon-Bibb County Urban Development Authority  
200 Cherry Street, Suite 300  
Macon, Georgia 31201

SUBJECT: Results of Soil Sampling and Analysis-February 13, 2014  
Former Macon 2 Manufactured Gas Plant Facility  
Macon, Georgia  
GEC Project No. 130659.241

Dear Mr. Morrison:

Geotechnical & Environmental Consultants, Inc. (GEC) is pleased to present the results of our recent soil sampling and analysis performed at the site of the Former Macon 2 Manufactured Gas Plant Facility in Macon, Georgia. The following sections and attachments will detail the work performed and the results of the soil analysis for this phase of work on the project.

### **SCOPE OF WORK**

The current scope of work for this portion of the project included the sampling of twenty-seven locations at the site. The sampling was performed on February 13, 2014 at pre-determined depths of 0-6" and 6"-2'. These depths were selected based on prior conversations pertaining to the 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" as evaluated by the attorney working on the project. Options 2 (Voluntary Remediation Program (VRP)) and 4 (Brownfield) both included institutional controls or limited soil removal in the upper two feet to enable residential use across the site. To further evaluate the possibility of using these two options, the sampling of soils within the upper two feet at the site was determined necessary. The sampling locations were determined by establishing an approximate 100 foot grid within the "Area of Compliance for Type 4 RRS in Soil" per the Correction Action Plan dated 10/5/2008 by the RETEC Group, Inc.

The sampling was performed by using a CME 45 Track Mounted drill rig. All down-hole equipment was decontaminated prior to sampling and the sampling equipment was decontaminated between sampling locations. The soil within each sampling depth range was composited for sampling by GEC staff professionals. Each soil sample collected was sampled for Volatile Organic compounds (Method SW-846 8260B), Semi-Volatile Organic Compounds (Method SW-846 8270D), and RCRA metal (Method SW-846 6010C) and Mercury (Method SW-846 7471B).

The approximate sampling locations, a summary of the soil types encountered, a summary of the constituents encountered above the detection limits (with constituents above the Type 1 and/or Type 2 RRS highlighted), and the laboratory results themselves are included as Attachments.

### DISCUSSION OF SOIL TEST RESULTS

As shown on the attached laboratory results and supporting documentation, **no VOC's or SVOC's were detected above the Type 1 or Type 2 RRS** for the site as established by the former Compliance Status Report (CSR) for the site. A limited number of samples exhibited metals results above the Type 1 and/or Type 2 RRS. These are summarized as follows:

**Table 1**

#### **Metals Concentrations Above Type 1 RRS**

SAMPLE ID	Sample Depth (Top)	Sample Depth (Bottom)	Depth Units	MATRIX	ANALYTE	Result	UNITS	Type 1 RRS Standard (mg/kg)
GB-27	0	6	IN	SOIL	Arsenic	74.9	mg/kg	20
GB-11	0.5	2	FT	SOIL	Lead	465	mg/kg	75
GB-14	0.5	2	FT	SOIL	Lead	425	mg/kg	75
GB-15	0	6	IN	SOIL	Lead	95.1	mg/kg	75
GB-16	0.5	2	FT	SOIL	Lead	119	mg/kg	75
GB-18	0.5	2	FT	SOIL	Lead	147	mg/kg	75
GB-18	0	6	IN	SOIL	Lead	171	mg/kg	75
GB-26	0.5	2	FT	SOIL	Lead	76.8	mg/kg	75
GB-26	0	6	IN	SOIL	Lead	95.5	mg/kg	75
GB-27	0	6	IN	SOIL	Lead	172	mg/kg	75
GB-14	0.5	2	FT	SOIL	Mercury	0.743	mg/kg	0.5
GB-25	0.5	2	FT	SOIL	Mercury	0.879	mg/kg	0.5
GB-26	0.5	2	FT	SOIL	Mercury	0.735	mg/kg	0.5

**Table 2****Metals Concentrations Above Type 2 RRS**

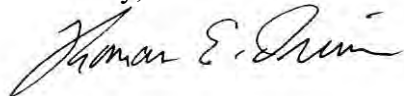
SAMPLE ID	Sample Depth (Top)	Sample Depth (Bottom)	Depth Units	MATRIX	ANALYTE	Result	UNITS	Type 2 RRS Standard (mg/kg)
GB-13	0	6	IN	SOIL	Arsenic	6.22	mg/kg	6.08
GB-15	0	6	IN	SOIL	Arsenic	7.59	mg/kg	6.08
GB-27	0	6	IN	SOIL	Arsenic	74.9	mg/kg	6.08
GB-11	0.5	2	FT	SOIL	Lead	465	mg/kg	400
GB-14	0.5	2	FT	SOIL	Lead	425	mg/kg	400

As shown above, there were a limited number of sample collected within the upper two feet of soil within the area designated as the Area of Compliance for Type 4 RRS at the site that have contamination above the Type 1 or 2 RRS established for the site. Based on this, it appears that Options 2 and 4 appear to be viable alternatives for site development. Additional sampling and testing, however, will likely be required prior to the preparation of a VRP report and application or the preparation of documents suitable to be submitted for a Brownsfield application.

**CLOSURE**

We appreciate the opportunity to provide these services to you on this project. Please do not hesitate to contact us if you have any questions or if we can be of further assistance.

Sincerely;



Thomas E. Driver  
President  
Ga Reg. # 17394

Cc: Chris Sheridan, Chris R. Sheridan Company  
Harold Reheis, Joe Tanner & Associates  
Andrew Welch, III, Smith, Welch, Webb & White  
Mayor Robert Reichert, Mabon-Bibb County Mayor

TED/hm

Attachments: Figure 1: GEC Sampling Locations  
Figure 2: GEC Sampling Locations  
Soil Detections from February 13, 2014 Sampling event  
Summary of Soil Test Borings-Feb. 13, 2014  
Laboratory Test Results



## **APPENDIX**

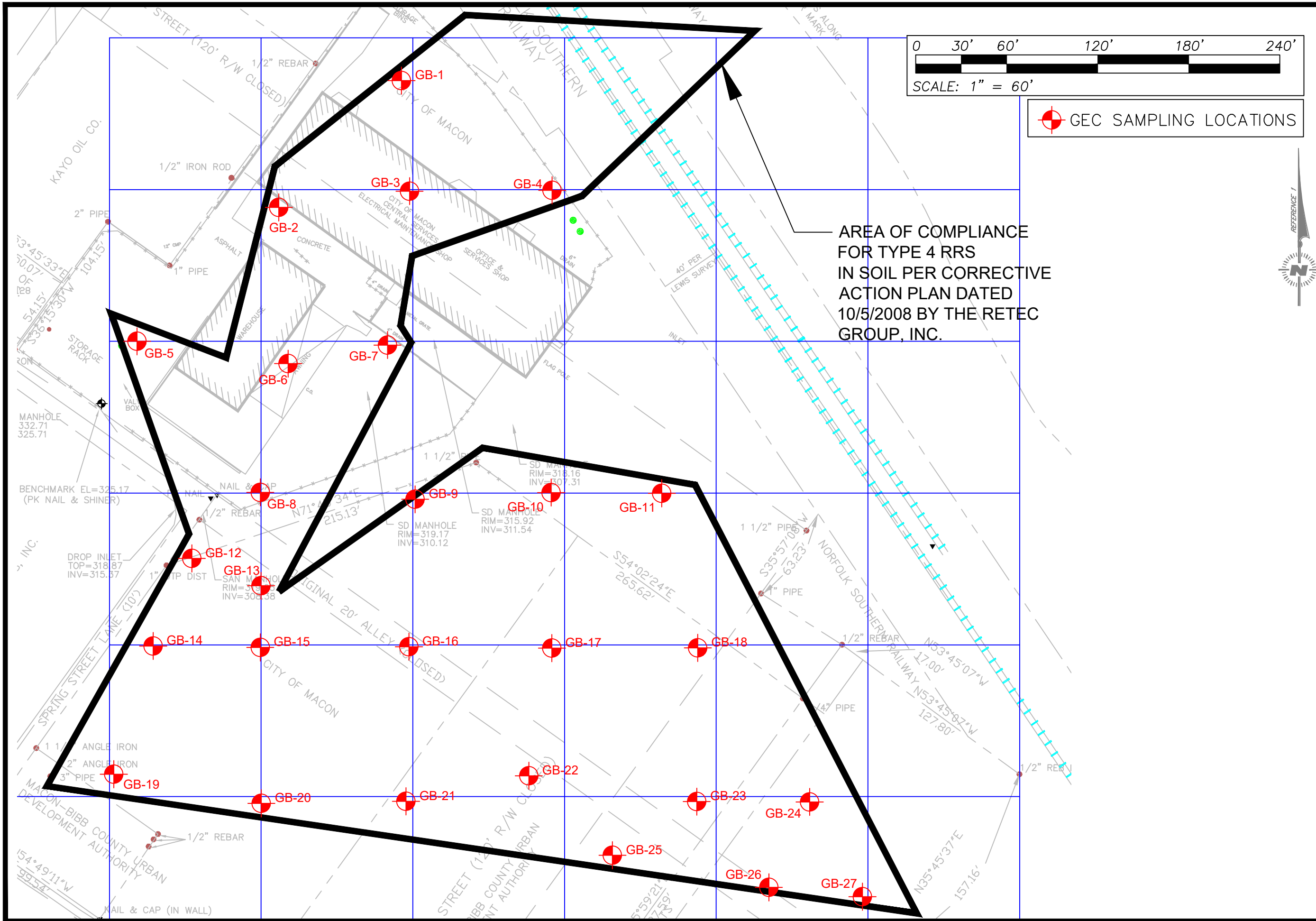


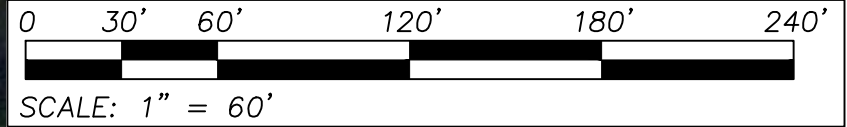
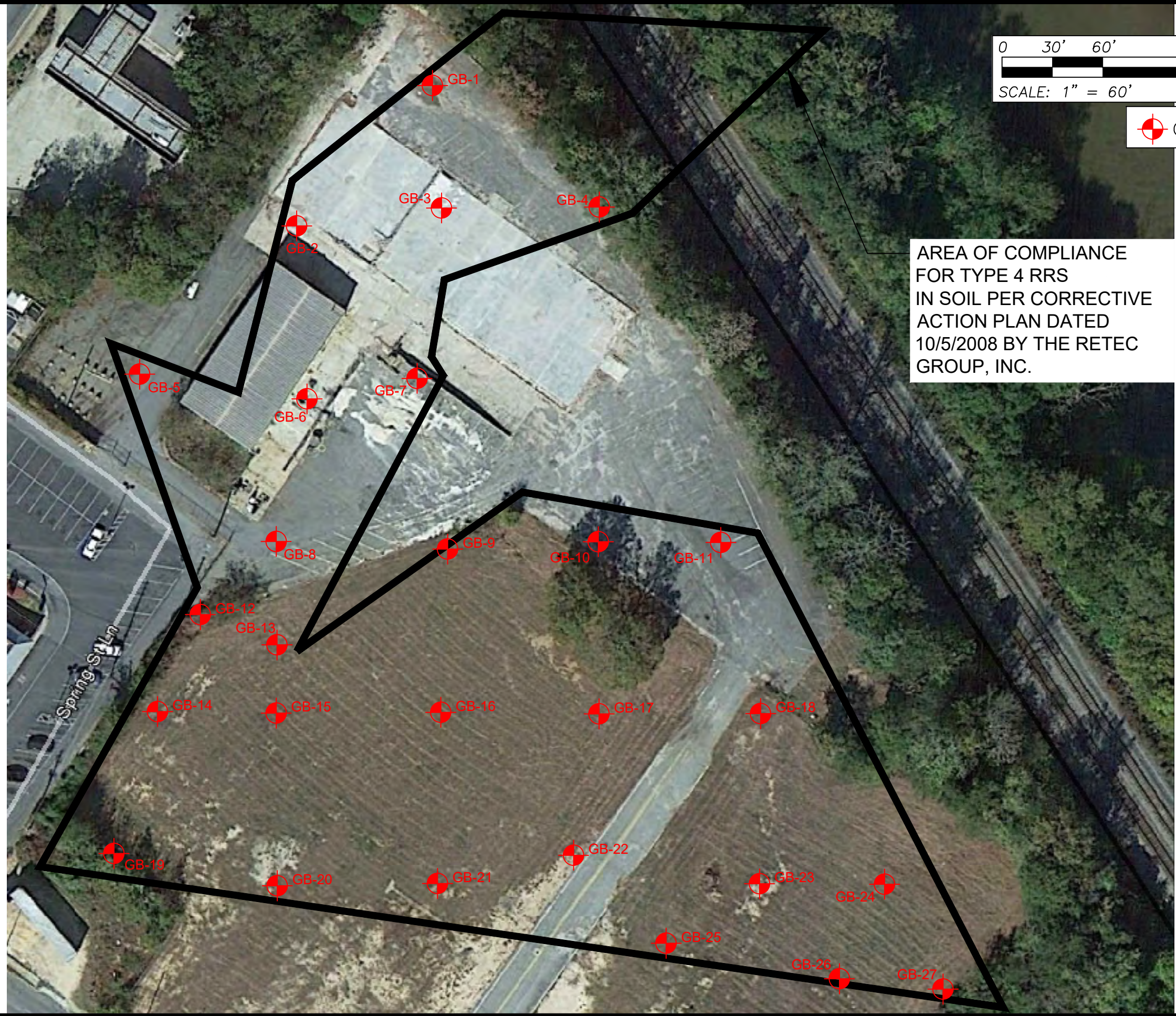
FIGURE 1: GEC SAMPLING LOCATIONS  
FORMER MACON MGP #2 PLANT  
MACON, GEORGIA

GEC PROJECT NO. 130659.241

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

514 HILLCREST INDUSTRIAL BLVD.  
MACON, GEORGIA 31204  
478-757-1606 (Fax) 478-757-1608  
WWW.GECONSULTANTS.COM





 GEC SAMPLING LOCATIONS

AREA OF COMPLIANCE  
FOR TYPE 4 RRS  
IN SOIL PER CORRECTIVE  
ACTION PLAN DATED  
10/5/2008 BY THE RETEC  
GROUP, INC.



FIGURE 2: GEC SAMPLING LOCATIONS  
FORMER MACON MGP #2 PLANT  
MACON, GEORGIA  
GEC PROJECT NO. 130659.241

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

514 HILLCREST INDUSTRIAL BLVD.  
MACON, GEORGIA 31204  
478-757-1606 (Fax) 478-757-1608  
WWW.GECONSULTANTS.COM



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

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

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

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



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

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

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.

Summary of Soil Test Borings-Feb. 13, 2014

Former Macon MGP #2 Plant

Macon, Georgia

GEC Project No. 130659.241

**GB-1**

Depth	Description
0-2"	Asphalt
2"-5"	Gravel
5"-2'	Multicolor Silty SAND (SM)

**GB-2**

Depth	Description
0-6"	Concrete
6"-9"	Gravel
9"-1'	Red Tan Clayey SILT (ML)
1'-2'	Grey Brown Silty SAND (SM)

**GB-3**

Depth	Description
0-6"	Concrete
6"-1.5'	Orange Red Silty SAND (SM)
1.5'-2'	Organic Wood Debris

**GB-4**

Depth	Description
0-3"	Asphalt
3"-5"	Gravel
5"-2'	Tan Brown Silty SAND

**GB-5**

Depth	Description
0-3"	Asphalt
3"-5"	Gravel
5"-2'	Red Tan Clayey SILT (ML)

**GB-6**

Depth	Description
0-8"	Concrete
8"-2'	Red Clayey SILT (ML)

**GB-8**

Depth	Description
0-3"	Asphalt
3"-5"	Gravel
5"-8"	Red Clayey SILT (ML)
8"-1'	Black Silty SAND (SM)
1'-2'	Brown Silty SAND (SM)

**GB-9**

Depth	Description
0-6"	Topsoil
6"-1'	Brown Silty SAND (SM)
1'-2'	Red Brown Silty SAND (SM)

**GB-10**

Depth	Description
0-1"	Asphalt
1"-3"	Gravel
3"-2'	Grey Orange Silty SAND (SM)

**GB-11**

Depth	Description
0-3"	Asphalt
3"-6"	Gravel
6"-1.5'	Tan Beige Silty SAND (SM)
1.5'-2'	Grey Silty SAND (SM)

**GB-12**

Depth	Description
0-1"	Topsoil
1"-1.5'	Brown Silty SAND (SM)
1.5'-2'	Multicolor Silty SAND (SM)

**GB-13**

Depth	Description
0-1"	Topsoil
1"-2'	Red Orange Silty SAND (SM)

Summary of Soil Test Borings-Feb. 13, 2014

Former Macon MGP #2 Plant

Macon, Georgia

GEC Project No. 130659.241

**GB-7**

Depth	Description
0-2"	Asphalt
2"-5"	Gravel
5"-2'	Grey Orange Silty SAND (SM)

**GB-14**

Depth	Description
0-1"	Topsoil
1"-1.5'	Brown Silty SAND (SM)
1.5'-2'	Orange Silty SAND (SM)

**GB-15**

Depth	Description
0-1"	Topsoil
1"-6"	Brown Silty SAND (SM)
6"-2'	Red Orange Silty SAND (SM)

**GB-23**

Depth	Description
0-1"	Topsoil
1"-1.5'	Beige Tan Silty SAND (SM)
1.5'-2'	Multicolor w/ Black Silty SAND (SM)

**GB-16**

Depth	Description
0-1"	Topsoil
1"-1'	Multicolor Silty SAND (SM)
1'-2'	Brown Silty SAND (SM)

**GB-24**

Depth	Description
0-1"	Topsoil
1"-2'	Beige Brown Silty SAND (SM)

**GB-17**

Depth	Description
0-1"	Topsoil
1"-2'	Brown Silty SAND (SM)

**GB-25**

Depth	Description
0-1"	Topsoil
1"-6"	Gravel w/ Black Silty SAND (SM)
6"-2'	Multicolor Silty SAND (SM)

**GB-18**

Depth	Description
0-1"	Topsoil
1"-1.5'	Beige Tan Silty SAND (SM)
1.5'-2'	Multicolor w/ Black Silty SAND (SM)

**GB-26**

Depth	Description
0-1"	Topsoil
1"-1.5'	Brown Silty SAND (SM)
1.5'-2'	Multicolor Silty SAND (SM)

**GB-19**

Depth	Description
0-1"	Topsoil
1"-2'	Pink Silty SAND (SM)

**GB-27**

Depth	Description
0-1"	Topsoil
1"-6"	Black Silty SAND (SM)
6"-1'	Brown Silty SAND (SM)
1'-2'	Orange Silty SAND (SM)

**GB-20**

Depth	Description
0-2'	Beige Silty SAND (SM)

Summary of Soil Test Borings-Feb. 13, 2014

Former Macon MGP #2 Plant

Macon, Georgia

GEC Project No. 130659.241

**GB-21**

<b>Depth</b>	<b>Description</b>
0-1'	Brown Silty SAND (SM)
1'-2'	Orange Red Silty SAND (SM)

**GB-22**

<b>Depth</b>	<b>Description</b>
0-2"	Black Silty SAND (SM)
2"-1'	Brown Silty SAND (SM)
1'-2'	Multicolor Silty SAND (SM)



# **Analytical Report 479331**

**for**

## **Geotechnical & Environmental Consultants, Inc.**

**Project Manager: Tom Driver**

**Macon 2 MGP**

**130659.240**

**21-FEB-14**

Collected By: Client



Florida Testing Services, LLC



**6017 Financial Dr., Norcross, GA 30071**

**Ph:(770) 449-8800 Fax:(770) 449-5477**

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-14-16-TX), Arizona (AZ0765), Florida (E871002), Louisiana (03054)

New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD ( L10-135)

Louisiana (04176), USDA (P330-07-00105)

Xenco-Lakeland: Florida (E84098)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

21-FEB-14

Project Manager: **Tom Driver**  
**Geotechnical & Environmental Consultants, Inc.**  
514 Hillcrest Industrial Blvd.  
Macon, GA 31204

Reference: XENCO Report No(s): **479331**  
**Macon 2 MGP**  
Project Address: GA

**Tom Driver:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 479331. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 479331 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,



**Eben Buchanan**  
Project Manager

***Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.***  
*Certified and approved by numerous States and Agencies.*  
*A Small Business and Minority Status Company that delivers SERVICE and QUALITY*

Houston - Dallas - Odessa - San Antonio - Tampa - Lakeland - Atlanta - Phoenix - Oklahoma - Latin America

## Geotechnical & Environmental Consultants, Inc., Macon, G

### Macon 2 MGP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
GB-9	S	02-13-14 10:15	0 - 6 In	479331-001
GB-9	S	02-13-14 10:18	0.5 - 2 ft	479331-002
GB-13	S	02-13-14 11:09	0 - 6 In	479331-003
GB-13	S	02-13-14 11:23	0.5 - 2 ft	479331-004
GB-15	S	02-13-14 11:32	0 - 6 In	479331-005
GB-15	S	02-13-14 11:35	0.5 - 2 ft	479331-006
GB-12	S	02-13-14 12:20	0 - 6 In	479331-007
GB-12	S	02-13-14 12:23	0.5 - 2 ft	479331-008
GB-14	S	02-13-14 12:25	0 - 6 In	479331-009
GB-14	S	02-13-14 12:28	0.5 - 2 ft	479331-010
GB-19	S	02-13-14 12:31	0 - 6 In	479331-011
GB-19	S	02-13-14 12:33	0.5 - 2 ft	479331-012
GB-20	S	02-13-14 12:38	0 - 6 In	479331-013
GB-20	S	02-13-14 12:40	0.5 - 2 ft	479331-014
GB-21	S	02-13-14 12:42	0 - 6 In	479331-015
GB-21	S	02-13-14 12:44	0.5 - 2 ft	479331-016
GB-16	S	02-13-14 12:46	0 - 6 In	479331-017
GB-16	S	02-13-14 12:49	0.5 - 2 ft	479331-018
GB-17	S	02-13-14 12:55	0 - 6 In	479331-019
GB-17	S	02-13-14 12:57	0.5 - 2 ft	479331-020
GB-22	S	02-13-14 12:59	0 - 6 In	479331-021
GB-22	S	02-13-14 12:01	0.5 - 2 ft	479331-022
GB-25	S	02-13-14 12:04	0 - 6 In	479331-023
GB-25	S	02-13-14 12:03	0.5 - 2 ft	479331-024
GB-26	S	02-13-14 13:13	0 - 6 In	479331-025
GB-26	S	02-13-14 13:16	0.5 - 2 ft	479331-026
GB-27	S	02-13-14 13:18	0 - 6 In	479331-027
GB-27	S	02-13-14 13:20	0.5 - 2 ft	479331-028
GB-24	S	02-13-14 13:25	0 - 6 In	479331-029
GB-24	S	02-13-14 13:27	0.5 - 2 ft	479331-030
GB-23	S	02-13-14 13:30	0 - 6 In	479331-031
GB-23	S	02-13-14 13:33	0.5 - 2 ft	479331-032
GB-18	S	02-13-14 13:36	0 - 6 In	479331-033
GB-18	S	02-13-14 13:38	0.5 - 2 ft	479331-034
GB-11	S	02-13-14 13:40	0 - 6 In	479331-035
GB-11	S	02-13-14 13:42	0.5 - 2 ft	479331-036
GB-10	S	02-13-14 13:44	0 - 6 In	479331-037
GB-10	S	02-13-14 13:46	0.5 - 2 ft	479331-038
GB-7	S	02-13-14 13:52	0 - 6 In	479331-039
GB-7	S	02-13-14 13:54	0.5 - 2 ft	479331-040
GB-6	S	02-13-14 13:56	0 - 6 In	479331-041
GB-6	S	02-13-14 13:58	0.5 - 2 ft	479331-042
GB-5	S	02-13-14 14:07	0 - 6 In	479331-043

## Geotechnical & Environmental Consultants, Inc., Macon, G

### Macon 2 MGP

GB-5	S	02-13-14 14:09	0.5 - 2 ft	479331-044
GB-2	S	02-13-14 14:13	0 - 6 In	479331-045
GB-2	S	02-13-14 14:16	0.5 - 2 ft	479331-046
GB-1	S	02-13-14 14:27	0 - 6 In	479331-047
GB-1	S	02-13-14 14:30	0.5 - 2 ft	479331-048
GB-3	S	02-13-14 14:35	0 - 6 In	479331-049
GB-3	S	02-13-14 14:37	0.5 - 2 ft	479331-050
GB-8	S	02-13-14 14:00	0 - 6 In	479331-051
GB-8	S	02-13-14 14:03	0.5 - 2 ft	479331-052
GB-4	S	02-13-14 14:44	0 - 6 In	479331-053
GB-4	S	02-13-14 14:46	0.5 - 2 ft	479331-054
Trip Blank	W	02-13-14 00:00		479331-055

**Client Name: Geotechnical & Environmental Consultants, Inc.**

**Project Name: Macon 2 MGP**

Project ID: 130659.240  
Work Order Number(s): 479331

Report Date: 21-FEB-14  
Date Received: 02/14/2014

---

**Sample receipt non conformances and comments:**

---

**Sample receipt non conformances and comments per sample:**

None

**Analytical non conformances and comments:**

Batch: LBA-934197 VOCs by SW-846 8260B

2-Butanone (MEK) recovered below QC limits in the Matrix Spike.

The Laboratory Control Sample for 2-Butanone (MEK) is within laboratory Control Limits

Batch: LBA-934342 SVOCs by SW-846 8270D

Surrogate 2-Fluorophenol recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis

Samples affected are: 479331-001,479331-019,479331-005.

Batch: LBA-934346 VOCs by SW-846 8260B

Internal standard, 1,4-Dichlorobenzene-d4, was outside method acceptance critiera for -005. Matrix interference is suspected. Confirmed by re-analysis.

Batch: LBA-934355 VOCs by SW-846 8260B

Dichlorodifluoromethane recovered above QC limits in the laboratory control sample. Samples are non-detect for this analyte.

1,1,2-Trichloro-1,2,2-Trifluoroethane recovered above QC limits in the Matrix Spike.

Samples affected are: 479331-030.

The Laboratory Control Sample for 1,1,2-Trichloro-1,2,2-Trifluoroethane is within laboratory Control Limits

Internal standard, 1,4-Dichlorobenzene-d4, was outside method acceptance criteria for -026 and -027. Matrix interference is suspected. Confirmed by re-analysis.

Batch: LBA-934377 VOCs by SW-846 8260B

Internal standard, 1,4-Dichlorobenzene-d4, was outside method acceptance criteria for -023. Matrix interference is suspected. Confirmed by re-analysis.

**Client Name: Geotechnical & Environmental Consultants, Inc.**

**Project Name: Macon 2 MGP**

Project ID: 130659.240  
Work Order Number(s): 479331

Report Date: 21-FEB-14  
Date Received: 02/14/2014

Batch: LBA-934444 VOCs by SW-846 8260B

1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,2-Dibromo-3-chloropropane (DBCP), 1,2-Dibromoethane (EDB), 1,2-Dichlorobenzene, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 2-Butanone (MEK), 2-Hexanone, 4-Methyl-2-pentanone (MIBK), Acetone, Bromochloromethane, Bromodichloromethane, Bromoform, Chlorobenzene, Chloroform, Dibromochloromethane, Methyl acetate, Methyl tert-butyl ether, Methylene Chloride, Styrene, cis-1,3-Dichloropropene, o-Xylene, trans-1,3-Dichloropropene RPD was outside QC limits.

Samples affected are: 479331-050.

1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,2-Dibromoethane (EDB), 1,2-Dichlorobenzene, 1,2-Dichloropropane, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 2-Butanone (MEK), 2-Hexanone, Bromoform, Ethylbenzene, Styrene, cis-1,2-Dichloroethene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. 1,1-Dichloroethane, 1,2-Dibromo-3-chloropropane (DBCP), 1,2-Dichloroethane, 4-Methyl-2-pentanone (MIBK), Benzene, Bromochloromethane, Bromodichloromethane, Bromomethane, Chlorobenzene, Chloroform, Chloromethane, Dibromochloromethane, Isopropylbenzene, Methyl acetate, Methyl tert-butyl ether, Methylene Chloride, Tetrachloroethene, Toluene, cis-1,3-Dichloropropene, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene recovered below QC limits in the Matrix Spike Duplicate.

Samples affected are: 479331-050.

The Laboratory Control Sample for 1,1-Dichloroethane, 1,2-Dichloropropane, 1,3-Dichlorobenzene, 2-Butanone (MEK), Bromodichloromethane, Bromomethane, Methylene Chloride, 1,2-Dichloroethane, Bromochloromethane, Isopropylbenzene, Methyl tert-butyl ether, Toluene, cis-1,2-Dichloroethene, 1,2-Dibromo-3-chloropropane (DBCP), 1,4-Dichlorobenzene, Benzene, m,p-Xylenes, trans-1,2-Dichloroethene, Chloroform, Chloromethane, Methyl acetate, cis-1,3-Dichloropropene, 1,1,2,2-Tetrachloroethane, 2-Hexanone, Ethylbenzene, Tetrachloroethene, o-Xylene, 1,2,4-Trichlorobenzene, 1,2-Dibromoethane (EDB), 1,2-Dichlorobenzene, 1,2,3-Trichlorobenzene, Chlorobenzene, Dibromochloromethane, Styrene, trans-1,3-Dichloropropene, 1,1,2-Trichloroethane, 4-Methyl-2-pentanone (MIBK), Bromoform is within laboratory Control Limits

Batch: LBA-934471 SVOCs by SW-846 8270D

4,6-dinitro-2-methyl phenol, Hexachlorocyclopentadiene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 479331-022.

The Laboratory Control Sample for Hexachlorocyclopentadiene, 4,6-dinitro-2-methyl phenol is within laboratory Control Limits



**Client Name: Geotechnical & Environmental Consultants, Inc.**

**Project Name: Macon 2 MGP**

Project ID: 130659.240  
Work Order Number(s): 479331

Report Date: 21-FEB-14  
Date Received: 02/14/2014

---

Batch: LBA-934473 SVOCs by SW-846 8270D

2-Chlorophenol, Hexachlorobutadiene, Hexachloroethane, bis(2-chloroethyl) ether RPD was outside QC limits.

LCS/LCSD recovered within limits.

Batch: LBA-934533 RCRA Metals by SW846-6010C

Barium, Lead recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 479331-036.

The Laboratory Control Sample for Barium, Lead is within laboratory Control Limits

Batch: LBA-934549 Mercury by SW-846 7471B

Mercury recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 479331-010.

The Laboratory Control Sample for Mercury is within laboratory Control Limits

Batch: LBA-934552 Mercury by SW-846 7471B

Mercury recovered above QC limits in the Matrix Spike Duplicate.

Samples affected are: 479331-050.

The Laboratory Control Sample for Mercury is within laboratory Control Limits.

Mercury RPD was outside QC limits.

Samples affected are: 479331-050.

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-9** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-001 Date Collected: 02.13.14 10.15 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 12.95  
 Analyst: 4150 Date Prep: 02.16.14 07.42 Basis: Dry Weight  
 Seq Number: 934364

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0563	mg/kg	02.18.14 14.20	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 12.95  
 Analyst: 4150 Date Prep: 02.18.14 08.34 Basis: Dry Weight  
 Seq Number: 934418

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.69	mg/kg	02.19.14 14.32	U	1
<b>Barium</b>	7440-39-3	<b>74.1</b>	5.69	mg/kg	02.19.14 14.32		1
Cadmium	7440-43-9	BRL	1.14	mg/kg	02.19.14 14.32	U	1
<b>Chromium</b>	7440-47-3	<b>11.0</b>	5.69	mg/kg	02.19.14 14.32		1
<b>Lead</b>	7439-92-1	<b>53.7</b>	5.69	mg/kg	02.19.14 14.32		1
Selenium	7782-49-2	BRL	1.14	mg/kg	02.19.14 14.32	U	1
Silver	7440-22-4	BRL	1.14	mg/kg	02.19.14 14.32	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-9</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-001	Date Collected: 02.13.14 10.15	Sample Depth: 0 - 6 In
Analytical Method: SVOCs by SW-846 8270D		Prep Method: SW3550
Tech: TUE		% Moisture: 12.95
Analyst: VIC	Date Prep: 02.17.14 13.30	Basis: Dry Weight
Seq Number: 934342		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.380	mg/kg	02.18.14 11.05	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.380	mg/kg	02.18.14 11.05	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.380	mg/kg	02.18.14 11.05	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.380	mg/kg	02.18.14 11.05	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.380	mg/kg	02.18.14 11.05	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.380	mg/kg	02.18.14 11.05	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.380	mg/kg	02.18.14 11.05	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.380	mg/kg	02.18.14 11.05	U	1
2-Chloronaphthalene	91-58-7	BRL	0.380	mg/kg	02.18.14 11.05	U	1
2-Chlorophenol	95-57-8	BRL	0.380	mg/kg	02.18.14 11.05	U	1
2-Methylnaphthalene	91-57-6	BRL	0.380	mg/kg	02.18.14 11.05	U	1
2-methylphenol	95-48-7	BRL	0.380	mg/kg	02.18.14 11.05	U	1
2-Nitroaniline	88-74-4	BRL	0.380	mg/kg	02.18.14 11.05	U	1
2-Nitrophenol	88-75-5	BRL	0.380	mg/kg	02.18.14 11.05	U	1
3&4-Methylphenol	15831-10-4	BRL	0.380	mg/kg	02.18.14 11.05	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.380	mg/kg	02.18.14 11.05	U	1
3-Nitroaniline	99-09-2	BRL	0.380	mg/kg	02.18.14 11.05	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.380	mg/kg	02.18.14 11.05	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.380	mg/kg	02.18.14 11.05	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.380	mg/kg	02.18.14 11.05	U	1
4-Chloroaniline	106-47-8	BRL	0.380	mg/kg	02.18.14 11.05	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.380	mg/kg	02.18.14 11.05	U	1
4-Nitroaniline	100-01-6	BRL	0.380	mg/kg	02.18.14 11.05	U	1
4-Nitrophenol	100-02-7	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Acenaphthene	83-32-9	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Acenaphthylene	208-96-8	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Acetophenone	98-86-2	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Anthracene	120-12-7	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Benzo(a)anthracene	56-55-3	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Benzo(a)pyrene	50-32-8	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.380	mg/kg	02.18.14 11.05	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.380	mg/kg	02.18.14 11.05	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.380	mg/kg	02.18.14 11.05	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Butylbenzylphthalate	85-68-7	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Carbazole	86-74-8	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Chrysene	218-01-9	BRL	0.380	mg/kg	02.18.14 11.05	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-9** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-001 Date Collected: 02.13.14 10.15 Sample Depth: 0 - 6 In  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 12.95  
Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Dibenzofuran	132-64-9	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Diethyl Phthalate	84-66-2	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Dimethyl Phthalate	131-11-3	BRL	0.380	mg/kg	02.18.14 11.05	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.380	mg/kg	02.18.14 11.05	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Fluoranthene	206-44-0	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Fluorene	86-73-7	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Hexachlorobenzene	118-74-1	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Hexachlorobutadiene	87-68-3	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Hexachloroethane	67-72-1	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Isophorone	78-59-1	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Naphthalene	91-20-3	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Nitrobenzene	98-95-3	BRL	0.380	mg/kg	02.18.14 11.05	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.380	mg/kg	02.18.14 11.05	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Pentachlorophenol	87-86-5	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Phenanthrene	85-01-8	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Phenol	108-95-2	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Pyrene	129-00-0	BRL	0.380	mg/kg	02.18.14 11.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	51	%	20-112	02.18.14 11.05		
2-Fluorophenol	367-12-4	6	%	18-101	02.18.14 11.05	**	
Nitrobenzene-d5	4165-60-0	17	%	13-112	02.18.14 11.05		
Phenol-d5	4165-62-2	25	%	15-110	02.18.14 11.05		
Terphenyl-D14	1718-51-0	98	%	21-138	02.18.14 11.05		
2,4,6-Tribromophenol	118-79-6	73	%	21-128	02.18.14 11.05		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-9</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-001	Date Collected: 02.13.14 10.15	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 12.95
Analyst: MCH	Date Prep: 02.15.14 15.29	Basis: Dry Weight
Seq Number: 934197		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.00970	mg/kg	02.15.14 17.19	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0485	mg/kg	02.15.14 17.19	U	1
2-Hexanone	591-78-6	BRL	0.0485	mg/kg	02.15.14 17.19	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0485	mg/kg	02.15.14 17.19	U	1
Acetone	67-64-1	BRL	0.0970	mg/kg	02.15.14 17.19	U	1
Benzene	71-43-2	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
Bromochloromethane	74-97-5	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
Bromodichloromethane	75-27-4	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
Bromoform	75-25-2	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
Bromomethane	74-83-9	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
Carbon disulfide	75-15-0	BRL	0.0485	mg/kg	02.15.14 17.19	U	1
Carbon tetrachloride	56-23-5	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
Chlorobenzene	108-90-7	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
Chloroethane	75-00-3	BRL	0.00970	mg/kg	02.15.14 17.19	U	1
Chloroform	67-66-3	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
Chloromethane	74-87-3	BRL	0.00970	mg/kg	02.15.14 17.19	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
Cyclohexane	110-82-7	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
Dibromochloromethane	124-48-1	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
Ethylbenzene	100-41-4	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
Isopropylbenzene	98-82-8	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
m,p-Xylenes	179601-23-1	BRL	0.00970	mg/kg	02.15.14 17.19	U	1
Methyl acetate	79-20-9	BRL	0.00970	mg/kg	02.15.14 17.19	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-9</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-001	Date Collected: 02.13.14 10.15	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 12.95
Analyst: MCH	Date Prep: 02.15.14 15.29	Basis: Dry Weight
Seq Number: 934197		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
Methylcyclohexane	108-87-2	BRL	0.00970	mg/kg	02.15.14 17.19	U	1
Methylene Chloride	75-09-2	BRL	0.0194	mg/kg	02.15.14 17.19	U	1
o-Xylene	95-47-6	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
Styrene	100-42-5	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
Tetrachloroethene	127-18-4	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
Toluene	108-88-3	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
Trichloroethene	79-01-6	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00485	mg/kg	02.15.14 17.19	U	1
Vinyl Chloride	75-01-4	BRL	0.00194	mg/kg	02.15.14 17.19	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
Dibromofluoromethane	1868-53-7	92	%	53-142	02.15.14 17.19		
1,2-Dichloroethane-D4	17060-07-0	89	%	56-150	02.15.14 17.19		
Toluene-D8	2037-26-5	99	%	70-130	02.15.14 17.19		
4-Bromofluorobenzene	460-00-4	104	%	68-152	02.15.14 17.19		



## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-9** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-002 Date Collected: 02.13.14 10.18 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 11.38  
 Analyst: 4150 Date Prep: 02.16.14 07.42 Basis: Dry Weight  
 Seq Number: 934364

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	<b>0.0738</b>	0.0513	mg/kg	02.18.14 14.23		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 11.38  
 Analyst: 4150 Date Prep: 02.18.14 08.34 Basis: Dry Weight  
 Seq Number: 934418

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.27	mg/kg	02.19.14 14.34	U	1
<b>Barium</b>	7440-39-3	<b>198</b>	5.27	mg/kg	02.19.14 14.34		1
Cadmium	7440-43-9	BRL	1.05	mg/kg	02.19.14 14.34	U	1
<b>Chromium</b>	7440-47-3	<b>12.4</b>	5.27	mg/kg	02.19.14 14.34		1
<b>Lead</b>	7439-92-1	<b>37.8</b>	5.27	mg/kg	02.19.14 14.34		1
<b>Selenium</b>	7782-49-2	<b>1.73</b>	1.05	mg/kg	02.19.14 14.34		1
Silver	7440-22-4	BRL	1.05	mg/kg	02.19.14 14.34	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-9</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-002	Date Collected: 02.13.14 10.18	Sample Depth: 0.5 - 2 ft
Analytical Method: SVOCs by SW-846 8270D		Prep Method: SW3550
Tech: TUE		% Moisture: 11.38
Analyst: VIC	Date Prep: 02.17.14 13.30	Basis: Dry Weight
Seq Number: 934342		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.375	mg/kg	02.18.14 11.33	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.375	mg/kg	02.18.14 11.33	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.375	mg/kg	02.18.14 11.33	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.375	mg/kg	02.18.14 11.33	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.375	mg/kg	02.18.14 11.33	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.375	mg/kg	02.18.14 11.33	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.375	mg/kg	02.18.14 11.33	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.375	mg/kg	02.18.14 11.33	U	1
2-Chloronaphthalene	91-58-7	BRL	0.375	mg/kg	02.18.14 11.33	U	1
2-Chlorophenol	95-57-8	BRL	0.375	mg/kg	02.18.14 11.33	U	1
2-Methylnaphthalene	91-57-6	BRL	0.375	mg/kg	02.18.14 11.33	U	1
2-methylphenol	95-48-7	BRL	0.375	mg/kg	02.18.14 11.33	U	1
2-Nitroaniline	88-74-4	BRL	0.375	mg/kg	02.18.14 11.33	U	1
2-Nitrophenol	88-75-5	BRL	0.375	mg/kg	02.18.14 11.33	U	1
3&4-Methylphenol	15831-10-4	BRL	0.375	mg/kg	02.18.14 11.33	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.375	mg/kg	02.18.14 11.33	U	1
3-Nitroaniline	99-09-2	BRL	0.375	mg/kg	02.18.14 11.33	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.375	mg/kg	02.18.14 11.33	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.375	mg/kg	02.18.14 11.33	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.375	mg/kg	02.18.14 11.33	U	1
4-Chloroaniline	106-47-8	BRL	0.375	mg/kg	02.18.14 11.33	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.375	mg/kg	02.18.14 11.33	U	1
4-Nitroaniline	100-01-6	BRL	0.375	mg/kg	02.18.14 11.33	U	1
4-Nitrophenol	100-02-7	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Acenaphthene	83-32-9	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Acenaphthylene	208-96-8	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Acetophenone	98-86-2	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Anthracene	120-12-7	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Benzo(a)anthracene	56-55-3	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Benzo(a)pyrene	50-32-8	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.375	mg/kg	02.18.14 11.33	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.375	mg/kg	02.18.14 11.33	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.375	mg/kg	02.18.14 11.33	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Butylbenzylphthalate	85-68-7	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Carbazole	86-74-8	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Chrysene	218-01-9	BRL	0.375	mg/kg	02.18.14 11.33	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-9** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-002 Date Collected: 02.13.14 10.18 Sample Depth: 0.5 - 2 ft  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 11.38  
 Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
 Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Dibenzofuran	132-64-9	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Diethyl Phthalate	84-66-2	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Dimethyl Phthalate	131-11-3	BRL	0.375	mg/kg	02.18.14 11.33	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.375	mg/kg	02.18.14 11.33	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Fluoranthene	206-44-0	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Fluorene	86-73-7	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Hexachlorobenzene	118-74-1	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Hexachlorobutadiene	87-68-3	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Hexachloroethane	67-72-1	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Isophorone	78-59-1	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Naphthalene	91-20-3	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Nitrobenzene	98-95-3	BRL	0.375	mg/kg	02.18.14 11.33	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.375	mg/kg	02.18.14 11.33	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Pentachlorophenol	87-86-5	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Phenanthrene	85-01-8	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Phenol	108-95-2	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Pyrene	129-00-0	BRL	0.375	mg/kg	02.18.14 11.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	66	%	20-112	02.18.14 11.33		
2-Fluorophenol	367-12-4	57	%	18-101	02.18.14 11.33		
Nitrobenzene-d5	4165-60-0	63	%	13-112	02.18.14 11.33		
Phenol-d5	4165-62-2	70	%	15-110	02.18.14 11.33		
Terphenyl-D14	1718-51-0	107	%	21-138	02.18.14 11.33		
2,4,6-Tribromophenol	118-79-6	77	%	21-128	02.18.14 11.33		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-9</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-002	Date Collected: 02.13.14 10.18	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 11.38
Analyst: MCH	Date Prep: 02.15.14 15.30	Basis: Dry Weight
Seq Number: 934197		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0126	mg/kg	02.15.14 17.45	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0628	mg/kg	02.15.14 17.45	U	1
2-Hexanone	591-78-6	BRL	0.0628	mg/kg	02.15.14 17.45	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0628	mg/kg	02.15.14 17.45	U	1
Acetone	67-64-1	BRL	0.126	mg/kg	02.15.14 17.45	U	1
Benzene	71-43-2	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
Bromochloromethane	74-97-5	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
Bromodichloromethane	75-27-4	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
Bromoform	75-25-2	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
Bromomethane	74-83-9	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
Carbon disulfide	75-15-0	BRL	0.0628	mg/kg	02.15.14 17.45	U	1
Carbon tetrachloride	56-23-5	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
Chlorobenzene	108-90-7	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
Chloroethane	75-00-3	BRL	0.0126	mg/kg	02.15.14 17.45	U	1
Chloroform	67-66-3	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
Chloromethane	74-87-3	BRL	0.0126	mg/kg	02.15.14 17.45	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
Cyclohexane	110-82-7	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
Dibromochloromethane	124-48-1	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
Ethylbenzene	100-41-4	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
Isopropylbenzene	98-82-8	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
m,p-Xylenes	179601-23-1	BRL	0.0126	mg/kg	02.15.14 17.45	U	1
Methyl acetate	79-20-9	BRL	0.0126	mg/kg	02.15.14 17.45	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-9</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-002	Date Collected: 02.13.14 10.18	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 11.38
Analyst: MCH	Date Prep: 02.15.14 15.30	Basis: Dry Weight
Seq Number: 934197		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
Methylcyclohexane	108-87-2	BRL	0.0126	mg/kg	02.15.14 17.45	U	1
Methylene Chloride	75-09-2	BRL	0.0251	mg/kg	02.15.14 17.45	U	1
o-Xylene	95-47-6	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
Styrene	100-42-5	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
Tetrachloroethene	127-18-4	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
Toluene	108-88-3	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
Trichloroethene	79-01-6	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00628	mg/kg	02.15.14 17.45	U	1
Vinyl Chloride	75-01-4	BRL	0.00251	mg/kg	02.15.14 17.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	93	%	53-142	02.15.14 17.45	
1,2-Dichloroethane-D4	17060-07-0	87	%	56-150	02.15.14 17.45	
Toluene-D8	2037-26-5	96	%	70-130	02.15.14 17.45	
4-Bromofluorobenzene	460-00-4	99	%	68-152	02.15.14 17.45	

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-13** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-003 Date Collected: 02.13.14 11.09 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 15.72  
 Analyst: 4150 Date Prep: 02.16.14 07.42 Basis: Dry Weight  
 Seq Number: 934364

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0549	mg/kg	02.18.14 14.26	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 15.72  
 Analyst: 4150 Date Prep: 02.18.14 08.34 Basis: Dry Weight  
 Seq Number: 934418

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	<b>6.22</b>	5.44	mg/kg	02.19.14 14.35		1
Barium	7440-39-3	<b>42.9</b>	5.44	mg/kg	02.19.14 14.35		1
Cadmium	7440-43-9	<b>1.13</b>	1.09	mg/kg	02.19.14 14.35		1
Chromium	7440-47-3	<b>26.7</b>	5.44	mg/kg	02.19.14 14.35		1
Lead	7439-92-1	<b>32.4</b>	5.44	mg/kg	02.19.14 14.35		1
Selenium	7782-49-2	BRL	1.09	mg/kg	02.19.14 14.35	U	1
Silver	7440-22-4	BRL	1.09	mg/kg	02.19.14 14.35	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-13** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-003 Date Collected: 02.13.14 11.09 Sample Depth: 0 - 6 In  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 15.72  
Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.394	mg/kg	02.18.14 15.17	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.394	mg/kg	02.18.14 15.17	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.394	mg/kg	02.18.14 15.17	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.394	mg/kg	02.18.14 15.17	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.394	mg/kg	02.18.14 15.17	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.394	mg/kg	02.18.14 15.17	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.394	mg/kg	02.18.14 15.17	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.394	mg/kg	02.18.14 15.17	U	1
2-Chloronaphthalene	91-58-7	BRL	0.394	mg/kg	02.18.14 15.17	U	1
2-Chlorophenol	95-57-8	BRL	0.394	mg/kg	02.18.14 15.17	U	1
2-Methylnaphthalene	91-57-6	BRL	0.394	mg/kg	02.18.14 15.17	U	1
2-methylphenol	95-48-7	BRL	0.394	mg/kg	02.18.14 15.17	U	1
2-Nitroaniline	88-74-4	BRL	0.394	mg/kg	02.18.14 15.17	U	1
2-Nitrophenol	88-75-5	BRL	0.394	mg/kg	02.18.14 15.17	U	1
3&4-Methylphenol	15831-10-4	BRL	0.394	mg/kg	02.18.14 15.17	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.394	mg/kg	02.18.14 15.17	U	1
3-Nitroaniline	99-09-2	BRL	0.394	mg/kg	02.18.14 15.17	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.394	mg/kg	02.18.14 15.17	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.394	mg/kg	02.18.14 15.17	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.394	mg/kg	02.18.14 15.17	U	1
4-Chloroaniline	106-47-8	BRL	0.394	mg/kg	02.18.14 15.17	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.394	mg/kg	02.18.14 15.17	U	1
4-Nitroaniline	100-01-6	BRL	0.394	mg/kg	02.18.14 15.17	U	1
4-Nitrophenol	100-02-7	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Acenaphthene	83-32-9	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Acenaphthylene	208-96-8	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Acetophenone	98-86-2	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Anthracene	120-12-7	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Benzo(a)anthracene	56-55-3	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Benzo(a)pyrene	50-32-8	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.394	mg/kg	02.18.14 15.17	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.394	mg/kg	02.18.14 15.17	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.394	mg/kg	02.18.14 15.17	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Butylbenzylphthalate	85-68-7	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Carbazole	86-74-8	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Chrysene	218-01-9	BRL	0.394	mg/kg	02.18.14 15.17	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-13**  
Lab Sample Id: 479331-003

Matrix: Soil  
Date Collected: 02.13.14 11.09

Date Received: 02.14.14 12.30  
Sample Depth: 0 - 6 In

Analytical Method: SVOCs by SW-846 8270D

Tech: TUE

Analyst: VIC

Seq Number: 934342

Date Prep: 02.17.14 13.30

Prep Method: SW3550

% Moisture: 15.72

Basis: Dry Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Dibenzofuran	132-64-9	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Diethyl Phthalate	84-66-2	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Dimethyl Phthalate	131-11-3	BRL	0.394	mg/kg	02.18.14 15.17	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.394	mg/kg	02.18.14 15.17	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Fluoranthene	206-44-0	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Fluorene	86-73-7	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Hexachlorobenzene	118-74-1	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Hexachlorobutadiene	87-68-3	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Hexachloroethane	67-72-1	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Isophorone	78-59-1	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Naphthalene	91-20-3	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Nitrobenzene	98-95-3	BRL	0.394	mg/kg	02.18.14 15.17	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.394	mg/kg	02.18.14 15.17	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Pentachlorophenol	87-86-5	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Phenanthrene	85-01-8	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Phenol	108-95-2	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Pyrene	129-00-0	BRL	0.394	mg/kg	02.18.14 15.17	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	71	%	20-112	02.18.14 15.17		
2-Fluorophenol	367-12-4	60	%	18-101	02.18.14 15.17		
Nitrobenzene-d5	4165-60-0	66	%	13-112	02.18.14 15.17		
Phenol-d5	4165-62-2	72	%	15-110	02.18.14 15.17		
Terphenyl-D14	1718-51-0	106	%	21-138	02.18.14 15.17		
2,4,6-Tribromophenol	118-79-6	86	%	21-128	02.18.14 15.17		

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-13</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-003	Date Collected: 02.13.14 11.09	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 15.72
Analyst: MCH	Date Prep: 02.15.14 15.31	Basis: Dry Weight
Seq Number: 934197		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0133	mg/kg	02.15.14 18.10	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0667	mg/kg	02.15.14 18.10	U	1
2-Hexanone	591-78-6	BRL	0.0667	mg/kg	02.15.14 18.10	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0667	mg/kg	02.15.14 18.10	U	1
Acetone	67-64-1	BRL	0.133	mg/kg	02.15.14 18.10	U	1
Benzene	71-43-2	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
Bromochloromethane	74-97-5	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
Bromodichloromethane	75-27-4	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
Bromoform	75-25-2	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
Bromomethane	74-83-9	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
Carbon disulfide	75-15-0	BRL	0.0667	mg/kg	02.15.14 18.10	U	1
Carbon tetrachloride	56-23-5	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
Chlorobenzene	108-90-7	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
Chloroethane	75-00-3	BRL	0.0133	mg/kg	02.15.14 18.10	U	1
Chloroform	67-66-3	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
Chloromethane	74-87-3	BRL	0.0133	mg/kg	02.15.14 18.10	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
Cyclohexane	110-82-7	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
Dibromochloromethane	124-48-1	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
Ethylbenzene	100-41-4	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
Isopropylbenzene	98-82-8	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
m,p-Xylenes	179601-23-1	BRL	0.0133	mg/kg	02.15.14 18.10	U	1
Methyl acetate	79-20-9	BRL	0.0133	mg/kg	02.15.14 18.10	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-13</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-003	Date Collected: 02.13.14 11.09	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 15.72
Analyst: MCH	Date Prep: 02.15.14 15.31	Basis: Dry Weight
Seq Number: 934197		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
Methylcyclohexane	108-87-2	BRL	0.0133	mg/kg	02.15.14 18.10	U	1
Methylene Chloride	75-09-2	BRL	0.0267	mg/kg	02.15.14 18.10	U	1
o-Xylene	95-47-6	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
Styrene	100-42-5	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
Tetrachloroethene	127-18-4	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
Toluene	108-88-3	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
Trichloroethene	79-01-6	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00667	mg/kg	02.15.14 18.10	U	1
Vinyl Chloride	75-01-4	BRL	0.00267	mg/kg	02.15.14 18.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	93	%	53-142	02.15.14 18.10	
1,2-Dichloroethane-D4	17060-07-0	88	%	56-150	02.15.14 18.10	
Toluene-D8	2037-26-5	96	%	70-130	02.15.14 18.10	
4-Bromofluorobenzene	460-00-4	103	%	68-152	02.15.14 18.10	

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-13** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-004 Date Collected: 02.13.14 11.23 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 14.67  
 Analyst: 4150 Date Prep: 02.16.14 07.42 Basis: Dry Weight  
 Seq Number: 934364

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	<b>0.137</b>	0.0586	mg/kg	02.18.14 14.29		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 14.67  
 Analyst: 4150 Date Prep: 02.18.14 08.34 Basis: Dry Weight  
 Seq Number: 934418

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.23	mg/kg	02.19.14 14.37	U	1
Barium	7440-39-3	<b>11.2</b>	5.23	mg/kg	02.19.14 14.37		1
Cadmium	7440-43-9	BRL	1.05	mg/kg	02.19.14 14.37	U	1
Chromium	7440-47-3	<b>23.7</b>	5.23	mg/kg	02.19.14 14.37		1
Lead	7439-92-1	<b>7.66</b>	5.23	mg/kg	02.19.14 14.37		1
Selenium	7782-49-2	BRL	1.05	mg/kg	02.19.14 14.37	U	1
Silver	7440-22-4	BRL	1.05	mg/kg	02.19.14 14.37	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-13** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-004 Date Collected: 02.13.14 11.23 Sample Depth: 0.5 - 2 ft  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 14.67  
 Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
 Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.390	mg/kg	02.18.14 15.45	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.390	mg/kg	02.18.14 15.45	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.390	mg/kg	02.18.14 15.45	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.390	mg/kg	02.18.14 15.45	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.390	mg/kg	02.18.14 15.45	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.390	mg/kg	02.18.14 15.45	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.390	mg/kg	02.18.14 15.45	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.390	mg/kg	02.18.14 15.45	U	1
2-Chloronaphthalene	91-58-7	BRL	0.390	mg/kg	02.18.14 15.45	U	1
2-Chlorophenol	95-57-8	BRL	0.390	mg/kg	02.18.14 15.45	U	1
2-Methylnaphthalene	91-57-6	BRL	0.390	mg/kg	02.18.14 15.45	U	1
2-methylphenol	95-48-7	BRL	0.390	mg/kg	02.18.14 15.45	U	1
2-Nitroaniline	88-74-4	BRL	0.390	mg/kg	02.18.14 15.45	U	1
2-Nitrophenol	88-75-5	BRL	0.390	mg/kg	02.18.14 15.45	U	1
3&4-Methylphenol	15831-10-4	BRL	0.390	mg/kg	02.18.14 15.45	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.390	mg/kg	02.18.14 15.45	U	1
3-Nitroaniline	99-09-2	BRL	0.390	mg/kg	02.18.14 15.45	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.390	mg/kg	02.18.14 15.45	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.390	mg/kg	02.18.14 15.45	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.390	mg/kg	02.18.14 15.45	U	1
4-Chloroaniline	106-47-8	BRL	0.390	mg/kg	02.18.14 15.45	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.390	mg/kg	02.18.14 15.45	U	1
4-Nitroaniline	100-01-6	BRL	0.390	mg/kg	02.18.14 15.45	U	1
4-Nitrophenol	100-02-7	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Acenaphthene	83-32-9	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Acenaphthylene	208-96-8	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Acetophenone	98-86-2	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Anthracene	120-12-7	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Benzo(a)anthracene	56-55-3	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Benzo(a)pyrene	50-32-8	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.390	mg/kg	02.18.14 15.45	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.390	mg/kg	02.18.14 15.45	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.390	mg/kg	02.18.14 15.45	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Butylbenzylphthalate	85-68-7	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Carbazole	86-74-8	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Chrysene	218-01-9	BRL	0.390	mg/kg	02.18.14 15.45	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-13**  
Lab Sample Id: 479331-004

Matrix: Soil  
Date Collected: 02.13.14 11.23

Date Received: 02.14.14 12.30  
Sample Depth: 0.5 - 2 ft

Analytical Method: SVOCs by SW-846 8270D

Prep Method: SW3550

Tech: TUE

% Moisture: 14.67

Analyst: VIC

Date Prep: 02.17.14 13.30

Basis: Dry Weight

Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Dibenzofuran	132-64-9	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Diethyl Phthalate	84-66-2	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Dimethyl Phthalate	131-11-3	BRL	0.390	mg/kg	02.18.14 15.45	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.390	mg/kg	02.18.14 15.45	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Fluoranthene	206-44-0	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Fluorene	86-73-7	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Hexachlorobenzene	118-74-1	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Hexachlorobutadiene	87-68-3	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Hexachloroethane	67-72-1	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Isophorone	78-59-1	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Naphthalene	91-20-3	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Nitrobenzene	98-95-3	BRL	0.390	mg/kg	02.18.14 15.45	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.390	mg/kg	02.18.14 15.45	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Pentachlorophenol	87-86-5	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Phenanthrene	85-01-8	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Phenol	108-95-2	BRL	0.390	mg/kg	02.18.14 15.45	U	1
Pyrene	129-00-0	BRL	0.390	mg/kg	02.18.14 15.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
2-Fluorobiphenyl	321-60-8	60	%	20-112	02.18.14 15.45	
2-Fluorophenol	367-12-4	50	%	18-101	02.18.14 15.45	
Nitrobenzene-d5	4165-60-0	59	%	13-112	02.18.14 15.45	
Phenol-d5	4165-62-2	60	%	15-110	02.18.14 15.45	
Terphenyl-D14	1718-51-0	90	%	21-138	02.18.14 15.45	
2,4,6-Tribromophenol	118-79-6	74	%	21-128	02.18.14 15.45	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-13</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-004	Date Collected: 02.13.14 11.23	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 14.67
Analyst: MCH	Date Prep: 02.15.14 15.32	Basis: Dry Weight
Seq Number: 934197		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0130	mg/kg	02.15.14 18.35	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0650	mg/kg	02.15.14 18.35	U	1
2-Hexanone	591-78-6	BRL	0.0650	mg/kg	02.15.14 18.35	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0650	mg/kg	02.15.14 18.35	U	1
Acetone	67-64-1	BRL	0.130	mg/kg	02.15.14 18.35	U	1
Benzene	71-43-2	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
Bromochloromethane	74-97-5	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
Bromodichloromethane	75-27-4	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
Bromoform	75-25-2	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
Bromomethane	74-83-9	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
Carbon disulfide	75-15-0	BRL	0.0650	mg/kg	02.15.14 18.35	U	1
Carbon tetrachloride	56-23-5	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
Chlorobenzene	108-90-7	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
Chloroethane	75-00-3	BRL	0.0130	mg/kg	02.15.14 18.35	U	1
Chloroform	67-66-3	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
Chloromethane	74-87-3	BRL	0.0130	mg/kg	02.15.14 18.35	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
Cyclohexane	110-82-7	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
Dibromochloromethane	124-48-1	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
Ethylbenzene	100-41-4	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
Isopropylbenzene	98-82-8	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
m,p-Xylenes	179601-23-1	BRL	0.0130	mg/kg	02.15.14 18.35	U	1
Methyl acetate	79-20-9	BRL	0.0130	mg/kg	02.15.14 18.35	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-13</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-004	Date Collected: 02.13.14 11.23	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 14.67
Analyst: MCH	Date Prep: 02.15.14 15.32	Basis: Dry Weight
Seq Number: 934197		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
Methylcyclohexane	108-87-2	BRL	0.0130	mg/kg	02.15.14 18.35	U	1
Methylene Chloride	75-09-2	BRL	0.0260	mg/kg	02.15.14 18.35	U	1
o-Xylene	95-47-6	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
Styrene	100-42-5	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
Tetrachloroethene	127-18-4	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
Toluene	108-88-3	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
Trichloroethene	79-01-6	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00650	mg/kg	02.15.14 18.35	U	1
Vinyl Chloride	75-01-4	BRL	0.00260	mg/kg	02.15.14 18.35	U	1
<b>Surrogate</b>							
	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
Dibromofluoromethane	1868-53-7	90	%	53-142	02.15.14 18.35		
1,2-Dichloroethane-D4	17060-07-0	80	%	56-150	02.15.14 18.35		
Toluene-D8	2037-26-5	96	%	70-130	02.15.14 18.35		
4-Bromofluorobenzene	460-00-4	101	%	68-152	02.15.14 18.35		

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-15** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-005 Date Collected: 02.13.14 11.32 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 12.13  
 Analyst: 4150 Date Prep: 02.16.14 07.42 Basis: Dry Weight  
 Seq Number: 934364

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	<b>0.0914</b>	0.0558	mg/kg	02.18.14 14.32		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 12.13  
 Analyst: 4150 Date Prep: 02.18.14 08.34 Basis: Dry Weight  
 Seq Number: 934418

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	<b>7.59</b>	5.63	mg/kg	02.19.14 14.39		1
Barium	7440-39-3	<b>55.6</b>	5.63	mg/kg	02.19.14 14.39		1
Cadmium	7440-43-9	<b>1.21</b>	1.13	mg/kg	02.19.14 14.39		1
Chromium	7440-47-3	<b>28.8</b>	5.63	mg/kg	02.19.14 14.39		1
Lead	7439-92-1	<b>95.1</b>	5.63	mg/kg	02.19.14 14.39		1
Selenium	7782-49-2	BRL	1.13	mg/kg	02.19.14 14.39	U	1
Silver	7440-22-4	BRL	1.13	mg/kg	02.19.14 14.39	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-15** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-005 Date Collected: 02.13.14 11.32 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 12.13  
 Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
 Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.375	mg/kg	02.18.14 16.13	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.375	mg/kg	02.18.14 16.13	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.375	mg/kg	02.18.14 16.13	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.375	mg/kg	02.18.14 16.13	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.375	mg/kg	02.18.14 16.13	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.375	mg/kg	02.18.14 16.13	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.375	mg/kg	02.18.14 16.13	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.375	mg/kg	02.18.14 16.13	U	1
2-Chloronaphthalene	91-58-7	BRL	0.375	mg/kg	02.18.14 16.13	U	1
2-Chlorophenol	95-57-8	BRL	0.375	mg/kg	02.18.14 16.13	U	1
2-Methylnaphthalene	91-57-6	BRL	0.375	mg/kg	02.18.14 16.13	U	1
2-methylphenol	95-48-7	BRL	0.375	mg/kg	02.18.14 16.13	U	1
2-Nitroaniline	88-74-4	BRL	0.375	mg/kg	02.18.14 16.13	U	1
2-Nitrophenol	88-75-5	BRL	0.375	mg/kg	02.18.14 16.13	U	1
3&4-Methylphenol	15831-10-4	BRL	0.375	mg/kg	02.18.14 16.13	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.375	mg/kg	02.18.14 16.13	U	1
3-Nitroaniline	99-09-2	BRL	0.375	mg/kg	02.18.14 16.13	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.375	mg/kg	02.18.14 16.13	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.375	mg/kg	02.18.14 16.13	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.375	mg/kg	02.18.14 16.13	U	1
4-Chloroaniline	106-47-8	BRL	0.375	mg/kg	02.18.14 16.13	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.375	mg/kg	02.18.14 16.13	U	1
4-Nitroaniline	100-01-6	BRL	0.375	mg/kg	02.18.14 16.13	U	1
4-Nitrophenol	100-02-7	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Acenaphthene	83-32-9	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Acenaphthylene	208-96-8	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Acetophenone	98-86-2	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Anthracene	120-12-7	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Benzo(a)anthracene	56-55-3	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Benzo(a)pyrene	50-32-8	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.375	mg/kg	02.18.14 16.13	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.375	mg/kg	02.18.14 16.13	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.375	mg/kg	02.18.14 16.13	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Butylbenzylphthalate	85-68-7	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Carbazole	86-74-8	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Chrysene	218-01-9	BRL	0.375	mg/kg	02.18.14 16.13	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-15** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-005 Date Collected: 02.13.14 11.32 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 12.13  
 Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
 Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Dibenzofuran	132-64-9	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Diethyl Phthalate	84-66-2	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Dimethyl Phthalate	131-11-3	BRL	0.375	mg/kg	02.18.14 16.13	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.375	mg/kg	02.18.14 16.13	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Fluoranthene	206-44-0	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Fluorene	86-73-7	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Hexachlorobenzene	118-74-1	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Hexachlorobutadiene	87-68-3	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Hexachloroethane	67-72-1	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Isophorone	78-59-1	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Naphthalene	91-20-3	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Nitrobenzene	98-95-3	BRL	0.375	mg/kg	02.18.14 16.13	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.375	mg/kg	02.18.14 16.13	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Pentachlorophenol	87-86-5	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Phenanthrene	85-01-8	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Phenol	108-95-2	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Pyrene	129-00-0	BRL	0.375	mg/kg	02.18.14 16.13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	43	%	20-112	02.18.14 16.13		
2-Fluorophenol	367-12-4	14	%	18-101	02.18.14 16.13	**	
Nitrobenzene-d5	4165-60-0	24	%	13-112	02.18.14 16.13		
Phenol-d5	4165-62-2	33	%	15-110	02.18.14 16.13		
Terphenyl-D14	1718-51-0	98	%	21-138	02.18.14 16.13		
2,4,6-Tribromophenol	118-79-6	75	%	21-128	02.18.14 16.13		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-15**  
Lab Sample Id: 479331-005

Matrix: Soil  
Date Collected: 02.13.14 11.32

Date Received: 02.14.14 12.30  
Sample Depth: 0 - 6 In

Analytical Method: VOCs by SW-846 8260B

Tech: ZHO

Analyst: MCH

Seq Number: 934346

Date Prep: 02.17.14 17.06

Prep Method: SW5035

% Moisture: 12.13

Basis: Dry Weight

SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.00814	mg/kg	02.17.14 18.51	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0407	mg/kg	02.17.14 18.51	U	1
2-Hexanone	591-78-6	BRL	0.0407	mg/kg	02.17.14 18.51	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0407	mg/kg	02.17.14 18.51	U	1
Acetone	67-64-1	BRL	0.0814	mg/kg	02.17.14 18.51	U	1
Benzene	71-43-2	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
Bromochloromethane	74-97-5	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
Bromodichloromethane	75-27-4	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
Bromoform	75-25-2	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
Bromomethane	74-83-9	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
Carbon disulfide	75-15-0	BRL	0.0407	mg/kg	02.17.14 18.51	U	1
Carbon tetrachloride	56-23-5	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
Chlorobenzene	108-90-7	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
Chloroethane	75-00-3	BRL	0.00814	mg/kg	02.17.14 18.51	U	1
Chloroform	67-66-3	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
Chloromethane	74-87-3	BRL	0.00814	mg/kg	02.17.14 18.51	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
Cyclohexane	110-82-7	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
Dibromochloromethane	124-48-1	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
Ethylbenzene	100-41-4	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
Isopropylbenzene	98-82-8	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
m,p-Xylenes	179601-23-1	BRL	0.00814	mg/kg	02.17.14 18.51	U	1
<b>Methyl acetate</b>	79-20-9	<b>0.0134</b>	0.00814	mg/kg	02.17.14 18.51		1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-15</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-005	Date Collected: 02.13.14 11.32	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 12.13
Analyst: MCH	Date Prep: 02.17.14 17.06	Basis: Dry Weight
Seq Number: 934346		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
Methylcyclohexane	108-87-2	BRL	0.00814	mg/kg	02.17.14 18.51	U	1
Methylene Chloride	75-09-2	BRL	0.0163	mg/kg	02.17.14 18.51	U	1
o-Xylene	95-47-6	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
Styrene	100-42-5	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
Tetrachloroethene	127-18-4	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
Toluene	108-88-3	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
Trichloroethene	79-01-6	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00407	mg/kg	02.17.14 18.51	U	1
Vinyl Chloride	75-01-4	BRL	0.00163	mg/kg	02.17.14 18.51	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
Dibromofluoromethane	1868-53-7	109	%	53-142	02.17.14 18.51		
1,2-Dichloroethane-D4	17060-07-0	112	%	56-150	02.17.14 18.51		
Toluene-D8	2037-26-5	110	%	70-130	02.17.14 18.51		
4-Bromofluorobenzene	460-00-4	113	%	68-152	02.17.14 18.51		

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-15** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-006 Date Collected: 02.13.14 11.35 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 21.43  
 Analyst: 4150 Date Prep: 02.16.14 07.42 Basis: Dry Weight  
 Seq Number: 934364

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	<b>0.105</b>	0.0558	mg/kg	02.18.14 14.35		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 21.43  
 Analyst: 4150 Date Prep: 02.18.14 08.34 Basis: Dry Weight  
 Seq Number: 934418

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	6.24	mg/kg	02.19.14 14.41	U	1
Barium	7440-39-3	<b>12.6</b>	6.24	mg/kg	02.19.14 14.41		1
Cadmium	7440-43-9	BRL	1.25	mg/kg	02.19.14 14.41	U	1
Chromium	7440-47-3	<b>26.1</b>	6.24	mg/kg	02.19.14 14.41		1
Lead	7439-92-1	<b>8.30</b>	6.24	mg/kg	02.19.14 14.41		1
Selenium	7782-49-2	BRL	1.25	mg/kg	02.19.14 14.41	U	1
Silver	7440-22-4	BRL	1.25	mg/kg	02.19.14 14.41	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-15** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-006 Date Collected: 02.13.14 11.35 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 21.43  
Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.423	mg/kg	02.18.14 16.41	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.423	mg/kg	02.18.14 16.41	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.423	mg/kg	02.18.14 16.41	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.423	mg/kg	02.18.14 16.41	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.423	mg/kg	02.18.14 16.41	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.423	mg/kg	02.18.14 16.41	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.423	mg/kg	02.18.14 16.41	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.423	mg/kg	02.18.14 16.41	U	1
2-Chloronaphthalene	91-58-7	BRL	0.423	mg/kg	02.18.14 16.41	U	1
2-Chlorophenol	95-57-8	BRL	0.423	mg/kg	02.18.14 16.41	U	1
2-Methylnaphthalene	91-57-6	BRL	0.423	mg/kg	02.18.14 16.41	U	1
2-methylphenol	95-48-7	BRL	0.423	mg/kg	02.18.14 16.41	U	1
2-Nitroaniline	88-74-4	BRL	0.423	mg/kg	02.18.14 16.41	U	1
2-Nitrophenol	88-75-5	BRL	0.423	mg/kg	02.18.14 16.41	U	1
3&4-Methylphenol	15831-10-4	BRL	0.423	mg/kg	02.18.14 16.41	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.423	mg/kg	02.18.14 16.41	U	1
3-Nitroaniline	99-09-2	BRL	0.423	mg/kg	02.18.14 16.41	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.423	mg/kg	02.18.14 16.41	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.423	mg/kg	02.18.14 16.41	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.423	mg/kg	02.18.14 16.41	U	1
4-Chloroaniline	106-47-8	BRL	0.423	mg/kg	02.18.14 16.41	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.423	mg/kg	02.18.14 16.41	U	1
4-Nitroaniline	100-01-6	BRL	0.423	mg/kg	02.18.14 16.41	U	1
4-Nitrophenol	100-02-7	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Acenaphthene	83-32-9	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Acenaphthylene	208-96-8	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Acetophenone	98-86-2	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Anthracene	120-12-7	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Benzo(a)anthracene	56-55-3	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Benzo(a)pyrene	50-32-8	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.423	mg/kg	02.18.14 16.41	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.423	mg/kg	02.18.14 16.41	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.423	mg/kg	02.18.14 16.41	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Butylbenzylphthalate	85-68-7	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Carbazole	86-74-8	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Chrysene	218-01-9	BRL	0.423	mg/kg	02.18.14 16.41	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-15** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-006 Date Collected: 02.13.14 11.35 Sample Depth: 0.5 - 2 ft  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 21.43  
 Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
 Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Dibenzofuran	132-64-9	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Diethyl Phthalate	84-66-2	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Dimethyl Phthalate	131-11-3	BRL	0.423	mg/kg	02.18.14 16.41	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.423	mg/kg	02.18.14 16.41	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Fluoranthene	206-44-0	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Fluorene	86-73-7	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Hexachlorobenzene	118-74-1	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Hexachlorobutadiene	87-68-3	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Hexachloroethane	67-72-1	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Isophorone	78-59-1	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Naphthalene	91-20-3	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Nitrobenzene	98-95-3	BRL	0.423	mg/kg	02.18.14 16.41	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.423	mg/kg	02.18.14 16.41	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Pentachlorophenol	87-86-5	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Phenanthrene	85-01-8	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Phenol	108-95-2	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Pyrene	129-00-0	BRL	0.423	mg/kg	02.18.14 16.41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	70	%	20-112	02.18.14 16.41		
2-Fluorophenol	367-12-4	56	%	18-101	02.18.14 16.41		
Nitrobenzene-d5	4165-60-0	67	%	13-112	02.18.14 16.41		
Phenol-d5	4165-62-2	70	%	15-110	02.18.14 16.41		
Terphenyl-D14	1718-51-0	107	%	21-138	02.18.14 16.41		
2,4,6-Tribromophenol	118-79-6	85	%	21-128	02.18.14 16.41		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-15**  
Lab Sample Id: 479331-006

Matrix: Soil  
Date Collected: 02.13.14 11.35

Date Received: 02.14.14 12.30  
Sample Depth: 0.5 - 2 ft

Analytical Method: VOCs by SW-846 8260B

Tech: MCH

Analyst: MCH

Seq Number: 934197

Date Prep: 02.15.14 15.34

Prep Method: SW5035

% Moisture: 21.43

Basis: Dry Weight

SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0151	mg/kg	02.15.14 19.26	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0754	mg/kg	02.15.14 19.26	U	1
2-Hexanone	591-78-6	BRL	0.0754	mg/kg	02.15.14 19.26	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0754	mg/kg	02.15.14 19.26	U	1
Acetone	67-64-1	BRL	0.151	mg/kg	02.15.14 19.26	U	1
Benzene	71-43-2	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
Bromochloromethane	74-97-5	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
Bromodichloromethane	75-27-4	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
Bromoform	75-25-2	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
Bromomethane	74-83-9	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
Carbon disulfide	75-15-0	BRL	0.0754	mg/kg	02.15.14 19.26	U	1
Carbon tetrachloride	56-23-5	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
Chlorobenzene	108-90-7	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
Chloroethane	75-00-3	BRL	0.0151	mg/kg	02.15.14 19.26	U	1
Chloroform	67-66-3	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
Chloromethane	74-87-3	BRL	0.0151	mg/kg	02.15.14 19.26	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
Cyclohexane	110-82-7	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
Dibromochloromethane	124-48-1	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
Ethylbenzene	100-41-4	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
Isopropylbenzene	98-82-8	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
m,p-Xylenes	179601-23-1	BRL	0.0151	mg/kg	02.15.14 19.26	U	1
Methyl acetate	79-20-9	BRL	0.0151	mg/kg	02.15.14 19.26	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-15</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-006	Date Collected: 02.13.14 11.35	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 21.43
Analyst: MCH	Date Prep: 02.15.14 15.34	Basis: Dry Weight
Seq Number: 934197		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
Methylcyclohexane	108-87-2	BRL	0.0151	mg/kg	02.15.14 19.26	U	1
Methylene Chloride	75-09-2	BRL	0.0302	mg/kg	02.15.14 19.26	U	1
o-Xylene	95-47-6	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
Styrene	100-42-5	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
Tetrachloroethene	127-18-4	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
Toluene	108-88-3	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
Trichloroethene	79-01-6	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00754	mg/kg	02.15.14 19.26	U	1
Vinyl Chloride	75-01-4	BRL	0.00302	mg/kg	02.15.14 19.26	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
Dibromofluoromethane	1868-53-7	98	%	53-142	02.15.14 19.26		
1,2-Dichloroethane-D4	17060-07-0	90	%	56-150	02.15.14 19.26		
Toluene-D8	2037-26-5	98	%	70-130	02.15.14 19.26		
4-Bromofluorobenzene	460-00-4	99	%	68-152	02.15.14 19.26		

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-12** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-007 Date Collected: 02.13.14 12.20 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 13.62  
 Analyst: 4150 Date Prep: 02.16.14 07.42 Basis: Dry Weight  
 Seq Number: 934364

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	<b>0.0616</b>	0.0557	mg/kg	02.18.14 14.38		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 13.62  
 Analyst: 4150 Date Prep: 02.18.14 08.34 Basis: Dry Weight  
 Seq Number: 934418

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.67	mg/kg	02.19.14 14.43	U	1
<b>Barium</b>	7440-39-3	<b>69.6</b>	5.67	mg/kg	02.19.14 14.43		1
Cadmium	7440-43-9	BRL	1.13	mg/kg	02.19.14 14.43	U	1
<b>Chromium</b>	7440-47-3	<b>19.0</b>	5.67	mg/kg	02.19.14 14.43		1
<b>Lead</b>	7439-92-1	<b>72.9</b>	5.67	mg/kg	02.19.14 14.43		1
Selenium	7782-49-2	BRL	1.13	mg/kg	02.19.14 14.43	U	1
Silver	7440-22-4	BRL	1.13	mg/kg	02.19.14 14.43	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-12** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-007 Date Collected: 02.13.14 12.20 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 13.62  
 Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
 Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.386	mg/kg	02.18.14 22.56	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.386	mg/kg	02.18.14 22.56	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.386	mg/kg	02.18.14 22.56	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.386	mg/kg	02.18.14 22.56	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.386	mg/kg	02.18.14 22.56	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.386	mg/kg	02.18.14 22.56	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.386	mg/kg	02.18.14 22.56	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.386	mg/kg	02.18.14 22.56	U	1
2-Chloronaphthalene	91-58-7	BRL	0.386	mg/kg	02.18.14 22.56	U	1
2-Chlorophenol	95-57-8	BRL	0.386	mg/kg	02.18.14 22.56	U	1
2-Methylnaphthalene	91-57-6	BRL	0.386	mg/kg	02.18.14 22.56	U	1
2-methylphenol	95-48-7	BRL	0.386	mg/kg	02.18.14 22.56	U	1
2-Nitroaniline	88-74-4	BRL	0.386	mg/kg	02.18.14 22.56	U	1
2-Nitrophenol	88-75-5	BRL	0.386	mg/kg	02.18.14 22.56	U	1
3&4-Methylphenol	15831-10-4	BRL	0.386	mg/kg	02.18.14 22.56	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.386	mg/kg	02.18.14 22.56	U	1
3-Nitroaniline	99-09-2	BRL	0.386	mg/kg	02.18.14 22.56	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.386	mg/kg	02.18.14 22.56	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.386	mg/kg	02.18.14 22.56	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.386	mg/kg	02.18.14 22.56	U	1
4-Chloroaniline	106-47-8	BRL	0.386	mg/kg	02.18.14 22.56	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.386	mg/kg	02.18.14 22.56	U	1
4-Nitroaniline	100-01-6	BRL	0.386	mg/kg	02.18.14 22.56	U	1
4-Nitrophenol	100-02-7	BRL	0.386	mg/kg	02.18.14 22.56	U	1
Acenaphthene	83-32-9	BRL	0.386	mg/kg	02.18.14 22.56	U	1
Acenaphthylene	208-96-8	BRL	0.386	mg/kg	02.18.14 22.56	U	1
Acetophenone	98-86-2	BRL	0.386	mg/kg	02.18.14 22.56	U	1
Anthracene	120-12-7	BRL	0.386	mg/kg	02.18.14 22.56	U	1
<b>Benzo(a)anthracene</b>	56-55-3	<b>0.461</b>	0.386	mg/kg	02.18.14 22.56		1
<b>Benzo(a)pyrene</b>	50-32-8	<b>0.466</b>	0.386	mg/kg	02.18.14 22.56		1
<b>Benzo(b)fluoranthene</b>	205-99-2	<b>0.410</b>	0.386	mg/kg	02.18.14 22.56		1
Benzo(g,h,i)perylene	191-24-2	BRL	0.386	mg/kg	02.18.14 22.56	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.386	mg/kg	02.18.14 22.56	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.386	mg/kg	02.18.14 22.56	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.386	mg/kg	02.18.14 22.56	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.386	mg/kg	02.18.14 22.56	U	1
Butylbenzylphthalate	85-68-7	BRL	0.386	mg/kg	02.18.14 22.56	U	1
Carbazole	86-74-8	BRL	0.386	mg/kg	02.18.14 22.56	U	1
<b>Chrysene</b>	218-01-9	<b>0.428</b>	0.386	mg/kg	02.18.14 22.56		1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-12**  
Lab Sample Id: 479331-007

Matrix: Soil  
Date Collected: 02.13.14 12.20

Date Received: 02.14.14 12.30  
Sample Depth: 0 - 6 In

Analytical Method: SVOCs by SW-846 8270D

Prep Method: SW3550

Tech: TUE

% Moisture: 13.62

Analyst: VIC

Date Prep: 02.17.14 13.30

Basis: Dry Weight

Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.386	mg/kg	02.18.14 22.56	U	1
Dibenzofuran	132-64-9	BRL	0.386	mg/kg	02.18.14 22.56	U	1
Diethyl Phthalate	84-66-2	BRL	0.386	mg/kg	02.18.14 22.56	U	1
Dimethyl Phthalate	131-11-3	BRL	0.386	mg/kg	02.18.14 22.56	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.386	mg/kg	02.18.14 22.56	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.386	mg/kg	02.18.14 22.56	U	1
<b>Fluoranthene</b>	206-44-0	<b>1.06</b>	0.386	mg/kg	02.18.14 22.56		1
Fluorene	86-73-7	BRL	0.386	mg/kg	02.18.14 22.56	U	1
Hexachlorobenzene	118-74-1	BRL	0.386	mg/kg	02.18.14 22.56	U	1
Hexachlorobutadiene	87-68-3	BRL	0.386	mg/kg	02.18.14 22.56	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.386	mg/kg	02.18.14 22.56	U	1
Hexachloroethane	67-72-1	BRL	0.386	mg/kg	02.18.14 22.56	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.386	mg/kg	02.18.14 22.56	U	1
Isophorone	78-59-1	BRL	0.386	mg/kg	02.18.14 22.56	U	1
Naphthalene	91-20-3	BRL	0.386	mg/kg	02.18.14 22.56	U	1
Nitrobenzene	98-95-3	BRL	0.386	mg/kg	02.18.14 22.56	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.386	mg/kg	02.18.14 22.56	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.386	mg/kg	02.18.14 22.56	U	1
Pentachlorophenol	87-86-5	BRL	0.386	mg/kg	02.18.14 22.56	U	1
<b>Phenanthrene</b>	85-01-8	<b>0.526</b>	0.386	mg/kg	02.18.14 22.56		1
Phenol	108-95-2	BRL	0.386	mg/kg	02.18.14 22.56	U	1
<b>Pyrene</b>	129-00-0	<b>0.778</b>	0.386	mg/kg	02.18.14 22.56		1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
2-Fluorobiphenyl	321-60-8	72	%	20-112	02.18.14 22.56		
2-Fluorophenol	367-12-4	60	%	18-101	02.18.14 22.56		
Nitrobenzene-d5	4165-60-0	64	%	13-112	02.18.14 22.56		
Phenol-d5	4165-62-2	77	%	15-110	02.18.14 22.56		
Terphenyl-D14	1718-51-0	103	%	21-138	02.18.14 22.56		
2,4,6-Tribromophenol	118-79-6	93	%	21-128	02.18.14 22.56		



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-12</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-007	Date Collected: 02.13.14 12.20	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 13.62
Analyst: MCH	Date Prep: 02.15.14 15.35	Basis: Dry Weight
Seq Number: 934197		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0122	mg/kg	02.15.14 19.51	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0612	mg/kg	02.15.14 19.51	U	1
2-Hexanone	591-78-6	BRL	0.0612	mg/kg	02.15.14 19.51	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0612	mg/kg	02.15.14 19.51	U	1
Acetone	67-64-1	BRL	0.122	mg/kg	02.15.14 19.51	U	1
Benzene	71-43-2	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
Bromochloromethane	74-97-5	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
Bromodichloromethane	75-27-4	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
Bromoform	75-25-2	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
Bromomethane	74-83-9	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
Carbon disulfide	75-15-0	BRL	0.0612	mg/kg	02.15.14 19.51	U	1
Carbon tetrachloride	56-23-5	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
Chlorobenzene	108-90-7	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
Chloroethane	75-00-3	BRL	0.0122	mg/kg	02.15.14 19.51	U	1
Chloroform	67-66-3	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
Chloromethane	74-87-3	BRL	0.0122	mg/kg	02.15.14 19.51	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
Cyclohexane	110-82-7	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
Dibromochloromethane	124-48-1	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
Ethylbenzene	100-41-4	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
Isopropylbenzene	98-82-8	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
m,p-Xylenes	179601-23-1	BRL	0.0122	mg/kg	02.15.14 19.51	U	1
Methyl acetate	79-20-9	BRL	0.0122	mg/kg	02.15.14 19.51	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-12</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-007	Date Collected: 02.13.14 12.20	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 13.62
Analyst: MCH	Date Prep: 02.15.14 15.35	Basis: Dry Weight
Seq Number: 934197		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
Methylcyclohexane	108-87-2	BRL	0.0122	mg/kg	02.15.14 19.51	U	1
Methylene Chloride	75-09-2	BRL	0.0245	mg/kg	02.15.14 19.51	U	1
o-Xylene	95-47-6	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
Styrene	100-42-5	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
Tetrachloroethene	127-18-4	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
Toluene	108-88-3	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
Trichloroethene	79-01-6	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00612	mg/kg	02.15.14 19.51	U	1
Vinyl Chloride	75-01-4	BRL	0.00245	mg/kg	02.15.14 19.51	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
Dibromofluoromethane	1868-53-7	98	%	53-142	02.15.14 19.51		
1,2-Dichloroethane-D4	17060-07-0	95	%	56-150	02.15.14 19.51		
Toluene-D8	2037-26-5	97	%	70-130	02.15.14 19.51		
4-Bromofluorobenzene	460-00-4	99	%	68-152	02.15.14 19.51		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-12** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-008 Date Collected: 02.13.14 12.23 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 17.28  
 Analyst: 4150 Date Prep: 02.16.14 07.42 Basis: Dry Weight  
 Seq Number: 934364

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0570	mg/kg	02.18.14 14.41	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 17.28  
 Analyst: 4150 Date Prep: 02.18.14 08.34 Basis: Dry Weight  
 Seq Number: 934418

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.49	mg/kg	02.19.14 14.50	U	1
Barium	7440-39-3	<b>38.5</b>	5.49	mg/kg	02.19.14 14.50		1
Cadmium	7440-43-9	<b>1.26</b>	1.10	mg/kg	02.19.14 14.50		1
Chromium	7440-47-3	<b>34.7</b>	5.49	mg/kg	02.19.14 14.50		1
Lead	7439-92-1	<b>9.90</b>	5.49	mg/kg	02.19.14 14.50		1
Selenium	7782-49-2	BRL	1.10	mg/kg	02.19.14 14.50	U	1
Silver	7440-22-4	BRL	1.10	mg/kg	02.19.14 14.50	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-12** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-008 Date Collected: 02.13.14 12.23 Sample Depth: 0.5 - 2 ft  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 17.28  
 Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
 Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.398	mg/kg	02.18.14 17.10	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.398	mg/kg	02.18.14 17.10	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.398	mg/kg	02.18.14 17.10	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.398	mg/kg	02.18.14 17.10	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.398	mg/kg	02.18.14 17.10	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.398	mg/kg	02.18.14 17.10	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.398	mg/kg	02.18.14 17.10	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.398	mg/kg	02.18.14 17.10	U	1
2-Chloronaphthalene	91-58-7	BRL	0.398	mg/kg	02.18.14 17.10	U	1
2-Chlorophenol	95-57-8	BRL	0.398	mg/kg	02.18.14 17.10	U	1
2-Methylnaphthalene	91-57-6	BRL	0.398	mg/kg	02.18.14 17.10	U	1
2-methylphenol	95-48-7	BRL	0.398	mg/kg	02.18.14 17.10	U	1
2-Nitroaniline	88-74-4	BRL	0.398	mg/kg	02.18.14 17.10	U	1
2-Nitrophenol	88-75-5	BRL	0.398	mg/kg	02.18.14 17.10	U	1
3&4-Methylphenol	15831-10-4	BRL	0.398	mg/kg	02.18.14 17.10	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.398	mg/kg	02.18.14 17.10	U	1
3-Nitroaniline	99-09-2	BRL	0.398	mg/kg	02.18.14 17.10	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.398	mg/kg	02.18.14 17.10	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.398	mg/kg	02.18.14 17.10	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.398	mg/kg	02.18.14 17.10	U	1
4-Chloroaniline	106-47-8	BRL	0.398	mg/kg	02.18.14 17.10	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.398	mg/kg	02.18.14 17.10	U	1
4-Nitroaniline	100-01-6	BRL	0.398	mg/kg	02.18.14 17.10	U	1
4-Nitrophenol	100-02-7	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Acenaphthene	83-32-9	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Acenaphthylene	208-96-8	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Acetophenone	98-86-2	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Anthracene	120-12-7	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Benzo(a)anthracene	56-55-3	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Benzo(a)pyrene	50-32-8	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.398	mg/kg	02.18.14 17.10	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.398	mg/kg	02.18.14 17.10	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.398	mg/kg	02.18.14 17.10	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Butylbenzylphthalate	85-68-7	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Carbazole	86-74-8	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Chrysene	218-01-9	BRL	0.398	mg/kg	02.18.14 17.10	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-12** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-008 Date Collected: 02.13.14 12.23 Sample Depth: 0.5 - 2 ft  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 17.28  
 Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
 Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Dibenzofuran	132-64-9	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Diethyl Phthalate	84-66-2	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Dimethyl Phthalate	131-11-3	BRL	0.398	mg/kg	02.18.14 17.10	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.398	mg/kg	02.18.14 17.10	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Fluoranthene	206-44-0	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Fluorene	86-73-7	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Hexachlorobenzene	118-74-1	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Hexachlorobutadiene	87-68-3	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Hexachloroethane	67-72-1	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Isophorone	78-59-1	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Naphthalene	91-20-3	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Nitrobenzene	98-95-3	BRL	0.398	mg/kg	02.18.14 17.10	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.398	mg/kg	02.18.14 17.10	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Pentachlorophenol	87-86-5	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Phenanthrene	85-01-8	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Phenol	108-95-2	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Pyrene	129-00-0	BRL	0.398	mg/kg	02.18.14 17.10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	62	%	20-112	02.18.14 17.10		
2-Fluorophenol	367-12-4	57	%	18-101	02.18.14 17.10		
Nitrobenzene-d5	4165-60-0	60	%	13-112	02.18.14 17.10		
Phenol-d5	4165-62-2	67	%	15-110	02.18.14 17.10		
Terphenyl-D14	1718-51-0	103	%	21-138	02.18.14 17.10		
2,4,6-Tribromophenol	118-79-6	77	%	21-128	02.18.14 17.10		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-12</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-008	Date Collected: 02.13.14 12.23	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 17.28
Analyst: MCH	Date Prep: 02.15.14 15.36	Basis: Dry Weight
Seq Number: 934197		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0132	mg/kg	02.15.14 20.16	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0658	mg/kg	02.15.14 20.16	U	1
2-Hexanone	591-78-6	BRL	0.0658	mg/kg	02.15.14 20.16	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0658	mg/kg	02.15.14 20.16	U	1
Acetone	67-64-1	BRL	0.132	mg/kg	02.15.14 20.16	U	1
Benzene	71-43-2	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
Bromochloromethane	74-97-5	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
Bromodichloromethane	75-27-4	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
Bromoform	75-25-2	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
Bromomethane	74-83-9	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
Carbon disulfide	75-15-0	BRL	0.0658	mg/kg	02.15.14 20.16	U	1
Carbon tetrachloride	56-23-5	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
Chlorobenzene	108-90-7	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
Chloroethane	75-00-3	BRL	0.0132	mg/kg	02.15.14 20.16	U	1
Chloroform	67-66-3	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
Chloromethane	74-87-3	BRL	0.0132	mg/kg	02.15.14 20.16	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
Cyclohexane	110-82-7	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
Dibromochloromethane	124-48-1	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
Ethylbenzene	100-41-4	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
Isopropylbenzene	98-82-8	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
m,p-Xylenes	179601-23-1	BRL	0.0132	mg/kg	02.15.14 20.16	U	1
Methyl acetate	79-20-9	BRL	0.0132	mg/kg	02.15.14 20.16	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-12** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-008 Date Collected: 02.13.14 12.23 Sample Depth: 0.5 - 2 ft  
 Analytical Method: VOCs by SW-846 8260B Prep Method: SW5035  
 Tech: MCH % Moisture: 17.28  
 Analyst: MCH Date Prep: 02.15.14 15.36 Basis: Dry Weight  
 Seq Number: 934197 SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
Methylcyclohexane	108-87-2	BRL	0.0132	mg/kg	02.15.14 20.16	U	1
Methylene Chloride	75-09-2	BRL	0.0263	mg/kg	02.15.14 20.16	U	1
o-Xylene	95-47-6	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
Styrene	100-42-5	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
Tetrachloroethene	127-18-4	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
Toluene	108-88-3	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
Trichloroethene	79-01-6	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00658	mg/kg	02.15.14 20.16	U	1
Vinyl Chloride	75-01-4	BRL	0.00263	mg/kg	02.15.14 20.16	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
Dibromofluoromethane	1868-53-7	92	%	53-142	02.15.14 20.16		
1,2-Dichloroethane-D4	17060-07-0	81	%	56-150	02.15.14 20.16		
Toluene-D8	2037-26-5	98	%	70-130	02.15.14 20.16		
4-Bromofluorobenzene	460-00-4	103	%	68-152	02.15.14 20.16		



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-14** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-009 Date Collected: 02.13.14 12.25 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 7.43  
 Analyst: 4150 Date Prep: 02.16.14 07.42 Basis: Dry Weight  
 Seq Number: 934364

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	<b>0.117</b>	0.0500	mg/kg	02.18.14 14.44		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 7.43  
 Analyst: 4150 Date Prep: 02.18.14 08.34 Basis: Dry Weight  
 Seq Number: 934418

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	4.96	mg/kg	02.19.14 14.52	U	1
Barium	7440-39-3	<b>45.9</b>	4.96	mg/kg	02.19.14 14.52		1
Cadmium	7440-43-9	BRL	0.991	mg/kg	02.19.14 14.52	U	1
Chromium	7440-47-3	<b>9.93</b>	4.96	mg/kg	02.19.14 14.52		1
Lead	7439-92-1	<b>62.8</b>	4.96	mg/kg	02.19.14 14.52		1
Selenium	7782-49-2	BRL	0.991	mg/kg	02.19.14 14.52	U	1
Silver	7440-22-4	BRL	0.991	mg/kg	02.19.14 14.52	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-14** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-009 Date Collected: 02.13.14 12.25 Sample Depth: 0 - 6 In  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 7.43  
Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.353	mg/kg	02.18.14 23.24	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.353	mg/kg	02.18.14 23.24	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.353	mg/kg	02.18.14 23.24	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.353	mg/kg	02.18.14 23.24	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.353	mg/kg	02.18.14 23.24	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.353	mg/kg	02.18.14 23.24	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.353	mg/kg	02.18.14 23.24	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.353	mg/kg	02.18.14 23.24	U	1
2-Chloronaphthalene	91-58-7	BRL	0.353	mg/kg	02.18.14 23.24	U	1
2-Chlorophenol	95-57-8	BRL	0.353	mg/kg	02.18.14 23.24	U	1
2-Methylnaphthalene	91-57-6	BRL	0.353	mg/kg	02.18.14 23.24	U	1
2-methylphenol	95-48-7	BRL	0.353	mg/kg	02.18.14 23.24	U	1
2-Nitroaniline	88-74-4	BRL	0.353	mg/kg	02.18.14 23.24	U	1
2-Nitrophenol	88-75-5	BRL	0.353	mg/kg	02.18.14 23.24	U	1
3&4-Methylphenol	15831-10-4	BRL	0.353	mg/kg	02.18.14 23.24	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.353	mg/kg	02.18.14 23.24	U	1
3-Nitroaniline	99-09-2	BRL	0.353	mg/kg	02.18.14 23.24	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.353	mg/kg	02.18.14 23.24	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.353	mg/kg	02.18.14 23.24	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.353	mg/kg	02.18.14 23.24	U	1
4-Chloroaniline	106-47-8	BRL	0.353	mg/kg	02.18.14 23.24	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.353	mg/kg	02.18.14 23.24	U	1
4-Nitroaniline	100-01-6	BRL	0.353	mg/kg	02.18.14 23.24	U	1
4-Nitrophenol	100-02-7	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Acenaphthene	83-32-9	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Acenaphthylene	208-96-8	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Acetophenone	98-86-2	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Anthracene	120-12-7	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Benzo(a)anthracene	56-55-3	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Benzo(a)pyrene	50-32-8	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.353	mg/kg	02.18.14 23.24	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.353	mg/kg	02.18.14 23.24	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.353	mg/kg	02.18.14 23.24	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Butylbenzylphthalate	85-68-7	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Carbazole	86-74-8	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Chrysene	218-01-9	BRL	0.353	mg/kg	02.18.14 23.24	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-14** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-009 Date Collected: 02.13.14 12.25 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 7.43  
 Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
 Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Dibenzofuran	132-64-9	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Diethyl Phthalate	84-66-2	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Dimethyl Phthalate	131-11-3	BRL	0.353	mg/kg	02.18.14 23.24	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.353	mg/kg	02.18.14 23.24	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Fluoranthene	206-44-0	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Fluorene	86-73-7	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Hexachlorobenzene	118-74-1	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Hexachlorobutadiene	87-68-3	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Hexachloroethane	67-72-1	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Isophorone	78-59-1	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Naphthalene	91-20-3	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Nitrobenzene	98-95-3	BRL	0.353	mg/kg	02.18.14 23.24	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.353	mg/kg	02.18.14 23.24	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Pentachlorophenol	87-86-5	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Phenanthrene	85-01-8	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Phenol	108-95-2	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Pyrene	129-00-0	BRL	0.353	mg/kg	02.18.14 23.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	67	%	20-112	02.18.14 23.24		
2-Fluorophenol	367-12-4	62	%	18-101	02.18.14 23.24		
Nitrobenzene-d5	4165-60-0	65	%	13-112	02.18.14 23.24		
Phenol-d5	4165-62-2	73	%	15-110	02.18.14 23.24		
Terphenyl-D14	1718-51-0	101	%	21-138	02.18.14 23.24		
2,4,6-Tribromophenol	118-79-6	85	%	21-128	02.18.14 23.24		

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-14**  
Lab Sample Id: 479331-009

Matrix: Soil  
Date Collected: 02.13.14 12.25

Date Received: 02.14.14 12.30  
Sample Depth: 0 - 6 In

Analytical Method: VOCs by SW-846 8260B

Tech: MCH

Analyst: MCH

Seq Number: 934197

Date Prep: 02.15.14 15.37

Prep Method: SW5035

% Moisture: 7.43

Basis: Dry Weight

SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0108	mg/kg	02.15.14 20.41	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0542	mg/kg	02.15.14 20.41	U	1
2-Hexanone	591-78-6	BRL	0.0542	mg/kg	02.15.14 20.41	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0542	mg/kg	02.15.14 20.41	U	1
Acetone	67-64-1	BRL	0.108	mg/kg	02.15.14 20.41	U	1
Benzene	71-43-2	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
Bromochloromethane	74-97-5	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
Bromodichloromethane	75-27-4	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
Bromoform	75-25-2	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
Bromomethane	74-83-9	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
Carbon disulfide	75-15-0	BRL	0.0542	mg/kg	02.15.14 20.41	U	1
Carbon tetrachloride	56-23-5	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
Chlorobenzene	108-90-7	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
Chloroethane	75-00-3	BRL	0.0108	mg/kg	02.15.14 20.41	U	1
Chloroform	67-66-3	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
Chloromethane	74-87-3	BRL	0.0108	mg/kg	02.15.14 20.41	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
Cyclohexane	110-82-7	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
Dibromochloromethane	124-48-1	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
Ethylbenzene	100-41-4	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
Isopropylbenzene	98-82-8	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
m,p-Xylenes	179601-23-1	BRL	0.0108	mg/kg	02.15.14 20.41	U	1
Methyl acetate	79-20-9	BRL	0.0108	mg/kg	02.15.14 20.41	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-14</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-009	Date Collected: 02.13.14 12.25	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 7.43
Analyst: MCH	Date Prep: 02.15.14 15.37	Basis: Dry Weight
Seq Number: 934197		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
Methylcyclohexane	108-87-2	BRL	0.0108	mg/kg	02.15.14 20.41	U	1
Methylene Chloride	75-09-2	BRL	0.0217	mg/kg	02.15.14 20.41	U	1
o-Xylene	95-47-6	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
Styrene	100-42-5	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
Tetrachloroethene	127-18-4	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
Toluene	108-88-3	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
Trichloroethene	79-01-6	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00542	mg/kg	02.15.14 20.41	U	1
Vinyl Chloride	75-01-4	BRL	0.00217	mg/kg	02.15.14 20.41	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
Dibromofluoromethane	1868-53-7	110	%	53-142	02.15.14 20.41		
1,2-Dichloroethane-D4	17060-07-0	101	%	56-150	02.15.14 20.41		
Toluene-D8	2037-26-5	97	%	70-130	02.15.14 20.41		
4-Bromofluorobenzene	460-00-4	115	%	68-152	02.15.14 20.41		

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-14** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-010 Date Collected: 02.13.14 12.28 Sample Depth: 0.5 - 2 ft  
Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
Tech: JDR % Moisture: 12.7  
Analyst: 4150 Date Prep: 02.19.14 12.33 Basis: Dry Weight  
Seq Number: 934549

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	<b>0.743</b>	0.0521	mg/kg	02.20.14 17.47		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
Tech: JDR % Moisture: 12.7  
Analyst: 4150 Date Prep: 02.18.14 08.34 Basis: Dry Weight  
Seq Number: 934418

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.73	mg/kg	02.19.14 14.54	U	1
Barium	7440-39-3	<b>61.0</b>	5.73	mg/kg	02.19.14 14.54		1
Cadmium	7440-43-9	BRL	1.15	mg/kg	02.19.14 14.54	U	1
Chromium	7440-47-3	<b>7.54</b>	5.73	mg/kg	02.19.14 14.54		1
Lead	7439-92-1	<b>425</b>	5.73	mg/kg	02.19.14 14.54		1
Selenium	7782-49-2	BRL	1.15	mg/kg	02.19.14 14.54	U	1
Silver	7440-22-4	BRL	1.15	mg/kg	02.19.14 14.54	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-14</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-010	Date Collected: 02.13.14 12.28	Sample Depth: 0.5 - 2 ft
Analytical Method: SVOCs by SW-846 8270D		Prep Method: SW3550
Tech: TUE		% Moisture: 12.7
Analyst: VIC	Date Prep: 02.17.14 13.30	Basis: Dry Weight
Seq Number: 934342		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.375	mg/kg	02.18.14 23.52	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.375	mg/kg	02.18.14 23.52	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.375	mg/kg	02.18.14 23.52	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.375	mg/kg	02.18.14 23.52	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.375	mg/kg	02.18.14 23.52	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.375	mg/kg	02.18.14 23.52	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.375	mg/kg	02.18.14 23.52	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.375	mg/kg	02.18.14 23.52	U	1
2-Chloronaphthalene	91-58-7	BRL	0.375	mg/kg	02.18.14 23.52	U	1
2-Chlorophenol	95-57-8	BRL	0.375	mg/kg	02.18.14 23.52	U	1
2-Methylnaphthalene	91-57-6	BRL	0.375	mg/kg	02.18.14 23.52	U	1
2-methylphenol	95-48-7	BRL	0.375	mg/kg	02.18.14 23.52	U	1
2-Nitroaniline	88-74-4	BRL	0.375	mg/kg	02.18.14 23.52	U	1
2-Nitrophenol	88-75-5	BRL	0.375	mg/kg	02.18.14 23.52	U	1
3&4-Methylphenol	15831-10-4	BRL	0.375	mg/kg	02.18.14 23.52	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.375	mg/kg	02.18.14 23.52	U	1
3-Nitroaniline	99-09-2	BRL	0.375	mg/kg	02.18.14 23.52	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.375	mg/kg	02.18.14 23.52	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.375	mg/kg	02.18.14 23.52	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.375	mg/kg	02.18.14 23.52	U	1
4-Chloroaniline	106-47-8	BRL	0.375	mg/kg	02.18.14 23.52	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.375	mg/kg	02.18.14 23.52	U	1
4-Nitroaniline	100-01-6	BRL	0.375	mg/kg	02.18.14 23.52	U	1
4-Nitrophenol	100-02-7	BRL	0.375	mg/kg	02.18.14 23.52	U	1
Acenaphthene	83-32-9	BRL	0.375	mg/kg	02.18.14 23.52	U	1
Acenaphthylene	208-96-8	BRL	0.375	mg/kg	02.18.14 23.52	U	1
Acetophenone	98-86-2	BRL	0.375	mg/kg	02.18.14 23.52	U	1
<b>Anthracene</b>	120-12-7	<b>0.892</b>	0.375	mg/kg	02.18.14 23.52		1
<b>Benzo(a)anthracene</b>	56-55-3	<b>2.82</b>	0.375	mg/kg	02.18.14 23.52		1
<b>Benzo(a)pyrene</b>	50-32-8	<b>0.637</b>	0.375	mg/kg	02.18.14 23.52		1
<b>Benzo(b)fluoranthene</b>	205-99-2	<b>3.29</b>	0.375	mg/kg	02.18.14 23.52		1
<b>Benzo(g,h,i)perylene</b>	191-24-2	<b>1.61</b>	0.375	mg/kg	02.18.14 23.52		1
<b>Benzo(k)fluoranthene</b>	207-08-9	<b>0.944</b>	0.375	mg/kg	02.18.14 23.52		1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.375	mg/kg	02.18.14 23.52	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.375	mg/kg	02.18.14 23.52	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.375	mg/kg	02.18.14 23.52	U	1
Butylbenzylphthalate	85-68-7	BRL	0.375	mg/kg	02.18.14 23.52	U	1
<b>Carbazole</b>	86-74-8	<b>0.649</b>	0.375	mg/kg	02.18.14 23.52		1
<b>Chrysene</b>	218-01-9	<b>2.57</b>	0.375	mg/kg	02.18.14 23.52		1



## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-14**  
Lab Sample Id: 479331-010

Matrix: Soil  
Date Collected: 02.13.14 12.28

Date Received: 02.14.14 12.30  
Sample Depth: 0.5 - 2 ft

Analytical Method: SVOCs by SW-846 8270D

Prep Method: SW3550

Tech: TUE

% Moisture: 12.7

Analyst: VIC

Date Prep: 02.17.14 13.30

Basis: Dry Weight

Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Dibenz(a,h)Anthracene</b>	53-70-3	<b>0.464</b>	0.375	mg/kg	02.18.14 23.52		1
Dibenzofuran	132-64-9	BRL	0.375	mg/kg	02.18.14 23.52	U	1
Diethyl Phthalate	84-66-2	BRL	0.375	mg/kg	02.18.14 23.52	U	1
Dimethyl Phthalate	131-11-3	BRL	0.375	mg/kg	02.18.14 23.52	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.375	mg/kg	02.18.14 23.52	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.375	mg/kg	02.18.14 23.52	U	1
<b>Fluoranthene</b>	206-44-0	<b>4.15</b>	0.375	mg/kg	02.18.14 23.52		1
<b>Fluorene</b>	86-73-7	<b>0.401</b>	0.375	mg/kg	02.18.14 23.52		1
Hexachlorobenzene	118-74-1	BRL	0.375	mg/kg	02.18.14 23.52	U	1
Hexachlorobutadiene	87-68-3	BRL	0.375	mg/kg	02.18.14 23.52	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.375	mg/kg	02.18.14 23.52	U	1
Hexachloroethane	67-72-1	BRL	0.375	mg/kg	02.18.14 23.52	U	1
<b>Indeno(1,2,3-c,d)Pyrene</b>	193-39-5	<b>1.30</b>	0.375	mg/kg	02.18.14 23.52		1
Isophorone	78-59-1	BRL	0.375	mg/kg	02.18.14 23.52	U	1
<b>Naphthalene</b>	91-20-3	<b>0.532</b>	0.375	mg/kg	02.18.14 23.52		1
Nitrobenzene	98-95-3	BRL	0.375	mg/kg	02.18.14 23.52	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.375	mg/kg	02.18.14 23.52	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.375	mg/kg	02.18.14 23.52	U	1
Pentachlorophenol	87-86-5	BRL	0.375	mg/kg	02.18.14 23.52	U	1
<b>Phenanthrene</b>	85-01-8	<b>4.41</b>	0.375	mg/kg	02.18.14 23.52		1
Phenol	108-95-2	BRL	0.375	mg/kg	02.18.14 23.52	U	1
<b>Pyrene</b>	129-00-0	<b>4.81</b>	0.375	mg/kg	02.18.14 23.52		1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
2-Fluorobiphenyl	321-60-8	66	%	20-112	02.18.14 23.52		
2-Fluorophenol	367-12-4	53	%	18-101	02.18.14 23.52		
Nitrobenzene-d5	4165-60-0	61	%	13-112	02.18.14 23.52		
Phenol-d5	4165-62-2	68	%	15-110	02.18.14 23.52		
Terphenyl-D14	1718-51-0	102	%	21-138	02.18.14 23.52		
2,4,6-Tribromophenol	118-79-6	87	%	21-128	02.18.14 23.52		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-14</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-010	Date Collected: 02.13.14 12.28	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 12.7
Analyst: MCH	Date Prep: 02.17.14 12.35	Basis: Dry Weight
Seq Number: 934254		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.00896	mg/kg	02.17.14 15.56	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0448	mg/kg	02.17.14 15.56	U	1
2-Hexanone	591-78-6	BRL	0.0448	mg/kg	02.17.14 15.56	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0448	mg/kg	02.17.14 15.56	U	1
Acetone	67-64-1	BRL	0.0896	mg/kg	02.17.14 15.56	U	1
Benzene	71-43-2	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
Bromochloromethane	74-97-5	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
Bromodichloromethane	75-27-4	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
Bromoform	75-25-2	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
Bromomethane	74-83-9	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
Carbon disulfide	75-15-0	BRL	0.0448	mg/kg	02.17.14 15.56	U	1
Carbon tetrachloride	56-23-5	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
Chlorobenzene	108-90-7	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
Chloroethane	75-00-3	BRL	0.00896	mg/kg	02.17.14 15.56	U	1
Chloroform	67-66-3	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
Chloromethane	74-87-3	BRL	0.00896	mg/kg	02.17.14 15.56	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
Cyclohexane	110-82-7	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
Dibromochloromethane	124-48-1	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
Ethylbenzene	100-41-4	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
Isopropylbenzene	98-82-8	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
m,p-Xylenes	179601-23-1	BRL	0.00896	mg/kg	02.17.14 15.56	U	1
Methyl acetate	79-20-9	BRL	0.00896	mg/kg	02.17.14 15.56	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-14</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-010	Date Collected: 02.13.14 12.28	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 12.7
Analyst: MCH	Date Prep: 02.17.14 12.35	Basis: Dry Weight
Seq Number: 934254		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
Methylcyclohexane	108-87-2	BRL	0.00896	mg/kg	02.17.14 15.56	U	1
Methylene Chloride	75-09-2	BRL	0.0179	mg/kg	02.17.14 15.56	U	1
o-Xylene	95-47-6	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
Styrene	100-42-5	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
Tetrachloroethene	127-18-4	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
Toluene	108-88-3	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
Trichloroethene	79-01-6	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00448	mg/kg	02.17.14 15.56	U	1
Vinyl Chloride	75-01-4	BRL	0.00179	mg/kg	02.17.14 15.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	101	%	53-142	02.17.14 15.56	
1,2-Dichloroethane-D4	17060-07-0	95	%	56-150	02.17.14 15.56	
Toluene-D8	2037-26-5	99	%	70-130	02.17.14 15.56	
4-Bromofluorobenzene	460-00-4	105	%	68-152	02.17.14 15.56	

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-19** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-011 Date Collected: 02.13.14 12.31 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 15.87  
 Analyst: 4150 Date Prep: 02.19.14 12.33 Basis: Dry Weight  
 Seq Number: 934549

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	<b>0.0679</b>	0.0550	mg/kg	02.20.14 18.05		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 15.87  
 Analyst: 4150 Date Prep: 02.18.14 08.34 Basis: Dry Weight  
 Seq Number: 934418

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.77	mg/kg	02.19.14 14.56	U	1
<b>Barium</b>	7440-39-3	<b>24.8</b>	5.77	mg/kg	02.19.14 14.56		1
Cadmium	7440-43-9	BRL	1.15	mg/kg	02.19.14 14.56	U	1
<b>Chromium</b>	7440-47-3	<b>11.8</b>	5.77	mg/kg	02.19.14 14.56		1
<b>Lead</b>	7439-92-1	<b>19.3</b>	5.77	mg/kg	02.19.14 14.56		1
Selenium	7782-49-2	BRL	1.15	mg/kg	02.19.14 14.56	U	1
Silver	7440-22-4	BRL	1.15	mg/kg	02.19.14 14.56	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-19** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-011 Date Collected: 02.13.14 12.31 Sample Depth: 0 - 6 In  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 15.87  
Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.396	mg/kg	02.18.14 17.38	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.396	mg/kg	02.18.14 17.38	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.396	mg/kg	02.18.14 17.38	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.396	mg/kg	02.18.14 17.38	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.396	mg/kg	02.18.14 17.38	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.396	mg/kg	02.18.14 17.38	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.396	mg/kg	02.18.14 17.38	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.396	mg/kg	02.18.14 17.38	U	1
2-Chloronaphthalene	91-58-7	BRL	0.396	mg/kg	02.18.14 17.38	U	1
2-Chlorophenol	95-57-8	BRL	0.396	mg/kg	02.18.14 17.38	U	1
2-Methylnaphthalene	91-57-6	BRL	0.396	mg/kg	02.18.14 17.38	U	1
2-methylphenol	95-48-7	BRL	0.396	mg/kg	02.18.14 17.38	U	1
2-Nitroaniline	88-74-4	BRL	0.396	mg/kg	02.18.14 17.38	U	1
2-Nitrophenol	88-75-5	BRL	0.396	mg/kg	02.18.14 17.38	U	1
3&4-Methylphenol	15831-10-4	BRL	0.396	mg/kg	02.18.14 17.38	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.396	mg/kg	02.18.14 17.38	U	1
3-Nitroaniline	99-09-2	BRL	0.396	mg/kg	02.18.14 17.38	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.396	mg/kg	02.18.14 17.38	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.396	mg/kg	02.18.14 17.38	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.396	mg/kg	02.18.14 17.38	U	1
4-Chloroaniline	106-47-8	BRL	0.396	mg/kg	02.18.14 17.38	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.396	mg/kg	02.18.14 17.38	U	1
4-Nitroaniline	100-01-6	BRL	0.396	mg/kg	02.18.14 17.38	U	1
4-Nitrophenol	100-02-7	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Acenaphthene	83-32-9	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Acenaphthylene	208-96-8	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Acetophenone	98-86-2	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Anthracene	120-12-7	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Benzo(a)anthracene	56-55-3	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Benzo(a)pyrene	50-32-8	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.396	mg/kg	02.18.14 17.38	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.396	mg/kg	02.18.14 17.38	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.396	mg/kg	02.18.14 17.38	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Butylbenzylphthalate	85-68-7	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Carbazole	86-74-8	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Chrysene	218-01-9	BRL	0.396	mg/kg	02.18.14 17.38	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-19** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-011 Date Collected: 02.13.14 12.31 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 15.87  
 Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
 Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Dibenzofuran	132-64-9	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Diethyl Phthalate	84-66-2	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Dimethyl Phthalate	131-11-3	BRL	0.396	mg/kg	02.18.14 17.38	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.396	mg/kg	02.18.14 17.38	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Fluoranthene	206-44-0	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Fluorene	86-73-7	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Hexachlorobenzene	118-74-1	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Hexachlorobutadiene	87-68-3	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Hexachloroethane	67-72-1	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Isophorone	78-59-1	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Naphthalene	91-20-3	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Nitrobenzene	98-95-3	BRL	0.396	mg/kg	02.18.14 17.38	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.396	mg/kg	02.18.14 17.38	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Pentachlorophenol	87-86-5	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Phenanthrene	85-01-8	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Phenol	108-95-2	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Pyrene	129-00-0	BRL	0.396	mg/kg	02.18.14 17.38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	66	%	20-112	02.18.14 17.38		
2-Fluorophenol	367-12-4	59	%	18-101	02.18.14 17.38		
Nitrobenzene-d5	4165-60-0	64	%	13-112	02.18.14 17.38		
Phenol-d5	4165-62-2	70	%	15-110	02.18.14 17.38		
Terphenyl-D14	1718-51-0	102	%	21-138	02.18.14 17.38		
2,4,6-Tribromophenol	118-79-6	79	%	21-128	02.18.14 17.38		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-19</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-011	Date Collected: 02.13.14 12.31	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 15.87
Analyst: MCH	Date Prep: 02.17.14 17.05	Basis: Dry Weight
Seq Number: 934346		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0114	mg/kg	02.17.14 18.25	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0569	mg/kg	02.17.14 18.25	U	1
2-Hexanone	591-78-6	BRL	0.0569	mg/kg	02.17.14 18.25	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0569	mg/kg	02.17.14 18.25	U	1
Acetone	67-64-1	BRL	0.114	mg/kg	02.17.14 18.25	U	1
Benzene	71-43-2	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
Bromochloromethane	74-97-5	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
Bromodichloromethane	75-27-4	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
Bromoform	75-25-2	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
Bromomethane	74-83-9	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
Carbon disulfide	75-15-0	BRL	0.0569	mg/kg	02.17.14 18.25	U	1
Carbon tetrachloride	56-23-5	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
Chlorobenzene	108-90-7	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
Chloroethane	75-00-3	BRL	0.0114	mg/kg	02.17.14 18.25	U	1
Chloroform	67-66-3	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
Chloromethane	74-87-3	BRL	0.0114	mg/kg	02.17.14 18.25	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
Cyclohexane	110-82-7	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
Dibromochloromethane	124-48-1	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
Ethylbenzene	100-41-4	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
Isopropylbenzene	98-82-8	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
m,p-Xylenes	179601-23-1	BRL	0.0114	mg/kg	02.17.14 18.25	U	1
Methyl acetate	79-20-9	BRL	0.0114	mg/kg	02.17.14 18.25	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-19</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-011	Date Collected: 02.13.14 12.31	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 15.87
Analyst: MCH	Date Prep: 02.17.14 17.05	Basis: Dry Weight
Seq Number: 934346		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
Methylcyclohexane	108-87-2	BRL	0.0114	mg/kg	02.17.14 18.25	U	1
Methylene Chloride	75-09-2	BRL	0.0228	mg/kg	02.17.14 18.25	U	1
o-Xylene	95-47-6	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
Styrene	100-42-5	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
Tetrachloroethene	127-18-4	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
Toluene	108-88-3	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
Trichloroethene	79-01-6	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00569	mg/kg	02.17.14 18.25	U	1
Vinyl Chloride	75-01-4	BRL	0.00228	mg/kg	02.17.14 18.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	109	%	53-142	02.17.14 18.25	
1,2-Dichloroethane-D4	17060-07-0	98	%	56-150	02.17.14 18.25	
Toluene-D8	2037-26-5	104	%	70-130	02.17.14 18.25	
4-Bromofluorobenzene	460-00-4	100	%	68-152	02.17.14 18.25	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-19** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-012 Date Collected: 02.13.14 12.33 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 16.93  
 Analyst: 4150 Date Prep: 02.19.14 12.33 Basis: Dry Weight  
 Seq Number: 934549

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0557	mg/kg	02.20.14 18.08	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 16.93  
 Analyst: 4150 Date Prep: 02.18.14 08.34 Basis: Dry Weight  
 Seq Number: 934418

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.57	mg/kg	02.19.14 14.58	U	1
<b>Barium</b>	7440-39-3	<b>12.2</b>	5.57	mg/kg	02.19.14 14.58		1
Cadmium	7440-43-9	BRL	1.11	mg/kg	02.19.14 14.58	U	1
<b>Chromium</b>	7440-47-3	<b>14.3</b>	5.57	mg/kg	02.19.14 14.58		1
<b>Lead</b>	7439-92-1	<b>7.46</b>	5.57	mg/kg	02.19.14 14.58		1
Selenium	7782-49-2	BRL	1.11	mg/kg	02.19.14 14.58	U	1
Silver	7440-22-4	BRL	1.11	mg/kg	02.19.14 14.58	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-19** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-012 Date Collected: 02.13.14 12.33 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 16.93  
Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.393	mg/kg	02.18.14 18.06	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.393	mg/kg	02.18.14 18.06	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.393	mg/kg	02.18.14 18.06	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.393	mg/kg	02.18.14 18.06	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.393	mg/kg	02.18.14 18.06	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.393	mg/kg	02.18.14 18.06	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.393	mg/kg	02.18.14 18.06	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.393	mg/kg	02.18.14 18.06	U	1
2-Chloronaphthalene	91-58-7	BRL	0.393	mg/kg	02.18.14 18.06	U	1
2-Chlorophenol	95-57-8	BRL	0.393	mg/kg	02.18.14 18.06	U	1
2-Methylnaphthalene	91-57-6	BRL	0.393	mg/kg	02.18.14 18.06	U	1
2-methylphenol	95-48-7	BRL	0.393	mg/kg	02.18.14 18.06	U	1
2-Nitroaniline	88-74-4	BRL	0.393	mg/kg	02.18.14 18.06	U	1
2-Nitrophenol	88-75-5	BRL	0.393	mg/kg	02.18.14 18.06	U	1
3&4-Methylphenol	15831-10-4	BRL	0.393	mg/kg	02.18.14 18.06	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.393	mg/kg	02.18.14 18.06	U	1
3-Nitroaniline	99-09-2	BRL	0.393	mg/kg	02.18.14 18.06	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.393	mg/kg	02.18.14 18.06	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.393	mg/kg	02.18.14 18.06	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.393	mg/kg	02.18.14 18.06	U	1
4-Chloroaniline	106-47-8	BRL	0.393	mg/kg	02.18.14 18.06	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.393	mg/kg	02.18.14 18.06	U	1
4-Nitroaniline	100-01-6	BRL	0.393	mg/kg	02.18.14 18.06	U	1
4-Nitrophenol	100-02-7	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Acenaphthene	83-32-9	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Acenaphthylene	208-96-8	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Acetophenone	98-86-2	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Anthracene	120-12-7	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Benzo(a)anthracene	56-55-3	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Benzo(a)pyrene	50-32-8	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.393	mg/kg	02.18.14 18.06	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.393	mg/kg	02.18.14 18.06	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.393	mg/kg	02.18.14 18.06	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Butylbenzylphthalate	85-68-7	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Carbazole	86-74-8	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Chrysene	218-01-9	BRL	0.393	mg/kg	02.18.14 18.06	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-19** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-012 Date Collected: 02.13.14 12.33 Sample Depth: 0.5 - 2 ft  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 16.93  
 Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
 Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Dibenzofuran	132-64-9	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Diethyl Phthalate	84-66-2	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Dimethyl Phthalate	131-11-3	BRL	0.393	mg/kg	02.18.14 18.06	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.393	mg/kg	02.18.14 18.06	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Fluoranthene	206-44-0	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Fluorene	86-73-7	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Hexachlorobenzene	118-74-1	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Hexachlorobutadiene	87-68-3	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Hexachloroethane	67-72-1	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Isophorone	78-59-1	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Naphthalene	91-20-3	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Nitrobenzene	98-95-3	BRL	0.393	mg/kg	02.18.14 18.06	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.393	mg/kg	02.18.14 18.06	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Pentachlorophenol	87-86-5	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Phenanthrene	85-01-8	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Phenol	108-95-2	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Pyrene	129-00-0	BRL	0.393	mg/kg	02.18.14 18.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	75	%	20-112	02.18.14 18.06		
2-Fluorophenol	367-12-4	61	%	18-101	02.18.14 18.06		
Nitrobenzene-d5	4165-60-0	71	%	13-112	02.18.14 18.06		
Phenol-d5	4165-62-2	76	%	15-110	02.18.14 18.06		
Terphenyl-D14	1718-51-0	102	%	21-138	02.18.14 18.06		
2,4,6-Tribromophenol	118-79-6	86	%	21-128	02.18.14 18.06		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-19</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-012	Date Collected: 02.13.14 12.33	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 16.93
Analyst: MCH	Date Prep: 02.17.14 12.37	Basis: Dry Weight
Seq Number: 934254		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0130	mg/kg	02.17.14 16.46	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0649	mg/kg	02.17.14 16.46	U	1
2-Hexanone	591-78-6	BRL	0.0649	mg/kg	02.17.14 16.46	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0649	mg/kg	02.17.14 16.46	U	1
Acetone	67-64-1	BRL	0.130	mg/kg	02.17.14 16.46	U	1
Benzene	71-43-2	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
Bromochloromethane	74-97-5	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
Bromodichloromethane	75-27-4	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
Bromoform	75-25-2	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
Bromomethane	74-83-9	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
Carbon disulfide	75-15-0	BRL	0.0649	mg/kg	02.17.14 16.46	U	1
Carbon tetrachloride	56-23-5	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
Chlorobenzene	108-90-7	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
Chloroethane	75-00-3	BRL	0.0130	mg/kg	02.17.14 16.46	U	1
Chloroform	67-66-3	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
Chloromethane	74-87-3	BRL	0.0130	mg/kg	02.17.14 16.46	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
Cyclohexane	110-82-7	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
Dibromochloromethane	124-48-1	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
Ethylbenzene	100-41-4	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
Isopropylbenzene	98-82-8	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
m,p-Xylenes	179601-23-1	BRL	0.0130	mg/kg	02.17.14 16.46	U	1
<b>Methyl acetate</b>	79-20-9	<b>0.0159</b>	0.0130	mg/kg	02.17.14 16.46		1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-19</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-012	Date Collected: 02.13.14 12.33	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 16.93
Analyst: MCH	Date Prep: 02.17.14 12.37	Basis: Dry Weight
Seq Number: 934254		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
Methylcyclohexane	108-87-2	BRL	0.0130	mg/kg	02.17.14 16.46	U	1
Methylene Chloride	75-09-2	BRL	0.0259	mg/kg	02.17.14 16.46	U	1
o-Xylene	95-47-6	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
Styrene	100-42-5	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
Tetrachloroethene	127-18-4	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
Toluene	108-88-3	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
Trichloroethene	79-01-6	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00649	mg/kg	02.17.14 16.46	U	1
Vinyl Chloride	75-01-4	BRL	0.00259	mg/kg	02.17.14 16.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	104	%	53-142	02.17.14 16.46	
1,2-Dichloroethane-D4	17060-07-0	93	%	56-150	02.17.14 16.46	
Toluene-D8	2037-26-5	97	%	70-130	02.17.14 16.46	
4-Bromofluorobenzene	460-00-4	101	%	68-152	02.17.14 16.46	

**Geotechnical & Environmental Consultants, Inc., Macon, GA**  
**Macon 2 MGP**

Sample Id: <b>GB-20</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-013	Date Collected: 02.13.14 12.38	Sample Depth: 0 - 6 In
Analytical Method: Mercury by SW-846 7471B		Prep Method: SW7471P
Tech: JDR		% Moisture: 9.97
Analyst: 4150	Date Prep: 02.19.14 12.33	Basis: Dry Weight
Seq Number: 934549		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0555	mg/kg	02.20.14 18.18	U	1

Analytical Method: RCRA Metals by SW-846 6010C		Prep Method: SW3050B
Tech: JDR		% Moisture: 9.97
Analyst: 4150	Date Prep: 02.18.14 08.34	Basis: Dry Weight
Seq Number: 934418		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.29	mg/kg	02.19.14 15.00	U	1
Barium	7440-39-3	BRL	5.29	mg/kg	02.19.14 15.00	U	1
Cadmium	7440-43-9	BRL	1.06	mg/kg	02.19.14 15.00	U	1
Chromium	7440-47-3	BRL	5.29	mg/kg	02.19.14 15.00	U	1
Lead	7439-92-1	BRL	5.29	mg/kg	02.19.14 15.00	U	1
Selenium	7782-49-2	BRL	1.06	mg/kg	02.19.14 15.00	U	1
Silver	7440-22-4	BRL	1.06	mg/kg	02.19.14 15.00	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-20** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-013 Date Collected: 02.13.14 12.38 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 9.97  
 Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
 Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.363	mg/kg	02.18.14 18.34	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.363	mg/kg	02.18.14 18.34	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.363	mg/kg	02.18.14 18.34	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.363	mg/kg	02.18.14 18.34	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.363	mg/kg	02.18.14 18.34	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.363	mg/kg	02.18.14 18.34	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.363	mg/kg	02.18.14 18.34	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.363	mg/kg	02.18.14 18.34	U	1
2-Chloronaphthalene	91-58-7	BRL	0.363	mg/kg	02.18.14 18.34	U	1
2-Chlorophenol	95-57-8	BRL	0.363	mg/kg	02.18.14 18.34	U	1
2-Methylnaphthalene	91-57-6	BRL	0.363	mg/kg	02.18.14 18.34	U	1
2-methylphenol	95-48-7	BRL	0.363	mg/kg	02.18.14 18.34	U	1
2-Nitroaniline	88-74-4	BRL	0.363	mg/kg	02.18.14 18.34	U	1
2-Nitrophenol	88-75-5	BRL	0.363	mg/kg	02.18.14 18.34	U	1
3&4-Methylphenol	15831-10-4	BRL	0.363	mg/kg	02.18.14 18.34	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.363	mg/kg	02.18.14 18.34	U	1
3-Nitroaniline	99-09-2	BRL	0.363	mg/kg	02.18.14 18.34	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.363	mg/kg	02.18.14 18.34	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.363	mg/kg	02.18.14 18.34	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.363	mg/kg	02.18.14 18.34	U	1
4-Chloroaniline	106-47-8	BRL	0.363	mg/kg	02.18.14 18.34	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.363	mg/kg	02.18.14 18.34	U	1
4-Nitroaniline	100-01-6	BRL	0.363	mg/kg	02.18.14 18.34	U	1
4-Nitrophenol	100-02-7	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Acenaphthene	83-32-9	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Acenaphthylene	208-96-8	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Acetophenone	98-86-2	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Anthracene	120-12-7	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Benzo(a)anthracene	56-55-3	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Benzo(a)pyrene	50-32-8	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.363	mg/kg	02.18.14 18.34	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.363	mg/kg	02.18.14 18.34	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.363	mg/kg	02.18.14 18.34	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Butylbenzylphthalate	85-68-7	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Carbazole	86-74-8	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Chrysene	218-01-9	BRL	0.363	mg/kg	02.18.14 18.34	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-20** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-013 Date Collected: 02.13.14 12.38 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 9.97  
 Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
 Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Dibenzofuran	132-64-9	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Diethyl Phthalate	84-66-2	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Dimethyl Phthalate	131-11-3	BRL	0.363	mg/kg	02.18.14 18.34	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.363	mg/kg	02.18.14 18.34	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Fluoranthene	206-44-0	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Fluorene	86-73-7	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Hexachlorobenzene	118-74-1	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Hexachlorobutadiene	87-68-3	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Hexachloroethane	67-72-1	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Isophorone	78-59-1	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Naphthalene	91-20-3	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Nitrobenzene	98-95-3	BRL	0.363	mg/kg	02.18.14 18.34	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.363	mg/kg	02.18.14 18.34	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Pentachlorophenol	87-86-5	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Phenanthrene	85-01-8	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Phenol	108-95-2	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Pyrene	129-00-0	BRL	0.363	mg/kg	02.18.14 18.34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	65	%	20-112	02.18.14 18.34		
2-Fluorophenol	367-12-4	61	%	18-101	02.18.14 18.34		
Nitrobenzene-d5	4165-60-0	63	%	13-112	02.18.14 18.34		
Phenol-d5	4165-62-2	68	%	15-110	02.18.14 18.34		
Terphenyl-D14	1718-51-0	94	%	21-138	02.18.14 18.34		
2,4,6-Tribromophenol	118-79-6	74	%	21-128	02.18.14 18.34		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-20**  
Lab Sample Id: 479331-013

Matrix: Soil  
Date Collected: 02.13.14 12.38

Date Received: 02.14.14 12.30  
Sample Depth: 0 - 6 In

Analytical Method: VOCs by SW-846 8260B

Tech: MCH

Analyst: MCH

Seq Number: 934254

Date Prep: 02.17.14 12.38

Prep Method: SW5035

% Moisture: 9.97

Basis: Dry Weight

SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0129	mg/kg	02.17.14 17.11	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0643	mg/kg	02.17.14 17.11	U	1
2-Hexanone	591-78-6	BRL	0.0643	mg/kg	02.17.14 17.11	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0643	mg/kg	02.17.14 17.11	U	1
Acetone	67-64-1	BRL	0.129	mg/kg	02.17.14 17.11	U	1
Benzene	71-43-2	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
Bromochloromethane	74-97-5	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
Bromodichloromethane	75-27-4	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
Bromoform	75-25-2	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
Bromomethane	74-83-9	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
Carbon disulfide	75-15-0	BRL	0.0643	mg/kg	02.17.14 17.11	U	1
Carbon tetrachloride	56-23-5	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
Chlorobenzene	108-90-7	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
Chloroethane	75-00-3	BRL	0.0129	mg/kg	02.17.14 17.11	U	1
Chloroform	67-66-3	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
Chloromethane	74-87-3	BRL	0.0129	mg/kg	02.17.14 17.11	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
Cyclohexane	110-82-7	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
Dibromochloromethane	124-48-1	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
Ethylbenzene	100-41-4	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
Isopropylbenzene	98-82-8	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
m,p-Xylenes	179601-23-1	BRL	0.0129	mg/kg	02.17.14 17.11	U	1
<b>Methyl acetate</b>	79-20-9	<b>0.0956</b>	0.0129	mg/kg	02.17.14 17.11		1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-20</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-013	Date Collected: 02.13.14 12.38	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 9.97
Analyst: MCH	Date Prep: 02.17.14 12.38	Basis: Dry Weight
Seq Number: 934254		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
Methylcyclohexane	108-87-2	BRL	0.0129	mg/kg	02.17.14 17.11	U	1
Methylene Chloride	75-09-2	BRL	0.0257	mg/kg	02.17.14 17.11	U	1
o-Xylene	95-47-6	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
Styrene	100-42-5	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
Tetrachloroethene	127-18-4	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
Toluene	108-88-3	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
Trichloroethene	79-01-6	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00643	mg/kg	02.17.14 17.11	U	1
Vinyl Chloride	75-01-4	BRL	0.00257	mg/kg	02.17.14 17.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	97	%	53-142	02.17.14 17.11	
1,2-Dichloroethane-D4	17060-07-0	90	%	56-150	02.17.14 17.11	
Toluene-D8	2037-26-5	100	%	70-130	02.17.14 17.11	
4-Bromofluorobenzene	460-00-4	97	%	68-152	02.17.14 17.11	

**Geotechnical & Environmental Consultants, Inc., Macon, GA**  
**Macon 2 MGP**

Sample Id: <b>GB-20</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-014	Date Collected: 02.13.14 12.40	Sample Depth: 0.5 - 2 ft
Analytical Method: Mercury by SW-846 7471B		Prep Method: SW7471P
Tech: JDR		% Moisture: 8.36
Analyst: 4150	Date Prep: 02.19.14 12.33	Basis: Dry Weight
Seq Number: 934549		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0546	mg/kg	02.20.14 18.21	U	1

Analytical Method: RCRA Metals by SW-846 6010C		Prep Method: SW3050B
Tech: JDR		% Moisture: 8.36
Analyst: 4150	Date Prep: 02.18.14 08.34	Basis: Dry Weight
Seq Number: 934418		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.05	mg/kg	02.19.14 15.02	U	1
<b>Barium</b>	7440-39-3	<b>11.6</b>	5.05	mg/kg	02.19.14 15.02		1
Cadmium	7440-43-9	BRL	1.01	mg/kg	02.19.14 15.02	U	1
<b>Chromium</b>	7440-47-3	<b>6.17</b>	5.05	mg/kg	02.19.14 15.02		1
Lead	7439-92-1	BRL	5.05	mg/kg	02.19.14 15.02	U	1
Selenium	7782-49-2	BRL	1.01	mg/kg	02.19.14 15.02	U	1
Silver	7440-22-4	BRL	1.01	mg/kg	02.19.14 15.02	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-20</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-014	Date Collected: 02.13.14 12.40	Sample Depth: 0.5 - 2 ft
Analytical Method: SVOCs by SW-846 8270D		Prep Method: SW3550
Tech: TUE		% Moisture: 8.36
Analyst: VIC	Date Prep: 02.17.14 13.30	Basis: Dry Weight
Seq Number: 934342		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.361	mg/kg	02.18.14 19.02	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.361	mg/kg	02.18.14 19.02	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.361	mg/kg	02.18.14 19.02	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.361	mg/kg	02.18.14 19.02	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.361	mg/kg	02.18.14 19.02	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.361	mg/kg	02.18.14 19.02	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.361	mg/kg	02.18.14 19.02	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.361	mg/kg	02.18.14 19.02	U	1
2-Chloronaphthalene	91-58-7	BRL	0.361	mg/kg	02.18.14 19.02	U	1
2-Chlorophenol	95-57-8	BRL	0.361	mg/kg	02.18.14 19.02	U	1
2-Methylnaphthalene	91-57-6	BRL	0.361	mg/kg	02.18.14 19.02	U	1
2-methylphenol	95-48-7	BRL	0.361	mg/kg	02.18.14 19.02	U	1
2-Nitroaniline	88-74-4	BRL	0.361	mg/kg	02.18.14 19.02	U	1
2-Nitrophenol	88-75-5	BRL	0.361	mg/kg	02.18.14 19.02	U	1
3&4-Methylphenol	15831-10-4	BRL	0.361	mg/kg	02.18.14 19.02	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.361	mg/kg	02.18.14 19.02	U	1
3-Nitroaniline	99-09-2	BRL	0.361	mg/kg	02.18.14 19.02	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.361	mg/kg	02.18.14 19.02	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.361	mg/kg	02.18.14 19.02	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.361	mg/kg	02.18.14 19.02	U	1
4-Chloroaniline	106-47-8	BRL	0.361	mg/kg	02.18.14 19.02	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.361	mg/kg	02.18.14 19.02	U	1
4-Nitroaniline	100-01-6	BRL	0.361	mg/kg	02.18.14 19.02	U	1
4-Nitrophenol	100-02-7	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Acenaphthene	83-32-9	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Acenaphthylene	208-96-8	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Acetophenone	98-86-2	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Anthracene	120-12-7	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Benzo(a)anthracene	56-55-3	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Benzo(a)pyrene	50-32-8	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.361	mg/kg	02.18.14 19.02	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.361	mg/kg	02.18.14 19.02	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.361	mg/kg	02.18.14 19.02	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Butylbenzylphthalate	85-68-7	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Carbazole	86-74-8	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Chrysene	218-01-9	BRL	0.361	mg/kg	02.18.14 19.02	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-20** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-014 Date Collected: 02.13.14 12.40 Sample Depth: 0.5 - 2 ft  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 8.36  
 Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
 Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Dibenzofuran	132-64-9	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Diethyl Phthalate	84-66-2	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Dimethyl Phthalate	131-11-3	BRL	0.361	mg/kg	02.18.14 19.02	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.361	mg/kg	02.18.14 19.02	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Fluoranthene	206-44-0	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Fluorene	86-73-7	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Hexachlorobenzene	118-74-1	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Hexachlorobutadiene	87-68-3	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Hexachloroethane	67-72-1	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Isophorone	78-59-1	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Naphthalene	91-20-3	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Nitrobenzene	98-95-3	BRL	0.361	mg/kg	02.18.14 19.02	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.361	mg/kg	02.18.14 19.02	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Pentachlorophenol	87-86-5	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Phenanthrene	85-01-8	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Phenol	108-95-2	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Pyrene	129-00-0	BRL	0.361	mg/kg	02.18.14 19.02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	56	%	20-112	02.18.14 19.02		
2-Fluorophenol	367-12-4	44	%	18-101	02.18.14 19.02		
Nitrobenzene-d5	4165-60-0	47	%	13-112	02.18.14 19.02		
Phenol-d5	4165-62-2	55	%	15-110	02.18.14 19.02		
Terphenyl-D14	1718-51-0	102	%	21-138	02.18.14 19.02		
2,4,6-Tribromophenol	118-79-6	75	%	21-128	02.18.14 19.02		



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-20**  
Lab Sample Id: 479331-014

Matrix: Soil  
Date Collected: 02.13.14 12.40

Date Received: 02.14.14 12.30  
Sample Depth: 0.5 - 2 ft

Analytical Method: VOCs by SW-846 8260B

Tech: MCH

Analyst: MCH

Seq Number: 934254

Date Prep: 02.17.14 12.39

Prep Method: SW5035

% Moisture: 8.36

Basis: Dry Weight

SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0118	mg/kg	02.17.14 17.35	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0589	mg/kg	02.17.14 17.35	U	1
2-Hexanone	591-78-6	BRL	0.0589	mg/kg	02.17.14 17.35	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0589	mg/kg	02.17.14 17.35	U	1
Acetone	67-64-1	BRL	0.118	mg/kg	02.17.14 17.35	U	1
Benzene	71-43-2	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
Bromochloromethane	74-97-5	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
Bromodichloromethane	75-27-4	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
Bromoform	75-25-2	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
Bromomethane	74-83-9	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
Carbon disulfide	75-15-0	BRL	0.0589	mg/kg	02.17.14 17.35	U	1
Carbon tetrachloride	56-23-5	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
Chlorobenzene	108-90-7	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
Chloroethane	75-00-3	BRL	0.0118	mg/kg	02.17.14 17.35	U	1
Chloroform	67-66-3	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
Chloromethane	74-87-3	BRL	0.0118	mg/kg	02.17.14 17.35	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
Cyclohexane	110-82-7	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
Dibromochloromethane	124-48-1	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
Ethylbenzene	100-41-4	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
Isopropylbenzene	98-82-8	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
m,p-Xylenes	179601-23-1	BRL	0.0118	mg/kg	02.17.14 17.35	U	1
<b>Methyl acetate</b>	79-20-9	<b>0.0136</b>	0.0118	mg/kg	02.17.14 17.35		1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-20</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-014	Date Collected: 02.13.14 12.40	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 8.36
Analyst: MCH	Date Prep: 02.17.14 12.39	Basis: Dry Weight
Seq Number: 934254		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
Methylcyclohexane	108-87-2	BRL	0.0118	mg/kg	02.17.14 17.35	U	1
Methylene Chloride	75-09-2	BRL	0.0236	mg/kg	02.17.14 17.35	U	1
o-Xylene	95-47-6	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
Styrene	100-42-5	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
Tetrachloroethene	127-18-4	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
Toluene	108-88-3	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
Trichloroethene	79-01-6	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00589	mg/kg	02.17.14 17.35	U	1
Vinyl Chloride	75-01-4	BRL	0.00236	mg/kg	02.17.14 17.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	104	%	53-142	02.17.14 17.35	
1,2-Dichloroethane-D4	17060-07-0	96	%	56-150	02.17.14 17.35	
Toluene-D8	2037-26-5	99	%	70-130	02.17.14 17.35	
4-Bromofluorobenzene	460-00-4	101	%	68-152	02.17.14 17.35	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-21** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-015 Date Collected: 02.13.14 12.42 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 14.3  
 Analyst: 4150 Date Prep: 02.19.14 12.33 Basis: Dry Weight  
 Seq Number: 934549

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	0.0600	0.0550	mg/kg	02.20.14 18.24		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 14.3  
 Analyst: 4150 Date Prep: 02.18.14 08.34 Basis: Dry Weight  
 Seq Number: 934418

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.40	mg/kg	02.19.14 15.04	U	1
Barium	7440-39-3	9.73	5.40	mg/kg	02.19.14 15.04		1
Cadmium	7440-43-9	BRL	1.08	mg/kg	02.19.14 15.04	U	1
Chromium	7440-47-3	BRL	5.40	mg/kg	02.19.14 15.04	U	1
Lead	7439-92-1	BRL	5.40	mg/kg	02.19.14 15.04	U	1
Selenium	7782-49-2	BRL	1.08	mg/kg	02.19.14 15.04	U	1
Silver	7440-22-4	BRL	1.08	mg/kg	02.19.14 15.04	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-21** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-015 Date Collected: 02.13.14 12.42 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 14.3  
 Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
 Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.386	mg/kg	02.18.14 21.32	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.386	mg/kg	02.18.14 21.32	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.386	mg/kg	02.18.14 21.32	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.386	mg/kg	02.18.14 21.32	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.386	mg/kg	02.18.14 21.32	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.386	mg/kg	02.18.14 21.32	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.386	mg/kg	02.18.14 21.32	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.386	mg/kg	02.18.14 21.32	U	1
2-Chloronaphthalene	91-58-7	BRL	0.386	mg/kg	02.18.14 21.32	U	1
2-Chlorophenol	95-57-8	BRL	0.386	mg/kg	02.18.14 21.32	U	1
2-Methylnaphthalene	91-57-6	BRL	0.386	mg/kg	02.18.14 21.32	U	1
2-methylphenol	95-48-7	BRL	0.386	mg/kg	02.18.14 21.32	U	1
2-Nitroaniline	88-74-4	BRL	0.386	mg/kg	02.18.14 21.32	U	1
2-Nitrophenol	88-75-5	BRL	0.386	mg/kg	02.18.14 21.32	U	1
3&4-Methylphenol	15831-10-4	BRL	0.386	mg/kg	02.18.14 21.32	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.386	mg/kg	02.18.14 21.32	U	1
3-Nitroaniline	99-09-2	BRL	0.386	mg/kg	02.18.14 21.32	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.386	mg/kg	02.18.14 21.32	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.386	mg/kg	02.18.14 21.32	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.386	mg/kg	02.18.14 21.32	U	1
4-Chloroaniline	106-47-8	BRL	0.386	mg/kg	02.18.14 21.32	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.386	mg/kg	02.18.14 21.32	U	1
4-Nitroaniline	100-01-6	BRL	0.386	mg/kg	02.18.14 21.32	U	1
4-Nitrophenol	100-02-7	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Acenaphthene	83-32-9	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Acenaphthylene	208-96-8	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Acetophenone	98-86-2	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Anthracene	120-12-7	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Benzo(a)anthracene	56-55-3	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Benzo(a)pyrene	50-32-8	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.386	mg/kg	02.18.14 21.32	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.386	mg/kg	02.18.14 21.32	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.386	mg/kg	02.18.14 21.32	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Butylbenzylphthalate	85-68-7	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Carbazole	86-74-8	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Chrysene	218-01-9	BRL	0.386	mg/kg	02.18.14 21.32	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-21** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-015 Date Collected: 02.13.14 12.42 Sample Depth: 0 - 6 In  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 14.3  
Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Dibenzofuran	132-64-9	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Diethyl Phthalate	84-66-2	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Dimethyl Phthalate	131-11-3	BRL	0.386	mg/kg	02.18.14 21.32	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.386	mg/kg	02.18.14 21.32	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Fluoranthene	206-44-0	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Fluorene	86-73-7	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Hexachlorobenzene	118-74-1	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Hexachlorobutadiene	87-68-3	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Hexachloroethane	67-72-1	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Isophorone	78-59-1	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Naphthalene	91-20-3	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Nitrobenzene	98-95-3	BRL	0.386	mg/kg	02.18.14 21.32	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.386	mg/kg	02.18.14 21.32	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Pentachlorophenol	87-86-5	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Phenanthrene	85-01-8	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Phenol	108-95-2	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Pyrene	129-00-0	BRL	0.386	mg/kg	02.18.14 21.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	60	%	20-112	02.18.14 21.32		
2-Fluorophenol	367-12-4	57	%	18-101	02.18.14 21.32		
Nitrobenzene-d5	4165-60-0	56	%	13-112	02.18.14 21.32		
Phenol-d5	4165-62-2	63	%	15-110	02.18.14 21.32		
Terphenyl-D14	1718-51-0	103	%	21-138	02.18.14 21.32		
2,4,6-Tribromophenol	118-79-6	81	%	21-128	02.18.14 21.32		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-21**  
Lab Sample Id: 479331-015

Matrix: Soil  
Date Collected: 02.13.14 12.42

Date Received: 02.14.14 12.30  
Sample Depth: 0 - 6 In

Analytical Method: VOCs by SW-846 8260B

Prep Method: SW5035

Tech: MCH

% Moisture: 14.3

Analyst: MCH

Date Prep: 02.17.14 12.40

Basis: Dry Weight

Seq Number: 934254

SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0118	mg/kg	02.17.14 18.00	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0592	mg/kg	02.17.14 18.00	U	1
2-Hexanone	591-78-6	BRL	0.0592	mg/kg	02.17.14 18.00	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0592	mg/kg	02.17.14 18.00	U	1
Acetone	67-64-1	BRL	0.118	mg/kg	02.17.14 18.00	U	1
Benzene	71-43-2	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
Bromochloromethane	74-97-5	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
Bromodichloromethane	75-27-4	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
Bromoform	75-25-2	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
Bromomethane	74-83-9	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
Carbon disulfide	75-15-0	BRL	0.0592	mg/kg	02.17.14 18.00	U	1
Carbon tetrachloride	56-23-5	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
Chlorobenzene	108-90-7	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
Chloroethane	75-00-3	BRL	0.0118	mg/kg	02.17.14 18.00	U	1
Chloroform	67-66-3	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
Chloromethane	74-87-3	BRL	0.0118	mg/kg	02.17.14 18.00	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
Cyclohexane	110-82-7	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
Dibromochloromethane	124-48-1	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
Ethylbenzene	100-41-4	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
Isopropylbenzene	98-82-8	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
m,p-Xylenes	179601-23-1	BRL	0.0118	mg/kg	02.17.14 18.00	U	1
<b>Methyl acetate</b>	79-20-9	<b>0.0533</b>	0.0118	mg/kg	02.17.14 18.00		1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-21</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-015	Date Collected: 02.13.14 12.42	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 14.3
Analyst: MCH	Date Prep: 02.17.14 12.40	Basis: Dry Weight
Seq Number: 934254		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
Methylcyclohexane	108-87-2	BRL	0.0118	mg/kg	02.17.14 18.00	U	1
Methylene Chloride	75-09-2	BRL	0.0237	mg/kg	02.17.14 18.00	U	1
o-Xylene	95-47-6	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
Styrene	100-42-5	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
Tetrachloroethene	127-18-4	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
Toluene	108-88-3	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
Trichloroethene	79-01-6	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00592	mg/kg	02.17.14 18.00	U	1
Vinyl Chloride	75-01-4	BRL	0.00237	mg/kg	02.17.14 18.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	102	%	53-142	02.17.14 18.00	
1,2-Dichloroethane-D4	17060-07-0	87	%	56-150	02.17.14 18.00	
Toluene-D8	2037-26-5	98	%	70-130	02.17.14 18.00	
4-Bromofluorobenzene	460-00-4	104	%	68-152	02.17.14 18.00	



## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-21** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-016 Date Collected: 02.13.14 12.44 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 14.16  
 Analyst: 4150 Date Prep: 02.19.14 12.33 Basis: Dry Weight  
 Seq Number: 934549

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0582	mg/kg	02.20.14 18.24	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 14.16  
 Analyst: 4150 Date Prep: 02.19.14 09.35 Basis: Dry Weight  
 Seq Number: 934494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.66	mg/kg	02.20.14 17.37	U	1
<b>Barium</b>	7440-39-3	<b>44.8</b>	5.66	mg/kg	02.20.14 17.37		1
Cadmium	7440-43-9	BRL	1.13	mg/kg	02.20.14 17.37	U	1
<b>Chromium</b>	7440-47-3	<b>18.8</b>	5.66	mg/kg	02.20.14 17.37		1
<b>Lead</b>	7439-92-1	<b>7.14</b>	5.66	mg/kg	02.20.14 17.37		1
Selenium	7782-49-2	BRL	1.13	mg/kg	02.20.14 17.37	U	1
Silver	7440-22-4	BRL	1.13	mg/kg	02.20.14 17.37	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-21** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-016 Date Collected: 02.13.14 12.44 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 14.16  
Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.388	mg/kg	02.18.14 19.30	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.388	mg/kg	02.18.14 19.30	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.388	mg/kg	02.18.14 19.30	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.388	mg/kg	02.18.14 19.30	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.388	mg/kg	02.18.14 19.30	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.388	mg/kg	02.18.14 19.30	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.388	mg/kg	02.18.14 19.30	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.388	mg/kg	02.18.14 19.30	U	1
2-Chloronaphthalene	91-58-7	BRL	0.388	mg/kg	02.18.14 19.30	U	1
2-Chlorophenol	95-57-8	BRL	0.388	mg/kg	02.18.14 19.30	U	1
2-Methylnaphthalene	91-57-6	BRL	0.388	mg/kg	02.18.14 19.30	U	1
2-methylphenol	95-48-7	BRL	0.388	mg/kg	02.18.14 19.30	U	1
2-Nitroaniline	88-74-4	BRL	0.388	mg/kg	02.18.14 19.30	U	1
2-Nitrophenol	88-75-5	BRL	0.388	mg/kg	02.18.14 19.30	U	1
3&4-Methylphenol	15831-10-4	BRL	0.388	mg/kg	02.18.14 19.30	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.388	mg/kg	02.18.14 19.30	U	1
3-Nitroaniline	99-09-2	BRL	0.388	mg/kg	02.18.14 19.30	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.388	mg/kg	02.18.14 19.30	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.388	mg/kg	02.18.14 19.30	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.388	mg/kg	02.18.14 19.30	U	1
4-Chloroaniline	106-47-8	BRL	0.388	mg/kg	02.18.14 19.30	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.388	mg/kg	02.18.14 19.30	U	1
4-Nitroaniline	100-01-6	BRL	0.388	mg/kg	02.18.14 19.30	U	1
4-Nitrophenol	100-02-7	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Acenaphthene	83-32-9	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Acenaphthylene	208-96-8	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Acetophenone	98-86-2	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Anthracene	120-12-7	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Benzo(a)anthracene	56-55-3	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Benzo(a)pyrene	50-32-8	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.388	mg/kg	02.18.14 19.30	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.388	mg/kg	02.18.14 19.30	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.388	mg/kg	02.18.14 19.30	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Butylbenzylphthalate	85-68-7	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Carbazole	86-74-8	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Chrysene	218-01-9	BRL	0.388	mg/kg	02.18.14 19.30	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-21**  
Lab Sample Id: 479331-016

Matrix: Soil  
Date Collected: 02.13.14 12.44

Date Received: 02.14.14 12.30  
Sample Depth: 0.5 - 2 ft

Analytical Method: SVOCs by SW-846 8270D

Prep Method: SW3550

Tech: TUE

% Moisture: 14.16

Analyst: VIC

Date Prep: 02.17.14 13.30

Basis: Dry Weight

Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Dibenzofuran	132-64-9	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Diethyl Phthalate	84-66-2	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Dimethyl Phthalate	131-11-3	BRL	0.388	mg/kg	02.18.14 19.30	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.388	mg/kg	02.18.14 19.30	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Fluoranthene	206-44-0	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Fluorene	86-73-7	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Hexachlorobenzene	118-74-1	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Hexachlorobutadiene	87-68-3	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Hexachloroethane	67-72-1	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Isophorone	78-59-1	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Naphthalene	91-20-3	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Nitrobenzene	98-95-3	BRL	0.388	mg/kg	02.18.14 19.30	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.388	mg/kg	02.18.14 19.30	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Pentachlorophenol	87-86-5	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Phenanthrene	85-01-8	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Phenol	108-95-2	BRL	0.388	mg/kg	02.18.14 19.30	U	1
Pyrene	129-00-0	BRL	0.388	mg/kg	02.18.14 19.30	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
2-Fluorobiphenyl	321-60-8	62	%	20-112	02.18.14 19.30		
2-Fluorophenol	367-12-4	51	%	18-101	02.18.14 19.30		
Nitrobenzene-d5	4165-60-0	55	%	13-112	02.18.14 19.30		
Phenol-d5	4165-62-2	65	%	15-110	02.18.14 19.30		
Terphenyl-D14	1718-51-0	106	%	21-138	02.18.14 19.30		
2,4,6-Tribromophenol	118-79-6	74	%	21-128	02.18.14 19.30		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-21</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-016	Date Collected: 02.13.14 12.44	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 14.16
Analyst: MCH	Date Prep: 02.17.14 12.41	Basis: Dry Weight
Seq Number: 934254		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0105	mg/kg	02.17.14 18.26	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0526	mg/kg	02.17.14 18.26	U	1
2-Hexanone	591-78-6	BRL	0.0526	mg/kg	02.17.14 18.26	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0526	mg/kg	02.17.14 18.26	U	1
Acetone	67-64-1	BRL	0.105	mg/kg	02.17.14 18.26	U	1
Benzene	71-43-2	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
Bromochloromethane	74-97-5	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
Bromodichloromethane	75-27-4	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
Bromoform	75-25-2	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
Bromomethane	74-83-9	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
Carbon disulfide	75-15-0	BRL	0.0526	mg/kg	02.17.14 18.26	U	1
Carbon tetrachloride	56-23-5	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
Chlorobenzene	108-90-7	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
Chloroethane	75-00-3	BRL	0.0105	mg/kg	02.17.14 18.26	U	1
Chloroform	67-66-3	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
Chloromethane	74-87-3	BRL	0.0105	mg/kg	02.17.14 18.26	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
Cyclohexane	110-82-7	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
Dibromochloromethane	124-48-1	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
Ethylbenzene	100-41-4	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
Isopropylbenzene	98-82-8	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
m,p-Xylenes	179601-23-1	BRL	0.0105	mg/kg	02.17.14 18.26	U	1
Methyl acetate	79-20-9	BRL	0.0105	mg/kg	02.17.14 18.26	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-21</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-016	Date Collected: 02.13.14 12.44	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 14.16
Analyst: MCH	Date Prep: 02.17.14 12.41	Basis: Dry Weight
Seq Number: 934254		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
Methylcyclohexane	108-87-2	BRL	0.0105	mg/kg	02.17.14 18.26	U	1
Methylene Chloride	75-09-2	BRL	0.0210	mg/kg	02.17.14 18.26	U	1
o-Xylene	95-47-6	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
Styrene	100-42-5	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
Tetrachloroethene	127-18-4	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
Toluene	108-88-3	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
Trichloroethene	79-01-6	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00526	mg/kg	02.17.14 18.26	U	1
Vinyl Chloride	75-01-4	BRL	0.00210	mg/kg	02.17.14 18.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	100	%	53-142	02.17.14 18.26	
1,2-Dichloroethane-D4	17060-07-0	82	%	56-150	02.17.14 18.26	
Toluene-D8	2037-26-5	97	%	70-130	02.17.14 18.26	
4-Bromofluorobenzene	460-00-4	103	%	68-152	02.17.14 18.26	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-16** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-017 Date Collected: 02.13.14 12.46 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 10.19  
 Analyst: 4150 Date Prep: 02.19.14 12.33 Basis: Dry Weight  
 Seq Number: 934549

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0506	mg/kg	02.20.14 18.30	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 10.19  
 Analyst: 4150 Date Prep: 02.19.14 09.35 Basis: Dry Weight  
 Seq Number: 934494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	4.80	mg/kg	02.20.14 17.49	U	1
<b>Barium</b>	7440-39-3	<b>12.2</b>	4.80	mg/kg	02.20.14 17.49		1
Cadmium	7440-43-9	BRL	0.960	mg/kg	02.20.14 17.49	U	1
<b>Chromium</b>	7440-47-3	<b>7.33</b>	4.80	mg/kg	02.20.14 17.49		1
<b>Lead</b>	7439-92-1	<b>5.85</b>	4.80	mg/kg	02.20.14 17.49		1
Selenium	7782-49-2	BRL	0.960	mg/kg	02.20.14 17.49	U	1
Silver	7440-22-4	BRL	0.960	mg/kg	02.20.14 17.49	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-16** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-017 Date Collected: 02.13.14 12.46 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 10.19  
 Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
 Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.371	mg/kg	02.18.14 22.00	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.371	mg/kg	02.18.14 22.00	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.371	mg/kg	02.18.14 22.00	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.371	mg/kg	02.18.14 22.00	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.371	mg/kg	02.18.14 22.00	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.371	mg/kg	02.18.14 22.00	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.371	mg/kg	02.18.14 22.00	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.371	mg/kg	02.18.14 22.00	U	1
2-Chloronaphthalene	91-58-7	BRL	0.371	mg/kg	02.18.14 22.00	U	1
2-Chlorophenol	95-57-8	BRL	0.371	mg/kg	02.18.14 22.00	U	1
2-Methylnaphthalene	91-57-6	BRL	0.371	mg/kg	02.18.14 22.00	U	1
2-methylphenol	95-48-7	BRL	0.371	mg/kg	02.18.14 22.00	U	1
2-Nitroaniline	88-74-4	BRL	0.371	mg/kg	02.18.14 22.00	U	1
2-Nitrophenol	88-75-5	BRL	0.371	mg/kg	02.18.14 22.00	U	1
3&4-Methylphenol	15831-10-4	BRL	0.371	mg/kg	02.18.14 22.00	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.371	mg/kg	02.18.14 22.00	U	1
3-Nitroaniline	99-09-2	BRL	0.371	mg/kg	02.18.14 22.00	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.371	mg/kg	02.18.14 22.00	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.371	mg/kg	02.18.14 22.00	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.371	mg/kg	02.18.14 22.00	U	1
4-Chloroaniline	106-47-8	BRL	0.371	mg/kg	02.18.14 22.00	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.371	mg/kg	02.18.14 22.00	U	1
4-Nitroaniline	100-01-6	BRL	0.371	mg/kg	02.18.14 22.00	U	1
4-Nitrophenol	100-02-7	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Acenaphthene	83-32-9	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Acenaphthylene	208-96-8	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Acetophenone	98-86-2	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Anthracene	120-12-7	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Benzo(a)anthracene	56-55-3	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Benzo(a)pyrene	50-32-8	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.371	mg/kg	02.18.14 22.00	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.371	mg/kg	02.18.14 22.00	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.371	mg/kg	02.18.14 22.00	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Butylbenzylphthalate	85-68-7	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Carbazole	86-74-8	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Chrysene	218-01-9	BRL	0.371	mg/kg	02.18.14 22.00	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-16** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-017 Date Collected: 02.13.14 12.46 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 10.19  
 Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
 Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Dibenzofuran	132-64-9	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Diethyl Phthalate	84-66-2	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Dimethyl Phthalate	131-11-3	BRL	0.371	mg/kg	02.18.14 22.00	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.371	mg/kg	02.18.14 22.00	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Fluoranthene	206-44-0	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Fluorene	86-73-7	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Hexachlorobenzene	118-74-1	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Hexachlorobutadiene	87-68-3	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Hexachloroethane	67-72-1	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Isophorone	78-59-1	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Naphthalene	91-20-3	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Nitrobenzene	98-95-3	BRL	0.371	mg/kg	02.18.14 22.00	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.371	mg/kg	02.18.14 22.00	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Pentachlorophenol	87-86-5	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Phenanthrene	85-01-8	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Phenol	108-95-2	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Pyrene	129-00-0	BRL	0.371	mg/kg	02.18.14 22.00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	62	%	20-112	02.18.14 22.00		
2-Fluorophenol	367-12-4	56	%	18-101	02.18.14 22.00		
Nitrobenzene-d5	4165-60-0	57	%	13-112	02.18.14 22.00		
Phenol-d5	4165-62-2	65	%	15-110	02.18.14 22.00		
Terphenyl-D14	1718-51-0	90	%	21-138	02.18.14 22.00		
2,4,6-Tribromophenol	118-79-6	74	%	21-128	02.18.14 22.00		

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-16**  
Lab Sample Id: 479331-017

Matrix: Soil  
Date Collected: 02.13.14 12.46

Date Received: 02.14.14 12.30  
Sample Depth: 0 - 6 In

Analytical Method: VOCs by SW-846 8260B

Prep Method: SW5035

Tech: MCH

% Moisture: 10.19

Analyst: MCH

Date Prep: 02.17.14 12.42

Basis: Dry Weight

Seq Number: 934254

SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0108	mg/kg	02.17.14 18.50	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0542	mg/kg	02.17.14 18.50	U	1
2-Hexanone	591-78-6	BRL	0.0542	mg/kg	02.17.14 18.50	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0542	mg/kg	02.17.14 18.50	U	1
Acetone	67-64-1	BRL	0.108	mg/kg	02.17.14 18.50	U	1
Benzene	71-43-2	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
Bromochloromethane	74-97-5	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
Bromodichloromethane	75-27-4	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
Bromoform	75-25-2	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
Bromomethane	74-83-9	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
Carbon disulfide	75-15-0	BRL	0.0542	mg/kg	02.17.14 18.50	U	1
Carbon tetrachloride	56-23-5	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
Chlorobenzene	108-90-7	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
Chloroethane	75-00-3	BRL	0.0108	mg/kg	02.17.14 18.50	U	1
Chloroform	67-66-3	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
Chloromethane	74-87-3	BRL	0.0108	mg/kg	02.17.14 18.50	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
Cyclohexane	110-82-7	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
Dibromochloromethane	124-48-1	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
Ethylbenzene	100-41-4	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
Isopropylbenzene	98-82-8	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
m,p-Xylenes	179601-23-1	BRL	0.0108	mg/kg	02.17.14 18.50	U	1
<b>Methyl acetate</b>	79-20-9	<b>0.148</b>	0.0108	mg/kg	02.17.14 18.50		1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-16</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-017	Date Collected: 02.13.14 12.46	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 10.19
Analyst: MCH	Date Prep: 02.17.14 12.42	Basis: Dry Weight
Seq Number: 934254		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
Methylcyclohexane	108-87-2	BRL	0.0108	mg/kg	02.17.14 18.50	U	1
Methylene Chloride	75-09-2	BRL	0.0217	mg/kg	02.17.14 18.50	U	1
o-Xylene	95-47-6	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
Styrene	100-42-5	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
Tetrachloroethene	127-18-4	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
Toluene	108-88-3	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
Trichloroethene	79-01-6	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00542	mg/kg	02.17.14 18.50	U	1
Vinyl Chloride	75-01-4	BRL	0.00217	mg/kg	02.17.14 18.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	98	%	53-142	02.17.14 18.50	
1,2-Dichloroethane-D4	17060-07-0	84	%	56-150	02.17.14 18.50	
Toluene-D8	2037-26-5	100	%	70-130	02.17.14 18.50	
4-Bromofluorobenzene	460-00-4	101	%	68-152	02.17.14 18.50	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-16** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-018 Date Collected: 02.13.14 12.49 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 12.31  
 Analyst: 4150 Date Prep: 02.19.14 12.33 Basis: Dry Weight  
 Seq Number: 934549

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	<b>0.214</b>	0.0548	mg/kg	02.20.14 18.33		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 12.31  
 Analyst: 4150 Date Prep: 02.19.14 09.35 Basis: Dry Weight  
 Seq Number: 934494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.33	mg/kg	02.20.14 17.56	U	1
<b>Barium</b>	7440-39-3	<b>70.1</b>	5.33	mg/kg	02.20.14 17.56		1
Cadmium	7440-43-9	BRL	1.07	mg/kg	02.20.14 17.56	U	1
<b>Chromium</b>	7440-47-3	<b>15.5</b>	5.33	mg/kg	02.20.14 17.56		1
<b>Lead</b>	7439-92-1	<b>119</b>	5.33	mg/kg	02.20.14 17.56		1
Selenium	7782-49-2	BRL	1.07	mg/kg	02.20.14 17.56	U	1
Silver	7440-22-4	BRL	1.07	mg/kg	02.20.14 17.56	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-16** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-018 Date Collected: 02.13.14 12.49 Sample Depth: 0.5 - 2 ft  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 12.31  
 Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
 Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.376	mg/kg	02.18.14 22.28	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.376	mg/kg	02.18.14 22.28	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.376	mg/kg	02.18.14 22.28	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.376	mg/kg	02.18.14 22.28	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.376	mg/kg	02.18.14 22.28	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.376	mg/kg	02.18.14 22.28	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.376	mg/kg	02.18.14 22.28	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.376	mg/kg	02.18.14 22.28	U	1
2-Chloronaphthalene	91-58-7	BRL	0.376	mg/kg	02.18.14 22.28	U	1
2-Chlorophenol	95-57-8	BRL	0.376	mg/kg	02.18.14 22.28	U	1
2-Methylnaphthalene	91-57-6	BRL	0.376	mg/kg	02.18.14 22.28	U	1
2-methylphenol	95-48-7	BRL	0.376	mg/kg	02.18.14 22.28	U	1
2-Nitroaniline	88-74-4	BRL	0.376	mg/kg	02.18.14 22.28	U	1
2-Nitrophenol	88-75-5	BRL	0.376	mg/kg	02.18.14 22.28	U	1
3&4-Methylphenol	15831-10-4	BRL	0.376	mg/kg	02.18.14 22.28	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.376	mg/kg	02.18.14 22.28	U	1
3-Nitroaniline	99-09-2	BRL	0.376	mg/kg	02.18.14 22.28	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.376	mg/kg	02.18.14 22.28	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.376	mg/kg	02.18.14 22.28	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.376	mg/kg	02.18.14 22.28	U	1
4-Chloroaniline	106-47-8	BRL	0.376	mg/kg	02.18.14 22.28	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.376	mg/kg	02.18.14 22.28	U	1
4-Nitroaniline	100-01-6	BRL	0.376	mg/kg	02.18.14 22.28	U	1
4-Nitrophenol	100-02-7	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Acenaphthene	83-32-9	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Acenaphthylene	208-96-8	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Acetophenone	98-86-2	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Anthracene	120-12-7	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Benzo(a)anthracene	56-55-3	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Benzo(a)pyrene	50-32-8	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.376	mg/kg	02.18.14 22.28	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.376	mg/kg	02.18.14 22.28	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.376	mg/kg	02.18.14 22.28	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Butylbenzylphthalate	85-68-7	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Carbazole	86-74-8	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Chrysene	218-01-9	BRL	0.376	mg/kg	02.18.14 22.28	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-16** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-018 Date Collected: 02.13.14 12.49 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 12.31  
Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Dibenzofuran	132-64-9	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Diethyl Phthalate	84-66-2	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Dimethyl Phthalate	131-11-3	BRL	0.376	mg/kg	02.18.14 22.28	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.376	mg/kg	02.18.14 22.28	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Fluoranthene	206-44-0	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Fluorene	86-73-7	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Hexachlorobenzene	118-74-1	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Hexachlorobutadiene	87-68-3	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Hexachloroethane	67-72-1	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Isophorone	78-59-1	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Naphthalene	91-20-3	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Nitrobenzene	98-95-3	BRL	0.376	mg/kg	02.18.14 22.28	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.376	mg/kg	02.18.14 22.28	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Pentachlorophenol	87-86-5	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Phenanthrene	85-01-8	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Phenol	108-95-2	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Pyrene	129-00-0	BRL	0.376	mg/kg	02.18.14 22.28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	61	%	20-112	02.18.14 22.28		
2-Fluorophenol	367-12-4	55	%	18-101	02.18.14 22.28		
Nitrobenzene-d5	4165-60-0	59	%	13-112	02.18.14 22.28		
Phenol-d5	4165-62-2	65	%	15-110	02.18.14 22.28		
Terphenyl-D14	1718-51-0	96	%	21-138	02.18.14 22.28		
2,4,6-Tribromophenol	118-79-6	79	%	21-128	02.18.14 22.28		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-16</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-018	Date Collected: 02.13.14 12.49	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 12.31
Analyst: MCH	Date Prep: 02.17.14 12.43	Basis: Dry Weight
Seq Number: 934254		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0106	mg/kg	02.17.14 19.15	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0528	mg/kg	02.17.14 19.15	U	1
2-Hexanone	591-78-6	BRL	0.0528	mg/kg	02.17.14 19.15	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0528	mg/kg	02.17.14 19.15	U	1
Acetone	67-64-1	BRL	0.106	mg/kg	02.17.14 19.15	U	1
Benzene	71-43-2	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
Bromochloromethane	74-97-5	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
Bromodichloromethane	75-27-4	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
Bromoform	75-25-2	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
Bromomethane	74-83-9	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
Carbon disulfide	75-15-0	BRL	0.0528	mg/kg	02.17.14 19.15	U	1
Carbon tetrachloride	56-23-5	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
Chlorobenzene	108-90-7	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
Chloroethane	75-00-3	BRL	0.0106	mg/kg	02.17.14 19.15	U	1
Chloroform	67-66-3	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
Chloromethane	74-87-3	BRL	0.0106	mg/kg	02.17.14 19.15	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
Cyclohexane	110-82-7	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
Dibromochloromethane	124-48-1	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
Ethylbenzene	100-41-4	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
Isopropylbenzene	98-82-8	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
m,p-Xylenes	179601-23-1	BRL	0.0106	mg/kg	02.17.14 19.15	U	1
Methyl acetate	79-20-9	BRL	0.0106	mg/kg	02.17.14 19.15	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-16</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-018	Date Collected: 02.13.14 12.49	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 12.31
Analyst: MCH	Date Prep: 02.17.14 12.43	Basis: Dry Weight
Seq Number: 934254		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
Methylcyclohexane	108-87-2	BRL	0.0106	mg/kg	02.17.14 19.15	U	1
Methylene Chloride	75-09-2	BRL	0.0211	mg/kg	02.17.14 19.15	U	1
o-Xylene	95-47-6	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
Styrene	100-42-5	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
Tetrachloroethene	127-18-4	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
Toluene	108-88-3	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
Trichloroethene	79-01-6	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00528	mg/kg	02.17.14 19.15	U	1
Vinyl Chloride	75-01-4	BRL	0.00211	mg/kg	02.17.14 19.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	98	%	53-142	02.17.14 19.15	
1,2-Dichloroethane-D4	17060-07-0	88	%	56-150	02.17.14 19.15	
Toluene-D8	2037-26-5	97	%	70-130	02.17.14 19.15	
4-Bromofluorobenzene	460-00-4	103	%	68-152	02.17.14 19.15	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-17** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-019 Date Collected: 02.13.14 12.55 Sample Depth: 0 - 6 In

Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 10.06  
 Analyst: 4150 Date Prep: 02.19.14 12.33 Basis: Dry Weight  
 Seq Number: 934549

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0524	mg/kg	02.20.14 18.36	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 10.06  
 Analyst: 4150 Date Prep: 02.19.14 09.35 Basis: Dry Weight  
 Seq Number: 934494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.10	mg/kg	02.20.14 17.58	U	1
<b>Barium</b>	7440-39-3	<b>36.0</b>	5.10	mg/kg	02.20.14 17.58		1
Cadmium	7440-43-9	BRL	1.02	mg/kg	02.20.14 17.58	U	1
<b>Chromium</b>	7440-47-3	<b>14.5</b>	5.10	mg/kg	02.20.14 17.58		1
<b>Lead</b>	7439-92-1	<b>9.56</b>	5.10	mg/kg	02.20.14 17.58		1
Selenium	7782-49-2	BRL	1.02	mg/kg	02.20.14 17.58	U	1
Silver	7440-22-4	BRL	1.02	mg/kg	02.20.14 17.58	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-17** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-019 Date Collected: 02.13.14 12.55 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 10.06  
 Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
 Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.364	mg/kg	02.18.14 19.59	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.364	mg/kg	02.18.14 19.59	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.364	mg/kg	02.18.14 19.59	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.364	mg/kg	02.18.14 19.59	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.364	mg/kg	02.18.14 19.59	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.364	mg/kg	02.18.14 19.59	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.364	mg/kg	02.18.14 19.59	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.364	mg/kg	02.18.14 19.59	U	1
2-Chloronaphthalene	91-58-7	BRL	0.364	mg/kg	02.18.14 19.59	U	1
2-Chlorophenol	95-57-8	BRL	0.364	mg/kg	02.18.14 19.59	U	1
2-Methylnaphthalene	91-57-6	BRL	0.364	mg/kg	02.18.14 19.59	U	1
2-methylphenol	95-48-7	BRL	0.364	mg/kg	02.18.14 19.59	U	1
2-Nitroaniline	88-74-4	BRL	0.364	mg/kg	02.18.14 19.59	U	1
2-Nitrophenol	88-75-5	BRL	0.364	mg/kg	02.18.14 19.59	U	1
3&4-Methylphenol	15831-10-4	BRL	0.364	mg/kg	02.18.14 19.59	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.364	mg/kg	02.18.14 19.59	U	1
3-Nitroaniline	99-09-2	BRL	0.364	mg/kg	02.18.14 19.59	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.364	mg/kg	02.18.14 19.59	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.364	mg/kg	02.18.14 19.59	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.364	mg/kg	02.18.14 19.59	U	1
4-Chloroaniline	106-47-8	BRL	0.364	mg/kg	02.18.14 19.59	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.364	mg/kg	02.18.14 19.59	U	1
4-Nitroaniline	100-01-6	BRL	0.364	mg/kg	02.18.14 19.59	U	1
4-Nitrophenol	100-02-7	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Acenaphthene	83-32-9	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Acenaphthylene	208-96-8	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Acetophenone	98-86-2	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Anthracene	120-12-7	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Benzo(a)anthracene	56-55-3	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Benzo(a)pyrene	50-32-8	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.364	mg/kg	02.18.14 19.59	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.364	mg/kg	02.18.14 19.59	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.364	mg/kg	02.18.14 19.59	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Butylbenzylphthalate	85-68-7	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Carbazole	86-74-8	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Chrysene	218-01-9	BRL	0.364	mg/kg	02.18.14 19.59	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-17** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-019 Date Collected: 02.13.14 12.55 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 10.06  
 Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
 Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Dibenzofuran	132-64-9	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Diethyl Phthalate	84-66-2	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Dimethyl Phthalate	131-11-3	BRL	0.364	mg/kg	02.18.14 19.59	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.364	mg/kg	02.18.14 19.59	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Fluoranthene	206-44-0	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Fluorene	86-73-7	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Hexachlorobenzene	118-74-1	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Hexachlorobutadiene	87-68-3	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Hexachloroethane	67-72-1	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Isophorone	78-59-1	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Naphthalene	91-20-3	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Nitrobenzene	98-95-3	BRL	0.364	mg/kg	02.18.14 19.59	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.364	mg/kg	02.18.14 19.59	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Pentachlorophenol	87-86-5	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Phenanthrene	85-01-8	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Phenol	108-95-2	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Pyrene	129-00-0	BRL	0.364	mg/kg	02.18.14 19.59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	33	%	20-112	02.18.14 19.59		
2-Fluorophenol	367-12-4	10	%	18-101	02.18.14 19.59	**	
Nitrobenzene-d5	4165-60-0	14	%	13-112	02.18.14 19.59		
Phenol-d5	4165-62-2	25	%	15-110	02.18.14 19.59		
Terphenyl-D14	1718-51-0	100	%	21-138	02.18.14 19.59		
2,4,6-Tribromophenol	118-79-6	70	%	21-128	02.18.14 19.59		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-17**  
Lab Sample Id: 479331-019

Matrix: Soil  
Date Collected: 02.13.14 12.55

Date Received: 02.14.14 12.30  
Sample Depth: 0 - 6 In

Analytical Method: VOCs by SW-846 8260B

Tech: MCH

Analyst: MCH

Seq Number: 934254

Date Prep: 02.17.14 12.44

Prep Method: SW5035

% Moisture: 10.06

Basis: Dry Weight

SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0103	mg/kg	02.17.14 19.40	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0516	mg/kg	02.17.14 19.40	U	1
2-Hexanone	591-78-6	BRL	0.0516	mg/kg	02.17.14 19.40	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0516	mg/kg	02.17.14 19.40	U	1
Acetone	67-64-1	BRL	0.103	mg/kg	02.17.14 19.40	U	1
Benzene	71-43-2	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
Bromochloromethane	74-97-5	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
Bromodichloromethane	75-27-4	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
Bromoform	75-25-2	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
Bromomethane	74-83-9	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
Carbon disulfide	75-15-0	BRL	0.0516	mg/kg	02.17.14 19.40	U	1
Carbon tetrachloride	56-23-5	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
Chlorobenzene	108-90-7	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
Chloroethane	75-00-3	BRL	0.0103	mg/kg	02.17.14 19.40	U	1
Chloroform	67-66-3	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
Chloromethane	74-87-3	BRL	0.0103	mg/kg	02.17.14 19.40	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
Cyclohexane	110-82-7	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
Dibromochloromethane	124-48-1	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
Ethylbenzene	100-41-4	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
Isopropylbenzene	98-82-8	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
m,p-Xylenes	179601-23-1	BRL	0.0103	mg/kg	02.17.14 19.40	U	1
Methyl acetate	79-20-9	BRL	0.0103	mg/kg	02.17.14 19.40	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-17</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-019	Date Collected: 02.13.14 12.55	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 10.06
Analyst: MCH	Date Prep: 02.17.14 12.44	Basis: Dry Weight
Seq Number: 934254		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
Methylcyclohexane	108-87-2	BRL	0.0103	mg/kg	02.17.14 19.40	U	1
Methylene Chloride	75-09-2	BRL	0.0206	mg/kg	02.17.14 19.40	U	1
o-Xylene	95-47-6	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
Styrene	100-42-5	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
Tetrachloroethene	127-18-4	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
Toluene	108-88-3	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
Trichloroethene	79-01-6	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00516	mg/kg	02.17.14 19.40	U	1
Vinyl Chloride	75-01-4	BRL	0.00206	mg/kg	02.17.14 19.40	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
Dibromofluoromethane	1868-53-7	97	%	53-142	02.17.14 19.40		
1,2-Dichloroethane-D4	17060-07-0	83	%	56-150	02.17.14 19.40		
Toluene-D8	2037-26-5	98	%	70-130	02.17.14 19.40		
4-Bromofluorobenzene	460-00-4	106	%	68-152	02.17.14 19.40		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-17** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-020 Date Collected: 02.13.14 12.57 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 12.63  
 Analyst: 4150 Date Prep: 02.19.14 12.33 Basis: Dry Weight  
 Seq Number: 934549

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	<b>0.0851</b>	0.0540	mg/kg	02.20.14 18.39		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 12.63  
 Analyst: 4150 Date Prep: 02.19.14 09.35 Basis: Dry Weight  
 Seq Number: 934494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.35	mg/kg	02.20.14 18.01	U	1
Barium	7440-39-3	<b>46.0</b>	5.35	mg/kg	02.20.14 18.01		1
Cadmium	7440-43-9	BRL	1.07	mg/kg	02.20.14 18.01	U	1
Chromium	7440-47-3	<b>13.8</b>	5.35	mg/kg	02.20.14 18.01		1
Lead	7439-92-1	<b>18.2</b>	5.35	mg/kg	02.20.14 18.01		1
Selenium	7782-49-2	BRL	1.07	mg/kg	02.20.14 18.01	U	1
Silver	7440-22-4	BRL	1.07	mg/kg	02.20.14 18.01	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-17</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-020	Date Collected: 02.13.14 12.57	Sample Depth: 0.5 - 2 ft
Analytical Method: SVOCs by SW-846 8270D		Prep Method: SW3550
Tech: TUE		% Moisture: 12.63
Analyst: VIC	Date Prep: 02.17.14 13.30	Basis: Dry Weight
Seq Number: 934342		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.381	mg/kg	02.18.14 20.27	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.381	mg/kg	02.18.14 20.27	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.381	mg/kg	02.18.14 20.27	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.381	mg/kg	02.18.14 20.27	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.381	mg/kg	02.18.14 20.27	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.381	mg/kg	02.18.14 20.27	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.381	mg/kg	02.18.14 20.27	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.381	mg/kg	02.18.14 20.27	U	1
2-Chloronaphthalene	91-58-7	BRL	0.381	mg/kg	02.18.14 20.27	U	1
2-Chlorophenol	95-57-8	BRL	0.381	mg/kg	02.18.14 20.27	U	1
2-Methylnaphthalene	91-57-6	BRL	0.381	mg/kg	02.18.14 20.27	U	1
2-methylphenol	95-48-7	BRL	0.381	mg/kg	02.18.14 20.27	U	1
2-Nitroaniline	88-74-4	BRL	0.381	mg/kg	02.18.14 20.27	U	1
2-Nitrophenol	88-75-5	BRL	0.381	mg/kg	02.18.14 20.27	U	1
3&4-Methylphenol	15831-10-4	BRL	0.381	mg/kg	02.18.14 20.27	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.381	mg/kg	02.18.14 20.27	U	1
3-Nitroaniline	99-09-2	BRL	0.381	mg/kg	02.18.14 20.27	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.381	mg/kg	02.18.14 20.27	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.381	mg/kg	02.18.14 20.27	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.381	mg/kg	02.18.14 20.27	U	1
4-Chloroaniline	106-47-8	BRL	0.381	mg/kg	02.18.14 20.27	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.381	mg/kg	02.18.14 20.27	U	1
4-Nitroaniline	100-01-6	BRL	0.381	mg/kg	02.18.14 20.27	U	1
4-Nitrophenol	100-02-7	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Acenaphthene	83-32-9	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Acenaphthylene	208-96-8	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Acetophenone	98-86-2	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Anthracene	120-12-7	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Benzo(a)anthracene	56-55-3	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Benzo(a)pyrene	50-32-8	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.381	mg/kg	02.18.14 20.27	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.381	mg/kg	02.18.14 20.27	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.381	mg/kg	02.18.14 20.27	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Butylbenzylphthalate	85-68-7	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Carbazole	86-74-8	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Chrysene	218-01-9	BRL	0.381	mg/kg	02.18.14 20.27	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-17** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-020 Date Collected: 02.13.14 12.57 Sample Depth: 0.5 - 2 ft  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 12.63  
 Analyst: VIC Date Prep: 02.17.14 13.30 Basis: Dry Weight  
 Seq Number: 934342

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Dibenzofuran	132-64-9	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Diethyl Phthalate	84-66-2	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Dimethyl Phthalate	131-11-3	BRL	0.381	mg/kg	02.18.14 20.27	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.381	mg/kg	02.18.14 20.27	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Fluoranthene	206-44-0	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Fluorene	86-73-7	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Hexachlorobenzene	118-74-1	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Hexachlorobutadiene	87-68-3	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Hexachloroethane	67-72-1	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Isophorone	78-59-1	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Naphthalene	91-20-3	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Nitrobenzene	98-95-3	BRL	0.381	mg/kg	02.18.14 20.27	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.381	mg/kg	02.18.14 20.27	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Pentachlorophenol	87-86-5	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Phenanthrene	85-01-8	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Phenol	108-95-2	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Pyrene	129-00-0	BRL	0.381	mg/kg	02.18.14 20.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	73	%	20-112	02.18.14 20.27		
2-Fluorophenol	367-12-4	62	%	18-101	02.18.14 20.27		
Nitrobenzene-d5	4165-60-0	70	%	13-112	02.18.14 20.27		
Phenol-d5	4165-62-2	74	%	15-110	02.18.14 20.27		
Terphenyl-D14	1718-51-0	111	%	21-138	02.18.14 20.27		
2,4,6-Tribromophenol	118-79-6	86	%	21-128	02.18.14 20.27		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-17</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-020	Date Collected: 02.13.14 12.57	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 12.63
Analyst: MCH	Date Prep: 02.17.14 12.45	Basis: Dry Weight
Seq Number: 934254		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0129	mg/kg	02.17.14 20.05	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0643	mg/kg	02.17.14 20.05	U	1
2-Hexanone	591-78-6	BRL	0.0643	mg/kg	02.17.14 20.05	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0643	mg/kg	02.17.14 20.05	U	1
Acetone	67-64-1	BRL	0.129	mg/kg	02.17.14 20.05	U	1
Benzene	71-43-2	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
Bromochloromethane	74-97-5	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
Bromodichloromethane	75-27-4	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
Bromoform	75-25-2	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
Bromomethane	74-83-9	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
Carbon disulfide	75-15-0	BRL	0.0643	mg/kg	02.17.14 20.05	U	1
Carbon tetrachloride	56-23-5	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
Chlorobenzene	108-90-7	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
Chloroethane	75-00-3	BRL	0.0129	mg/kg	02.17.14 20.05	U	1
Chloroform	67-66-3	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
Chloromethane	74-87-3	BRL	0.0129	mg/kg	02.17.14 20.05	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
Cyclohexane	110-82-7	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
Dibromochloromethane	124-48-1	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
Ethylbenzene	100-41-4	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
Isopropylbenzene	98-82-8	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
m,p-Xylenes	179601-23-1	BRL	0.0129	mg/kg	02.17.14 20.05	U	1
Methyl acetate	79-20-9	BRL	0.0129	mg/kg	02.17.14 20.05	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-17</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-020	Date Collected: 02.13.14 12.57	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 12.63
Analyst: MCH	Date Prep: 02.17.14 12.45	Basis: Dry Weight
Seq Number: 934254		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
Methylcyclohexane	108-87-2	BRL	0.0129	mg/kg	02.17.14 20.05	U	1
Methylene Chloride	75-09-2	BRL	0.0257	mg/kg	02.17.14 20.05	U	1
o-Xylene	95-47-6	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
Styrene	100-42-5	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
Tetrachloroethene	127-18-4	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
Toluene	108-88-3	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
Trichloroethene	79-01-6	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00643	mg/kg	02.17.14 20.05	U	1
Vinyl Chloride	75-01-4	BRL	0.00257	mg/kg	02.17.14 20.05	U	1
<b>Surrogate</b>							
	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
Dibromofluoromethane	1868-53-7	0	%	53-142	02.17.14 20.05	**	
1,2-Dichloroethane-D4	17060-07-0	77	%	56-150	02.17.14 20.05		
Toluene-D8	2037-26-5	97	%	70-130	02.17.14 20.05		
4-Bromofluorobenzene	460-00-4	102	%	68-152	02.17.14 20.05		

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-22** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-021 Date Collected: 02.13.14 12.59 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 12.3  
 Analyst: 4150 Date Prep: 02.19.14 12.33 Basis: Dry Weight  
 Seq Number: 934549

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	0.131	0.0518	mg/kg	02.20.14 18.42		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 12.3  
 Analyst: 4150 Date Prep: 02.19.14 09.35 Basis: Dry Weight  
 Seq Number: 934494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.23	mg/kg	02.20.14 18.03	U	1
Barium	7440-39-3	60.2	5.23	mg/kg	02.20.14 18.03		1
Cadmium	7440-43-9	BRL	1.05	mg/kg	02.20.14 18.03	U	1
Chromium	7440-47-3	6.94	5.23	mg/kg	02.20.14 18.03		1
Lead	7439-92-1	38.4	5.23	mg/kg	02.20.14 18.03		1
Selenium	7782-49-2	BRL	1.05	mg/kg	02.20.14 18.03	U	1
Silver	7440-22-4	BRL	1.05	mg/kg	02.20.14 18.03	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-22** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-021 Date Collected: 02.13.14 12.59 Sample Depth: 0 - 6 In  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 12.3  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.376	mg/kg	02.20.14 02.12	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.376	mg/kg	02.20.14 02.12	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.376	mg/kg	02.20.14 02.12	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.376	mg/kg	02.20.14 02.12	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.376	mg/kg	02.20.14 02.12	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.376	mg/kg	02.20.14 02.12	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.376	mg/kg	02.20.14 02.12	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.376	mg/kg	02.20.14 02.12	U	1
2-Chloronaphthalene	91-58-7	BRL	0.376	mg/kg	02.20.14 02.12	U	1
2-Chlorophenol	95-57-8	BRL	0.376	mg/kg	02.20.14 02.12	U	1
2-Methylnaphthalene	91-57-6	BRL	0.376	mg/kg	02.20.14 02.12	U	1
2-methylphenol	95-48-7	BRL	0.376	mg/kg	02.20.14 02.12	U	1
2-Nitroaniline	88-74-4	BRL	0.376	mg/kg	02.20.14 02.12	U	1
2-Nitrophenol	88-75-5	BRL	0.376	mg/kg	02.20.14 02.12	U	1
3&4-Methylphenol	15831-10-4	BRL	0.376	mg/kg	02.20.14 02.12	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.376	mg/kg	02.20.14 02.12	U	1
3-Nitroaniline	99-09-2	BRL	0.376	mg/kg	02.20.14 02.12	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.376	mg/kg	02.20.14 02.12	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.376	mg/kg	02.20.14 02.12	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.376	mg/kg	02.20.14 02.12	U	1
4-Chloroaniline	106-47-8	BRL	0.376	mg/kg	02.20.14 02.12	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.376	mg/kg	02.20.14 02.12	U	1
4-Nitroaniline	100-01-6	BRL	0.376	mg/kg	02.20.14 02.12	U	1
4-Nitrophenol	100-02-7	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Acenaphthene	83-32-9	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Acenaphthylene	208-96-8	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Acetophenone	98-86-2	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Anthracene	120-12-7	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Benzo(a)anthracene	56-55-3	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Benzo(a)pyrene	50-32-8	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.376	mg/kg	02.20.14 02.12	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.376	mg/kg	02.20.14 02.12	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.376	mg/kg	02.20.14 02.12	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Butylbenzylphthalate	85-68-7	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Carbazole	86-74-8	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Chrysene	218-01-9	BRL	0.376	mg/kg	02.20.14 02.12	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-22** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-021 Date Collected: 02.13.14 12.59 Sample Depth: 0 - 6 In  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 12.3  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Dibenzofuran	132-64-9	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Diethyl Phthalate	84-66-2	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Dimethyl Phthalate	131-11-3	BRL	0.376	mg/kg	02.20.14 02.12	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.376	mg/kg	02.20.14 02.12	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Fluoranthene	206-44-0	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Fluorene	86-73-7	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Hexachlorobenzene	118-74-1	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Hexachlorobutadiene	87-68-3	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Hexachloroethane	67-72-1	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Isophorone	78-59-1	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Naphthalene	91-20-3	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Nitrobenzene	98-95-3	BRL	0.376	mg/kg	02.20.14 02.12	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.376	mg/kg	02.20.14 02.12	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Pentachlorophenol	87-86-5	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Phenanthrene	85-01-8	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Phenol	108-95-2	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Pyrene	129-00-0	BRL	0.376	mg/kg	02.20.14 02.12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	65	%	20-112	02.20.14 02.12		
2-Fluorophenol	367-12-4	59	%	18-101	02.20.14 02.12		
Nitrobenzene-d5	4165-60-0	62	%	13-112	02.20.14 02.12		
Phenol-d5	4165-62-2	69	%	15-110	02.20.14 02.12		
Terphenyl-D14	1718-51-0	96	%	21-138	02.20.14 02.12		
2,4,6-Tribromophenol	118-79-6	81	%	21-128	02.20.14 02.12		



## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-22</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-021	Date Collected: 02.13.14 12.59	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 12.3
Analyst: MCH	Date Prep: 02.17.14 12.46	Basis: Dry Weight
Seq Number: 934254		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.00950	mg/kg	02.17.14 20.30	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0475	mg/kg	02.17.14 20.30	U	1
2-Hexanone	591-78-6	BRL	0.0475	mg/kg	02.17.14 20.30	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0475	mg/kg	02.17.14 20.30	U	1
Acetone	67-64-1	BRL	0.0950	mg/kg	02.17.14 20.30	U	1
Benzene	71-43-2	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
Bromochloromethane	74-97-5	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
Bromodichloromethane	75-27-4	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
Bromoform	75-25-2	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
Bromomethane	74-83-9	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
Carbon disulfide	75-15-0	BRL	0.0475	mg/kg	02.17.14 20.30	U	1
Carbon tetrachloride	56-23-5	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
Chlorobenzene	108-90-7	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
Chloroethane	75-00-3	BRL	0.00950	mg/kg	02.17.14 20.30	U	1
Chloroform	67-66-3	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
Chloromethane	74-87-3	BRL	0.00950	mg/kg	02.17.14 20.30	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
Cyclohexane	110-82-7	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
Dibromochloromethane	124-48-1	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
Ethylbenzene	100-41-4	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
Isopropylbenzene	98-82-8	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
m,p-Xylenes	179601-23-1	BRL	0.00950	mg/kg	02.17.14 20.30	U	1
Methyl acetate	79-20-9	BRL	0.00950	mg/kg	02.17.14 20.30	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-22</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-021	Date Collected: 02.13.14 12.59	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 12.3
Analyst: MCH	Date Prep: 02.17.14 12.46	Basis: Dry Weight
Seq Number: 934254		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
Methylcyclohexane	108-87-2	BRL	0.00950	mg/kg	02.17.14 20.30	U	1
Methylene Chloride	75-09-2	BRL	0.0190	mg/kg	02.17.14 20.30	U	1
o-Xylene	95-47-6	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
Styrene	100-42-5	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
Tetrachloroethene	127-18-4	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
Toluene	108-88-3	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
Trichloroethene	79-01-6	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00475	mg/kg	02.17.14 20.30	U	1
Vinyl Chloride	75-01-4	BRL	0.00190	mg/kg	02.17.14 20.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	99	%	53-142	02.17.14 20.30	
1,2-Dichloroethane-D4	17060-07-0	85	%	56-150	02.17.14 20.30	
Toluene-D8	2037-26-5	98	%	70-130	02.17.14 20.30	
4-Bromofluorobenzene	460-00-4	105	%	68-152	02.17.14 20.30	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-22** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-022 Date Collected: 02.13.14 12.01 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 8.17  
 Analyst: 4150 Date Prep: 02.19.14 12.33 Basis: Dry Weight  
 Seq Number: 934549

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	<b>0.0725</b>	0.0504	mg/kg	02.20.14 18.52		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 8.17  
 Analyst: 4150 Date Prep: 02.19.14 09.35 Basis: Dry Weight  
 Seq Number: 934494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.24	mg/kg	02.20.14 18.05	U	1
<b>Barium</b>	7440-39-3	<b>21.6</b>	5.24	mg/kg	02.20.14 18.05		1
Cadmium	7440-43-9	BRL	1.05	mg/kg	02.20.14 18.05	U	1
<b>Chromium</b>	7440-47-3	<b>5.66</b>	5.24	mg/kg	02.20.14 18.05		1
<b>Lead</b>	7439-92-1	<b>33.1</b>	5.24	mg/kg	02.20.14 18.05		1
Selenium	7782-49-2	BRL	1.05	mg/kg	02.20.14 18.05	U	1
Silver	7440-22-4	BRL	1.05	mg/kg	02.20.14 18.05	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-22** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-022 Date Collected: 02.13.14 12.01 Sample Depth: 0.5 - 2 ft  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 8.17  
 Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
 Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.360	mg/kg	02.20.14 02.39	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.360	mg/kg	02.20.14 02.39	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.360	mg/kg	02.20.14 02.39	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.360	mg/kg	02.20.14 02.39	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.360	mg/kg	02.20.14 02.39	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.360	mg/kg	02.20.14 02.39	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.360	mg/kg	02.20.14 02.39	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.360	mg/kg	02.20.14 02.39	U	1
2-Chloronaphthalene	91-58-7	BRL	0.360	mg/kg	02.20.14 02.39	U	1
2-Chlorophenol	95-57-8	BRL	0.360	mg/kg	02.20.14 02.39	U	1
2-Methylnaphthalene	91-57-6	BRL	0.360	mg/kg	02.20.14 02.39	U	1
2-methylphenol	95-48-7	BRL	0.360	mg/kg	02.20.14 02.39	U	1
2-Nitroaniline	88-74-4	BRL	0.360	mg/kg	02.20.14 02.39	U	1
2-Nitrophenol	88-75-5	BRL	0.360	mg/kg	02.20.14 02.39	U	1
3&4-Methylphenol	15831-10-4	BRL	0.360	mg/kg	02.20.14 02.39	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.360	mg/kg	02.20.14 02.39	U	1
3-Nitroaniline	99-09-2	BRL	0.360	mg/kg	02.20.14 02.39	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.360	mg/kg	02.20.14 02.39	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.360	mg/kg	02.20.14 02.39	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.360	mg/kg	02.20.14 02.39	U	1
4-Chloroaniline	106-47-8	BRL	0.360	mg/kg	02.20.14 02.39	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.360	mg/kg	02.20.14 02.39	U	1
4-Nitroaniline	100-01-6	BRL	0.360	mg/kg	02.20.14 02.39	U	1
4-Nitrophenol	100-02-7	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Acenaphthene	83-32-9	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Acenaphthylene	208-96-8	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Acetophenone	98-86-2	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Anthracene	120-12-7	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Benzo(a)anthracene	56-55-3	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Benzo(a)pyrene	50-32-8	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.360	mg/kg	02.20.14 02.39	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.360	mg/kg	02.20.14 02.39	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.360	mg/kg	02.20.14 02.39	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Butylbenzylphthalate	85-68-7	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Carbazole	86-74-8	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Chrysene	218-01-9	BRL	0.360	mg/kg	02.20.14 02.39	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-22** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-022 Date Collected: 02.13.14 12.01 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 8.17  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Dibenzofuran	132-64-9	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Diethyl Phthalate	84-66-2	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Dimethyl Phthalate	131-11-3	BRL	0.360	mg/kg	02.20.14 02.39	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.360	mg/kg	02.20.14 02.39	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Fluoranthene	206-44-0	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Fluorene	86-73-7	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Hexachlorobenzene	118-74-1	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Hexachlorobutadiene	87-68-3	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Hexachloroethane	67-72-1	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Isophorone	78-59-1	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Naphthalene	91-20-3	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Nitrobenzene	98-95-3	BRL	0.360	mg/kg	02.20.14 02.39	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.360	mg/kg	02.20.14 02.39	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Pentachlorophenol	87-86-5	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Phenanthrene	85-01-8	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Phenol	108-95-2	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Pyrene	129-00-0	BRL	0.360	mg/kg	02.20.14 02.39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	64	%	20-112	02.20.14 02.39		
2-Fluorophenol	367-12-4	59	%	18-101	02.20.14 02.39		
Nitrobenzene-d5	4165-60-0	64	%	13-112	02.20.14 02.39		
Phenol-d5	4165-62-2	72	%	15-110	02.20.14 02.39		
Terphenyl-D14	1718-51-0	101	%	21-138	02.20.14 02.39		
2,4,6-Tribromophenol	118-79-6	81	%	21-128	02.20.14 02.39		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-22</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-022	Date Collected: 02.13.14 12.01	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 8.17
Analyst: MCH	Date Prep: 02.17.14 12.47	Basis: Dry Weight
Seq Number: 934254		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.00920	mg/kg	02.17.14 20.54	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0460	mg/kg	02.17.14 20.54	U	1
2-Hexanone	591-78-6	BRL	0.0460	mg/kg	02.17.14 20.54	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0460	mg/kg	02.17.14 20.54	U	1
Acetone	67-64-1	BRL	0.0920	mg/kg	02.17.14 20.54	U	1
Benzene	71-43-2	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
Bromochloromethane	74-97-5	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
Bromodichloromethane	75-27-4	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
Bromoform	75-25-2	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
Bromomethane	74-83-9	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
Carbon disulfide	75-15-0	BRL	0.0460	mg/kg	02.17.14 20.54	U	1
Carbon tetrachloride	56-23-5	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
Chlorobenzene	108-90-7	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
Chloroethane	75-00-3	BRL	0.00920	mg/kg	02.17.14 20.54	U	1
Chloroform	67-66-3	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
Chloromethane	74-87-3	BRL	0.00920	mg/kg	02.17.14 20.54	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
Cyclohexane	110-82-7	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
Dibromochloromethane	124-48-1	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
Ethylbenzene	100-41-4	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
Isopropylbenzene	98-82-8	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
m,p-Xylenes	179601-23-1	BRL	0.00920	mg/kg	02.17.14 20.54	U	1
<b>Methyl acetate</b>	79-20-9	<b>0.0127</b>	0.00920	mg/kg	02.17.14 20.54		1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-22</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-022	Date Collected: 02.13.14 12.01	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 8.17
Analyst: MCH	Date Prep: 02.17.14 12.47	Basis: Dry Weight
Seq Number: 934254		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
Methylcyclohexane	108-87-2	BRL	0.00920	mg/kg	02.17.14 20.54	U	1
Methylene Chloride	75-09-2	BRL	0.0184	mg/kg	02.17.14 20.54	U	1
o-Xylene	95-47-6	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
Styrene	100-42-5	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
Tetrachloroethene	127-18-4	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
Toluene	108-88-3	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
Trichloroethene	79-01-6	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00460	mg/kg	02.17.14 20.54	U	1
Vinyl Chloride	75-01-4	BRL	0.00184	mg/kg	02.17.14 20.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	101	%	53-142	02.17.14 20.54	
1,2-Dichloroethane-D4	17060-07-0	86	%	56-150	02.17.14 20.54	
Toluene-D8	2037-26-5	99	%	70-130	02.17.14 20.54	
4-Bromofluorobenzene	460-00-4	114	%	68-152	02.17.14 20.54	



## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-25** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-023 Date Collected: 02.13.14 12.04 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 8.29  
 Analyst: 4150 Date Prep: 02.19.14 12.33 Basis: Dry Weight  
 Seq Number: 934549

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0514	mg/kg	02.20.14 18.55	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 8.29  
 Analyst: 4150 Date Prep: 02.19.14 09.35 Basis: Dry Weight  
 Seq Number: 934494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	4.78	mg/kg	02.20.14 18.07	U	1
<b>Barium</b>	7440-39-3	<b>36.3</b>	4.78	mg/kg	02.20.14 18.07		1
Cadmium	7440-43-9	BRL	0.956	mg/kg	02.20.14 18.07	U	1
<b>Chromium</b>	7440-47-3	<b>4.89</b>	4.78	mg/kg	02.20.14 18.07		1
<b>Lead</b>	7439-92-1	<b>7.65</b>	4.78	mg/kg	02.20.14 18.07		1
Selenium	7782-49-2	BRL	0.956	mg/kg	02.20.14 18.07	U	1
Silver	7440-22-4	BRL	0.956	mg/kg	02.20.14 18.07	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-25</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-023	Date Collected: 02.13.14 12.04	Sample Depth: 0 - 6 In
Analytical Method: SVOCs by SW-846 8270D		Prep Method: SW3550
Tech: TUE		% Moisture: 8.29
Analyst: VIC	Date Prep: 02.18.14 08.30	Basis: Dry Weight
Seq Number: 934471		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.356	mg/kg	02.20.14 03.07	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.356	mg/kg	02.20.14 03.07	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.356	mg/kg	02.20.14 03.07	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.356	mg/kg	02.20.14 03.07	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.356	mg/kg	02.20.14 03.07	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.356	mg/kg	02.20.14 03.07	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.356	mg/kg	02.20.14 03.07	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.356	mg/kg	02.20.14 03.07	U	1
2-Chloronaphthalene	91-58-7	BRL	0.356	mg/kg	02.20.14 03.07	U	1
2-Chlorophenol	95-57-8	BRL	0.356	mg/kg	02.20.14 03.07	U	1
2-Methylnaphthalene	91-57-6	BRL	0.356	mg/kg	02.20.14 03.07	U	1
2-methylphenol	95-48-7	BRL	0.356	mg/kg	02.20.14 03.07	U	1
2-Nitroaniline	88-74-4	BRL	0.356	mg/kg	02.20.14 03.07	U	1
2-Nitrophenol	88-75-5	BRL	0.356	mg/kg	02.20.14 03.07	U	1
3&4-Methylphenol	15831-10-4	BRL	0.356	mg/kg	02.20.14 03.07	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.356	mg/kg	02.20.14 03.07	U	1
3-Nitroaniline	99-09-2	BRL	0.356	mg/kg	02.20.14 03.07	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.356	mg/kg	02.20.14 03.07	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.356	mg/kg	02.20.14 03.07	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.356	mg/kg	02.20.14 03.07	U	1
4-Chloroaniline	106-47-8	BRL	0.356	mg/kg	02.20.14 03.07	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.356	mg/kg	02.20.14 03.07	U	1
4-Nitroaniline	100-01-6	BRL	0.356	mg/kg	02.20.14 03.07	U	1
4-Nitrophenol	100-02-7	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Acenaphthene	83-32-9	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Acenaphthylene	208-96-8	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Acetophenone	98-86-2	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Anthracene	120-12-7	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Benzo(a)anthracene	56-55-3	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Benzo(a)pyrene	50-32-8	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.356	mg/kg	02.20.14 03.07	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.356	mg/kg	02.20.14 03.07	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.356	mg/kg	02.20.14 03.07	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Butylbenzylphthalate	85-68-7	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Carbazole	86-74-8	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Chrysene	218-01-9	BRL	0.356	mg/kg	02.20.14 03.07	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-25** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-023 Date Collected: 02.13.14 12.04 Sample Depth: 0 - 6 In  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 8.29  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Dibenzofuran	132-64-9	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Diethyl Phthalate	84-66-2	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Dimethyl Phthalate	131-11-3	BRL	0.356	mg/kg	02.20.14 03.07	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.356	mg/kg	02.20.14 03.07	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Fluoranthene	206-44-0	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Fluorene	86-73-7	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Hexachlorobenzene	118-74-1	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Hexachlorobutadiene	87-68-3	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Hexachloroethane	67-72-1	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Isophorone	78-59-1	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Naphthalene	91-20-3	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Nitrobenzene	98-95-3	BRL	0.356	mg/kg	02.20.14 03.07	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.356	mg/kg	02.20.14 03.07	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Pentachlorophenol	87-86-5	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Phenanthrene	85-01-8	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Phenol	108-95-2	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Pyrene	129-00-0	BRL	0.356	mg/kg	02.20.14 03.07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	65	%	20-112	02.20.14 03.07		
2-Fluorophenol	367-12-4	56	%	18-101	02.20.14 03.07		
Nitrobenzene-d5	4165-60-0	60	%	13-112	02.20.14 03.07		
Phenol-d5	4165-62-2	72	%	15-110	02.20.14 03.07		
Terphenyl-D14	1718-51-0	97	%	21-138	02.20.14 03.07		
2,4,6-Tribromophenol	118-79-6	86	%	21-128	02.20.14 03.07		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-25</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-023	Date Collected: 02.13.14 12.04	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 8.29
Analyst: ZHO	Date Prep: 02.18.14 12.48	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.00898	mg/kg	02.18.14 13.33	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0449	mg/kg	02.18.14 13.33	U	1
2-Hexanone	591-78-6	BRL	0.0449	mg/kg	02.18.14 13.33	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0449	mg/kg	02.18.14 13.33	U	1
Acetone	67-64-1	BRL	0.0898	mg/kg	02.18.14 13.33	U	1
Benzene	71-43-2	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
Bromochloromethane	74-97-5	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
Bromodichloromethane	75-27-4	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
Bromoform	75-25-2	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
Bromomethane	74-83-9	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
Carbon disulfide	75-15-0	BRL	0.0449	mg/kg	02.18.14 13.33	U	1
Carbon tetrachloride	56-23-5	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
Chlorobenzene	108-90-7	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
Chloroethane	75-00-3	BRL	0.00898	mg/kg	02.18.14 13.33	U	1
Chloroform	67-66-3	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
Chloromethane	74-87-3	BRL	0.00898	mg/kg	02.18.14 13.33	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
Cyclohexane	110-82-7	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
Dibromochloromethane	124-48-1	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
Ethylbenzene	100-41-4	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
Isopropylbenzene	98-82-8	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
m,p-Xylenes	179601-23-1	BRL	0.00898	mg/kg	02.18.14 13.33	U	1
<b>Methyl acetate</b>	79-20-9	<b>0.0401</b>	0.00898	mg/kg	02.18.14 13.33		1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-25</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-023	Date Collected: 02.13.14 12.04	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 8.29
Analyst: ZHO	Date Prep: 02.18.14 12.48	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
Methylcyclohexane	108-87-2	BRL	0.00898	mg/kg	02.18.14 13.33	U	1
Methylene Chloride	75-09-2	BRL	0.0180	mg/kg	02.18.14 13.33	U	1
o-Xylene	95-47-6	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
Styrene	100-42-5	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
Tetrachloroethene	127-18-4	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
Toluene	108-88-3	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
Trichloroethene	79-01-6	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00449	mg/kg	02.18.14 13.33	U	1
Vinyl Chloride	75-01-4	BRL	0.00180	mg/kg	02.18.14 13.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	124	%	53-142	02.18.14 13.33	
1,2-Dichloroethane-D4	17060-07-0	137	%	56-150	02.18.14 13.33	
Toluene-D8	2037-26-5	121	%	70-130	02.18.14 13.33	
4-Bromofluorobenzene	460-00-4	155	%	68-152	02.18.14 13.33	**

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-25** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-024 Date Collected: 02.13.14 12.03 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 11.45  
 Analyst: 4150 Date Prep: 02.19.14 12.33 Basis: Dry Weight  
 Seq Number: 934549

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	<b>0.879</b>	0.0504	mg/kg	02.20.14 18.58		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 11.45  
 Analyst: 4150 Date Prep: 02.19.14 09.35 Basis: Dry Weight  
 Seq Number: 934494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	4.83	mg/kg	02.20.14 18.09	U	1
Barium	7440-39-3	<b>55.1</b>	4.83	mg/kg	02.20.14 18.09		1
Cadmium	7440-43-9	BRL	0.965	mg/kg	02.20.14 18.09	U	1
Chromium	7440-47-3	<b>8.45</b>	4.83	mg/kg	02.20.14 18.09		1
Lead	7439-92-1	<b>71.4</b>	4.83	mg/kg	02.20.14 18.09		1
Selenium	7782-49-2	BRL	0.965	mg/kg	02.20.14 18.09	U	1
Silver	7440-22-4	BRL	0.965	mg/kg	02.20.14 18.09	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-25** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-024 Date Collected: 02.13.14 12.03 Sample Depth: 0.5 - 2 ft  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 11.45  
 Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
 Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.376	mg/kg	02.20.14 03.35	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.376	mg/kg	02.20.14 03.35	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.376	mg/kg	02.20.14 03.35	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.376	mg/kg	02.20.14 03.35	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.376	mg/kg	02.20.14 03.35	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.376	mg/kg	02.20.14 03.35	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.376	mg/kg	02.20.14 03.35	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.376	mg/kg	02.20.14 03.35	U	1
2-Chloronaphthalene	91-58-7	BRL	0.376	mg/kg	02.20.14 03.35	U	1
2-Chlorophenol	95-57-8	BRL	0.376	mg/kg	02.20.14 03.35	U	1
2-Methylnaphthalene	91-57-6	BRL	0.376	mg/kg	02.20.14 03.35	U	1
2-methylphenol	95-48-7	BRL	0.376	mg/kg	02.20.14 03.35	U	1
2-Nitroaniline	88-74-4	BRL	0.376	mg/kg	02.20.14 03.35	U	1
2-Nitrophenol	88-75-5	BRL	0.376	mg/kg	02.20.14 03.35	U	1
3&4-Methylphenol	15831-10-4	BRL	0.376	mg/kg	02.20.14 03.35	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.376	mg/kg	02.20.14 03.35	U	1
3-Nitroaniline	99-09-2	BRL	0.376	mg/kg	02.20.14 03.35	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.376	mg/kg	02.20.14 03.35	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.376	mg/kg	02.20.14 03.35	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.376	mg/kg	02.20.14 03.35	U	1
4-Chloroaniline	106-47-8	BRL	0.376	mg/kg	02.20.14 03.35	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.376	mg/kg	02.20.14 03.35	U	1
4-Nitroaniline	100-01-6	BRL	0.376	mg/kg	02.20.14 03.35	U	1
4-Nitrophenol	100-02-7	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Acenaphthene	83-32-9	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Acenaphthylene	208-96-8	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Acetophenone	98-86-2	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Anthracene	120-12-7	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Benzo(a)anthracene	56-55-3	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Benzo(a)pyrene	50-32-8	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.376	mg/kg	02.20.14 03.35	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.376	mg/kg	02.20.14 03.35	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.376	mg/kg	02.20.14 03.35	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Butylbenzylphthalate	85-68-7	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Carbazole	86-74-8	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Chrysene	218-01-9	BRL	0.376	mg/kg	02.20.14 03.35	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-25** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-024 Date Collected: 02.13.14 12.03 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 11.45  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Dibenzofuran	132-64-9	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Diethyl Phthalate	84-66-2	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Dimethyl Phthalate	131-11-3	BRL	0.376	mg/kg	02.20.14 03.35	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.376	mg/kg	02.20.14 03.35	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Fluoranthene	206-44-0	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Fluorene	86-73-7	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Hexachlorobenzene	118-74-1	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Hexachlorobutadiene	87-68-3	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Hexachloroethane	67-72-1	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Isophorone	78-59-1	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Naphthalene	91-20-3	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Nitrobenzene	98-95-3	BRL	0.376	mg/kg	02.20.14 03.35	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.376	mg/kg	02.20.14 03.35	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Pentachlorophenol	87-86-5	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Phenanthrene	85-01-8	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Phenol	108-95-2	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Pyrene	129-00-0	BRL	0.376	mg/kg	02.20.14 03.35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	69	%	20-112	02.20.14 03.35		
2-Fluorophenol	367-12-4	66	%	18-101	02.20.14 03.35		
Nitrobenzene-d5	4165-60-0	65	%	13-112	02.20.14 03.35		
Phenol-d5	4165-62-2	77	%	15-110	02.20.14 03.35		
Terphenyl-D14	1718-51-0	111	%	21-138	02.20.14 03.35		
2,4,6-Tribromophenol	118-79-6	97	%	21-128	02.20.14 03.35		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-25</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-024	Date Collected: 02.13.14 12.03	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 11.45
Analyst: MCH	Date Prep: 02.17.14 12.49	Basis: Dry Weight
Seq Number: 934254		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0129	mg/kg	02.17.14 21.45	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0645	mg/kg	02.17.14 21.45	U	1
2-Hexanone	591-78-6	BRL	0.0645	mg/kg	02.17.14 21.45	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0645	mg/kg	02.17.14 21.45	U	1
Acetone	67-64-1	BRL	0.129	mg/kg	02.17.14 21.45	U	1
Benzene	71-43-2	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
Bromochloromethane	74-97-5	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
Bromodichloromethane	75-27-4	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
Bromoform	75-25-2	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
Bromomethane	74-83-9	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
Carbon disulfide	75-15-0	BRL	0.0645	mg/kg	02.17.14 21.45	U	1
Carbon tetrachloride	56-23-5	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
Chlorobenzene	108-90-7	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
Chloroethane	75-00-3	BRL	0.0129	mg/kg	02.17.14 21.45	U	1
Chloroform	67-66-3	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
Chloromethane	74-87-3	BRL	0.0129	mg/kg	02.17.14 21.45	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
Cyclohexane	110-82-7	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
Dibromochloromethane	124-48-1	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
Ethylbenzene	100-41-4	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
Isopropylbenzene	98-82-8	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
m,p-Xylenes	179601-23-1	BRL	0.0129	mg/kg	02.17.14 21.45	U	1
Methyl acetate	79-20-9	BRL	0.0129	mg/kg	02.17.14 21.45	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-25</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-024	Date Collected: 02.13.14 12.03	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: MCH		% Moisture: 11.45
Analyst: MCH	Date Prep: 02.17.14 12.49	Basis: Dry Weight
Seq Number: 934254		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
Methylcyclohexane	108-87-2	BRL	0.0129	mg/kg	02.17.14 21.45	U	1
Methylene Chloride	75-09-2	BRL	0.0258	mg/kg	02.17.14 21.45	U	1
o-Xylene	95-47-6	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
Styrene	100-42-5	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
Tetrachloroethene	127-18-4	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
Toluene	108-88-3	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
Trichloroethene	79-01-6	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00645	mg/kg	02.17.14 21.45	U	1
Vinyl Chloride	75-01-4	BRL	0.00258	mg/kg	02.17.14 21.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	100	%	53-142	02.17.14 21.45	
1,2-Dichloroethane-D4	17060-07-0	85	%	56-150	02.17.14 21.45	
Toluene-D8	2037-26-5	96	%	70-130	02.17.14 21.45	
4-Bromofluorobenzene	460-00-4	112	%	68-152	02.17.14 21.45	

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-26** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-025 Date Collected: 02.13.14 13.13 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 11.76  
 Analyst: 4150 Date Prep: 02.19.14 12.33 Basis: Dry Weight  
 Seq Number: 934549

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	<b>0.244</b>	0.0525	mg/kg	02.20.14 19.01		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 11.76  
 Analyst: 4150 Date Prep: 02.19.14 09.35 Basis: Dry Weight  
 Seq Number: 934494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.40	mg/kg	02.20.14 18.11	U	1
<b>Barium</b>	7440-39-3	<b>88.2</b>	5.40	mg/kg	02.20.14 18.11		1
Cadmium	7440-43-9	BRL	1.08	mg/kg	02.20.14 18.11	U	1
<b>Chromium</b>	7440-47-3	<b>13.6</b>	5.40	mg/kg	02.20.14 18.11		1
<b>Lead</b>	7439-92-1	<b>95.5</b>	5.40	mg/kg	02.20.14 18.11		1
Selenium	7782-49-2	BRL	1.08	mg/kg	02.20.14 18.11	U	1
Silver	7440-22-4	BRL	1.08	mg/kg	02.20.14 18.11	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-26</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-025	Date Collected: 02.13.14 13.13	Sample Depth: 0 - 6 In
Analytical Method: SVOCs by SW-846 8270D		Prep Method: SW3550
Tech: TUE		% Moisture: 11.76
Analyst: VIC	Date Prep: 02.18.14 08.30	Basis: Dry Weight
Seq Number: 934471		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.377	mg/kg	02.20.14 10.31	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.377	mg/kg	02.20.14 10.31	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.377	mg/kg	02.20.14 10.31	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.377	mg/kg	02.20.14 10.31	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.377	mg/kg	02.20.14 10.31	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.377	mg/kg	02.20.14 10.31	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.377	mg/kg	02.20.14 10.31	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.377	mg/kg	02.20.14 10.31	U	1
2-Chloronaphthalene	91-58-7	BRL	0.377	mg/kg	02.20.14 10.31	U	1
2-Chlorophenol	95-57-8	BRL	0.377	mg/kg	02.20.14 10.31	U	1
2-Methylnaphthalene	91-57-6	BRL	0.377	mg/kg	02.20.14 10.31	U	1
2-methylphenol	95-48-7	BRL	0.377	mg/kg	02.20.14 10.31	U	1
2-Nitroaniline	88-74-4	BRL	0.377	mg/kg	02.20.14 10.31	U	1
2-Nitrophenol	88-75-5	BRL	0.377	mg/kg	02.20.14 10.31	U	1
3&4-Methylphenol	15831-10-4	BRL	0.377	mg/kg	02.20.14 10.31	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.377	mg/kg	02.20.14 10.31	U	1
3-Nitroaniline	99-09-2	BRL	0.377	mg/kg	02.20.14 10.31	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.377	mg/kg	02.20.14 10.31	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.377	mg/kg	02.20.14 10.31	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.377	mg/kg	02.20.14 10.31	U	1
4-Chloroaniline	106-47-8	BRL	0.377	mg/kg	02.20.14 10.31	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.377	mg/kg	02.20.14 10.31	U	1
4-Nitroaniline	100-01-6	BRL	0.377	mg/kg	02.20.14 10.31	U	1
4-Nitrophenol	100-02-7	BRL	0.377	mg/kg	02.20.14 10.31	U	1
Acenaphthene	83-32-9	BRL	0.377	mg/kg	02.20.14 10.31	U	1
Acenaphthylene	208-96-8	BRL	0.377	mg/kg	02.20.14 10.31	U	1
Acetophenone	98-86-2	BRL	0.377	mg/kg	02.20.14 10.31	U	1
Anthracene	120-12-7	BRL	0.377	mg/kg	02.20.14 10.31	U	1
<b>Benzo(a)anthracene</b>	56-55-3	<b>0.723</b>	0.377	mg/kg	02.20.14 10.31		1
Benzo(a)pyrene	50-32-8	BRL	0.377	mg/kg	02.20.14 10.31	U	1
<b>Benzo(b)fluoranthene</b>	205-99-2	<b>0.577</b>	0.377	mg/kg	02.20.14 10.31		1
Benzo(g,h,i)perylene	191-24-2	BRL	0.377	mg/kg	02.20.14 10.31	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.377	mg/kg	02.20.14 10.31	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.377	mg/kg	02.20.14 10.31	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.377	mg/kg	02.20.14 10.31	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.377	mg/kg	02.20.14 10.31	U	1
Butylbenzylphthalate	85-68-7	BRL	0.377	mg/kg	02.20.14 10.31	U	1
Carbazole	86-74-8	BRL	0.377	mg/kg	02.20.14 10.31	U	1
<b>Chrysene</b>	218-01-9	<b>0.614</b>	0.377	mg/kg	02.20.14 10.31		1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-26** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-025 Date Collected: 02.13.14 13.13 Sample Depth: 0 - 6 In  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 11.76  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.377	mg/kg	02.20.14 10.31	U	1
Dibenzofuran	132-64-9	BRL	0.377	mg/kg	02.20.14 10.31	U	1
Diethyl Phthalate	84-66-2	BRL	0.377	mg/kg	02.20.14 10.31	U	1
Dimethyl Phthalate	131-11-3	BRL	0.377	mg/kg	02.20.14 10.31	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.377	mg/kg	02.20.14 10.31	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.377	mg/kg	02.20.14 10.31	U	1
<b>Fluoranthene</b>	206-44-0	<b>1.22</b>	0.377	mg/kg	02.20.14 10.31		1
Fluorene	86-73-7	BRL	0.377	mg/kg	02.20.14 10.31	U	1
Hexachlorobenzene	118-74-1	BRL	0.377	mg/kg	02.20.14 10.31	U	1
Hexachlorobutadiene	87-68-3	BRL	0.377	mg/kg	02.20.14 10.31	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.377	mg/kg	02.20.14 10.31	U	1
Hexachloroethane	67-72-1	BRL	0.377	mg/kg	02.20.14 10.31	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.377	mg/kg	02.20.14 10.31	U	1
Isophorone	78-59-1	BRL	0.377	mg/kg	02.20.14 10.31	U	1
Naphthalene	91-20-3	BRL	0.377	mg/kg	02.20.14 10.31	U	1
Nitrobenzene	98-95-3	BRL	0.377	mg/kg	02.20.14 10.31	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.377	mg/kg	02.20.14 10.31	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.377	mg/kg	02.20.14 10.31	U	1
Pentachlorophenol	87-86-5	BRL	0.377	mg/kg	02.20.14 10.31	U	1
<b>Phenanthrene</b>	85-01-8	<b>1.02</b>	0.377	mg/kg	02.20.14 10.31		1
Phenol	108-95-2	BRL	0.377	mg/kg	02.20.14 10.31	U	1
<b>Pyrene</b>	129-00-0	<b>1.35</b>	0.377	mg/kg	02.20.14 10.31		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	70	%	20-112	02.20.14 10.31		
2-Fluorophenol	367-12-4	71	%	18-101	02.20.14 10.31		
Nitrobenzene-d5	4165-60-0	65	%	13-112	02.20.14 10.31		
Phenol-d5	4165-62-2	79	%	15-110	02.20.14 10.31		
Terphenyl-D14	1718-51-0	99	%	21-138	02.20.14 10.31		
2,4,6-Tribromophenol	118-79-6	86	%	21-128	02.20.14 10.31		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-26**  
Lab Sample Id: 479331-025

Matrix: Soil  
Date Collected: 02.13.14 13.13

Date Received: 02.14.14 12.30  
Sample Depth: 0 - 6 In

Analytical Method: VOCs by SW-846 8260B

Tech: ZHO

Analyst: MCH

Seq Number: 934346

Date Prep: 02.17.14 19.32

Prep Method: SW5035

% Moisture: 11.76

Basis: Dry Weight

SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0139	mg/kg	02.17.14 21.05	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0694	mg/kg	02.17.14 21.05	U	1
2-Hexanone	591-78-6	BRL	0.0694	mg/kg	02.17.14 21.05	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0694	mg/kg	02.17.14 21.05	U	1
Acetone	67-64-1	BRL	0.139	mg/kg	02.17.14 21.05	U	1
Benzene	71-43-2	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
Bromochloromethane	74-97-5	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
Bromodichloromethane	75-27-4	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
Bromoform	75-25-2	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
Bromomethane	74-83-9	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
Carbon disulfide	75-15-0	BRL	0.0694	mg/kg	02.17.14 21.05	U	1
Carbon tetrachloride	56-23-5	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
Chlorobenzene	108-90-7	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
Chloroethane	75-00-3	BRL	0.0139	mg/kg	02.17.14 21.05	U	1
Chloroform	67-66-3	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
Chloromethane	74-87-3	BRL	0.0139	mg/kg	02.17.14 21.05	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
Cyclohexane	110-82-7	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
Dibromochloromethane	124-48-1	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
Ethylbenzene	100-41-4	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
Isopropylbenzene	98-82-8	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
m,p-Xylenes	179601-23-1	BRL	0.0139	mg/kg	02.17.14 21.05	U	1
Methyl acetate	79-20-9	BRL	0.0139	mg/kg	02.17.14 21.05	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-26</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-025	Date Collected: 02.13.14 13.13	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 11.76
Analyst: MCH	Date Prep: 02.17.14 19.32	Basis: Dry Weight
Seq Number: 934346		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
Methylcyclohexane	108-87-2	BRL	0.0139	mg/kg	02.17.14 21.05	U	1
Methylene Chloride	75-09-2	BRL	0.0278	mg/kg	02.17.14 21.05	U	1
o-Xylene	95-47-6	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
Styrene	100-42-5	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
Tetrachloroethene	127-18-4	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
Toluene	108-88-3	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
Trichloroethene	79-01-6	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00694	mg/kg	02.17.14 21.05	U	1
Vinyl Chloride	75-01-4	BRL	0.00278	mg/kg	02.17.14 21.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	122	%	53-142	02.17.14 21.05	
1,2-Dichloroethane-D4	17060-07-0	108	%	56-150	02.17.14 21.05	
Toluene-D8	2037-26-5	100	%	70-130	02.17.14 21.05	
4-Bromofluorobenzene	460-00-4	93	%	68-152	02.17.14 21.05	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-26** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-026 Date Collected: 02.13.14 13.16 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 10.32  
 Analyst: 4150 Date Prep: 02.19.14 12.33 Basis: Dry Weight  
 Seq Number: 934549

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	0.735	0.0516	mg/kg	02.20.14 19.04		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 10.32  
 Analyst: 4150 Date Prep: 02.19.14 09.35 Basis: Dry Weight  
 Seq Number: 934494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.31	mg/kg	02.20.14 18.13	U	1
Barium	7440-39-3	63.3	5.31	mg/kg	02.20.14 18.13		1
Cadmium	7440-43-9	BRL	1.06	mg/kg	02.20.14 18.13	U	1
Chromium	7440-47-3	13.8	5.31	mg/kg	02.20.14 18.13		1
Lead	7439-92-1	76.8	5.31	mg/kg	02.20.14 18.13		1
Selenium	7782-49-2	BRL	1.06	mg/kg	02.20.14 18.13	U	1
Silver	7440-22-4	BRL	1.06	mg/kg	02.20.14 18.13	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-26** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-026 Date Collected: 02.13.14 13.16 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 10.32  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.369	mg/kg	02.20.14 10.58	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.369	mg/kg	02.20.14 10.58	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.369	mg/kg	02.20.14 10.58	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.369	mg/kg	02.20.14 10.58	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.369	mg/kg	02.20.14 10.58	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.369	mg/kg	02.20.14 10.58	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.369	mg/kg	02.20.14 10.58	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.369	mg/kg	02.20.14 10.58	U	1
2-Chloronaphthalene	91-58-7	BRL	0.369	mg/kg	02.20.14 10.58	U	1
2-Chlorophenol	95-57-8	BRL	0.369	mg/kg	02.20.14 10.58	U	1
2-Methylnaphthalene	91-57-6	BRL	0.369	mg/kg	02.20.14 10.58	U	1
2-methylphenol	95-48-7	BRL	0.369	mg/kg	02.20.14 10.58	U	1
2-Nitroaniline	88-74-4	BRL	0.369	mg/kg	02.20.14 10.58	U	1
2-Nitrophenol	88-75-5	BRL	0.369	mg/kg	02.20.14 10.58	U	1
3&4-Methylphenol	15831-10-4	BRL	0.369	mg/kg	02.20.14 10.58	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.369	mg/kg	02.20.14 10.58	U	1
3-Nitroaniline	99-09-2	BRL	0.369	mg/kg	02.20.14 10.58	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.369	mg/kg	02.20.14 10.58	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.369	mg/kg	02.20.14 10.58	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.369	mg/kg	02.20.14 10.58	U	1
4-Chloroaniline	106-47-8	BRL	0.369	mg/kg	02.20.14 10.58	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.369	mg/kg	02.20.14 10.58	U	1
4-Nitroaniline	100-01-6	BRL	0.369	mg/kg	02.20.14 10.58	U	1
4-Nitrophenol	100-02-7	BRL	0.369	mg/kg	02.20.14 10.58	U	1
Acenaphthene	83-32-9	BRL	0.369	mg/kg	02.20.14 10.58	U	1
Acenaphthylene	208-96-8	BRL	0.369	mg/kg	02.20.14 10.58	U	1
Acetophenone	98-86-2	BRL	0.369	mg/kg	02.20.14 10.58	U	1
Anthracene	120-12-7	BRL	0.369	mg/kg	02.20.14 10.58	U	1
<b>Benzo(a)anthracene</b>	56-55-3	<b>0.487</b>	0.369	mg/kg	02.20.14 10.58		1
<b>Benzo(a)pyrene</b>	50-32-8	<b>0.385</b>	0.369	mg/kg	02.20.14 10.58		1
<b>Benzo(b)fluoranthene</b>	205-99-2	<b>0.528</b>	0.369	mg/kg	02.20.14 10.58		1
Benzo(g,h,i)perylene	191-24-2	BRL	0.369	mg/kg	02.20.14 10.58	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.369	mg/kg	02.20.14 10.58	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.369	mg/kg	02.20.14 10.58	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.369	mg/kg	02.20.14 10.58	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.369	mg/kg	02.20.14 10.58	U	1
Butylbenzylphthalate	85-68-7	BRL	0.369	mg/kg	02.20.14 10.58	U	1
Carbazole	86-74-8	BRL	0.369	mg/kg	02.20.14 10.58	U	1
<b>Chrysene</b>	218-01-9	<b>0.423</b>	0.369	mg/kg	02.20.14 10.58		1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-26** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-026 Date Collected: 02.13.14 13.16 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 10.32  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.369	mg/kg	02.20.14 10.58	U	1
Dibenzofuran	132-64-9	BRL	0.369	mg/kg	02.20.14 10.58	U	1
Diethyl Phthalate	84-66-2	BRL	0.369	mg/kg	02.20.14 10.58	U	1
Dimethyl Phthalate	131-11-3	BRL	0.369	mg/kg	02.20.14 10.58	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.369	mg/kg	02.20.14 10.58	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.369	mg/kg	02.20.14 10.58	U	1
<b>Fluoranthene</b>	206-44-0	<b>0.858</b>	0.369	mg/kg	02.20.14 10.58		1
Fluorene	86-73-7	BRL	0.369	mg/kg	02.20.14 10.58	U	1
Hexachlorobenzene	118-74-1	BRL	0.369	mg/kg	02.20.14 10.58	U	1
Hexachlorobutadiene	87-68-3	BRL	0.369	mg/kg	02.20.14 10.58	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.369	mg/kg	02.20.14 10.58	U	1
Hexachloroethane	67-72-1	BRL	0.369	mg/kg	02.20.14 10.58	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.369	mg/kg	02.20.14 10.58	U	1
Isophorone	78-59-1	BRL	0.369	mg/kg	02.20.14 10.58	U	1
Naphthalene	91-20-3	BRL	0.369	mg/kg	02.20.14 10.58	U	1
Nitrobenzene	98-95-3	BRL	0.369	mg/kg	02.20.14 10.58	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.369	mg/kg	02.20.14 10.58	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.369	mg/kg	02.20.14 10.58	U	1
Pentachlorophenol	87-86-5	BRL	0.369	mg/kg	02.20.14 10.58	U	1
<b>Phenanthrene</b>	85-01-8	<b>0.603</b>	0.369	mg/kg	02.20.14 10.58		1
Phenol	108-95-2	BRL	0.369	mg/kg	02.20.14 10.58	U	1
<b>Pyrene</b>	129-00-0	<b>0.838</b>	0.369	mg/kg	02.20.14 10.58		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	75	%	20-112	02.20.14 10.58		
2-Fluorophenol	367-12-4	68	%	18-101	02.20.14 10.58		
Nitrobenzene-d5	4165-60-0	66	%	13-112	02.20.14 10.58		
Phenol-d5	4165-62-2	82	%	15-110	02.20.14 10.58		
Terphenyl-D14	1718-51-0	123	%	21-138	02.20.14 10.58		
2,4,6-Tribromophenol	118-79-6	103	%	21-128	02.20.14 10.58		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-26</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-026	Date Collected: 02.13.14 13.16	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 10.32
Analyst: ZHO	Date Prep: 02.18.14 12.49	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0110	mg/kg	02.18.14 14.19	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0551	mg/kg	02.18.14 14.19	U	1
2-Hexanone	591-78-6	BRL	0.0551	mg/kg	02.18.14 14.19	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0551	mg/kg	02.18.14 14.19	U	1
Acetone	67-64-1	BRL	0.110	mg/kg	02.18.14 14.19	U	1
Benzene	71-43-2	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
Bromochloromethane	74-97-5	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
Bromodichloromethane	75-27-4	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
Bromoform	75-25-2	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
Bromomethane	74-83-9	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
Carbon disulfide	75-15-0	BRL	0.0551	mg/kg	02.18.14 14.19	U	1
Carbon tetrachloride	56-23-5	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
Chlorobenzene	108-90-7	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
Chloroethane	75-00-3	BRL	0.0110	mg/kg	02.18.14 14.19	U	1
Chloroform	67-66-3	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
Chloromethane	74-87-3	BRL	0.0110	mg/kg	02.18.14 14.19	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
Cyclohexane	110-82-7	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
Dibromochloromethane	124-48-1	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
Ethylbenzene	100-41-4	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
Isopropylbenzene	98-82-8	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
m,p-Xylenes	179601-23-1	BRL	0.0110	mg/kg	02.18.14 14.19	U	1
Methyl acetate	79-20-9	BRL	0.0110	mg/kg	02.18.14 14.19	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-26</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-026	Date Collected: 02.13.14 13.16	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 10.32
Analyst: ZHO	Date Prep: 02.18.14 12.49	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
Methylcyclohexane	108-87-2	BRL	0.0110	mg/kg	02.18.14 14.19	U	1
Methylene Chloride	75-09-2	BRL	0.0220	mg/kg	02.18.14 14.19	U	1
o-Xylene	95-47-6	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
Styrene	100-42-5	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
Tetrachloroethene	127-18-4	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
Toluene	108-88-3	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
Trichloroethene	79-01-6	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00551	mg/kg	02.18.14 14.19	U	1
Vinyl Chloride	75-01-4	BRL	0.00220	mg/kg	02.18.14 14.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	111	%	53-142	02.18.14 14.19	
1,2-Dichloroethane-D4	17060-07-0	98	%	56-150	02.18.14 14.19	
Toluene-D8	2037-26-5	96	%	70-130	02.18.14 14.19	
4-Bromofluorobenzene	460-00-4	119	%	68-152	02.18.14 14.19	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-27** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-027 Date Collected: 02.13.14 13.18 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 16.82  
 Analyst: 4150 Date Prep: 02.19.14 12.33 Basis: Dry Weight  
 Seq Number: 934549

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	<b>0.160</b>	0.0601	mg/kg	02.20.14 19.07		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 16.82  
 Analyst: 4150 Date Prep: 02.19.14 09.35 Basis: Dry Weight  
 Seq Number: 934494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	<b>74.9</b>	6.01	mg/kg	02.20.14 18.15		1
Barium	7440-39-3	<b>98.9</b>	6.01	mg/kg	02.20.14 18.15		1
Cadmium	7440-43-9	BRL	1.20	mg/kg	02.20.14 18.15	U	1
Chromium	7440-47-3	<b>19.2</b>	6.01	mg/kg	02.20.14 18.15		1
Lead	7439-92-1	<b>172</b>	6.01	mg/kg	02.20.14 18.15		1
Selenium	7782-49-2	BRL	1.20	mg/kg	02.20.14 18.15	U	1
Silver	7440-22-4	BRL	1.20	mg/kg	02.20.14 18.15	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-27** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-027 Date Collected: 02.13.14 13.18 Sample Depth: 0 - 6 In  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 16.82  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.396	mg/kg	02.20.14 04.58	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.396	mg/kg	02.20.14 04.58	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.396	mg/kg	02.20.14 04.58	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.396	mg/kg	02.20.14 04.58	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.396	mg/kg	02.20.14 04.58	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.396	mg/kg	02.20.14 04.58	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.396	mg/kg	02.20.14 04.58	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.396	mg/kg	02.20.14 04.58	U	1
2-Chloronaphthalene	91-58-7	BRL	0.396	mg/kg	02.20.14 04.58	U	1
2-Chlorophenol	95-57-8	BRL	0.396	mg/kg	02.20.14 04.58	U	1
2-Methylnaphthalene	91-57-6	BRL	0.396	mg/kg	02.20.14 04.58	U	1
2-methylphenol	95-48-7	BRL	0.396	mg/kg	02.20.14 04.58	U	1
2-Nitroaniline	88-74-4	BRL	0.396	mg/kg	02.20.14 04.58	U	1
2-Nitrophenol	88-75-5	BRL	0.396	mg/kg	02.20.14 04.58	U	1
3&4-Methylphenol	15831-10-4	BRL	0.396	mg/kg	02.20.14 04.58	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.396	mg/kg	02.20.14 04.58	U	1
3-Nitroaniline	99-09-2	BRL	0.396	mg/kg	02.20.14 04.58	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.396	mg/kg	02.20.14 04.58	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.396	mg/kg	02.20.14 04.58	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.396	mg/kg	02.20.14 04.58	U	1
4-Chloroaniline	106-47-8	BRL	0.396	mg/kg	02.20.14 04.58	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.396	mg/kg	02.20.14 04.58	U	1
4-Nitroaniline	100-01-6	BRL	0.396	mg/kg	02.20.14 04.58	U	1
4-Nitrophenol	100-02-7	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Acenaphthene	83-32-9	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Acenaphthylene	208-96-8	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Acetophenone	98-86-2	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Anthracene	120-12-7	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Benzo(a)anthracene	56-55-3	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Benzo(a)pyrene	50-32-8	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.396	mg/kg	02.20.14 04.58	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.396	mg/kg	02.20.14 04.58	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.396	mg/kg	02.20.14 04.58	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Butylbenzylphthalate	85-68-7	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Carbazole	86-74-8	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Chrysene	218-01-9	BRL	0.396	mg/kg	02.20.14 04.58	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-27** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-027 Date Collected: 02.13.14 13.18 Sample Depth: 0 - 6 In  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 16.82  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Dibenzofuran	132-64-9	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Diethyl Phthalate	84-66-2	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Dimethyl Phthalate	131-11-3	BRL	0.396	mg/kg	02.20.14 04.58	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.396	mg/kg	02.20.14 04.58	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Fluoranthene	206-44-0	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Fluorene	86-73-7	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Hexachlorobenzene	118-74-1	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Hexachlorobutadiene	87-68-3	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Hexachloroethane	67-72-1	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Isophorone	78-59-1	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Naphthalene	91-20-3	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Nitrobenzene	98-95-3	BRL	0.396	mg/kg	02.20.14 04.58	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.396	mg/kg	02.20.14 04.58	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Pentachlorophenol	87-86-5	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Phenanthrene	85-01-8	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Phenol	108-95-2	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Pyrene	129-00-0	BRL	0.396	mg/kg	02.20.14 04.58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	60	%	20-112	02.20.14 04.58		
2-Fluorophenol	367-12-4	57	%	18-101	02.20.14 04.58		
Nitrobenzene-d5	4165-60-0	55	%	13-112	02.20.14 04.58		
Phenol-d5	4165-62-2	67	%	15-110	02.20.14 04.58		
Terphenyl-D14	1718-51-0	110	%	21-138	02.20.14 04.58		
2,4,6-Tribromophenol	118-79-6	100	%	21-128	02.20.14 04.58		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-27</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-027	Date Collected: 02.13.14 13.18	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 16.82
Analyst: ZHO	Date Prep: 02.18.14 12.50	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0160	mg/kg	02.18.14 14.43	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0801	mg/kg	02.18.14 14.43	U	1
2-Hexanone	591-78-6	BRL	0.0801	mg/kg	02.18.14 14.43	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0801	mg/kg	02.18.14 14.43	U	1
Acetone	67-64-1	BRL	0.160	mg/kg	02.18.14 14.43	U	1
Benzene	71-43-2	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
Bromochloromethane	74-97-5	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
Bromodichloromethane	75-27-4	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
Bromoform	75-25-2	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
Bromomethane	74-83-9	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
Carbon disulfide	75-15-0	BRL	0.0801	mg/kg	02.18.14 14.43	U	1
Carbon tetrachloride	56-23-5	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
Chlorobenzene	108-90-7	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
Chloroethane	75-00-3	BRL	0.0160	mg/kg	02.18.14 14.43	U	1
Chloroform	67-66-3	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
Chloromethane	74-87-3	BRL	0.0160	mg/kg	02.18.14 14.43	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
Cyclohexane	110-82-7	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
Dibromochloromethane	124-48-1	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
Ethylbenzene	100-41-4	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
Isopropylbenzene	98-82-8	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
m,p-Xylenes	179601-23-1	BRL	0.0160	mg/kg	02.18.14 14.43	U	1
Methyl acetate	79-20-9	BRL	0.0160	mg/kg	02.18.14 14.43	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-27</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-027	Date Collected: 02.13.14 13.18	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 16.82
Analyst: ZHO	Date Prep: 02.18.14 12.50	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
Methylcyclohexane	108-87-2	BRL	0.0160	mg/kg	02.18.14 14.43	U	1
Methylene Chloride	75-09-2	BRL	0.0321	mg/kg	02.18.14 14.43	U	1
o-Xylene	95-47-6	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
Styrene	100-42-5	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
Tetrachloroethene	127-18-4	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
Toluene	108-88-3	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
Trichloroethene	79-01-6	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00801	mg/kg	02.18.14 14.43	U	1
Vinyl Chloride	75-01-4	BRL	0.00321	mg/kg	02.18.14 14.43	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
Dibromofluoromethane	1868-53-7	108	%	53-142	02.18.14 14.43		
1,2-Dichloroethane-D4	17060-07-0	87	%	56-150	02.18.14 14.43		
Toluene-D8	2037-26-5	94	%	70-130	02.18.14 14.43		
4-Bromofluorobenzene	460-00-4	151	%	68-152	02.18.14 14.43		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-27** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-028 Date Collected: 02.13.14 13.20 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 14.75  
 Analyst: 4150 Date Prep: 02.19.14 12.33 Basis: Dry Weight  
 Seq Number: 934549

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0497	mg/kg	02.20.14 19.10	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 14.75  
 Analyst: 4150 Date Prep: 02.19.14 09.35 Basis: Dry Weight  
 Seq Number: 934494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.24	mg/kg	02.20.14 18.22	U	1
<b>Barium</b>	7440-39-3	<b>31.9</b>	5.24	mg/kg	02.20.14 18.22		1
Cadmium	7440-43-9	BRL	1.05	mg/kg	02.20.14 18.22	U	1
Chromium	7440-47-3	BRL	5.24	mg/kg	02.20.14 18.22	U	1
Lead	7439-92-1	BRL	5.24	mg/kg	02.20.14 18.22	U	1
Selenium	7782-49-2	BRL	1.05	mg/kg	02.20.14 18.22	U	1
Silver	7440-22-4	BRL	1.05	mg/kg	02.20.14 18.22	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-27** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-028 Date Collected: 02.13.14 13.20 Sample Depth: 0.5 - 2 ft  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 14.75  
 Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
 Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.385	mg/kg	02.20.14 05.26	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.385	mg/kg	02.20.14 05.26	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.385	mg/kg	02.20.14 05.26	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.385	mg/kg	02.20.14 05.26	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.385	mg/kg	02.20.14 05.26	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.385	mg/kg	02.20.14 05.26	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.385	mg/kg	02.20.14 05.26	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.385	mg/kg	02.20.14 05.26	U	1
2-Chloronaphthalene	91-58-7	BRL	0.385	mg/kg	02.20.14 05.26	U	1
2-Chlorophenol	95-57-8	BRL	0.385	mg/kg	02.20.14 05.26	U	1
2-Methylnaphthalene	91-57-6	BRL	0.385	mg/kg	02.20.14 05.26	U	1
2-methylphenol	95-48-7	BRL	0.385	mg/kg	02.20.14 05.26	U	1
2-Nitroaniline	88-74-4	BRL	0.385	mg/kg	02.20.14 05.26	U	1
2-Nitrophenol	88-75-5	BRL	0.385	mg/kg	02.20.14 05.26	U	1
3&4-Methylphenol	15831-10-4	BRL	0.385	mg/kg	02.20.14 05.26	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.385	mg/kg	02.20.14 05.26	U	1
3-Nitroaniline	99-09-2	BRL	0.385	mg/kg	02.20.14 05.26	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.385	mg/kg	02.20.14 05.26	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.385	mg/kg	02.20.14 05.26	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.385	mg/kg	02.20.14 05.26	U	1
4-Chloroaniline	106-47-8	BRL	0.385	mg/kg	02.20.14 05.26	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.385	mg/kg	02.20.14 05.26	U	1
4-Nitroaniline	100-01-6	BRL	0.385	mg/kg	02.20.14 05.26	U	1
4-Nitrophenol	100-02-7	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Acenaphthene	83-32-9	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Acenaphthylene	208-96-8	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Acetophenone	98-86-2	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Anthracene	120-12-7	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Benzo(a)anthracene	56-55-3	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Benzo(a)pyrene	50-32-8	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.385	mg/kg	02.20.14 05.26	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.385	mg/kg	02.20.14 05.26	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.385	mg/kg	02.20.14 05.26	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Butylbenzylphthalate	85-68-7	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Carbazole	86-74-8	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Chrysene	218-01-9	BRL	0.385	mg/kg	02.20.14 05.26	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-27** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-028 Date Collected: 02.13.14 13.20 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 14.75  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Dibenzofuran	132-64-9	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Diethyl Phthalate	84-66-2	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Dimethyl Phthalate	131-11-3	BRL	0.385	mg/kg	02.20.14 05.26	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.385	mg/kg	02.20.14 05.26	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Fluoranthene	206-44-0	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Fluorene	86-73-7	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Hexachlorobenzene	118-74-1	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Hexachlorobutadiene	87-68-3	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Hexachloroethane	67-72-1	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Isophorone	78-59-1	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Naphthalene	91-20-3	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Nitrobenzene	98-95-3	BRL	0.385	mg/kg	02.20.14 05.26	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.385	mg/kg	02.20.14 05.26	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Pentachlorophenol	87-86-5	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Phenanthrene	85-01-8	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Phenol	108-95-2	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Pyrene	129-00-0	BRL	0.385	mg/kg	02.20.14 05.26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	62	%	20-112	02.20.14 05.26		
2-Fluorophenol	367-12-4	59	%	18-101	02.20.14 05.26		
Nitrobenzene-d5	4165-60-0	58	%	13-112	02.20.14 05.26		
Phenol-d5	4165-62-2	70	%	15-110	02.20.14 05.26		
Terphenyl-D14	1718-51-0	99	%	21-138	02.20.14 05.26		
2,4,6-Tribromophenol	118-79-6	85	%	21-128	02.20.14 05.26		



## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-27</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-028	Date Collected: 02.13.14 13.20	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 14.75
Analyst: ZHO	Date Prep: 02.18.14 12.49	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0176	mg/kg	02.18.14 13.59	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0878	mg/kg	02.18.14 13.59	U	1
2-Hexanone	591-78-6	BRL	0.0878	mg/kg	02.18.14 13.59	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0878	mg/kg	02.18.14 13.59	U	1
Acetone	67-64-1	BRL	0.176	mg/kg	02.18.14 13.59	U	1
Benzene	71-43-2	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
Bromochloromethane	74-97-5	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
Bromodichloromethane	75-27-4	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
Bromoform	75-25-2	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
Bromomethane	74-83-9	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
Carbon disulfide	75-15-0	BRL	0.0878	mg/kg	02.18.14 13.59	U	1
Carbon tetrachloride	56-23-5	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
Chlorobenzene	108-90-7	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
Chloroethane	75-00-3	BRL	0.0176	mg/kg	02.18.14 13.59	U	1
Chloroform	67-66-3	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
Chloromethane	74-87-3	BRL	0.0176	mg/kg	02.18.14 13.59	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
Cyclohexane	110-82-7	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
Dibromochloromethane	124-48-1	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
Ethylbenzene	100-41-4	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
Isopropylbenzene	98-82-8	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
m,p-Xylenes	179601-23-1	BRL	0.0176	mg/kg	02.18.14 13.59	U	1
Methyl acetate	79-20-9	BRL	0.0176	mg/kg	02.18.14 13.59	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-27</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-028	Date Collected: 02.13.14 13.20	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 14.75
Analyst: ZHO	Date Prep: 02.18.14 12.49	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
Methylcyclohexane	108-87-2	BRL	0.0176	mg/kg	02.18.14 13.59	U	1
Methylene Chloride	75-09-2	BRL	0.0351	mg/kg	02.18.14 13.59	U	1
o-Xylene	95-47-6	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
Styrene	100-42-5	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
Tetrachloroethene	127-18-4	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
Toluene	108-88-3	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
Trichloroethene	79-01-6	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00878	mg/kg	02.18.14 13.59	U	1
Vinyl Chloride	75-01-4	BRL	0.00351	mg/kg	02.18.14 13.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	106	%	53-142	02.18.14 13.59	
1,2-Dichloroethane-D4	17060-07-0	101	%	56-150	02.18.14 13.59	
Toluene-D8	2037-26-5	101	%	70-130	02.18.14 13.59	
4-Bromofluorobenzene	460-00-4	120	%	68-152	02.18.14 13.59	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-24** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-029 Date Collected: 02.13.14 13.25 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 14.1  
 Analyst: 4150 Date Prep: 02.19.14 12.33 Basis: Dry Weight  
 Seq Number: 934549

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	0.220	0.0571	mg/kg	02.20.14 19.13		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 14.1  
 Analyst: 4150 Date Prep: 02.19.14 09.35 Basis: Dry Weight  
 Seq Number: 934494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.39	mg/kg	02.20.14 18.24	U	1
Barium	7440-39-3	155	5.39	mg/kg	02.20.14 18.24		1
Cadmium	7440-43-9	BRL	1.08	mg/kg	02.20.14 18.24	U	1
Chromium	7440-47-3	18.2	5.39	mg/kg	02.20.14 18.24		1
Lead	7439-92-1	211	5.39	mg/kg	02.20.14 18.24		1
Selenium	7782-49-2	BRL	1.08	mg/kg	02.20.14 18.24	U	1
Silver	7440-22-4	BRL	1.08	mg/kg	02.20.14 18.24	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-24** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-029 Date Collected: 02.13.14 13.25 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 14.1  
 Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
 Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.387	mg/kg	02.20.14 05.53	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.387	mg/kg	02.20.14 05.53	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.387	mg/kg	02.20.14 05.53	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.387	mg/kg	02.20.14 05.53	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.387	mg/kg	02.20.14 05.53	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.387	mg/kg	02.20.14 05.53	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.387	mg/kg	02.20.14 05.53	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.387	mg/kg	02.20.14 05.53	U	1
2-Chloronaphthalene	91-58-7	BRL	0.387	mg/kg	02.20.14 05.53	U	1
2-Chlorophenol	95-57-8	BRL	0.387	mg/kg	02.20.14 05.53	U	1
2-Methylnaphthalene	91-57-6	BRL	0.387	mg/kg	02.20.14 05.53	U	1
2-methylphenol	95-48-7	BRL	0.387	mg/kg	02.20.14 05.53	U	1
2-Nitroaniline	88-74-4	BRL	0.387	mg/kg	02.20.14 05.53	U	1
2-Nitrophenol	88-75-5	BRL	0.387	mg/kg	02.20.14 05.53	U	1
3&4-Methylphenol	15831-10-4	BRL	0.387	mg/kg	02.20.14 05.53	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.387	mg/kg	02.20.14 05.53	U	1
3-Nitroaniline	99-09-2	BRL	0.387	mg/kg	02.20.14 05.53	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.387	mg/kg	02.20.14 05.53	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.387	mg/kg	02.20.14 05.53	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.387	mg/kg	02.20.14 05.53	U	1
4-Chloroaniline	106-47-8	BRL	0.387	mg/kg	02.20.14 05.53	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.387	mg/kg	02.20.14 05.53	U	1
4-Nitroaniline	100-01-6	BRL	0.387	mg/kg	02.20.14 05.53	U	1
4-Nitrophenol	100-02-7	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Acenaphthene	83-32-9	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Acenaphthylene	208-96-8	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Acetophenone	98-86-2	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Anthracene	120-12-7	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Benzo(a)anthracene	56-55-3	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Benzo(a)pyrene	50-32-8	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.387	mg/kg	02.20.14 05.53	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.387	mg/kg	02.20.14 05.53	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.387	mg/kg	02.20.14 05.53	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Butylbenzylphthalate	85-68-7	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Carbazole	86-74-8	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Chrysene	218-01-9	BRL	0.387	mg/kg	02.20.14 05.53	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-24** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-029 Date Collected: 02.13.14 13.25 Sample Depth: 0 - 6 In  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 14.1  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Dibenzofuran	132-64-9	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Diethyl Phthalate	84-66-2	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Dimethyl Phthalate	131-11-3	BRL	0.387	mg/kg	02.20.14 05.53	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.387	mg/kg	02.20.14 05.53	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.387	mg/kg	02.20.14 05.53	U	1
<b>Fluoranthene</b>	206-44-0	<b>0.524</b>	0.387	mg/kg	02.20.14 05.53		1
Fluorene	86-73-7	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Hexachlorobenzene	118-74-1	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Hexachlorobutadiene	87-68-3	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Hexachloroethane	67-72-1	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Isophorone	78-59-1	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Naphthalene	91-20-3	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Nitrobenzene	98-95-3	BRL	0.387	mg/kg	02.20.14 05.53	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.387	mg/kg	02.20.14 05.53	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Pentachlorophenol	87-86-5	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Phenanthrene	85-01-8	BRL	0.387	mg/kg	02.20.14 05.53	U	1
Phenol	108-95-2	BRL	0.387	mg/kg	02.20.14 05.53	U	1
<b>Pyrene</b>	129-00-0	<b>0.451</b>	0.387	mg/kg	02.20.14 05.53		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	68	%	20-112	02.20.14 05.53		
2-Fluorophenol	367-12-4	64	%	18-101	02.20.14 05.53		
Nitrobenzene-d5	4165-60-0	64	%	13-112	02.20.14 05.53		
Phenol-d5	4165-62-2	80	%	15-110	02.20.14 05.53		
Terphenyl-D14	1718-51-0	111	%	21-138	02.20.14 05.53		
2,4,6-Tribromophenol	118-79-6	102	%	21-128	02.20.14 05.53		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-24</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-029	Date Collected: 02.13.14 13.25	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 14.1
Analyst: ZHO	Date Prep: 02.19.14 15.52	Basis: Dry Weight
Seq Number: 934444		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00497	mg/kg	02.18.14 14.24	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.00937	mg/kg	02.19.14 17.50	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00497	mg/kg	02.18.14 14.24	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00497	mg/kg	02.18.14 14.24	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00497	mg/kg	02.18.14 14.24	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00497	mg/kg	02.18.14 14.24	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00497	mg/kg	02.18.14 14.24	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00497	mg/kg	02.18.14 14.24	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0469	mg/kg	02.19.14 17.50	U	1
2-Hexanone	591-78-6	BRL	0.0469	mg/kg	02.19.14 17.50	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0469	mg/kg	02.19.14 17.50	U	1
Acetone	67-64-1	BRL	0.0937	mg/kg	02.19.14 17.50	U	1
Benzene	71-43-2	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
Bromochloromethane	74-97-5	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
Bromodichloromethane	75-27-4	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
Bromoform	75-25-2	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
Bromomethane	74-83-9	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
Carbon disulfide	75-15-0	BRL	0.0469	mg/kg	02.19.14 17.50	U	1
Carbon tetrachloride	56-23-5	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
Chlorobenzene	108-90-7	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
Chloroethane	75-00-3	BRL	0.00937	mg/kg	02.19.14 17.50	U	1
Chloroform	67-66-3	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
Chloromethane	74-87-3	BRL	0.00937	mg/kg	02.19.14 17.50	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
Cyclohexane	110-82-7	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
Dibromochloromethane	124-48-1	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
Ethylbenzene	100-41-4	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
Isopropylbenzene	98-82-8	BRL	0.00497	mg/kg	02.18.14 14.24	U	1
m,p-Xylenes	179601-23-1	BRL	0.00937	mg/kg	02.19.14 17.50	U	1
Methyl acetate	79-20-9	BRL	0.00937	mg/kg	02.19.14 17.50	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-24</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-029	Date Collected: 02.13.14 13.25	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 14.1
Analyst: ZHO	Date Prep: 02.19.14 15.52	Basis: Dry Weight
Seq Number: 934444		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
Methylcyclohexane	108-87-2	BRL	0.00937	mg/kg	02.19.14 17.50	U	1
Methylene Chloride	75-09-2	BRL	0.0187	mg/kg	02.19.14 17.50	U	1
o-Xylene	95-47-6	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
Styrene	100-42-5	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
Tetrachloroethene	127-18-4	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
Toluene	108-88-3	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
Trichloroethene	79-01-6	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00469	mg/kg	02.19.14 17.50	U	1
Vinyl Chloride	75-01-4	BRL	0.00187	mg/kg	02.19.14 17.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	106	%	53-142	02.19.14 17.50	
1,2-Dichloroethane-D4	17060-07-0	90	%	56-150	02.19.14 17.50	
Toluene-D8	2037-26-5	96	%	70-130	02.19.14 17.50	
4-Bromofluorobenzene	460-00-4	125	%	68-152	02.19.14 17.50	



## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-24** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-030 Date Collected: 02.13.14 13.27 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 9.91  
 Analyst: 4150 Date Prep: 02.19.14 12.37 Basis: Dry Weight  
 Seq Number: 934545

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0534	mg/kg	02.20.14 15.54	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 9.91  
 Analyst: 4150 Date Prep: 02.19.14 09.35 Basis: Dry Weight  
 Seq Number: 934494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.29	mg/kg	02.20.14 18.26	U	1
<b>Barium</b>	7440-39-3	<b>31.4</b>	5.29	mg/kg	02.20.14 18.26		1
Cadmium	7440-43-9	BRL	1.06	mg/kg	02.20.14 18.26	U	1
<b>Chromium</b>	7440-47-3	<b>10.6</b>	5.29	mg/kg	02.20.14 18.26		1
<b>Lead</b>	7439-92-1	<b>22.7</b>	5.29	mg/kg	02.20.14 18.26		1
Selenium	7782-49-2	BRL	1.06	mg/kg	02.20.14 18.26	U	1
Silver	7440-22-4	BRL	1.06	mg/kg	02.20.14 18.26	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-24** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-030 Date Collected: 02.13.14 13.27 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 9.91  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.368	mg/kg	02.20.14 06.21	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.368	mg/kg	02.20.14 06.21	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.368	mg/kg	02.20.14 06.21	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.368	mg/kg	02.20.14 06.21	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.368	mg/kg	02.20.14 06.21	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.368	mg/kg	02.20.14 06.21	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.368	mg/kg	02.20.14 06.21	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.368	mg/kg	02.20.14 06.21	U	1
2-Chloronaphthalene	91-58-7	BRL	0.368	mg/kg	02.20.14 06.21	U	1
2-Chlorophenol	95-57-8	BRL	0.368	mg/kg	02.20.14 06.21	U	1
2-Methylnaphthalene	91-57-6	BRL	0.368	mg/kg	02.20.14 06.21	U	1
2-methylphenol	95-48-7	BRL	0.368	mg/kg	02.20.14 06.21	U	1
2-Nitroaniline	88-74-4	BRL	0.368	mg/kg	02.20.14 06.21	U	1
2-Nitrophenol	88-75-5	BRL	0.368	mg/kg	02.20.14 06.21	U	1
3&4-Methylphenol	15831-10-4	BRL	0.368	mg/kg	02.20.14 06.21	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.368	mg/kg	02.20.14 06.21	U	1
3-Nitroaniline	99-09-2	BRL	0.368	mg/kg	02.20.14 06.21	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.368	mg/kg	02.20.14 06.21	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.368	mg/kg	02.20.14 06.21	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.368	mg/kg	02.20.14 06.21	U	1
4-Chloroaniline	106-47-8	BRL	0.368	mg/kg	02.20.14 06.21	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.368	mg/kg	02.20.14 06.21	U	1
4-Nitroaniline	100-01-6	BRL	0.368	mg/kg	02.20.14 06.21	U	1
4-Nitrophenol	100-02-7	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Acenaphthene	83-32-9	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Acenaphthylene	208-96-8	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Acetophenone	98-86-2	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Anthracene	120-12-7	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Benzo(a)anthracene	56-55-3	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Benzo(a)pyrene	50-32-8	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.368	mg/kg	02.20.14 06.21	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.368	mg/kg	02.20.14 06.21	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.368	mg/kg	02.20.14 06.21	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Butylbenzylphthalate	85-68-7	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Carbazole	86-74-8	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Chrysene	218-01-9	BRL	0.368	mg/kg	02.20.14 06.21	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-24** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-030 Date Collected: 02.13.14 13.27 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 9.91  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Dibenzofuran	132-64-9	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Diethyl Phthalate	84-66-2	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Dimethyl Phthalate	131-11-3	BRL	0.368	mg/kg	02.20.14 06.21	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.368	mg/kg	02.20.14 06.21	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Fluoranthene	206-44-0	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Fluorene	86-73-7	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Hexachlorobenzene	118-74-1	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Hexachlorobutadiene	87-68-3	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Hexachloroethane	67-72-1	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Isophorone	78-59-1	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Naphthalene	91-20-3	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Nitrobenzene	98-95-3	BRL	0.368	mg/kg	02.20.14 06.21	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.368	mg/kg	02.20.14 06.21	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Pentachlorophenol	87-86-5	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Phenanthrene	85-01-8	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Phenol	108-95-2	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Pyrene	129-00-0	BRL	0.368	mg/kg	02.20.14 06.21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	60	%	20-112	02.20.14 06.21		
2-Fluorophenol	367-12-4	61	%	18-101	02.20.14 06.21		
Nitrobenzene-d5	4165-60-0	58	%	13-112	02.20.14 06.21		
Phenol-d5	4165-62-2	69	%	15-110	02.20.14 06.21		
Terphenyl-D14	1718-51-0	99	%	21-138	02.20.14 06.21		
2,4,6-Tribromophenol	118-79-6	80	%	21-128	02.20.14 06.21		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-24**  
Lab Sample Id: 479331-030

Matrix: Soil  
Date Collected: 02.13.14 13.27

Date Received: 02.14.14 12.30  
Sample Depth: 0.5 - 2 ft

Analytical Method: VOCs by SW-846 8260B

Tech: ZHO

Analyst: ZHO

Seq Number: 934355

Date Prep: 02.18.14 12.51

Prep Method: SW5035

% Moisture: 9.91

Basis: Dry Weight

SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0109	mg/kg	02.18.14 15.09	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0543	mg/kg	02.18.14 15.09	U	1
2-Hexanone	591-78-6	BRL	0.0543	mg/kg	02.18.14 15.09	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0543	mg/kg	02.18.14 15.09	U	1
Acetone	67-64-1	BRL	0.109	mg/kg	02.18.14 15.09	U	1
Benzene	71-43-2	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
Bromochloromethane	74-97-5	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
Bromodichloromethane	75-27-4	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
Bromoform	75-25-2	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
Bromomethane	74-83-9	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
Carbon disulfide	75-15-0	BRL	0.0543	mg/kg	02.18.14 15.09	U	1
Carbon tetrachloride	56-23-5	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
Chlorobenzene	108-90-7	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
Chloroethane	75-00-3	BRL	0.0109	mg/kg	02.18.14 15.09	U	1
Chloroform	67-66-3	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
Chloromethane	74-87-3	BRL	0.0109	mg/kg	02.18.14 15.09	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
Cyclohexane	110-82-7	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
Dibromochloromethane	124-48-1	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
Ethylbenzene	100-41-4	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
Isopropylbenzene	98-82-8	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
m,p-Xylenes	179601-23-1	BRL	0.0109	mg/kg	02.18.14 15.09	U	1
Methyl acetate	79-20-9	BRL	0.0109	mg/kg	02.18.14 15.09	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-24</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-030	Date Collected: 02.13.14 13.27	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 9.91
Analyst: ZHO	Date Prep: 02.18.14 12.51	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
Methylcyclohexane	108-87-2	BRL	0.0109	mg/kg	02.18.14 15.09	U	1
Methylene Chloride	75-09-2	BRL	0.0217	mg/kg	02.18.14 15.09	U	1
o-Xylene	95-47-6	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
Styrene	100-42-5	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
Tetrachloroethene	127-18-4	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
Toluene	108-88-3	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
Trichloroethene	79-01-6	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00543	mg/kg	02.18.14 15.09	U	1
Vinyl Chloride	75-01-4	BRL	0.00217	mg/kg	02.18.14 15.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	104	%	53-142	02.18.14 15.09	
1,2-Dichloroethane-D4	17060-07-0	92	%	56-150	02.18.14 15.09	
Toluene-D8	2037-26-5	98	%	70-130	02.18.14 15.09	
4-Bromofluorobenzene	460-00-4	113	%	68-152	02.18.14 15.09	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-23** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-031 Date Collected: 02.13.14 13.30 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 7.12  
 Analyst: 4150 Date Prep: 02.19.14 12.37 Basis: Dry Weight  
 Seq Number: 934545

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	<b>0.0660</b>	0.0538	mg/kg	02.20.14 16.19		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 7.12  
 Analyst: 4150 Date Prep: 02.19.14 09.35 Basis: Dry Weight  
 Seq Number: 934494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.03	mg/kg	02.20.14 18.28	U	1
<b>Barium</b>	7440-39-3	<b>23.5</b>	5.03	mg/kg	02.20.14 18.28		1
Cadmium	7440-43-9	BRL	1.01	mg/kg	02.20.14 18.28	U	1
<b>Chromium</b>	7440-47-3	<b>8.71</b>	5.03	mg/kg	02.20.14 18.28		1
<b>Lead</b>	7439-92-1	<b>19.3</b>	5.03	mg/kg	02.20.14 18.28		1
Selenium	7782-49-2	BRL	1.01	mg/kg	02.20.14 18.28	U	1
Silver	7440-22-4	BRL	1.01	mg/kg	02.20.14 18.28	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-23** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-031 Date Collected: 02.13.14 13.30 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 7.12  
 Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
 Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.358	mg/kg	02.20.14 06.49	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.358	mg/kg	02.20.14 06.49	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.358	mg/kg	02.20.14 06.49	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.358	mg/kg	02.20.14 06.49	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.358	mg/kg	02.20.14 06.49	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.358	mg/kg	02.20.14 06.49	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.358	mg/kg	02.20.14 06.49	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.358	mg/kg	02.20.14 06.49	U	1
2-Chloronaphthalene	91-58-7	BRL	0.358	mg/kg	02.20.14 06.49	U	1
2-Chlorophenol	95-57-8	BRL	0.358	mg/kg	02.20.14 06.49	U	1
2-Methylnaphthalene	91-57-6	BRL	0.358	mg/kg	02.20.14 06.49	U	1
2-methylphenol	95-48-7	BRL	0.358	mg/kg	02.20.14 06.49	U	1
2-Nitroaniline	88-74-4	BRL	0.358	mg/kg	02.20.14 06.49	U	1
2-Nitrophenol	88-75-5	BRL	0.358	mg/kg	02.20.14 06.49	U	1
3&4-Methylphenol	15831-10-4	BRL	0.358	mg/kg	02.20.14 06.49	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.358	mg/kg	02.20.14 06.49	U	1
3-Nitroaniline	99-09-2	BRL	0.358	mg/kg	02.20.14 06.49	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.358	mg/kg	02.20.14 06.49	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.358	mg/kg	02.20.14 06.49	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.358	mg/kg	02.20.14 06.49	U	1
4-Chloroaniline	106-47-8	BRL	0.358	mg/kg	02.20.14 06.49	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.358	mg/kg	02.20.14 06.49	U	1
4-Nitroaniline	100-01-6	BRL	0.358	mg/kg	02.20.14 06.49	U	1
4-Nitrophenol	100-02-7	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Acenaphthene	83-32-9	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Acenaphthylene	208-96-8	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Acetophenone	98-86-2	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Anthracene	120-12-7	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Benzo(a)anthracene	56-55-3	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Benzo(a)pyrene	50-32-8	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.358	mg/kg	02.20.14 06.49	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.358	mg/kg	02.20.14 06.49	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.358	mg/kg	02.20.14 06.49	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Butylbenzylphthalate	85-68-7	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Carbazole	86-74-8	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Chrysene	218-01-9	BRL	0.358	mg/kg	02.20.14 06.49	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-23** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-031 Date Collected: 02.13.14 13.30 Sample Depth: 0 - 6 In  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 7.12  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Dibenzofuran	132-64-9	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Diethyl Phthalate	84-66-2	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Dimethyl Phthalate	131-11-3	BRL	0.358	mg/kg	02.20.14 06.49	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.358	mg/kg	02.20.14 06.49	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Fluoranthene	206-44-0	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Fluorene	86-73-7	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Hexachlorobenzene	118-74-1	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Hexachlorobutadiene	87-68-3	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Hexachloroethane	67-72-1	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Isophorone	78-59-1	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Naphthalene	91-20-3	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Nitrobenzene	98-95-3	BRL	0.358	mg/kg	02.20.14 06.49	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.358	mg/kg	02.20.14 06.49	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Pentachlorophenol	87-86-5	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Phenanthrene	85-01-8	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Phenol	108-95-2	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Pyrene	129-00-0	BRL	0.358	mg/kg	02.20.14 06.49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	67	%	20-112	02.20.14 06.49		
2-Fluorophenol	367-12-4	65	%	18-101	02.20.14 06.49		
Nitrobenzene-d5	4165-60-0	58	%	13-112	02.20.14 06.49		
Phenol-d5	4165-62-2	74	%	15-110	02.20.14 06.49		
Terphenyl-D14	1718-51-0	105	%	21-138	02.20.14 06.49		
2,4,6-Tribromophenol	118-79-6	90	%	21-128	02.20.14 06.49		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-23</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-031	Date Collected: 02.13.14 13.30	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 7.12
Analyst: ZHO	Date Prep: 02.18.14 12.52	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0110	mg/kg	02.18.14 15.34	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0549	mg/kg	02.18.14 15.34	U	1
2-Hexanone	591-78-6	BRL	0.0549	mg/kg	02.18.14 15.34	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0549	mg/kg	02.18.14 15.34	U	1
Acetone	67-64-1	BRL	0.110	mg/kg	02.18.14 15.34	U	1
Benzene	71-43-2	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
Bromochloromethane	74-97-5	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
Bromodichloromethane	75-27-4	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
Bromoform	75-25-2	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
Bromomethane	74-83-9	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
Carbon disulfide	75-15-0	BRL	0.0549	mg/kg	02.18.14 15.34	U	1
Carbon tetrachloride	56-23-5	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
Chlorobenzene	108-90-7	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
Chloroethane	75-00-3	BRL	0.0110	mg/kg	02.18.14 15.34	U	1
Chloroform	67-66-3	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
Chloromethane	74-87-3	BRL	0.0110	mg/kg	02.18.14 15.34	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
Cyclohexane	110-82-7	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
Dibromochloromethane	124-48-1	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
Ethylbenzene	100-41-4	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
Isopropylbenzene	98-82-8	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
m,p-Xylenes	179601-23-1	BRL	0.0110	mg/kg	02.18.14 15.34	U	1
Methyl acetate	79-20-9	BRL	0.0110	mg/kg	02.18.14 15.34	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-23</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-031	Date Collected: 02.13.14 13.30	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 7.12
Analyst: ZHO	Date Prep: 02.18.14 12.52	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
Methylcyclohexane	108-87-2	BRL	0.0110	mg/kg	02.18.14 15.34	U	1
Methylene Chloride	75-09-2	BRL	0.0220	mg/kg	02.18.14 15.34	U	1
o-Xylene	95-47-6	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
Styrene	100-42-5	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
Tetrachloroethene	127-18-4	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
Toluene	108-88-3	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
Trichloroethene	79-01-6	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00549	mg/kg	02.18.14 15.34	U	1
Vinyl Chloride	75-01-4	BRL	0.00220	mg/kg	02.18.14 15.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	101	%	53-142	02.18.14 15.34	
1,2-Dichloroethane-D4	17060-07-0	86	%	56-150	02.18.14 15.34	
Toluene-D8	2037-26-5	99	%	70-130	02.18.14 15.34	
4-Bromofluorobenzene	460-00-4	107	%	68-152	02.18.14 15.34	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-23** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-032 Date Collected: 02.13.14 13.33 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 12.1  
 Analyst: 4150 Date Prep: 02.19.14 12.37 Basis: Dry Weight  
 Seq Number: 934545

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0537	mg/kg	02.20.14 16.22	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 12.1  
 Analyst: 4150 Date Prep: 02.19.14 09.35 Basis: Dry Weight  
 Seq Number: 934494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.27	mg/kg	02.20.14 18.30	U	1
<b>Barium</b>	7440-39-3	<b>25.4</b>	5.27	mg/kg	02.20.14 18.30		1
Cadmium	7440-43-9	BRL	1.05	mg/kg	02.20.14 18.30	U	1
<b>Chromium</b>	7440-47-3	<b>25.4</b>	5.27	mg/kg	02.20.14 18.30		1
<b>Lead</b>	7439-92-1	<b>9.28</b>	5.27	mg/kg	02.20.14 18.30		1
Selenium	7782-49-2	BRL	1.05	mg/kg	02.20.14 18.30	U	1
Silver	7440-22-4	BRL	1.05	mg/kg	02.20.14 18.30	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-23** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-032 Date Collected: 02.13.14 13.33 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 12.1  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.375	mg/kg	02.19.14 22.49	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.375	mg/kg	02.19.14 22.49	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.375	mg/kg	02.19.14 22.49	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.375	mg/kg	02.19.14 22.49	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.375	mg/kg	02.19.14 22.49	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.375	mg/kg	02.19.14 22.49	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.375	mg/kg	02.19.14 22.49	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.375	mg/kg	02.19.14 22.49	U	1
2-Chloronaphthalene	91-58-7	BRL	0.375	mg/kg	02.19.14 22.49	U	1
2-Chlorophenol	95-57-8	BRL	0.375	mg/kg	02.19.14 22.49	U	1
2-Methylnaphthalene	91-57-6	BRL	0.375	mg/kg	02.19.14 22.49	U	1
2-methylphenol	95-48-7	BRL	0.375	mg/kg	02.19.14 22.49	U	1
2-Nitroaniline	88-74-4	BRL	0.375	mg/kg	02.19.14 22.49	U	1
2-Nitrophenol	88-75-5	BRL	0.375	mg/kg	02.19.14 22.49	U	1
3&4-Methylphenol	15831-10-4	BRL	0.375	mg/kg	02.19.14 22.49	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.375	mg/kg	02.19.14 22.49	U	1
3-Nitroaniline	99-09-2	BRL	0.375	mg/kg	02.19.14 22.49	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.375	mg/kg	02.19.14 22.49	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.375	mg/kg	02.19.14 22.49	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.375	mg/kg	02.19.14 22.49	U	1
4-Chloroaniline	106-47-8	BRL	0.375	mg/kg	02.19.14 22.49	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.375	mg/kg	02.19.14 22.49	U	1
4-Nitroaniline	100-01-6	BRL	0.375	mg/kg	02.19.14 22.49	U	1
4-Nitrophenol	100-02-7	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Acenaphthene	83-32-9	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Acenaphthylene	208-96-8	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Acetophenone	98-86-2	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Anthracene	120-12-7	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Benzo(a)anthracene	56-55-3	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Benzo(a)pyrene	50-32-8	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.375	mg/kg	02.19.14 22.49	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.375	mg/kg	02.19.14 22.49	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.375	mg/kg	02.19.14 22.49	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Butylbenzylphthalate	85-68-7	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Carbazole	86-74-8	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Chrysene	218-01-9	BRL	0.375	mg/kg	02.19.14 22.49	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-23** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-032 Date Collected: 02.13.14 13.33 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 12.1  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Dibenzofuran	132-64-9	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Diethyl Phthalate	84-66-2	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Dimethyl Phthalate	131-11-3	BRL	0.375	mg/kg	02.19.14 22.49	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.375	mg/kg	02.19.14 22.49	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Fluoranthene	206-44-0	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Fluorene	86-73-7	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Hexachlorobenzene	118-74-1	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Hexachlorobutadiene	87-68-3	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Hexachloroethane	67-72-1	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Isophorone	78-59-1	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Naphthalene	91-20-3	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Nitrobenzene	98-95-3	BRL	0.375	mg/kg	02.19.14 22.49	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.375	mg/kg	02.19.14 22.49	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Pentachlorophenol	87-86-5	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Phenanthrene	85-01-8	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Phenol	108-95-2	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Pyrene	129-00-0	BRL	0.375	mg/kg	02.19.14 22.49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	61	%	20-112	02.19.14 22.49		
2-Fluorophenol	367-12-4	61	%	18-101	02.19.14 22.49		
Nitrobenzene-d5	4165-60-0	62	%	13-112	02.19.14 22.49		
Phenol-d5	4165-62-2	70	%	15-110	02.19.14 22.49		
Terphenyl-D14	1718-51-0	97	%	21-138	02.19.14 22.49		
2,4,6-Tribromophenol	118-79-6	73	%	21-128	02.19.14 22.49		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-23</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-032	Date Collected: 02.13.14 13.33	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 12.1
Analyst: ZHO	Date Prep: 02.18.14 12.53	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0100	mg/kg	02.18.14 15.58	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0502	mg/kg	02.18.14 15.58	U	1
2-Hexanone	591-78-6	BRL	0.0502	mg/kg	02.18.14 15.58	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0502	mg/kg	02.18.14 15.58	U	1
Acetone	67-64-1	BRL	0.100	mg/kg	02.18.14 15.58	U	1
Benzene	71-43-2	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
Bromochloromethane	74-97-5	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
Bromodichloromethane	75-27-4	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
Bromoform	75-25-2	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
Bromomethane	74-83-9	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
Carbon disulfide	75-15-0	BRL	0.0502	mg/kg	02.18.14 15.58	U	1
Carbon tetrachloride	56-23-5	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
Chlorobenzene	108-90-7	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
Chloroethane	75-00-3	BRL	0.0100	mg/kg	02.18.14 15.58	U	1
Chloroform	67-66-3	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
Chloromethane	74-87-3	BRL	0.0100	mg/kg	02.18.14 15.58	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
Cyclohexane	110-82-7	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
Dibromochloromethane	124-48-1	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
Ethylbenzene	100-41-4	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
Isopropylbenzene	98-82-8	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
m,p-Xylenes	179601-23-1	BRL	0.0100	mg/kg	02.18.14 15.58	U	1
Methyl acetate	79-20-9	BRL	0.0100	mg/kg	02.18.14 15.58	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-23</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-032	Date Collected: 02.13.14 13.33	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 12.1
Analyst: ZHO	Date Prep: 02.18.14 12.53	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
Methylcyclohexane	108-87-2	BRL	0.0100	mg/kg	02.18.14 15.58	U	1
Methylene Chloride	75-09-2	BRL	0.0201	mg/kg	02.18.14 15.58	U	1
o-Xylene	95-47-6	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
Styrene	100-42-5	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
Tetrachloroethene	127-18-4	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
Toluene	108-88-3	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
Trichloroethene	79-01-6	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00502	mg/kg	02.18.14 15.58	U	1
Vinyl Chloride	75-01-4	BRL	0.00201	mg/kg	02.18.14 15.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	103	%	53-142	02.18.14 15.58	
1,2-Dichloroethane-D4	17060-07-0	83	%	56-150	02.18.14 15.58	
Toluene-D8	2037-26-5	97	%	70-130	02.18.14 15.58	
4-Bromofluorobenzene	460-00-4	105	%	68-152	02.18.14 15.58	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-18** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-033 Date Collected: 02.13.14 13.36 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 14.51  
 Analyst: 4150 Date Prep: 02.19.14 12.37 Basis: Dry Weight  
 Seq Number: 934545

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	0.271	0.0522	mg/kg	02.20.14 16.25		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 14.51  
 Analyst: 4150 Date Prep: 02.19.14 09.35 Basis: Dry Weight  
 Seq Number: 934494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.52	mg/kg	02.20.14 18.32	U	1
Barium	7440-39-3	95.9	5.52	mg/kg	02.20.14 18.32		1
Cadmium	7440-43-9	BRL	1.10	mg/kg	02.20.14 18.32	U	1
Chromium	7440-47-3	7.39	5.52	mg/kg	02.20.14 18.32		1
Lead	7439-92-1	171	5.52	mg/kg	02.20.14 18.32		1
Selenium	7782-49-2	BRL	1.10	mg/kg	02.20.14 18.32	U	1
Silver	7440-22-4	BRL	1.10	mg/kg	02.20.14 18.32	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-18</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-033	Date Collected: 02.13.14 13.36	Sample Depth: 0 - 6 In
Analytical Method: SVOCs by SW-846 8270D		Prep Method: SW3550
Tech: TUE		% Moisture: 14.51
Analyst: VIC	Date Prep: 02.18.14 08.30	Basis: Dry Weight
Seq Number: 934471		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.384	mg/kg	02.20.14 07.17	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.384	mg/kg	02.20.14 07.17	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.384	mg/kg	02.20.14 07.17	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.384	mg/kg	02.20.14 07.17	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.384	mg/kg	02.20.14 07.17	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.384	mg/kg	02.20.14 07.17	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.384	mg/kg	02.20.14 07.17	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.384	mg/kg	02.20.14 07.17	U	1
2-Chloronaphthalene	91-58-7	BRL	0.384	mg/kg	02.20.14 07.17	U	1
2-Chlorophenol	95-57-8	BRL	0.384	mg/kg	02.20.14 07.17	U	1
2-Methylnaphthalene	91-57-6	BRL	0.384	mg/kg	02.20.14 07.17	U	1
2-methylphenol	95-48-7	BRL	0.384	mg/kg	02.20.14 07.17	U	1
2-Nitroaniline	88-74-4	BRL	0.384	mg/kg	02.20.14 07.17	U	1
2-Nitrophenol	88-75-5	BRL	0.384	mg/kg	02.20.14 07.17	U	1
3&4-Methylphenol	15831-10-4	BRL	0.384	mg/kg	02.20.14 07.17	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.384	mg/kg	02.20.14 07.17	U	1
3-Nitroaniline	99-09-2	BRL	0.384	mg/kg	02.20.14 07.17	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.384	mg/kg	02.20.14 07.17	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.384	mg/kg	02.20.14 07.17	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.384	mg/kg	02.20.14 07.17	U	1
4-Chloroaniline	106-47-8	BRL	0.384	mg/kg	02.20.14 07.17	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.384	mg/kg	02.20.14 07.17	U	1
4-Nitroaniline	100-01-6	BRL	0.384	mg/kg	02.20.14 07.17	U	1
4-Nitrophenol	100-02-7	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Acenaphthene	83-32-9	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Acenaphthylene	208-96-8	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Acetophenone	98-86-2	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Anthracene	120-12-7	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Benzo(a)anthracene	56-55-3	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Benzo(a)pyrene	50-32-8	BRL	0.384	mg/kg	02.20.14 07.17	U	1
<b>Benzo(b)fluoranthene</b>	205-99-2	<b>0.431</b>	0.384	mg/kg	02.20.14 07.17		1
Benzo(g,h,i)perylene	191-24-2	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.384	mg/kg	02.20.14 07.17	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.384	mg/kg	02.20.14 07.17	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.384	mg/kg	02.20.14 07.17	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Butylbenzylphthalate	85-68-7	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Carbazole	86-74-8	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Chrysene	218-01-9	BRL	0.384	mg/kg	02.20.14 07.17	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-18** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-033 Date Collected: 02.13.14 13.36 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 14.51  
 Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
 Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Dibenzofuran	132-64-9	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Diethyl Phthalate	84-66-2	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Dimethyl Phthalate	131-11-3	BRL	0.384	mg/kg	02.20.14 07.17	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.384	mg/kg	02.20.14 07.17	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.384	mg/kg	02.20.14 07.17	U	1
<b>Fluoranthene</b>	206-44-0	<b>0.635</b>	0.384	mg/kg	02.20.14 07.17		1
Fluorene	86-73-7	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Hexachlorobenzene	118-74-1	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Hexachlorobutadiene	87-68-3	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Hexachloroethane	67-72-1	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Isophorone	78-59-1	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Naphthalene	91-20-3	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Nitrobenzene	98-95-3	BRL	0.384	mg/kg	02.20.14 07.17	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.384	mg/kg	02.20.14 07.17	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Pentachlorophenol	87-86-5	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Phenanthrene	85-01-8	BRL	0.384	mg/kg	02.20.14 07.17	U	1
Phenol	108-95-2	BRL	0.384	mg/kg	02.20.14 07.17	U	1
<b>Pyrene</b>	129-00-0	<b>0.639</b>	0.384	mg/kg	02.20.14 07.17		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	62	%	20-112	02.20.14 07.17		
2-Fluorophenol	367-12-4	62	%	18-101	02.20.14 07.17		
Nitrobenzene-d5	4165-60-0	59	%	13-112	02.20.14 07.17		
Phenol-d5	4165-62-2	69	%	15-110	02.20.14 07.17		
Terphenyl-D14	1718-51-0	104	%	21-138	02.20.14 07.17		
2,4,6-Tribromophenol	118-79-6	87	%	21-128	02.20.14 07.17		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-18** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-033 Date Collected: 02.13.14 13.36 Sample Depth: 0 - 6 In  
 Analytical Method: VOCs by SW-846 8260B Prep Method: SW5035  
 Tech: ZHO % Moisture: 14.51  
 Analyst: ZHO Date Prep: 02.18.14 12.51 Basis: Dry Weight  
 Seq Number: 934377 SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0133	mg/kg	02.18.14 14.50	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0663	mg/kg	02.18.14 14.50	U	1
2-Hexanone	591-78-6	BRL	0.0663	mg/kg	02.18.14 14.50	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0663	mg/kg	02.18.14 14.50	U	1
Acetone	67-64-1	BRL	0.133	mg/kg	02.18.14 14.50	U	1
Benzene	71-43-2	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
Bromochloromethane	74-97-5	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
Bromodichloromethane	75-27-4	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
Bromoform	75-25-2	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
Bromomethane	74-83-9	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
Carbon disulfide	75-15-0	BRL	0.0663	mg/kg	02.18.14 14.50	U	1
Carbon tetrachloride	56-23-5	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
Chlorobenzene	108-90-7	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
Chloroethane	75-00-3	BRL	0.0133	mg/kg	02.18.14 14.50	U	1
Chloroform	67-66-3	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
Chloromethane	74-87-3	BRL	0.0133	mg/kg	02.18.14 14.50	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
Cyclohexane	110-82-7	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
Dibromochloromethane	124-48-1	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
Ethylbenzene	100-41-4	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
Isopropylbenzene	98-82-8	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
m,p-Xylenes	179601-23-1	BRL	0.0133	mg/kg	02.18.14 14.50	U	1
<b>Methyl acetate</b>	79-20-9	<b>0.0319</b>	0.0133	mg/kg	02.18.14 14.50		1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-18</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-033	Date Collected: 02.13.14 13.36	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 14.51
Analyst: ZHO	Date Prep: 02.18.14 12.51	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
Methylcyclohexane	108-87-2	BRL	0.0133	mg/kg	02.18.14 14.50	U	1
Methylene Chloride	75-09-2	BRL	0.0265	mg/kg	02.18.14 14.50	U	1
o-Xylene	95-47-6	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
Styrene	100-42-5	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
Tetrachloroethene	127-18-4	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
Toluene	108-88-3	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
Trichloroethene	79-01-6	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00663	mg/kg	02.18.14 14.50	U	1
Vinyl Chloride	75-01-4	BRL	0.00265	mg/kg	02.18.14 14.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	123	%	53-142	02.18.14 14.50	
1,2-Dichloroethane-D4	17060-07-0	108	%	56-150	02.18.14 14.50	
Toluene-D8	2037-26-5	102	%	70-130	02.18.14 14.50	
4-Bromofluorobenzene	460-00-4	103	%	68-152	02.18.14 14.50	

**Geotechnical & Environmental Consultants, Inc., Macon, GA**  
**Macon 2 MGP**

Sample Id: <b>GB-18</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-034	Date Collected: 02.13.14 13.38	Sample Depth: 0.5 - 2 ft
Analytical Method: Mercury by SW-846 7471B		Prep Method: SW7471P
Tech: JDR		% Moisture: 12.63
Analyst: 4150	Date Prep: 02.19.14 12.37	Basis: Dry Weight
Seq Number: 934545		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	0.373	0.0540	mg/kg	02.20.14 16.28		1

Analytical Method: RCRA Metals by SW-846 6010C		Prep Method: SW3050B
Tech: JDR		% Moisture: 12.63
Analyst: 4150	Date Prep: 02.19.14 09.35	Basis: Dry Weight
Seq Number: 934494		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	5.89	5.20	mg/kg	02.20.14 18.34		1
Barium	7440-39-3	170	5.20	mg/kg	02.20.14 18.34		1
Cadmium	7440-43-9	BRL	1.04	mg/kg	02.20.14 18.34	U	1
Chromium	7440-47-3	11.1	5.20	mg/kg	02.20.14 18.34		1
Lead	7439-92-1	147	5.20	mg/kg	02.20.14 18.34		1
Selenium	7782-49-2	BRL	1.04	mg/kg	02.20.14 18.34	U	1
Silver	7440-22-4	BRL	1.04	mg/kg	02.20.14 18.34	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-18** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-034 Date Collected: 02.13.14 13.38 Sample Depth: 0.5 - 2 ft  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 12.63  
 Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
 Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.379	mg/kg	02.20.14 11.26	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.379	mg/kg	02.20.14 11.26	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.379	mg/kg	02.20.14 11.26	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.379	mg/kg	02.20.14 11.26	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.379	mg/kg	02.20.14 11.26	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.379	mg/kg	02.20.14 11.26	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.379	mg/kg	02.20.14 11.26	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.379	mg/kg	02.20.14 11.26	U	1
2-Chloronaphthalene	91-58-7	BRL	0.379	mg/kg	02.20.14 11.26	U	1
2-Chlorophenol	95-57-8	BRL	0.379	mg/kg	02.20.14 11.26	U	1
2-Methylnaphthalene	91-57-6	BRL	0.379	mg/kg	02.20.14 11.26	U	1
2-methylphenol	95-48-7	BRL	0.379	mg/kg	02.20.14 11.26	U	1
2-Nitroaniline	88-74-4	BRL	0.379	mg/kg	02.20.14 11.26	U	1
2-Nitrophenol	88-75-5	BRL	0.379	mg/kg	02.20.14 11.26	U	1
3&4-Methylphenol	15831-10-4	BRL	0.379	mg/kg	02.20.14 11.26	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.379	mg/kg	02.20.14 11.26	U	1
3-Nitroaniline	99-09-2	BRL	0.379	mg/kg	02.20.14 11.26	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.379	mg/kg	02.20.14 11.26	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.379	mg/kg	02.20.14 11.26	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.379	mg/kg	02.20.14 11.26	U	1
4-Chloroaniline	106-47-8	BRL	0.379	mg/kg	02.20.14 11.26	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.379	mg/kg	02.20.14 11.26	U	1
4-Nitroaniline	100-01-6	BRL	0.379	mg/kg	02.20.14 11.26	U	1
4-Nitrophenol	100-02-7	BRL	0.379	mg/kg	02.20.14 11.26	U	1
Acenaphthene	83-32-9	BRL	0.379	mg/kg	02.20.14 11.26	U	1
Acenaphthylene	208-96-8	BRL	0.379	mg/kg	02.20.14 11.26	U	1
Acetophenone	98-86-2	BRL	0.379	mg/kg	02.20.14 11.26	U	1
Anthracene	120-12-7	BRL	0.379	mg/kg	02.20.14 11.26	U	1
<b>Benzo(a)anthracene</b>	56-55-3	<b>0.693</b>	0.379	mg/kg	02.20.14 11.26		1
<b>Benzo(a)pyrene</b>	50-32-8	<b>0.567</b>	0.379	mg/kg	02.20.14 11.26		1
<b>Benzo(b)fluoranthene</b>	205-99-2	<b>0.597</b>	0.379	mg/kg	02.20.14 11.26		1
Benzo(g,h,i)perylene	191-24-2	BRL	0.379	mg/kg	02.20.14 11.26	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.379	mg/kg	02.20.14 11.26	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.379	mg/kg	02.20.14 11.26	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.379	mg/kg	02.20.14 11.26	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.379	mg/kg	02.20.14 11.26	U	1
Butylbenzylphthalate	85-68-7	BRL	0.379	mg/kg	02.20.14 11.26	U	1
Carbazole	86-74-8	BRL	0.379	mg/kg	02.20.14 11.26	U	1
<b>Chrysene</b>	218-01-9	<b>0.633</b>	0.379	mg/kg	02.20.14 11.26		1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-18** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-034 Date Collected: 02.13.14 13.38 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 12.63  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.379	mg/kg	02.20.14 11.26	U	1
Dibenzofuran	132-64-9	BRL	0.379	mg/kg	02.20.14 11.26	U	1
Diethyl Phthalate	84-66-2	BRL	0.379	mg/kg	02.20.14 11.26	U	1
Dimethyl Phthalate	131-11-3	BRL	0.379	mg/kg	02.20.14 11.26	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.379	mg/kg	02.20.14 11.26	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.379	mg/kg	02.20.14 11.26	U	1
<b>Fluoranthene</b>	206-44-0	<b>1.45</b>	0.379	mg/kg	02.20.14 11.26		1
Fluorene	86-73-7	BRL	0.379	mg/kg	02.20.14 11.26	U	1
Hexachlorobenzene	118-74-1	BRL	0.379	mg/kg	02.20.14 11.26	U	1
Hexachlorobutadiene	87-68-3	BRL	0.379	mg/kg	02.20.14 11.26	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.379	mg/kg	02.20.14 11.26	U	1
Hexachloroethane	67-72-1	BRL	0.379	mg/kg	02.20.14 11.26	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.379	mg/kg	02.20.14 11.26	U	1
Isophorone	78-59-1	BRL	0.379	mg/kg	02.20.14 11.26	U	1
Naphthalene	91-20-3	BRL	0.379	mg/kg	02.20.14 11.26	U	1
Nitrobenzene	98-95-3	BRL	0.379	mg/kg	02.20.14 11.26	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.379	mg/kg	02.20.14 11.26	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.379	mg/kg	02.20.14 11.26	U	1
Pentachlorophenol	87-86-5	BRL	0.379	mg/kg	02.20.14 11.26	U	1
<b>Phenanthrene</b>	85-01-8	<b>0.932</b>	0.379	mg/kg	02.20.14 11.26		1
Phenol	108-95-2	BRL	0.379	mg/kg	02.20.14 11.26	U	1
<b>Pyrene</b>	129-00-0	<b>1.24</b>	0.379	mg/kg	02.20.14 11.26		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	63	%	20-112	02.20.14 11.26		
2-Fluorophenol	367-12-4	60	%	18-101	02.20.14 11.26		
Nitrobenzene-d5	4165-60-0	56	%	13-112	02.20.14 11.26		
Phenol-d5	4165-62-2	72	%	15-110	02.20.14 11.26		
Terphenyl-D14	1718-51-0	101	%	21-138	02.20.14 11.26		
2,4,6-Tribromophenol	118-79-6	80	%	21-128	02.20.14 11.26		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-18</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-034	Date Collected: 02.13.14 13.38	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 12.63
Analyst: ZHO	Date Prep: 02.18.14 12.52	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0164	mg/kg	02.18.14 15.15	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0818	mg/kg	02.18.14 15.15	U	1
2-Hexanone	591-78-6	BRL	0.0818	mg/kg	02.18.14 15.15	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0818	mg/kg	02.18.14 15.15	U	1
Acetone	67-64-1	BRL	0.164	mg/kg	02.18.14 15.15	U	1
Benzene	71-43-2	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
Bromochloromethane	74-97-5	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
Bromodichloromethane	75-27-4	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
Bromoform	75-25-2	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
Bromomethane	74-83-9	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
Carbon disulfide	75-15-0	BRL	0.0818	mg/kg	02.18.14 15.15	U	1
Carbon tetrachloride	56-23-5	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
Chlorobenzene	108-90-7	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
Chloroethane	75-00-3	BRL	0.0164	mg/kg	02.18.14 15.15	U	1
Chloroform	67-66-3	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
Chloromethane	74-87-3	BRL	0.0164	mg/kg	02.18.14 15.15	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
Cyclohexane	110-82-7	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
Dibromochloromethane	124-48-1	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
Ethylbenzene	100-41-4	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
Isopropylbenzene	98-82-8	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
m,p-Xylenes	179601-23-1	BRL	0.0164	mg/kg	02.18.14 15.15	U	1
Methyl acetate	79-20-9	BRL	0.0164	mg/kg	02.18.14 15.15	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-18</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-034	Date Collected: 02.13.14 13.38	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 12.63
Analyst: ZHO	Date Prep: 02.18.14 12.52	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
Methylcyclohexane	108-87-2	BRL	0.0164	mg/kg	02.18.14 15.15	U	1
Methylene Chloride	75-09-2	BRL	0.0327	mg/kg	02.18.14 15.15	U	1
o-Xylene	95-47-6	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
Styrene	100-42-5	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
Tetrachloroethene	127-18-4	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
Toluene	108-88-3	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
Trichloroethene	79-01-6	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00818	mg/kg	02.18.14 15.15	U	1
Vinyl Chloride	75-01-4	BRL	0.00327	mg/kg	02.18.14 15.15	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
Dibromofluoromethane	1868-53-7	108	%	53-142	02.18.14 15.15		
1,2-Dichloroethane-D4	17060-07-0	113	%	56-150	02.18.14 15.15		
Toluene-D8	2037-26-5	107	%	70-130	02.18.14 15.15		
4-Bromofluorobenzene	460-00-4	108	%	68-152	02.18.14 15.15		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-11** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-035 Date Collected: 02.13.14 13.40 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 13.55  
 Analyst: 4150 Date Prep: 02.19.14 12.37 Basis: Dry Weight  
 Seq Number: 934545

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0536	mg/kg	02.20.14 16.31	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 13.55  
 Analyst: 4150 Date Prep: 02.19.14 09.35 Basis: Dry Weight  
 Seq Number: 934494

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.46	mg/kg	02.20.14 18.36	U	1
<b>Barium</b>	7440-39-3	<b>88.9</b>	5.46	mg/kg	02.20.14 18.36		1
Cadmium	7440-43-9	BRL	1.09	mg/kg	02.20.14 18.36	U	1
Chromium	7440-47-3	BRL	5.46	mg/kg	02.20.14 18.36	U	1
<b>Lead</b>	7439-92-1	<b>9.21</b>	5.46	mg/kg	02.20.14 18.36		1
Selenium	7782-49-2	BRL	1.09	mg/kg	02.20.14 18.36	U	1
Silver	7440-22-4	BRL	1.09	mg/kg	02.20.14 18.36	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-11** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-035 Date Collected: 02.13.14 13.40 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 13.55  
 Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
 Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.380	mg/kg	02.19.14 23.53	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.380	mg/kg	02.19.14 23.53	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.380	mg/kg	02.19.14 23.53	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.380	mg/kg	02.19.14 23.53	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.380	mg/kg	02.19.14 23.53	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.380	mg/kg	02.19.14 23.53	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.380	mg/kg	02.19.14 23.53	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.380	mg/kg	02.19.14 23.53	U	1
2-Chloronaphthalene	91-58-7	BRL	0.380	mg/kg	02.19.14 23.53	U	1
2-Chlorophenol	95-57-8	BRL	0.380	mg/kg	02.19.14 23.53	U	1
2-Methylnaphthalene	91-57-6	BRL	0.380	mg/kg	02.19.14 23.53	U	1
2-methylphenol	95-48-7	BRL	0.380	mg/kg	02.19.14 23.53	U	1
2-Nitroaniline	88-74-4	BRL	0.380	mg/kg	02.19.14 23.53	U	1
2-Nitrophenol	88-75-5	BRL	0.380	mg/kg	02.19.14 23.53	U	1
3&4-Methylphenol	15831-10-4	BRL	0.380	mg/kg	02.19.14 23.53	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.380	mg/kg	02.19.14 23.53	U	1
3-Nitroaniline	99-09-2	BRL	0.380	mg/kg	02.19.14 23.53	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.380	mg/kg	02.19.14 23.53	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.380	mg/kg	02.19.14 23.53	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.380	mg/kg	02.19.14 23.53	U	1
4-Chloroaniline	106-47-8	BRL	0.380	mg/kg	02.19.14 23.53	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.380	mg/kg	02.19.14 23.53	U	1
4-Nitroaniline	100-01-6	BRL	0.380	mg/kg	02.19.14 23.53	U	1
4-Nitrophenol	100-02-7	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Acenaphthene	83-32-9	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Acenaphthylene	208-96-8	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Acetophenone	98-86-2	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Anthracene	120-12-7	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Benzo(a)anthracene	56-55-3	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Benzo(a)pyrene	50-32-8	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.380	mg/kg	02.19.14 23.53	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.380	mg/kg	02.19.14 23.53	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.380	mg/kg	02.19.14 23.53	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Butylbenzylphthalate	85-68-7	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Carbazole	86-74-8	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Chrysene	218-01-9	BRL	0.380	mg/kg	02.19.14 23.53	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-11** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-035 Date Collected: 02.13.14 13.40 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 13.55  
 Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
 Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Dibenzofuran	132-64-9	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Diethyl Phthalate	84-66-2	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Dimethyl Phthalate	131-11-3	BRL	0.380	mg/kg	02.19.14 23.53	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.380	mg/kg	02.19.14 23.53	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Fluoranthene	206-44-0	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Fluorene	86-73-7	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Hexachlorobenzene	118-74-1	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Hexachlorobutadiene	87-68-3	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Hexachloroethane	67-72-1	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Isophorone	78-59-1	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Naphthalene	91-20-3	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Nitrobenzene	98-95-3	BRL	0.380	mg/kg	02.19.14 23.53	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.380	mg/kg	02.19.14 23.53	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Pentachlorophenol	87-86-5	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Phenanthrene	85-01-8	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Phenol	108-95-2	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Pyrene	129-00-0	BRL	0.380	mg/kg	02.19.14 23.53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	65	%	20-112	02.19.14 23.53		
2-Fluorophenol	367-12-4	59	%	18-101	02.19.14 23.53		
Nitrobenzene-d5	4165-60-0	62	%	13-112	02.19.14 23.53		
Phenol-d5	4165-62-2	69	%	15-110	02.19.14 23.53		
Terphenyl-D14	1718-51-0	103	%	21-138	02.19.14 23.53		
2,4,6-Tribromophenol	118-79-6	82	%	21-128	02.19.14 23.53		



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-11</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-035	Date Collected: 02.13.14 13.40	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 13.55
Analyst: ZHO	Date Prep: 02.18.14 12.53	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0123	mg/kg	02.18.14 15.41	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0614	mg/kg	02.18.14 15.41	U	1
2-Hexanone	591-78-6	BRL	0.0614	mg/kg	02.18.14 15.41	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0614	mg/kg	02.18.14 15.41	U	1
Acetone	67-64-1	BRL	0.123	mg/kg	02.18.14 15.41	U	1
Benzene	71-43-2	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
Bromochloromethane	74-97-5	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
Bromodichloromethane	75-27-4	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
Bromoform	75-25-2	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
Bromomethane	74-83-9	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
Carbon disulfide	75-15-0	BRL	0.0614	mg/kg	02.18.14 15.41	U	1
Carbon tetrachloride	56-23-5	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
Chlorobenzene	108-90-7	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
Chloroethane	75-00-3	BRL	0.0123	mg/kg	02.18.14 15.41	U	1
Chloroform	67-66-3	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
Chloromethane	74-87-3	BRL	0.0123	mg/kg	02.18.14 15.41	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
Cyclohexane	110-82-7	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
Dibromochloromethane	124-48-1	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
Ethylbenzene	100-41-4	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
Isopropylbenzene	98-82-8	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
m,p-Xylenes	179601-23-1	BRL	0.0123	mg/kg	02.18.14 15.41	U	1
<b>Methyl acetate</b>	79-20-9	<b>0.0283</b>	0.0123	mg/kg	02.18.14 15.41		1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-11</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-035	Date Collected: 02.13.14 13.40	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 13.55
Analyst: ZHO	Date Prep: 02.18.14 12.53	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
Methylcyclohexane	108-87-2	BRL	0.0123	mg/kg	02.18.14 15.41	U	1
Methylene Chloride	75-09-2	BRL	0.0246	mg/kg	02.18.14 15.41	U	1
o-Xylene	95-47-6	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
Styrene	100-42-5	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
Tetrachloroethene	127-18-4	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
Toluene	108-88-3	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
Trichloroethene	79-01-6	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00614	mg/kg	02.18.14 15.41	U	1
Vinyl Chloride	75-01-4	BRL	0.00246	mg/kg	02.18.14 15.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	123	%	53-142	02.18.14 15.41	
1,2-Dichloroethane-D4	17060-07-0	101	%	56-150	02.18.14 15.41	
Toluene-D8	2037-26-5	100	%	70-130	02.18.14 15.41	
4-Bromofluorobenzene	460-00-4	105	%	68-152	02.18.14 15.41	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-11** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-036 Date Collected: 02.13.14 13.42 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 8.65  
 Analyst: 4150 Date Prep: 02.19.14 12.37 Basis: Dry Weight  
 Seq Number: 934545

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	<b>0.199</b>	0.0489	mg/kg	02.20.14 16.34		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 8.65  
 Analyst: 4150 Date Prep: 02.19.14 09.38 Basis: Dry Weight  
 Seq Number: 934533

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.07	mg/kg	02.20.14 19.07	U	1
Barium	7440-39-3	<b>209</b>	5.07	mg/kg	02.20.14 19.07		1
Cadmium	7440-43-9	BRL	1.01	mg/kg	02.20.14 19.07	U	1
Chromium	7440-47-3	<b>9.40</b>	5.07	mg/kg	02.20.14 19.07		1
Lead	7439-92-1	<b>465</b>	5.07	mg/kg	02.20.14 19.07		1
Selenium	7782-49-2	BRL	1.01	mg/kg	02.20.14 19.07	U	1
Silver	7440-22-4	<b>1.48</b>	1.01	mg/kg	02.20.14 19.07		1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-11** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-036 Date Collected: 02.13.14 13.42 Sample Depth: 0.5 - 2 ft  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 8.65  
 Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
 Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.363	mg/kg	02.20.14 11.54	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.363	mg/kg	02.20.14 11.54	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.363	mg/kg	02.20.14 11.54	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.363	mg/kg	02.20.14 11.54	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.363	mg/kg	02.20.14 11.54	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.363	mg/kg	02.20.14 11.54	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.363	mg/kg	02.20.14 11.54	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.363	mg/kg	02.20.14 11.54	U	1
2-Chloronaphthalene	91-58-7	BRL	0.363	mg/kg	02.20.14 11.54	U	1
2-Chlorophenol	95-57-8	BRL	0.363	mg/kg	02.20.14 11.54	U	1
2-Methylnaphthalene	91-57-6	BRL	0.363	mg/kg	02.20.14 11.54	U	1
2-methylphenol	95-48-7	BRL	0.363	mg/kg	02.20.14 11.54	U	1
2-Nitroaniline	88-74-4	BRL	0.363	mg/kg	02.20.14 11.54	U	1
2-Nitrophenol	88-75-5	BRL	0.363	mg/kg	02.20.14 11.54	U	1
3&4-Methylphenol	15831-10-4	BRL	0.363	mg/kg	02.20.14 11.54	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.363	mg/kg	02.20.14 11.54	U	1
3-Nitroaniline	99-09-2	BRL	0.363	mg/kg	02.20.14 11.54	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.363	mg/kg	02.20.14 11.54	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.363	mg/kg	02.20.14 11.54	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.363	mg/kg	02.20.14 11.54	U	1
4-Chloroaniline	106-47-8	BRL	0.363	mg/kg	02.20.14 11.54	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.363	mg/kg	02.20.14 11.54	U	1
4-Nitroaniline	100-01-6	BRL	0.363	mg/kg	02.20.14 11.54	U	1
4-Nitrophenol	100-02-7	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Acenaphthene	83-32-9	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Acenaphthylene	208-96-8	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Acetophenone	98-86-2	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Anthracene	120-12-7	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Benzo(a)anthracene	56-55-3	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Benzo(a)pyrene	50-32-8	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.363	mg/kg	02.20.14 11.54	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.363	mg/kg	02.20.14 11.54	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.363	mg/kg	02.20.14 11.54	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Butylbenzylphthalate	85-68-7	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Carbazole	86-74-8	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Chrysene	218-01-9	BRL	0.363	mg/kg	02.20.14 11.54	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-11** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-036 Date Collected: 02.13.14 13.42 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 8.65  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Dibenzofuran	132-64-9	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Diethyl Phthalate	84-66-2	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Dimethyl Phthalate	131-11-3	BRL	0.363	mg/kg	02.20.14 11.54	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.363	mg/kg	02.20.14 11.54	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.363	mg/kg	02.20.14 11.54	U	1
<b>Fluoranthene</b>	206-44-0	<b>0.449</b>	0.363	mg/kg	02.20.14 11.54		1
Fluorene	86-73-7	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Hexachlorobenzene	118-74-1	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Hexachlorobutadiene	87-68-3	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Hexachloroethane	67-72-1	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Isophorone	78-59-1	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Naphthalene	91-20-3	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Nitrobenzene	98-95-3	BRL	0.363	mg/kg	02.20.14 11.54	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.363	mg/kg	02.20.14 11.54	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Pentachlorophenol	87-86-5	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Phenanthrene	85-01-8	BRL	0.363	mg/kg	02.20.14 11.54	U	1
Phenol	108-95-2	BRL	0.363	mg/kg	02.20.14 11.54	U	1
<b>Pyrene</b>	129-00-0	<b>0.411</b>	0.363	mg/kg	02.20.14 11.54		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	75	%	20-112	02.20.14 11.54		
2-Fluorophenol	367-12-4	69	%	18-101	02.20.14 11.54		
Nitrobenzene-d5	4165-60-0	66	%	13-112	02.20.14 11.54		
Phenol-d5	4165-62-2	83	%	15-110	02.20.14 11.54		
Terphenyl-D14	1718-51-0	121	%	21-138	02.20.14 11.54		
2,4,6-Tribromophenol	118-79-6	105	%	21-128	02.20.14 11.54		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-11</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-036	Date Collected: 02.13.14 13.42	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 8.65
Analyst: ZHO	Date Prep: 02.19.14 15.53	Basis: Dry Weight
Seq Number: 934444		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0130	mg/kg	02.19.14 18.15	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0650	mg/kg	02.19.14 18.15	U	1
2-Hexanone	591-78-6	BRL	0.0650	mg/kg	02.19.14 18.15	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0650	mg/kg	02.19.14 18.15	U	1
Acetone	67-64-1	BRL	0.130	mg/kg	02.19.14 18.15	U	1
Benzene	71-43-2	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
Bromochloromethane	74-97-5	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
Bromodichloromethane	75-27-4	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
Bromoform	75-25-2	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
Bromomethane	74-83-9	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
Carbon disulfide	75-15-0	BRL	0.0650	mg/kg	02.19.14 18.15	U	1
Carbon tetrachloride	56-23-5	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
Chlorobenzene	108-90-7	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
Chloroethane	75-00-3	BRL	0.0130	mg/kg	02.19.14 18.15	U	1
Chloroform	67-66-3	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
Chloromethane	74-87-3	BRL	0.0130	mg/kg	02.19.14 18.15	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
Cyclohexane	110-82-7	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
Dibromochloromethane	124-48-1	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
Ethylbenzene	100-41-4	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
Isopropylbenzene	98-82-8	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
m,p-Xylenes	179601-23-1	BRL	0.0130	mg/kg	02.19.14 18.15	U	1
<b>Methyl acetate</b>	79-20-9	<b>0.0299</b>	0.0130	mg/kg	02.19.14 18.15		1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-11</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-036	Date Collected: 02.13.14 13.42	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 8.65
Analyst: ZHO	Date Prep: 02.19.14 15.53	Basis: Dry Weight
Seq Number: 934444		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
Methylcyclohexane	108-87-2	BRL	0.0130	mg/kg	02.19.14 18.15	U	1
Methylene Chloride	75-09-2	BRL	0.0260	mg/kg	02.19.14 18.15	U	1
o-Xylene	95-47-6	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
Styrene	100-42-5	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
Tetrachloroethene	127-18-4	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
Toluene	108-88-3	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
Trichloroethene	79-01-6	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00650	mg/kg	02.19.14 18.15	U	1
Vinyl Chloride	75-01-4	BRL	0.00260	mg/kg	02.19.14 18.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	100	%	53-142	02.19.14 18.15	
1,2-Dichloroethane-D4	17060-07-0	86	%	56-150	02.19.14 18.15	
Toluene-D8	2037-26-5	97	%	70-130	02.19.14 18.15	
4-Bromofluorobenzene	460-00-4	102	%	68-152	02.19.14 18.15	



## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-10** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-037 Date Collected: 02.13.14 13.44 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 14.18  
 Analyst: 4150 Date Prep: 02.19.14 12.37 Basis: Dry Weight  
 Seq Number: 934545

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0502	mg/kg	02.20.14 16.37	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 14.18  
 Analyst: 4150 Date Prep: 02.19.14 09.38 Basis: Dry Weight  
 Seq Number: 934533

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.02	mg/kg	02.20.14 19.21	U	1
Barium	7440-39-3	<b>58.4</b>	5.02	mg/kg	02.20.14 19.21		1
Cadmium	7440-43-9	<b>1.00</b>	1.00	mg/kg	02.20.14 19.21		1
Chromium	7440-47-3	<b>6.16</b>	5.02	mg/kg	02.20.14 19.21		1
Lead	7439-92-1	<b>8.10</b>	5.02	mg/kg	02.20.14 19.21		1
Selenium	7782-49-2	BRL	1.00	mg/kg	02.20.14 19.21	U	1
Silver	7440-22-4	BRL	1.00	mg/kg	02.20.14 19.21	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-10** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-037 Date Collected: 02.13.14 13.44 Sample Depth: 0 - 6 In  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 14.18  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.388	mg/kg	02.20.14 00.21	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.388	mg/kg	02.20.14 00.21	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.388	mg/kg	02.20.14 00.21	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.388	mg/kg	02.20.14 00.21	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.388	mg/kg	02.20.14 00.21	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.388	mg/kg	02.20.14 00.21	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.388	mg/kg	02.20.14 00.21	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.388	mg/kg	02.20.14 00.21	U	1
2-Chloronaphthalene	91-58-7	BRL	0.388	mg/kg	02.20.14 00.21	U	1
2-Chlorophenol	95-57-8	BRL	0.388	mg/kg	02.20.14 00.21	U	1
2-Methylnaphthalene	91-57-6	BRL	0.388	mg/kg	02.20.14 00.21	U	1
2-methylphenol	95-48-7	BRL	0.388	mg/kg	02.20.14 00.21	U	1
2-Nitroaniline	88-74-4	BRL	0.388	mg/kg	02.20.14 00.21	U	1
2-Nitrophenol	88-75-5	BRL	0.388	mg/kg	02.20.14 00.21	U	1
3&4-Methylphenol	15831-10-4	BRL	0.388	mg/kg	02.20.14 00.21	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.388	mg/kg	02.20.14 00.21	U	1
3-Nitroaniline	99-09-2	BRL	0.388	mg/kg	02.20.14 00.21	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.388	mg/kg	02.20.14 00.21	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.388	mg/kg	02.20.14 00.21	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.388	mg/kg	02.20.14 00.21	U	1
4-Chloroaniline	106-47-8	BRL	0.388	mg/kg	02.20.14 00.21	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.388	mg/kg	02.20.14 00.21	U	1
4-Nitroaniline	100-01-6	BRL	0.388	mg/kg	02.20.14 00.21	U	1
4-Nitrophenol	100-02-7	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Acenaphthene	83-32-9	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Acenaphthylene	208-96-8	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Acetophenone	98-86-2	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Anthracene	120-12-7	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Benzo(a)anthracene	56-55-3	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Benzo(a)pyrene	50-32-8	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.388	mg/kg	02.20.14 00.21	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.388	mg/kg	02.20.14 00.21	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.388	mg/kg	02.20.14 00.21	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Butylbenzylphthalate	85-68-7	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Carbazole	86-74-8	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Chrysene	218-01-9	BRL	0.388	mg/kg	02.20.14 00.21	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-10** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-037 Date Collected: 02.13.14 13.44 Sample Depth: 0 - 6 In  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 14.18  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Dibenzofuran	132-64-9	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Diethyl Phthalate	84-66-2	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Dimethyl Phthalate	131-11-3	BRL	0.388	mg/kg	02.20.14 00.21	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.388	mg/kg	02.20.14 00.21	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Fluoranthene	206-44-0	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Fluorene	86-73-7	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Hexachlorobenzene	118-74-1	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Hexachlorobutadiene	87-68-3	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Hexachloroethane	67-72-1	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Isophorone	78-59-1	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Naphthalene	91-20-3	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Nitrobenzene	98-95-3	BRL	0.388	mg/kg	02.20.14 00.21	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.388	mg/kg	02.20.14 00.21	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Pentachlorophenol	87-86-5	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Phenanthrene	85-01-8	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Phenol	108-95-2	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Pyrene	129-00-0	BRL	0.388	mg/kg	02.20.14 00.21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	66	%	20-112	02.20.14 00.21		
2-Fluorophenol	367-12-4	64	%	18-101	02.20.14 00.21		
Nitrobenzene-d5	4165-60-0	60	%	13-112	02.20.14 00.21		
Phenol-d5	4165-62-2	69	%	15-110	02.20.14 00.21		
Terphenyl-D14	1718-51-0	112	%	21-138	02.20.14 00.21		
2,4,6-Tribromophenol	118-79-6	83	%	21-128	02.20.14 00.21		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-10</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-037	Date Collected: 02.13.14 13.44	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 14.18
Analyst: ZHO	Date Prep: 02.18.14 12.55	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0122	mg/kg	02.18.14 18.41	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0608	mg/kg	02.18.14 18.41	U	1
2-Hexanone	591-78-6	BRL	0.0608	mg/kg	02.18.14 18.41	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0608	mg/kg	02.18.14 18.41	U	1
Acetone	67-64-1	BRL	0.122	mg/kg	02.18.14 18.41	U	1
Benzene	71-43-2	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
Bromochloromethane	74-97-5	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
Bromodichloromethane	75-27-4	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
Bromoform	75-25-2	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
Bromomethane	74-83-9	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
Carbon disulfide	75-15-0	BRL	0.0608	mg/kg	02.18.14 18.41	U	1
Carbon tetrachloride	56-23-5	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
Chlorobenzene	108-90-7	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
Chloroethane	75-00-3	BRL	0.0122	mg/kg	02.18.14 18.41	U	1
Chloroform	67-66-3	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
Chloromethane	74-87-3	BRL	0.0122	mg/kg	02.18.14 18.41	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
Cyclohexane	110-82-7	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
Dibromochloromethane	124-48-1	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
Ethylbenzene	100-41-4	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
Isopropylbenzene	98-82-8	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
m,p-Xylenes	179601-23-1	BRL	0.0122	mg/kg	02.18.14 18.41	U	1
Methyl acetate	79-20-9	BRL	0.0122	mg/kg	02.18.14 18.41	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-10</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-037	Date Collected: 02.13.14 13.44	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 14.18
Analyst: ZHO	Date Prep: 02.18.14 12.55	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
Methylcyclohexane	108-87-2	BRL	0.0122	mg/kg	02.18.14 18.41	U	1
Methylene Chloride	75-09-2	BRL	0.0243	mg/kg	02.18.14 18.41	U	1
o-Xylene	95-47-6	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
Styrene	100-42-5	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
Tetrachloroethene	127-18-4	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
Toluene	108-88-3	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
Trichloroethene	79-01-6	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00608	mg/kg	02.18.14 18.41	U	1
Vinyl Chloride	75-01-4	BRL	0.00243	mg/kg	02.18.14 18.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	116	%	53-142	02.18.14 18.41	
1,2-Dichloroethane-D4	17060-07-0	93	%	56-150	02.18.14 18.41	
Toluene-D8	2037-26-5	98	%	70-130	02.18.14 18.41	
4-Bromofluorobenzene	460-00-4	107	%	68-152	02.18.14 18.41	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-10** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-038 Date Collected: 02.13.14 13.46 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 13.76  
 Analyst: 4150 Date Prep: 02.19.14 12.37 Basis: Dry Weight  
 Seq Number: 934545

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0557	mg/kg	02.20.14 16.40	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 13.76  
 Analyst: 4150 Date Prep: 02.19.14 09.38 Basis: Dry Weight  
 Seq Number: 934533

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.22	mg/kg	02.20.14 19.24	U	1
<b>Barium</b>	7440-39-3	<b>14.9</b>	5.22	mg/kg	02.20.14 19.24		1
Cadmium	7440-43-9	BRL	1.04	mg/kg	02.20.14 19.24	U	1
<b>Chromium</b>	7440-47-3	<b>12.4</b>	5.22	mg/kg	02.20.14 19.24		1
<b>Lead</b>	7439-92-1	<b>12.1</b>	5.22	mg/kg	02.20.14 19.24		1
Selenium	7782-49-2	BRL	1.04	mg/kg	02.20.14 19.24	U	1
Silver	7440-22-4	BRL	1.04	mg/kg	02.20.14 19.24	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-10** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-038 Date Collected: 02.13.14 13.46 Sample Depth: 0.5 - 2 ft  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 13.76  
 Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
 Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.382	mg/kg	02.20.14 08.40	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.382	mg/kg	02.20.14 08.40	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.382	mg/kg	02.20.14 08.40	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.382	mg/kg	02.20.14 08.40	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.382	mg/kg	02.20.14 08.40	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.382	mg/kg	02.20.14 08.40	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.382	mg/kg	02.20.14 08.40	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.382	mg/kg	02.20.14 08.40	U	1
2-Chloronaphthalene	91-58-7	BRL	0.382	mg/kg	02.20.14 08.40	U	1
2-Chlorophenol	95-57-8	BRL	0.382	mg/kg	02.20.14 08.40	U	1
2-Methylnaphthalene	91-57-6	BRL	0.382	mg/kg	02.20.14 08.40	U	1
2-methylphenol	95-48-7	BRL	0.382	mg/kg	02.20.14 08.40	U	1
2-Nitroaniline	88-74-4	BRL	0.382	mg/kg	02.20.14 08.40	U	1
2-Nitrophenol	88-75-5	BRL	0.382	mg/kg	02.20.14 08.40	U	1
3&4-Methylphenol	15831-10-4	BRL	0.382	mg/kg	02.20.14 08.40	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.382	mg/kg	02.20.14 08.40	U	1
3-Nitroaniline	99-09-2	BRL	0.382	mg/kg	02.20.14 08.40	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.382	mg/kg	02.20.14 08.40	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.382	mg/kg	02.20.14 08.40	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.382	mg/kg	02.20.14 08.40	U	1
4-Chloroaniline	106-47-8	BRL	0.382	mg/kg	02.20.14 08.40	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.382	mg/kg	02.20.14 08.40	U	1
4-Nitroaniline	100-01-6	BRL	0.382	mg/kg	02.20.14 08.40	U	1
4-Nitrophenol	100-02-7	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Acenaphthene	83-32-9	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Acenaphthylene	208-96-8	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Acetophenone	98-86-2	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Anthracene	120-12-7	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Benzo(a)anthracene	56-55-3	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Benzo(a)pyrene	50-32-8	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.382	mg/kg	02.20.14 08.40	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.382	mg/kg	02.20.14 08.40	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.382	mg/kg	02.20.14 08.40	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Butylbenzylphthalate	85-68-7	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Carbazole	86-74-8	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Chrysene	218-01-9	BRL	0.382	mg/kg	02.20.14 08.40	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-10** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-038 Date Collected: 02.13.14 13.46 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 13.76  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Dibenzofuran	132-64-9	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Diethyl Phthalate	84-66-2	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Dimethyl Phthalate	131-11-3	BRL	0.382	mg/kg	02.20.14 08.40	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.382	mg/kg	02.20.14 08.40	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Fluoranthene	206-44-0	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Fluorene	86-73-7	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Hexachlorobenzene	118-74-1	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Hexachlorobutadiene	87-68-3	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Hexachloroethane	67-72-1	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Isophorone	78-59-1	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Naphthalene	91-20-3	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Nitrobenzene	98-95-3	BRL	0.382	mg/kg	02.20.14 08.40	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.382	mg/kg	02.20.14 08.40	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Pentachlorophenol	87-86-5	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Phenanthrene	85-01-8	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Phenol	108-95-2	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Pyrene	129-00-0	BRL	0.382	mg/kg	02.20.14 08.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	59	%	20-112	02.20.14 08.40		
2-Fluorophenol	367-12-4	61	%	18-101	02.20.14 08.40		
Nitrobenzene-d5	4165-60-0	53	%	13-112	02.20.14 08.40		
Phenol-d5	4165-62-2	67	%	15-110	02.20.14 08.40		
Terphenyl-D14	1718-51-0	96	%	21-138	02.20.14 08.40		
2,4,6-Tribromophenol	118-79-6	73	%	21-128	02.20.14 08.40		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-10</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-038	Date Collected: 02.13.14 13.46	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 13.76
Analyst: ZHO	Date Prep: 02.18.14 12.56	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0155	mg/kg	02.18.14 19.07	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0775	mg/kg	02.18.14 19.07	U	1
2-Hexanone	591-78-6	BRL	0.0775	mg/kg	02.18.14 19.07	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0775	mg/kg	02.18.14 19.07	U	1
Acetone	67-64-1	BRL	0.155	mg/kg	02.18.14 19.07	U	1
Benzene	71-43-2	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
Bromochloromethane	74-97-5	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
Bromodichloromethane	75-27-4	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
Bromoform	75-25-2	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
Bromomethane	74-83-9	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
Carbon disulfide	75-15-0	BRL	0.0775	mg/kg	02.18.14 19.07	U	1
Carbon tetrachloride	56-23-5	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
Chlorobenzene	108-90-7	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
Chloroethane	75-00-3	BRL	0.0155	mg/kg	02.18.14 19.07	U	1
Chloroform	67-66-3	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
Chloromethane	74-87-3	BRL	0.0155	mg/kg	02.18.14 19.07	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
Cyclohexane	110-82-7	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
Dibromochloromethane	124-48-1	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
Ethylbenzene	100-41-4	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
Isopropylbenzene	98-82-8	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
m,p-Xylenes	179601-23-1	BRL	0.0155	mg/kg	02.18.14 19.07	U	1
Methyl acetate	79-20-9	BRL	0.0155	mg/kg	02.18.14 19.07	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-10</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-038	Date Collected: 02.13.14 13.46	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 13.76
Analyst: ZHO	Date Prep: 02.18.14 12.56	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
Methylcyclohexane	108-87-2	BRL	0.0155	mg/kg	02.18.14 19.07	U	1
Methylene Chloride	75-09-2	BRL	0.0310	mg/kg	02.18.14 19.07	U	1
o-Xylene	95-47-6	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
Styrene	100-42-5	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
Tetrachloroethene	127-18-4	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
Toluene	108-88-3	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
Trichloroethene	79-01-6	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00775	mg/kg	02.18.14 19.07	U	1
Vinyl Chloride	75-01-4	BRL	0.00310	mg/kg	02.18.14 19.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	110	%	53-142	02.18.14 19.07	
1,2-Dichloroethane-D4	17060-07-0	106	%	56-150	02.18.14 19.07	
Toluene-D8	2037-26-5	96	%	70-130	02.18.14 19.07	
4-Bromofluorobenzene	460-00-4	108	%	68-152	02.18.14 19.07	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-7** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-039 Date Collected: 02.13.14 13.52 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 20.48  
 Analyst: 4150 Date Prep: 02.19.14 12.37 Basis: Dry Weight  
 Seq Number: 934545

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0582	mg/kg	02.20.14 16.43	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 20.48  
 Analyst: 4150 Date Prep: 02.19.14 09.38 Basis: Dry Weight  
 Seq Number: 934533

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.77	mg/kg	02.20.14 19.31	U	1
Barium	7440-39-3	<b>92.5</b>	5.77	mg/kg	02.20.14 19.31		1
Cadmium	7440-43-9	<b>1.15</b>	1.15	mg/kg	02.20.14 19.31		1
Chromium	7440-47-3	<b>8.86</b>	5.77	mg/kg	02.20.14 19.31		1
Lead	7439-92-1	<b>12.1</b>	5.77	mg/kg	02.20.14 19.31		1
Selenium	7782-49-2	BRL	1.15	mg/kg	02.20.14 19.31	U	1
Silver	7440-22-4	BRL	1.15	mg/kg	02.20.14 19.31	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-7** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-039 Date Collected: 02.13.14 13.52 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 20.48  
 Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
 Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.416	mg/kg	02.20.14 00.48	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.416	mg/kg	02.20.14 00.48	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.416	mg/kg	02.20.14 00.48	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.416	mg/kg	02.20.14 00.48	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.416	mg/kg	02.20.14 00.48	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.416	mg/kg	02.20.14 00.48	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.416	mg/kg	02.20.14 00.48	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.416	mg/kg	02.20.14 00.48	U	1
2-Chloronaphthalene	91-58-7	BRL	0.416	mg/kg	02.20.14 00.48	U	1
2-Chlorophenol	95-57-8	BRL	0.416	mg/kg	02.20.14 00.48	U	1
2-Methylnaphthalene	91-57-6	BRL	0.416	mg/kg	02.20.14 00.48	U	1
2-methylphenol	95-48-7	BRL	0.416	mg/kg	02.20.14 00.48	U	1
2-Nitroaniline	88-74-4	BRL	0.416	mg/kg	02.20.14 00.48	U	1
2-Nitrophenol	88-75-5	BRL	0.416	mg/kg	02.20.14 00.48	U	1
3&4-Methylphenol	15831-10-4	BRL	0.416	mg/kg	02.20.14 00.48	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.416	mg/kg	02.20.14 00.48	U	1
3-Nitroaniline	99-09-2	BRL	0.416	mg/kg	02.20.14 00.48	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.416	mg/kg	02.20.14 00.48	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.416	mg/kg	02.20.14 00.48	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.416	mg/kg	02.20.14 00.48	U	1
4-Chloroaniline	106-47-8	BRL	0.416	mg/kg	02.20.14 00.48	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.416	mg/kg	02.20.14 00.48	U	1
4-Nitroaniline	100-01-6	BRL	0.416	mg/kg	02.20.14 00.48	U	1
4-Nitrophenol	100-02-7	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Acenaphthene	83-32-9	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Acenaphthylene	208-96-8	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Acetophenone	98-86-2	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Anthracene	120-12-7	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Benzo(a)anthracene	56-55-3	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Benzo(a)pyrene	50-32-8	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.416	mg/kg	02.20.14 00.48	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.416	mg/kg	02.20.14 00.48	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.416	mg/kg	02.20.14 00.48	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Butylbenzylphthalate	85-68-7	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Carbazole	86-74-8	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Chrysene	218-01-9	BRL	0.416	mg/kg	02.20.14 00.48	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-7** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-039 Date Collected: 02.13.14 13.52 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 20.48  
 Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
 Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Dibenzofuran	132-64-9	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Diethyl Phthalate	84-66-2	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Dimethyl Phthalate	131-11-3	BRL	0.416	mg/kg	02.20.14 00.48	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.416	mg/kg	02.20.14 00.48	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Fluoranthene	206-44-0	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Fluorene	86-73-7	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Hexachlorobenzene	118-74-1	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Hexachlorobutadiene	87-68-3	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Hexachloroethane	67-72-1	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Isophorone	78-59-1	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Naphthalene	91-20-3	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Nitrobenzene	98-95-3	BRL	0.416	mg/kg	02.20.14 00.48	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.416	mg/kg	02.20.14 00.48	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Pentachlorophenol	87-86-5	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Phenanthrene	85-01-8	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Phenol	108-95-2	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Pyrene	129-00-0	BRL	0.416	mg/kg	02.20.14 00.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	47	%	20-112	02.20.14 00.48		
2-Fluorophenol	367-12-4	36	%	18-101	02.20.14 00.48		
Nitrobenzene-d5	4165-60-0	38	%	13-112	02.20.14 00.48		
Phenol-d5	4165-62-2	45	%	15-110	02.20.14 00.48		
Terphenyl-D14	1718-51-0	96	%	21-138	02.20.14 00.48		
2,4,6-Tribromophenol	118-79-6	69	%	21-128	02.20.14 00.48		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-7</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-039	Date Collected: 02.13.14 13.52	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 20.48
Analyst: ZHO	Date Prep: 02.18.14 12.57	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0128	mg/kg	02.18.14 19.33	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0638	mg/kg	02.18.14 19.33	U	1
2-Hexanone	591-78-6	BRL	0.0638	mg/kg	02.18.14 19.33	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0638	mg/kg	02.18.14 19.33	U	1
Acetone	67-64-1	BRL	0.128	mg/kg	02.18.14 19.33	U	1
Benzene	71-43-2	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
Bromochloromethane	74-97-5	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
Bromodichloromethane	75-27-4	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
Bromoform	75-25-2	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
Bromomethane	74-83-9	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
Carbon disulfide	75-15-0	BRL	0.0638	mg/kg	02.18.14 19.33	U	1
Carbon tetrachloride	56-23-5	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
Chlorobenzene	108-90-7	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
Chloroethane	75-00-3	BRL	0.0128	mg/kg	02.18.14 19.33	U	1
Chloroform	67-66-3	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
Chloromethane	74-87-3	BRL	0.0128	mg/kg	02.18.14 19.33	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
Cyclohexane	110-82-7	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
Dibromochloromethane	124-48-1	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
Ethylbenzene	100-41-4	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
Isopropylbenzene	98-82-8	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
m,p-Xylenes	179601-23-1	BRL	0.0128	mg/kg	02.18.14 19.33	U	1
Methyl acetate	79-20-9	BRL	0.0128	mg/kg	02.18.14 19.33	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-7</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-039	Date Collected: 02.13.14 13.52	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 20.48
Analyst: ZHO	Date Prep: 02.18.14 12.57	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
Methylcyclohexane	108-87-2	BRL	0.0128	mg/kg	02.18.14 19.33	U	1
Methylene Chloride	75-09-2	BRL	0.0255	mg/kg	02.18.14 19.33	U	1
o-Xylene	95-47-6	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
Styrene	100-42-5	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
Tetrachloroethene	127-18-4	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
Toluene	108-88-3	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
Trichloroethene	79-01-6	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00638	mg/kg	02.18.14 19.33	U	1
Vinyl Chloride	75-01-4	BRL	0.00255	mg/kg	02.18.14 19.33	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
Dibromofluoromethane	1868-53-7	113	%	53-142	02.18.14 19.33		
1,2-Dichloroethane-D4	17060-07-0	106	%	56-150	02.18.14 19.33		
Toluene-D8	2037-26-5	99	%	70-130	02.18.14 19.33		
4-Bromofluorobenzene	460-00-4	102	%	68-152	02.18.14 19.33		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-7** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-040 Date Collected: 02.13.14 13.54 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 22.7  
 Analyst: 4150 Date Prep: 02.19.14 12.37 Basis: Dry Weight  
 Seq Number: 934545

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0634	mg/kg	02.20.14 16.46	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 22.7  
 Analyst: 4150 Date Prep: 02.19.14 09.38 Basis: Dry Weight  
 Seq Number: 934533

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	6.34	mg/kg	02.20.14 19.33	U	1
Barium	7440-39-3	<b>136</b>	6.34	mg/kg	02.20.14 19.33		1
Cadmium	7440-43-9	<b>1.28</b>	1.27	mg/kg	02.20.14 19.33		1
Chromium	7440-47-3	<b>7.46</b>	6.34	mg/kg	02.20.14 19.33		1
Lead	7439-92-1	<b>15.1</b>	6.34	mg/kg	02.20.14 19.33		1
Selenium	7782-49-2	BRL	1.27	mg/kg	02.20.14 19.33	U	1
Silver	7440-22-4	BRL	1.27	mg/kg	02.20.14 19.33	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-7** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-040 Date Collected: 02.13.14 13.54 Sample Depth: 0.5 - 2 ft  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 22.7  
 Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
 Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.430	mg/kg	02.20.14 09.07	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.430	mg/kg	02.20.14 09.07	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.430	mg/kg	02.20.14 09.07	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.430	mg/kg	02.20.14 09.07	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.430	mg/kg	02.20.14 09.07	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.430	mg/kg	02.20.14 09.07	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.430	mg/kg	02.20.14 09.07	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.430	mg/kg	02.20.14 09.07	U	1
2-Chloronaphthalene	91-58-7	BRL	0.430	mg/kg	02.20.14 09.07	U	1
2-Chlorophenol	95-57-8	BRL	0.430	mg/kg	02.20.14 09.07	U	1
2-Methylnaphthalene	91-57-6	BRL	0.430	mg/kg	02.20.14 09.07	U	1
2-methylphenol	95-48-7	BRL	0.430	mg/kg	02.20.14 09.07	U	1
2-Nitroaniline	88-74-4	BRL	0.430	mg/kg	02.20.14 09.07	U	1
2-Nitrophenol	88-75-5	BRL	0.430	mg/kg	02.20.14 09.07	U	1
3&4-Methylphenol	15831-10-4	BRL	0.430	mg/kg	02.20.14 09.07	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.430	mg/kg	02.20.14 09.07	U	1
3-Nitroaniline	99-09-2	BRL	0.430	mg/kg	02.20.14 09.07	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.430	mg/kg	02.20.14 09.07	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.430	mg/kg	02.20.14 09.07	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.430	mg/kg	02.20.14 09.07	U	1
4-Chloroaniline	106-47-8	BRL	0.430	mg/kg	02.20.14 09.07	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.430	mg/kg	02.20.14 09.07	U	1
4-Nitroaniline	100-01-6	BRL	0.430	mg/kg	02.20.14 09.07	U	1
4-Nitrophenol	100-02-7	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Acenaphthene	83-32-9	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Acenaphthylene	208-96-8	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Acetophenone	98-86-2	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Anthracene	120-12-7	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Benzo(a)anthracene	56-55-3	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Benzo(a)pyrene	50-32-8	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.430	mg/kg	02.20.14 09.07	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.430	mg/kg	02.20.14 09.07	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.430	mg/kg	02.20.14 09.07	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Butylbenzylphthalate	85-68-7	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Carbazole	86-74-8	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Chrysene	218-01-9	BRL	0.430	mg/kg	02.20.14 09.07	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-7** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-040 Date Collected: 02.13.14 13.54 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 22.7  
Analyst: VIC Date Prep: 02.18.14 08.30 Basis: Dry Weight  
Seq Number: 934471

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Dibenzofuran	132-64-9	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Diethyl Phthalate	84-66-2	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Dimethyl Phthalate	131-11-3	BRL	0.430	mg/kg	02.20.14 09.07	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.430	mg/kg	02.20.14 09.07	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Fluoranthene	206-44-0	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Fluorene	86-73-7	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Hexachlorobenzene	118-74-1	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Hexachlorobutadiene	87-68-3	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Hexachloroethane	67-72-1	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Isophorone	78-59-1	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Naphthalene	91-20-3	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Nitrobenzene	98-95-3	BRL	0.430	mg/kg	02.20.14 09.07	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.430	mg/kg	02.20.14 09.07	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Pentachlorophenol	87-86-5	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Phenanthrene	85-01-8	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Phenol	108-95-2	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Pyrene	129-00-0	BRL	0.430	mg/kg	02.20.14 09.07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	66	%	20-112	02.20.14 09.07		
2-Fluorophenol	367-12-4	65	%	18-101	02.20.14 09.07		
Nitrobenzene-d5	4165-60-0	60	%	13-112	02.20.14 09.07		
Phenol-d5	4165-62-2	72	%	15-110	02.20.14 09.07		
Terphenyl-D14	1718-51-0	116	%	21-138	02.20.14 09.07		
2,4,6-Tribromophenol	118-79-6	82	%	21-128	02.20.14 09.07		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-7</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-040	Date Collected: 02.13.14 13.54	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 22.7
Analyst: ZHO	Date Prep: 02.18.14 12.58	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0161	mg/kg	02.18.14 19.58	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0803	mg/kg	02.18.14 19.58	U	1
2-Hexanone	591-78-6	BRL	0.0803	mg/kg	02.18.14 19.58	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0803	mg/kg	02.18.14 19.58	U	1
Acetone	67-64-1	BRL	0.161	mg/kg	02.18.14 19.58	U	1
Benzene	71-43-2	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
Bromochloromethane	74-97-5	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
Bromodichloromethane	75-27-4	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
Bromoform	75-25-2	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
Bromomethane	74-83-9	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
Carbon disulfide	75-15-0	BRL	0.0803	mg/kg	02.18.14 19.58	U	1
Carbon tetrachloride	56-23-5	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
Chlorobenzene	108-90-7	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
Chloroethane	75-00-3	BRL	0.0161	mg/kg	02.18.14 19.58	U	1
Chloroform	67-66-3	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
Chloromethane	74-87-3	BRL	0.0161	mg/kg	02.18.14 19.58	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
Cyclohexane	110-82-7	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
Dibromochloromethane	124-48-1	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
Ethylbenzene	100-41-4	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
Isopropylbenzene	98-82-8	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
m,p-Xylenes	179601-23-1	BRL	0.0161	mg/kg	02.18.14 19.58	U	1
<b>Methyl acetate</b>	79-20-9	<b>0.0767</b>	0.0161	mg/kg	02.18.14 19.58		1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-7</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-040	Date Collected: 02.13.14 13.54	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 22.7
Analyst: ZHO	Date Prep: 02.18.14 12.58	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
Methylcyclohexane	108-87-2	BRL	0.0161	mg/kg	02.18.14 19.58	U	1
Methylene Chloride	75-09-2	BRL	0.0321	mg/kg	02.18.14 19.58	U	1
o-Xylene	95-47-6	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
Styrene	100-42-5	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
Tetrachloroethene	127-18-4	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
Toluene	108-88-3	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
Trichloroethene	79-01-6	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00803	mg/kg	02.18.14 19.58	U	1
Vinyl Chloride	75-01-4	BRL	0.00321	mg/kg	02.18.14 19.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	121	%	53-142	02.18.14 19.58	
1,2-Dichloroethane-D4	17060-07-0	109	%	56-150	02.18.14 19.58	
Toluene-D8	2037-26-5	100	%	70-130	02.18.14 19.58	
4-Bromofluorobenzene	460-00-4	95	%	68-152	02.18.14 19.58	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-6** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-041 Date Collected: 02.13.14 13.56 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 20.59  
 Analyst: 4150 Date Prep: 02.19.14 12.37 Basis: Dry Weight  
 Seq Number: 934545

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0605	mg/kg	02.20.14 16.56	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 20.59  
 Analyst: 4150 Date Prep: 02.19.14 09.38 Basis: Dry Weight  
 Seq Number: 934533

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	6.11	mg/kg	02.20.14 19.35	U	1
Barium	7440-39-3	<b>100</b>	6.11	mg/kg	02.20.14 19.35		1
Cadmium	7440-43-9	<b>1.45</b>	1.22	mg/kg	02.20.14 19.35		1
Chromium	7440-47-3	<b>10.8</b>	6.11	mg/kg	02.20.14 19.35		1
Lead	7439-92-1	<b>14.6</b>	6.11	mg/kg	02.20.14 19.35		1
Selenium	7782-49-2	BRL	1.22	mg/kg	02.20.14 19.35	U	1
Silver	7440-22-4	BRL	1.22	mg/kg	02.20.14 19.35	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-6** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-041 Date Collected: 02.13.14 13.56 Sample Depth: 0 - 6 In  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 20.59  
Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.416	mg/kg	02.19.14 14.54	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.416	mg/kg	02.19.14 14.54	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.416	mg/kg	02.19.14 14.54	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.416	mg/kg	02.19.14 14.54	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.416	mg/kg	02.19.14 14.54	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.416	mg/kg	02.19.14 14.54	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.416	mg/kg	02.19.14 14.54	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.416	mg/kg	02.19.14 14.54	U	1
2-Chloronaphthalene	91-58-7	BRL	0.416	mg/kg	02.19.14 14.54	U	1
2-Chlorophenol	95-57-8	BRL	0.416	mg/kg	02.19.14 14.54	U	1
2-Methylnaphthalene	91-57-6	BRL	0.416	mg/kg	02.19.14 14.54	U	1
2-methylphenol	95-48-7	BRL	0.416	mg/kg	02.19.14 14.54	U	1
2-Nitroaniline	88-74-4	BRL	0.416	mg/kg	02.19.14 14.54	U	1
2-Nitrophenol	88-75-5	BRL	0.416	mg/kg	02.19.14 14.54	U	1
3&4-Methylphenol	15831-10-4	BRL	0.416	mg/kg	02.19.14 14.54	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.416	mg/kg	02.19.14 14.54	U	1
3-Nitroaniline	99-09-2	BRL	0.416	mg/kg	02.19.14 14.54	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.416	mg/kg	02.19.14 14.54	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.416	mg/kg	02.19.14 14.54	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.416	mg/kg	02.19.14 14.54	U	1
4-Chloroaniline	106-47-8	BRL	0.416	mg/kg	02.19.14 14.54	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.416	mg/kg	02.19.14 14.54	U	1
4-Nitroaniline	100-01-6	BRL	0.416	mg/kg	02.19.14 14.54	U	1
4-Nitrophenol	100-02-7	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Acenaphthene	83-32-9	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Acenaphthylene	208-96-8	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Acetophenone	98-86-2	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Anthracene	120-12-7	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Benzo(a)anthracene	56-55-3	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Benzo(a)pyrene	50-32-8	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.416	mg/kg	02.19.14 14.54	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.416	mg/kg	02.19.14 14.54	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.416	mg/kg	02.19.14 14.54	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Butylbenzylphthalate	85-68-7	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Carbazole	86-74-8	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Chrysene	218-01-9	BRL	0.416	mg/kg	02.19.14 14.54	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-6** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-041 Date Collected: 02.13.14 13.56 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 20.59  
 Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
 Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Dibenzofuran	132-64-9	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Diethyl Phthalate	84-66-2	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Dimethyl Phthalate	131-11-3	BRL	0.416	mg/kg	02.19.14 14.54	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.416	mg/kg	02.19.14 14.54	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Fluoranthene	206-44-0	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Fluorene	86-73-7	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Hexachlorobenzene	118-74-1	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Hexachlorobutadiene	87-68-3	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Hexachloroethane	67-72-1	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Isophorone	78-59-1	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Naphthalene	91-20-3	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Nitrobenzene	98-95-3	BRL	0.416	mg/kg	02.19.14 14.54	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.416	mg/kg	02.19.14 14.54	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Pentachlorophenol	87-86-5	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Phenanthrene	85-01-8	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Phenol	108-95-2	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Pyrene	129-00-0	BRL	0.416	mg/kg	02.19.14 14.54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	64	%	20-112	02.19.14 14.54		
2-Fluorophenol	367-12-4	58	%	18-101	02.19.14 14.54		
Nitrobenzene-d5	4165-60-0	60	%	13-112	02.19.14 14.54		
Phenol-d5	4165-62-2	71	%	15-110	02.19.14 14.54		
Terphenyl-D14	1718-51-0	111	%	21-138	02.19.14 14.54		
2,4,6-Tribromophenol	118-79-6	95	%	21-128	02.19.14 14.54		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-6** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-041 Date Collected: 02.13.14 13.56 Sample Depth: 0 - 6 In  
 Analytical Method: VOCs by SW-846 8260B Prep Method: SW5035  
 Tech: ZHO % Moisture: 20.59  
 Analyst: ZHO Date Prep: 02.18.14 12.54 Basis: Dry Weight  
 Seq Number: 934355 SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0106	mg/kg	02.18.14 17.38	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0532	mg/kg	02.18.14 17.38	U	1
2-Hexanone	591-78-6	BRL	0.0532	mg/kg	02.18.14 17.38	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0532	mg/kg	02.18.14 17.38	U	1
Acetone	67-64-1	BRL	0.106	mg/kg	02.18.14 17.38	U	1
Benzene	71-43-2	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
Bromochloromethane	74-97-5	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
Bromodichloromethane	75-27-4	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
Bromoform	75-25-2	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
Bromomethane	74-83-9	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
Carbon disulfide	75-15-0	BRL	0.0532	mg/kg	02.18.14 17.38	U	1
Carbon tetrachloride	56-23-5	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
Chlorobenzene	108-90-7	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
Chloroethane	75-00-3	BRL	0.0106	mg/kg	02.18.14 17.38	U	1
Chloroform	67-66-3	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
Chloromethane	74-87-3	BRL	0.0106	mg/kg	02.18.14 17.38	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
Cyclohexane	110-82-7	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
Dibromochloromethane	124-48-1	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
Ethylbenzene	100-41-4	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
Isopropylbenzene	98-82-8	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
m,p-Xylenes	179601-23-1	BRL	0.0106	mg/kg	02.18.14 17.38	U	1
Methyl acetate	79-20-9	BRL	0.0106	mg/kg	02.18.14 17.38	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-6</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-041	Date Collected: 02.13.14 13.56	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 20.59
Analyst: ZHO	Date Prep: 02.18.14 12.54	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
Methylcyclohexane	108-87-2	BRL	0.0106	mg/kg	02.18.14 17.38	U	1
Methylene Chloride	75-09-2	BRL	0.0213	mg/kg	02.18.14 17.38	U	1
o-Xylene	95-47-6	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
Styrene	100-42-5	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
Tetrachloroethene	127-18-4	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
Toluene	108-88-3	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
Trichloroethene	79-01-6	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00532	mg/kg	02.18.14 17.38	U	1
Vinyl Chloride	75-01-4	BRL	0.00213	mg/kg	02.18.14 17.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	102	%	53-142	02.18.14 17.38	
1,2-Dichloroethane-D4	17060-07-0	92	%	56-150	02.18.14 17.38	
Toluene-D8	2037-26-5	98	%	70-130	02.18.14 17.38	
4-Bromofluorobenzene	460-00-4	98	%	68-152	02.18.14 17.38	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-6** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-042 Date Collected: 02.13.14 13.58 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 20.48  
 Analyst: 4150 Date Prep: 02.19.14 12.37 Basis: Dry Weight  
 Seq Number: 934545

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0629	mg/kg	02.20.14 17.00	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 20.48  
 Analyst: 4150 Date Prep: 02.19.14 09.38 Basis: Dry Weight  
 Seq Number: 934533

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	6.16	mg/kg	02.20.14 19.37	U	1
Barium	7440-39-3	<b>105</b>	6.16	mg/kg	02.20.14 19.37		1
Cadmium	7440-43-9	<b>1.23</b>	1.23	mg/kg	02.20.14 19.37		1
Chromium	7440-47-3	<b>13.4</b>	6.16	mg/kg	02.20.14 19.37		1
Lead	7439-92-1	<b>13.1</b>	6.16	mg/kg	02.20.14 19.37		1
Selenium	7782-49-2	BRL	1.23	mg/kg	02.20.14 19.37	U	1
Silver	7440-22-4	BRL	1.23	mg/kg	02.20.14 19.37	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-6</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-042	Date Collected: 02.13.14 13.58	Sample Depth: 0.5 - 2 ft
Analytical Method: SVOCs by SW-846 8270D		Prep Method: SW3550
Tech: TUE		% Moisture: 20.48
Analyst: VIC	Date Prep: 02.18.14 12.00	Basis: Dry Weight
Seq Number: 934473		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.415	mg/kg	02.19.14 15.22	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.415	mg/kg	02.19.14 15.22	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.415	mg/kg	02.19.14 15.22	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.415	mg/kg	02.19.14 15.22	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.415	mg/kg	02.19.14 15.22	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.415	mg/kg	02.19.14 15.22	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.415	mg/kg	02.19.14 15.22	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.415	mg/kg	02.19.14 15.22	U	1
2-Chloronaphthalene	91-58-7	BRL	0.415	mg/kg	02.19.14 15.22	U	1
2-Chlorophenol	95-57-8	BRL	0.415	mg/kg	02.19.14 15.22	U	1
2-Methylnaphthalene	91-57-6	BRL	0.415	mg/kg	02.19.14 15.22	U	1
2-methylphenol	95-48-7	BRL	0.415	mg/kg	02.19.14 15.22	U	1
2-Nitroaniline	88-74-4	BRL	0.415	mg/kg	02.19.14 15.22	U	1
2-Nitrophenol	88-75-5	BRL	0.415	mg/kg	02.19.14 15.22	U	1
3&4-Methylphenol	15831-10-4	BRL	0.415	mg/kg	02.19.14 15.22	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.415	mg/kg	02.19.14 15.22	U	1
3-Nitroaniline	99-09-2	BRL	0.415	mg/kg	02.19.14 15.22	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.415	mg/kg	02.19.14 15.22	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.415	mg/kg	02.19.14 15.22	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.415	mg/kg	02.19.14 15.22	U	1
4-Chloroaniline	106-47-8	BRL	0.415	mg/kg	02.19.14 15.22	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.415	mg/kg	02.19.14 15.22	U	1
4-Nitroaniline	100-01-6	BRL	0.415	mg/kg	02.19.14 15.22	U	1
4-Nitrophenol	100-02-7	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Acenaphthene	83-32-9	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Acenaphthylene	208-96-8	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Acetophenone	98-86-2	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Anthracene	120-12-7	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Benzo(a)anthracene	56-55-3	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Benzo(a)pyrene	50-32-8	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.415	mg/kg	02.19.14 15.22	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.415	mg/kg	02.19.14 15.22	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.415	mg/kg	02.19.14 15.22	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Butylbenzylphthalate	85-68-7	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Carbazole	86-74-8	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Chrysene	218-01-9	BRL	0.415	mg/kg	02.19.14 15.22	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-6** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-042 Date Collected: 02.13.14 13.58 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 20.48  
Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Dibenzofuran	132-64-9	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Diethyl Phthalate	84-66-2	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Dimethyl Phthalate	131-11-3	BRL	0.415	mg/kg	02.19.14 15.22	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.415	mg/kg	02.19.14 15.22	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Fluoranthene	206-44-0	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Fluorene	86-73-7	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Hexachlorobenzene	118-74-1	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Hexachlorobutadiene	87-68-3	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Hexachloroethane	67-72-1	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Isophorone	78-59-1	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Naphthalene	91-20-3	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Nitrobenzene	98-95-3	BRL	0.415	mg/kg	02.19.14 15.22	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.415	mg/kg	02.19.14 15.22	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Pentachlorophenol	87-86-5	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Phenanthrene	85-01-8	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Phenol	108-95-2	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Pyrene	129-00-0	BRL	0.415	mg/kg	02.19.14 15.22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	56	%	20-112	02.19.14 15.22		
2-Fluorophenol	367-12-4	50	%	18-101	02.19.14 15.22		
Nitrobenzene-d5	4165-60-0	52	%	13-112	02.19.14 15.22		
Phenol-d5	4165-62-2	61	%	15-110	02.19.14 15.22		
Terphenyl-D14	1718-51-0	90	%	21-138	02.19.14 15.22		
2,4,6-Tribromophenol	118-79-6	77	%	21-128	02.19.14 15.22		



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-6</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-042	Date Collected: 02.13.14 13.58	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 20.48
Analyst: ZHO	Date Prep: 02.18.14 12.55	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.00961	mg/kg	02.18.14 18.03	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0481	mg/kg	02.18.14 18.03	U	1
2-Hexanone	591-78-6	BRL	0.0481	mg/kg	02.18.14 18.03	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0481	mg/kg	02.18.14 18.03	U	1
Acetone	67-64-1	BRL	0.0961	mg/kg	02.18.14 18.03	U	1
Benzene	71-43-2	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
Bromochloromethane	74-97-5	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
Bromodichloromethane	75-27-4	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
Bromoform	75-25-2	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
Bromomethane	74-83-9	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
Carbon disulfide	75-15-0	BRL	0.0481	mg/kg	02.18.14 18.03	U	1
Carbon tetrachloride	56-23-5	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
Chlorobenzene	108-90-7	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
Chloroethane	75-00-3	BRL	0.00961	mg/kg	02.18.14 18.03	U	1
Chloroform	67-66-3	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
Chloromethane	74-87-3	BRL	0.00961	mg/kg	02.18.14 18.03	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
Cyclohexane	110-82-7	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
Dibromochloromethane	124-48-1	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
Ethylbenzene	100-41-4	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
Isopropylbenzene	98-82-8	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
m,p-Xylenes	179601-23-1	BRL	0.00961	mg/kg	02.18.14 18.03	U	1
Methyl acetate	79-20-9	BRL	0.00961	mg/kg	02.18.14 18.03	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-6</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-042	Date Collected: 02.13.14 13.58	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 20.48
Analyst: ZHO	Date Prep: 02.18.14 12.55	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
Methylcyclohexane	108-87-2	BRL	0.00961	mg/kg	02.18.14 18.03	U	1
Methylene Chloride	75-09-2	BRL	0.0192	mg/kg	02.18.14 18.03	U	1
o-Xylene	95-47-6	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
Styrene	100-42-5	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
Tetrachloroethene	127-18-4	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
Toluene	108-88-3	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
Trichloroethene	79-01-6	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00481	mg/kg	02.18.14 18.03	U	1
Vinyl Chloride	75-01-4	BRL	0.00192	mg/kg	02.18.14 18.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	103	%	53-142	02.18.14 18.03	
1,2-Dichloroethane-D4	17060-07-0	95	%	56-150	02.18.14 18.03	
Toluene-D8	2037-26-5	96	%	70-130	02.18.14 18.03	
4-Bromofluorobenzene	460-00-4	100	%	68-152	02.18.14 18.03	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-5** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-043 Date Collected: 02.13.14 14.07 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 22.92  
 Analyst: 4150 Date Prep: 02.19.14 12.37 Basis: Dry Weight  
 Seq Number: 934545

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0559	mg/kg	02.20.14 17.03	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 22.92  
 Analyst: 4150 Date Prep: 02.19.14 09.38 Basis: Dry Weight  
 Seq Number: 934533

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	6.42	mg/kg	02.20.14 19.39	U	1
<b>Barium</b>	7440-39-3	<b>85.4</b>	6.42	mg/kg	02.20.14 19.39		1
Cadmium	7440-43-9	BRL	1.28	mg/kg	02.20.14 19.39	U	1
<b>Chromium</b>	7440-47-3	<b>7.41</b>	6.42	mg/kg	02.20.14 19.39		1
<b>Lead</b>	7439-92-1	<b>14.6</b>	6.42	mg/kg	02.20.14 19.39		1
Selenium	7782-49-2	BRL	1.28	mg/kg	02.20.14 19.39	U	1
Silver	7440-22-4	BRL	1.28	mg/kg	02.20.14 19.39	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-5** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-043 Date Collected: 02.13.14 14.07 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 22.92  
 Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
 Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.432	mg/kg	02.19.14 15.50	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.432	mg/kg	02.19.14 15.50	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.432	mg/kg	02.19.14 15.50	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.432	mg/kg	02.19.14 15.50	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.432	mg/kg	02.19.14 15.50	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.432	mg/kg	02.19.14 15.50	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.432	mg/kg	02.19.14 15.50	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.432	mg/kg	02.19.14 15.50	U	1
2-Chloronaphthalene	91-58-7	BRL	0.432	mg/kg	02.19.14 15.50	U	1
2-Chlorophenol	95-57-8	BRL	0.432	mg/kg	02.19.14 15.50	U	1
2-Methylnaphthalene	91-57-6	BRL	0.432	mg/kg	02.19.14 15.50	U	1
2-methylphenol	95-48-7	BRL	0.432	mg/kg	02.19.14 15.50	U	1
2-Nitroaniline	88-74-4	BRL	0.432	mg/kg	02.19.14 15.50	U	1
2-Nitrophenol	88-75-5	BRL	0.432	mg/kg	02.19.14 15.50	U	1
3&4-Methylphenol	15831-10-4	BRL	0.432	mg/kg	02.19.14 15.50	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.432	mg/kg	02.19.14 15.50	U	1
3-Nitroaniline	99-09-2	BRL	0.432	mg/kg	02.19.14 15.50	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.432	mg/kg	02.19.14 15.50	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.432	mg/kg	02.19.14 15.50	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.432	mg/kg	02.19.14 15.50	U	1
4-Chloroaniline	106-47-8	BRL	0.432	mg/kg	02.19.14 15.50	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.432	mg/kg	02.19.14 15.50	U	1
4-Nitroaniline	100-01-6	BRL	0.432	mg/kg	02.19.14 15.50	U	1
4-Nitrophenol	100-02-7	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Acenaphthene	83-32-9	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Acenaphthylene	208-96-8	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Acetophenone	98-86-2	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Anthracene	120-12-7	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Benzo(a)anthracene	56-55-3	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Benzo(a)pyrene	50-32-8	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.432	mg/kg	02.19.14 15.50	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.432	mg/kg	02.19.14 15.50	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.432	mg/kg	02.19.14 15.50	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Butylbenzylphthalate	85-68-7	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Carbazole	86-74-8	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Chrysene	218-01-9	BRL	0.432	mg/kg	02.19.14 15.50	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-5** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-043 Date Collected: 02.13.14 14.07 Sample Depth: 0 - 6 In  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 22.92  
Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Dibenzofuran	132-64-9	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Diethyl Phthalate	84-66-2	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Dimethyl Phthalate	131-11-3	BRL	0.432	mg/kg	02.19.14 15.50	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.432	mg/kg	02.19.14 15.50	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Fluoranthene	206-44-0	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Fluorene	86-73-7	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Hexachlorobenzene	118-74-1	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Hexachlorobutadiene	87-68-3	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Hexachloroethane	67-72-1	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Isophorone	78-59-1	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Naphthalene	91-20-3	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Nitrobenzene	98-95-3	BRL	0.432	mg/kg	02.19.14 15.50	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.432	mg/kg	02.19.14 15.50	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Pentachlorophenol	87-86-5	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Phenanthrene	85-01-8	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Phenol	108-95-2	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Pyrene	129-00-0	BRL	0.432	mg/kg	02.19.14 15.50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	60	%	20-112	02.19.14 15.50		
2-Fluorophenol	367-12-4	58	%	18-101	02.19.14 15.50		
Nitrobenzene-d5	4165-60-0	56	%	13-112	02.19.14 15.50		
Phenol-d5	4165-62-2	67	%	15-110	02.19.14 15.50		
Terphenyl-D14	1718-51-0	103	%	21-138	02.19.14 15.50		
2,4,6-Tribromophenol	118-79-6	84	%	21-128	02.19.14 15.50		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-5</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-043	Date Collected: 02.13.14 14.07	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 22.92
Analyst: ZHO	Date Prep: 02.18.14 12.56	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0100	mg/kg	02.18.14 18.27	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0502	mg/kg	02.18.14 18.27	U	1
2-Hexanone	591-78-6	BRL	0.0502	mg/kg	02.18.14 18.27	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0502	mg/kg	02.18.14 18.27	U	1
Acetone	67-64-1	BRL	0.100	mg/kg	02.18.14 18.27	U	1
Benzene	71-43-2	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
Bromochloromethane	74-97-5	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
Bromodichloromethane	75-27-4	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
Bromoform	75-25-2	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
Bromomethane	74-83-9	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
Carbon disulfide	75-15-0	BRL	0.0502	mg/kg	02.18.14 18.27	U	1
Carbon tetrachloride	56-23-5	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
Chlorobenzene	108-90-7	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
Chloroethane	75-00-3	BRL	0.0100	mg/kg	02.18.14 18.27	U	1
Chloroform	67-66-3	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
Chloromethane	74-87-3	BRL	0.0100	mg/kg	02.18.14 18.27	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
Cyclohexane	110-82-7	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
Dibromochloromethane	124-48-1	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
Ethylbenzene	100-41-4	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
Isopropylbenzene	98-82-8	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
m,p-Xylenes	179601-23-1	BRL	0.0100	mg/kg	02.18.14 18.27	U	1
Methyl acetate	79-20-9	BRL	0.0100	mg/kg	02.18.14 18.27	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-5</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-043	Date Collected: 02.13.14 14.07	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 22.92
Analyst: ZHO	Date Prep: 02.18.14 12.56	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
Methylcyclohexane	108-87-2	BRL	0.0100	mg/kg	02.18.14 18.27	U	1
Methylene Chloride	75-09-2	BRL	0.0201	mg/kg	02.18.14 18.27	U	1
o-Xylene	95-47-6	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
Styrene	100-42-5	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
Tetrachloroethene	127-18-4	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
Toluene	108-88-3	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
Trichloroethene	79-01-6	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00502	mg/kg	02.18.14 18.27	U	1
Vinyl Chloride	75-01-4	BRL	0.00201	mg/kg	02.18.14 18.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	106	%	53-142	02.18.14 18.27	
1,2-Dichloroethane-D4	17060-07-0	98	%	56-150	02.18.14 18.27	
Toluene-D8	2037-26-5	98	%	70-130	02.18.14 18.27	
4-Bromofluorobenzene	460-00-4	104	%	68-152	02.18.14 18.27	



## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-5** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-044 Date Collected: 02.13.14 14.09 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 24.58  
 Analyst: 4150 Date Prep: 02.19.14 12.37 Basis: Dry Weight  
 Seq Number: 934545

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0562	mg/kg	02.20.14 17.06	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 24.58  
 Analyst: 4150 Date Prep: 02.19.14 09.38 Basis: Dry Weight  
 Seq Number: 934533

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	6.63	mg/kg	02.20.14 19.41	U	1
<b>Barium</b>	7440-39-3	<b>68.1</b>	6.63	mg/kg	02.20.14 19.41		1
Cadmium	7440-43-9	BRL	1.33	mg/kg	02.20.14 19.41	U	1
<b>Chromium</b>	7440-47-3	<b>10.6</b>	6.63	mg/kg	02.20.14 19.41		1
<b>Lead</b>	7439-92-1	<b>13.2</b>	6.63	mg/kg	02.20.14 19.41		1
Selenium	7782-49-2	BRL	1.33	mg/kg	02.20.14 19.41	U	1
Silver	7440-22-4	BRL	1.33	mg/kg	02.20.14 19.41	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-5** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-044 Date Collected: 02.13.14 14.09 Sample Depth: 0.5 - 2 ft  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 24.58  
 Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
 Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.436	mg/kg	02.19.14 16.18	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.436	mg/kg	02.19.14 16.18	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.436	mg/kg	02.19.14 16.18	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.436	mg/kg	02.19.14 16.18	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.436	mg/kg	02.19.14 16.18	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.436	mg/kg	02.19.14 16.18	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.436	mg/kg	02.19.14 16.18	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.436	mg/kg	02.19.14 16.18	U	1
2-Chloronaphthalene	91-58-7	BRL	0.436	mg/kg	02.19.14 16.18	U	1
2-Chlorophenol	95-57-8	BRL	0.436	mg/kg	02.19.14 16.18	U	1
2-Methylnaphthalene	91-57-6	BRL	0.436	mg/kg	02.19.14 16.18	U	1
2-methylphenol	95-48-7	BRL	0.436	mg/kg	02.19.14 16.18	U	1
2-Nitroaniline	88-74-4	BRL	0.436	mg/kg	02.19.14 16.18	U	1
2-Nitrophenol	88-75-5	BRL	0.436	mg/kg	02.19.14 16.18	U	1
3&4-Methylphenol	15831-10-4	BRL	0.436	mg/kg	02.19.14 16.18	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.436	mg/kg	02.19.14 16.18	U	1
3-Nitroaniline	99-09-2	BRL	0.436	mg/kg	02.19.14 16.18	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.436	mg/kg	02.19.14 16.18	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.436	mg/kg	02.19.14 16.18	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.436	mg/kg	02.19.14 16.18	U	1
4-Chloroaniline	106-47-8	BRL	0.436	mg/kg	02.19.14 16.18	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.436	mg/kg	02.19.14 16.18	U	1
4-Nitroaniline	100-01-6	BRL	0.436	mg/kg	02.19.14 16.18	U	1
4-Nitrophenol	100-02-7	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Acenaphthene	83-32-9	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Acenaphthylene	208-96-8	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Acetophenone	98-86-2	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Anthracene	120-12-7	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Benzo(a)anthracene	56-55-3	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Benzo(a)pyrene	50-32-8	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.436	mg/kg	02.19.14 16.18	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.436	mg/kg	02.19.14 16.18	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.436	mg/kg	02.19.14 16.18	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Butylbenzylphthalate	85-68-7	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Carbazole	86-74-8	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Chrysene	218-01-9	BRL	0.436	mg/kg	02.19.14 16.18	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-5** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-044 Date Collected: 02.13.14 14.09 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 24.58  
Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Dibenzofuran	132-64-9	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Diethyl Phthalate	84-66-2	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Dimethyl Phthalate	131-11-3	BRL	0.436	mg/kg	02.19.14 16.18	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.436	mg/kg	02.19.14 16.18	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Fluoranthene	206-44-0	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Fluorene	86-73-7	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Hexachlorobenzene	118-74-1	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Hexachlorobutadiene	87-68-3	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Hexachloroethane	67-72-1	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Isophorone	78-59-1	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Naphthalene	91-20-3	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Nitrobenzene	98-95-3	BRL	0.436	mg/kg	02.19.14 16.18	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.436	mg/kg	02.19.14 16.18	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Pentachlorophenol	87-86-5	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Phenanthrene	85-01-8	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Phenol	108-95-2	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Pyrene	129-00-0	BRL	0.436	mg/kg	02.19.14 16.18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	49	%	20-112	02.19.14 16.18		
2-Fluorophenol	367-12-4	48	%	18-101	02.19.14 16.18		
Nitrobenzene-d5	4165-60-0	51	%	13-112	02.19.14 16.18		
Phenol-d5	4165-62-2	54	%	15-110	02.19.14 16.18		
Terphenyl-D14	1718-51-0	98	%	21-138	02.19.14 16.18		
2,4,6-Tribromophenol	118-79-6	67	%	21-128	02.19.14 16.18		

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-5</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-044	Date Collected: 02.13.14 14.09	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 24.58
Analyst: ZHO	Date Prep: 02.18.14 12.57	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0110	mg/kg	02.18.14 18.52	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0550	mg/kg	02.18.14 18.52	U	1
2-Hexanone	591-78-6	BRL	0.0550	mg/kg	02.18.14 18.52	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0550	mg/kg	02.18.14 18.52	U	1
Acetone	67-64-1	BRL	0.110	mg/kg	02.18.14 18.52	U	1
Benzene	71-43-2	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
Bromochloromethane	74-97-5	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
Bromodichloromethane	75-27-4	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
Bromoform	75-25-2	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
Bromomethane	74-83-9	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
Carbon disulfide	75-15-0	BRL	0.0550	mg/kg	02.18.14 18.52	U	1
Carbon tetrachloride	56-23-5	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
Chlorobenzene	108-90-7	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
Chloroethane	75-00-3	BRL	0.0110	mg/kg	02.18.14 18.52	U	1
Chloroform	67-66-3	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
Chloromethane	74-87-3	BRL	0.0110	mg/kg	02.18.14 18.52	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
Cyclohexane	110-82-7	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
Dibromochloromethane	124-48-1	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
Ethylbenzene	100-41-4	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
Isopropylbenzene	98-82-8	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
m,p-Xylenes	179601-23-1	BRL	0.0110	mg/kg	02.18.14 18.52	U	1
<b>Methyl acetate</b>	79-20-9	<b>0.0666</b>	0.0110	mg/kg	02.18.14 18.52		1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-5</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-044	Date Collected: 02.13.14 14.09	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 24.58
Analyst: ZHO	Date Prep: 02.18.14 12.57	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
Methylcyclohexane	108-87-2	BRL	0.0110	mg/kg	02.18.14 18.52	U	1
Methylene Chloride	75-09-2	BRL	0.0220	mg/kg	02.18.14 18.52	U	1
o-Xylene	95-47-6	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
Styrene	100-42-5	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
Tetrachloroethene	127-18-4	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
Toluene	108-88-3	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
Trichloroethene	79-01-6	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00550	mg/kg	02.18.14 18.52	U	1
Vinyl Chloride	75-01-4	BRL	0.00220	mg/kg	02.18.14 18.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	104	%	53-142	02.18.14 18.52	
1,2-Dichloroethane-D4	17060-07-0	91	%	56-150	02.18.14 18.52	
Toluene-D8	2037-26-5	98	%	70-130	02.18.14 18.52	
4-Bromofluorobenzene	460-00-4	101	%	68-152	02.18.14 18.52	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-2** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-045 Date Collected: 02.13.14 14.13 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 25.1  
 Analyst: 4150 Date Prep: 02.19.14 12.37 Basis: Dry Weight  
 Seq Number: 934545

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0654	mg/kg	02.20.14 17.09	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 25.1  
 Analyst: 4150 Date Prep: 02.19.14 09.38 Basis: Dry Weight  
 Seq Number: 934533

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	6.36	mg/kg	02.20.14 19.43	U	1
<b>Barium</b>	7440-39-3	<b>77.3</b>	6.36	mg/kg	02.20.14 19.43		1
Cadmium	7440-43-9	BRL	1.27	mg/kg	02.20.14 19.43	U	1
<b>Chromium</b>	7440-47-3	<b>9.40</b>	6.36	mg/kg	02.20.14 19.43		1
<b>Lead</b>	7439-92-1	<b>12.4</b>	6.36	mg/kg	02.20.14 19.43		1
Selenium	7782-49-2	BRL	1.27	mg/kg	02.20.14 19.43	U	1
Silver	7440-22-4	BRL	1.27	mg/kg	02.20.14 19.43	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-2** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-045 Date Collected: 02.13.14 14.13 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 25.1  
 Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
 Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.444	mg/kg	02.19.14 16.46	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.444	mg/kg	02.19.14 16.46	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.444	mg/kg	02.19.14 16.46	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.444	mg/kg	02.19.14 16.46	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.444	mg/kg	02.19.14 16.46	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.444	mg/kg	02.19.14 16.46	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.444	mg/kg	02.19.14 16.46	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.444	mg/kg	02.19.14 16.46	U	1
2-Chloronaphthalene	91-58-7	BRL	0.444	mg/kg	02.19.14 16.46	U	1
2-Chlorophenol	95-57-8	BRL	0.444	mg/kg	02.19.14 16.46	U	1
2-Methylnaphthalene	91-57-6	BRL	0.444	mg/kg	02.19.14 16.46	U	1
2-methylphenol	95-48-7	BRL	0.444	mg/kg	02.19.14 16.46	U	1
2-Nitroaniline	88-74-4	BRL	0.444	mg/kg	02.19.14 16.46	U	1
2-Nitrophenol	88-75-5	BRL	0.444	mg/kg	02.19.14 16.46	U	1
3&4-Methylphenol	15831-10-4	BRL	0.444	mg/kg	02.19.14 16.46	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.444	mg/kg	02.19.14 16.46	U	1
3-Nitroaniline	99-09-2	BRL	0.444	mg/kg	02.19.14 16.46	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.444	mg/kg	02.19.14 16.46	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.444	mg/kg	02.19.14 16.46	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.444	mg/kg	02.19.14 16.46	U	1
4-Chloroaniline	106-47-8	BRL	0.444	mg/kg	02.19.14 16.46	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.444	mg/kg	02.19.14 16.46	U	1
4-Nitroaniline	100-01-6	BRL	0.444	mg/kg	02.19.14 16.46	U	1
4-Nitrophenol	100-02-7	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Acenaphthene	83-32-9	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Acenaphthylene	208-96-8	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Acetophenone	98-86-2	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Anthracene	120-12-7	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Benzo(a)anthracene	56-55-3	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Benzo(a)pyrene	50-32-8	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.444	mg/kg	02.19.14 16.46	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.444	mg/kg	02.19.14 16.46	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.444	mg/kg	02.19.14 16.46	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Butylbenzylphthalate	85-68-7	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Carbazole	86-74-8	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Chrysene	218-01-9	BRL	0.444	mg/kg	02.19.14 16.46	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-2** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-045 Date Collected: 02.13.14 14.13 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 25.1  
 Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
 Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Dibenzofuran	132-64-9	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Diethyl Phthalate	84-66-2	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Dimethyl Phthalate	131-11-3	BRL	0.444	mg/kg	02.19.14 16.46	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.444	mg/kg	02.19.14 16.46	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Fluoranthene	206-44-0	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Fluorene	86-73-7	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Hexachlorobenzene	118-74-1	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Hexachlorobutadiene	87-68-3	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Hexachloroethane	67-72-1	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Isophorone	78-59-1	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Naphthalene	91-20-3	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Nitrobenzene	98-95-3	BRL	0.444	mg/kg	02.19.14 16.46	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.444	mg/kg	02.19.14 16.46	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Pentachlorophenol	87-86-5	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Phenanthrene	85-01-8	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Phenol	108-95-2	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Pyrene	129-00-0	BRL	0.444	mg/kg	02.19.14 16.46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	66	%	20-112	02.19.14 16.46		
2-Fluorophenol	367-12-4	66	%	18-101	02.19.14 16.46		
Nitrobenzene-d5	4165-60-0	64	%	13-112	02.19.14 16.46		
Phenol-d5	4165-62-2	75	%	15-110	02.19.14 16.46		
Terphenyl-D14	1718-51-0	102	%	21-138	02.19.14 16.46		
2,4,6-Tribromophenol	118-79-6	87	%	21-128	02.19.14 16.46		

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-2</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-045	Date Collected: 02.13.14 14.13	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 25.1
Analyst: ZHO	Date Prep: 02.18.14 12.58	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0134	mg/kg	02.18.14 19.17	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0672	mg/kg	02.18.14 19.17	U	1
2-Hexanone	591-78-6	BRL	0.0672	mg/kg	02.18.14 19.17	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0672	mg/kg	02.18.14 19.17	U	1
Acetone	67-64-1	BRL	0.134	mg/kg	02.18.14 19.17	U	1
Benzene	71-43-2	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
Bromochloromethane	74-97-5	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
Bromodichloromethane	75-27-4	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
Bromoform	75-25-2	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
Bromomethane	74-83-9	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
Carbon disulfide	75-15-0	BRL	0.0672	mg/kg	02.18.14 19.17	U	1
Carbon tetrachloride	56-23-5	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
Chlorobenzene	108-90-7	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
Chloroethane	75-00-3	BRL	0.0134	mg/kg	02.18.14 19.17	U	1
Chloroform	67-66-3	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
Chloromethane	74-87-3	BRL	0.0134	mg/kg	02.18.14 19.17	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
Cyclohexane	110-82-7	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
Dibromochloromethane	124-48-1	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
Ethylbenzene	100-41-4	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
Isopropylbenzene	98-82-8	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
m,p-Xylenes	179601-23-1	BRL	0.0134	mg/kg	02.18.14 19.17	U	1
Methyl acetate	79-20-9	BRL	0.0134	mg/kg	02.18.14 19.17	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-2</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-045	Date Collected: 02.13.14 14.13	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 25.1
Analyst: ZHO	Date Prep: 02.18.14 12.58	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
Methylcyclohexane	108-87-2	BRL	0.0134	mg/kg	02.18.14 19.17	U	1
Methylene Chloride	75-09-2	BRL	0.0269	mg/kg	02.18.14 19.17	U	1
o-Xylene	95-47-6	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
Styrene	100-42-5	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
Tetrachloroethene	127-18-4	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
Toluene	108-88-3	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
Trichloroethene	79-01-6	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00672	mg/kg	02.18.14 19.17	U	1
Vinyl Chloride	75-01-4	BRL	0.00269	mg/kg	02.18.14 19.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	108	%	53-142	02.18.14 19.17	
1,2-Dichloroethane-D4	17060-07-0	97	%	56-150	02.18.14 19.17	
Toluene-D8	2037-26-5	96	%	70-130	02.18.14 19.17	
4-Bromofluorobenzene	460-00-4	106	%	68-152	02.18.14 19.17	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-2** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-046 Date Collected: 02.13.14 14.16 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 10.22  
 Analyst: 4150 Date Prep: 02.19.14 12.37 Basis: Dry Weight  
 Seq Number: 934545

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	0.221	0.0506	mg/kg	02.20.14 17.12		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 10.22  
 Analyst: 4150 Date Prep: 02.19.14 09.38 Basis: Dry Weight  
 Seq Number: 934533

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.16	mg/kg	02.20.14 19.45	U	1
Barium	7440-39-3	22.6	5.16	mg/kg	02.20.14 19.45		1
Cadmium	7440-43-9	BRL	1.03	mg/kg	02.20.14 19.45	U	1
Chromium	7440-47-3	8.19	5.16	mg/kg	02.20.14 19.45		1
Lead	7439-92-1	20.0	5.16	mg/kg	02.20.14 19.45		1
Selenium	7782-49-2	BRL	1.03	mg/kg	02.20.14 19.45	U	1
Silver	7440-22-4	BRL	1.03	mg/kg	02.20.14 19.45	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-2** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-046 Date Collected: 02.13.14 14.16 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 10.22  
Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.370	mg/kg	02.19.14 18.10	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.370	mg/kg	02.19.14 18.10	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.370	mg/kg	02.19.14 18.10	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.370	mg/kg	02.19.14 18.10	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.370	mg/kg	02.19.14 18.10	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.370	mg/kg	02.19.14 18.10	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.370	mg/kg	02.19.14 18.10	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.370	mg/kg	02.19.14 18.10	U	1
2-Chloronaphthalene	91-58-7	BRL	0.370	mg/kg	02.19.14 18.10	U	1
2-Chlorophenol	95-57-8	BRL	0.370	mg/kg	02.19.14 18.10	U	1
2-Methylnaphthalene	91-57-6	BRL	0.370	mg/kg	02.19.14 18.10	U	1
2-methylphenol	95-48-7	BRL	0.370	mg/kg	02.19.14 18.10	U	1
2-Nitroaniline	88-74-4	BRL	0.370	mg/kg	02.19.14 18.10	U	1
2-Nitrophenol	88-75-5	BRL	0.370	mg/kg	02.19.14 18.10	U	1
3&4-Methylphenol	15831-10-4	BRL	0.370	mg/kg	02.19.14 18.10	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.370	mg/kg	02.19.14 18.10	U	1
3-Nitroaniline	99-09-2	BRL	0.370	mg/kg	02.19.14 18.10	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.370	mg/kg	02.19.14 18.10	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.370	mg/kg	02.19.14 18.10	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.370	mg/kg	02.19.14 18.10	U	1
4-Chloroaniline	106-47-8	BRL	0.370	mg/kg	02.19.14 18.10	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.370	mg/kg	02.19.14 18.10	U	1
4-Nitroaniline	100-01-6	BRL	0.370	mg/kg	02.19.14 18.10	U	1
4-Nitrophenol	100-02-7	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Acenaphthene	83-32-9	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Acenaphthylene	208-96-8	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Acetophenone	98-86-2	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Anthracene	120-12-7	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Benzo(a)anthracene	56-55-3	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Benzo(a)pyrene	50-32-8	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.370	mg/kg	02.19.14 18.10	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.370	mg/kg	02.19.14 18.10	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.370	mg/kg	02.19.14 18.10	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Butylbenzylphthalate	85-68-7	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Carbazole	86-74-8	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Chrysene	218-01-9	BRL	0.370	mg/kg	02.19.14 18.10	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-2** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-046 Date Collected: 02.13.14 14.16 Sample Depth: 0.5 - 2 ft  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 10.22  
 Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
 Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Dibenzofuran	132-64-9	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Diethyl Phthalate	84-66-2	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Dimethyl Phthalate	131-11-3	BRL	0.370	mg/kg	02.19.14 18.10	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.370	mg/kg	02.19.14 18.10	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Fluoranthene	206-44-0	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Fluorene	86-73-7	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Hexachlorobenzene	118-74-1	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Hexachlorobutadiene	87-68-3	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Hexachloroethane	67-72-1	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Isophorone	78-59-1	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Naphthalene	91-20-3	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Nitrobenzene	98-95-3	BRL	0.370	mg/kg	02.19.14 18.10	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.370	mg/kg	02.19.14 18.10	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Pentachlorophenol	87-86-5	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Phenanthrene	85-01-8	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Phenol	108-95-2	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Pyrene	129-00-0	BRL	0.370	mg/kg	02.19.14 18.10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	58	%	20-112	02.19.14 18.10		
2-Fluorophenol	367-12-4	54	%	18-101	02.19.14 18.10		
Nitrobenzene-d5	4165-60-0	55	%	13-112	02.19.14 18.10		
Phenol-d5	4165-62-2	63	%	15-110	02.19.14 18.10		
Terphenyl-D14	1718-51-0	101	%	21-138	02.19.14 18.10		
2,4,6-Tribromophenol	118-79-6	74	%	21-128	02.19.14 18.10		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-2</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-046	Date Collected: 02.13.14 14.16	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 10.22
Analyst: ZHO	Date Prep: 02.18.14 12.59	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.00996	mg/kg	02.18.14 19.42	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0498	mg/kg	02.18.14 19.42	U	1
2-Hexanone	591-78-6	BRL	0.0498	mg/kg	02.18.14 19.42	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0498	mg/kg	02.18.14 19.42	U	1
Acetone	67-64-1	BRL	0.0996	mg/kg	02.18.14 19.42	U	1
Benzene	71-43-2	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
Bromochloromethane	74-97-5	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
Bromodichloromethane	75-27-4	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
Bromoform	75-25-2	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
Bromomethane	74-83-9	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
Carbon disulfide	75-15-0	BRL	0.0498	mg/kg	02.18.14 19.42	U	1
Carbon tetrachloride	56-23-5	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
Chlorobenzene	108-90-7	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
Chloroethane	75-00-3	BRL	0.00996	mg/kg	02.18.14 19.42	U	1
Chloroform	67-66-3	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
Chloromethane	74-87-3	BRL	0.00996	mg/kg	02.18.14 19.42	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
Cyclohexane	110-82-7	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
Dibromochloromethane	124-48-1	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
Ethylbenzene	100-41-4	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
Isopropylbenzene	98-82-8	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
m,p-Xylenes	179601-23-1	BRL	0.00996	mg/kg	02.18.14 19.42	U	1
Methyl acetate	79-20-9	BRL	0.00996	mg/kg	02.18.14 19.42	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-2</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-046	Date Collected: 02.13.14 14.16	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 10.22
Analyst: ZHO	Date Prep: 02.18.14 12.59	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
Methylcyclohexane	108-87-2	BRL	0.00996	mg/kg	02.18.14 19.42	U	1
Methylene Chloride	75-09-2	BRL	0.0199	mg/kg	02.18.14 19.42	U	1
o-Xylene	95-47-6	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
Styrene	100-42-5	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
Tetrachloroethene	127-18-4	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
Toluene	108-88-3	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
Trichloroethene	79-01-6	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00498	mg/kg	02.18.14 19.42	U	1
Vinyl Chloride	75-01-4	BRL	0.00199	mg/kg	02.18.14 19.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	101	%	53-142	02.18.14 19.42	
1,2-Dichloroethane-D4	17060-07-0	85	%	56-150	02.18.14 19.42	
Toluene-D8	2037-26-5	97	%	70-130	02.18.14 19.42	
4-Bromofluorobenzene	460-00-4	110	%	68-152	02.18.14 19.42	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-1** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-047 Date Collected: 02.13.14 14.27 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 10.72  
 Analyst: 4150 Date Prep: 02.19.14 12.37 Basis: Dry Weight  
 Seq Number: 934545

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0560	mg/kg	02.20.14 17.15	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 10.72  
 Analyst: 4150 Date Prep: 02.19.14 09.38 Basis: Dry Weight  
 Seq Number: 934533

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.14	mg/kg	02.20.14 19.47	U	1
<b>Barium</b>	7440-39-3	<b>76.8</b>	5.14	mg/kg	02.20.14 19.47		1
Cadmium	7440-43-9	BRL	1.03	mg/kg	02.20.14 19.47	U	1
<b>Chromium</b>	7440-47-3	<b>8.65</b>	5.14	mg/kg	02.20.14 19.47		1
<b>Lead</b>	7439-92-1	<b>8.76</b>	5.14	mg/kg	02.20.14 19.47		1
Selenium	7782-49-2	BRL	1.03	mg/kg	02.20.14 19.47	U	1
Silver	7440-22-4	BRL	1.03	mg/kg	02.20.14 19.47	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-1** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-047 Date Collected: 02.13.14 14.27 Sample Depth: 0 - 6 In  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 10.72  
Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.370	mg/kg	02.19.14 18.38	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.370	mg/kg	02.19.14 18.38	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.370	mg/kg	02.19.14 18.38	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.370	mg/kg	02.19.14 18.38	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.370	mg/kg	02.19.14 18.38	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.370	mg/kg	02.19.14 18.38	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.370	mg/kg	02.19.14 18.38	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.370	mg/kg	02.19.14 18.38	U	1
2-Chloronaphthalene	91-58-7	BRL	0.370	mg/kg	02.19.14 18.38	U	1
2-Chlorophenol	95-57-8	BRL	0.370	mg/kg	02.19.14 18.38	U	1
2-Methylnaphthalene	91-57-6	BRL	0.370	mg/kg	02.19.14 18.38	U	1
2-methylphenol	95-48-7	BRL	0.370	mg/kg	02.19.14 18.38	U	1
2-Nitroaniline	88-74-4	BRL	0.370	mg/kg	02.19.14 18.38	U	1
2-Nitrophenol	88-75-5	BRL	0.370	mg/kg	02.19.14 18.38	U	1
3&4-Methylphenol	15831-10-4	BRL	0.370	mg/kg	02.19.14 18.38	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.370	mg/kg	02.19.14 18.38	U	1
3-Nitroaniline	99-09-2	BRL	0.370	mg/kg	02.19.14 18.38	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.370	mg/kg	02.19.14 18.38	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.370	mg/kg	02.19.14 18.38	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.370	mg/kg	02.19.14 18.38	U	1
4-Chloroaniline	106-47-8	BRL	0.370	mg/kg	02.19.14 18.38	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.370	mg/kg	02.19.14 18.38	U	1
4-Nitroaniline	100-01-6	BRL	0.370	mg/kg	02.19.14 18.38	U	1
4-Nitrophenol	100-02-7	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Acenaphthene	83-32-9	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Acenaphthylene	208-96-8	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Acetophenone	98-86-2	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Anthracene	120-12-7	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Benzo(a)anthracene	56-55-3	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Benzo(a)pyrene	50-32-8	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.370	mg/kg	02.19.14 18.38	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.370	mg/kg	02.19.14 18.38	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.370	mg/kg	02.19.14 18.38	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Butylbenzylphthalate	85-68-7	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Carbazole	86-74-8	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Chrysene	218-01-9	BRL	0.370	mg/kg	02.19.14 18.38	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-1** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-047 Date Collected: 02.13.14 14.27 Sample Depth: 0 - 6 In  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 10.72  
Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Dibenzofuran	132-64-9	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Diethyl Phthalate	84-66-2	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Dimethyl Phthalate	131-11-3	BRL	0.370	mg/kg	02.19.14 18.38	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.370	mg/kg	02.19.14 18.38	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Fluoranthene	206-44-0	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Fluorene	86-73-7	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Hexachlorobenzene	118-74-1	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Hexachlorobutadiene	87-68-3	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Hexachloroethane	67-72-1	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Isophorone	78-59-1	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Naphthalene	91-20-3	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Nitrobenzene	98-95-3	BRL	0.370	mg/kg	02.19.14 18.38	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.370	mg/kg	02.19.14 18.38	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Pentachlorophenol	87-86-5	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Phenanthrene	85-01-8	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Phenol	108-95-2	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Pyrene	129-00-0	BRL	0.370	mg/kg	02.19.14 18.38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	70	%	20-112	02.19.14 18.38		
2-Fluorophenol	367-12-4	69	%	18-101	02.19.14 18.38		
Nitrobenzene-d5	4165-60-0	68	%	13-112	02.19.14 18.38		
Phenol-d5	4165-62-2	76	%	15-110	02.19.14 18.38		
Terphenyl-D14	1718-51-0	110	%	21-138	02.19.14 18.38		
2,4,6-Tribromophenol	118-79-6	85	%	21-128	02.19.14 18.38		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-1</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-047	Date Collected: 02.13.14 14.27	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 10.72
Analyst: ZHO	Date Prep: 02.18.14 13.00	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.00966	mg/kg	02.18.14 20.06	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0483	mg/kg	02.18.14 20.06	U	1
2-Hexanone	591-78-6	BRL	0.0483	mg/kg	02.18.14 20.06	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0483	mg/kg	02.18.14 20.06	U	1
Acetone	67-64-1	BRL	0.0966	mg/kg	02.18.14 20.06	U	1
Benzene	71-43-2	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
Bromochloromethane	74-97-5	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
Bromodichloromethane	75-27-4	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
Bromoform	75-25-2	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
Bromomethane	74-83-9	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
Carbon disulfide	75-15-0	BRL	0.0483	mg/kg	02.18.14 20.06	U	1
Carbon tetrachloride	56-23-5	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
Chlorobenzene	108-90-7	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
Chloroethane	75-00-3	BRL	0.00966	mg/kg	02.18.14 20.06	U	1
Chloroform	67-66-3	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
Chloromethane	74-87-3	BRL	0.00966	mg/kg	02.18.14 20.06	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
Cyclohexane	110-82-7	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
Dibromochloromethane	124-48-1	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
Ethylbenzene	100-41-4	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
Isopropylbenzene	98-82-8	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
m,p-Xylenes	179601-23-1	BRL	0.00966	mg/kg	02.18.14 20.06	U	1
Methyl acetate	79-20-9	BRL	0.00966	mg/kg	02.18.14 20.06	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-1</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-047	Date Collected: 02.13.14 14.27	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 10.72
Analyst: ZHO	Date Prep: 02.18.14 13.00	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
Methylcyclohexane	108-87-2	BRL	0.00966	mg/kg	02.18.14 20.06	U	1
Methylene Chloride	75-09-2	BRL	0.0193	mg/kg	02.18.14 20.06	U	1
o-Xylene	95-47-6	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
Styrene	100-42-5	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
Tetrachloroethene	127-18-4	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
Toluene	108-88-3	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
Trichloroethene	79-01-6	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00483	mg/kg	02.18.14 20.06	U	1
Vinyl Chloride	75-01-4	BRL	0.00193	mg/kg	02.18.14 20.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	109	%	53-142	02.18.14 20.06	
1,2-Dichloroethane-D4	17060-07-0	103	%	56-150	02.18.14 20.06	
Toluene-D8	2037-26-5	100	%	70-130	02.18.14 20.06	
4-Bromofluorobenzene	460-00-4	101	%	68-152	02.18.14 20.06	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-1** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-048 Date Collected: 02.13.14 14.30 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 16.61  
 Analyst: 4150 Date Prep: 02.19.14 12.37 Basis: Dry Weight  
 Seq Number: 934545

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0600	mg/kg	02.20.14 17.18	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 16.61  
 Analyst: 4150 Date Prep: 02.19.14 09.38 Basis: Dry Weight  
 Seq Number: 934533

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.60	mg/kg	02.20.14 19.49	U	1
<b>Barium</b>	7440-39-3	<b>55.2</b>	5.60	mg/kg	02.20.14 19.49		1
Cadmium	7440-43-9	BRL	1.12	mg/kg	02.20.14 19.49	U	1
<b>Chromium</b>	7440-47-3	<b>10.4</b>	5.60	mg/kg	02.20.14 19.49		1
<b>Lead</b>	7439-92-1	<b>9.48</b>	5.60	mg/kg	02.20.14 19.49		1
Selenium	7782-49-2	BRL	1.12	mg/kg	02.20.14 19.49	U	1
Silver	7440-22-4	BRL	1.12	mg/kg	02.20.14 19.49	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-1** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-048 Date Collected: 02.13.14 14.30 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 16.61  
Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.397	mg/kg	02.19.14 19.06	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.397	mg/kg	02.19.14 19.06	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.397	mg/kg	02.19.14 19.06	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.397	mg/kg	02.19.14 19.06	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.397	mg/kg	02.19.14 19.06	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.397	mg/kg	02.19.14 19.06	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.397	mg/kg	02.19.14 19.06	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.397	mg/kg	02.19.14 19.06	U	1
2-Chloronaphthalene	91-58-7	BRL	0.397	mg/kg	02.19.14 19.06	U	1
2-Chlorophenol	95-57-8	BRL	0.397	mg/kg	02.19.14 19.06	U	1
2-Methylnaphthalene	91-57-6	BRL	0.397	mg/kg	02.19.14 19.06	U	1
2-methylphenol	95-48-7	BRL	0.397	mg/kg	02.19.14 19.06	U	1
2-Nitroaniline	88-74-4	BRL	0.397	mg/kg	02.19.14 19.06	U	1
2-Nitrophenol	88-75-5	BRL	0.397	mg/kg	02.19.14 19.06	U	1
3&4-Methylphenol	15831-10-4	BRL	0.397	mg/kg	02.19.14 19.06	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.397	mg/kg	02.19.14 19.06	U	1
3-Nitroaniline	99-09-2	BRL	0.397	mg/kg	02.19.14 19.06	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.397	mg/kg	02.19.14 19.06	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.397	mg/kg	02.19.14 19.06	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.397	mg/kg	02.19.14 19.06	U	1
4-Chloroaniline	106-47-8	BRL	0.397	mg/kg	02.19.14 19.06	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.397	mg/kg	02.19.14 19.06	U	1
4-Nitroaniline	100-01-6	BRL	0.397	mg/kg	02.19.14 19.06	U	1
4-Nitrophenol	100-02-7	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Acenaphthene	83-32-9	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Acenaphthylene	208-96-8	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Acetophenone	98-86-2	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Anthracene	120-12-7	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Benzo(a)anthracene	56-55-3	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Benzo(a)pyrene	50-32-8	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.397	mg/kg	02.19.14 19.06	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.397	mg/kg	02.19.14 19.06	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.397	mg/kg	02.19.14 19.06	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Butylbenzylphthalate	85-68-7	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Carbazole	86-74-8	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Chrysene	218-01-9	BRL	0.397	mg/kg	02.19.14 19.06	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-1** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-048 Date Collected: 02.13.14 14.30 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 16.61  
Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Dibenzofuran	132-64-9	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Diethyl Phthalate	84-66-2	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Dimethyl Phthalate	131-11-3	BRL	0.397	mg/kg	02.19.14 19.06	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.397	mg/kg	02.19.14 19.06	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Fluoranthene	206-44-0	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Fluorene	86-73-7	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Hexachlorobenzene	118-74-1	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Hexachlorobutadiene	87-68-3	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Hexachloroethane	67-72-1	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Isophorone	78-59-1	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Naphthalene	91-20-3	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Nitrobenzene	98-95-3	BRL	0.397	mg/kg	02.19.14 19.06	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.397	mg/kg	02.19.14 19.06	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Pentachlorophenol	87-86-5	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Phenanthrene	85-01-8	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Phenol	108-95-2	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Pyrene	129-00-0	BRL	0.397	mg/kg	02.19.14 19.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	57	%	20-112	02.19.14 19.06		
2-Fluorophenol	367-12-4	50	%	18-101	02.19.14 19.06		
Nitrobenzene-d5	4165-60-0	48	%	13-112	02.19.14 19.06		
Phenol-d5	4165-62-2	60	%	15-110	02.19.14 19.06		
Terphenyl-D14	1718-51-0	101	%	21-138	02.19.14 19.06		
2,4,6-Tribromophenol	118-79-6	78	%	21-128	02.19.14 19.06		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-1</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-048	Date Collected: 02.13.14 14.30	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 16.61
Analyst: ZHO	Date Prep: 02.18.14 13.01	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0130	mg/kg	02.18.14 20.31	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0652	mg/kg	02.18.14 20.31	U	1
2-Hexanone	591-78-6	BRL	0.0652	mg/kg	02.18.14 20.31	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0652	mg/kg	02.18.14 20.31	U	1
Acetone	67-64-1	BRL	0.130	mg/kg	02.18.14 20.31	U	1
Benzene	71-43-2	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
Bromochloromethane	74-97-5	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
Bromodichloromethane	75-27-4	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
Bromoform	75-25-2	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
Bromomethane	74-83-9	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
Carbon disulfide	75-15-0	BRL	0.0652	mg/kg	02.18.14 20.31	U	1
Carbon tetrachloride	56-23-5	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
Chlorobenzene	108-90-7	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
Chloroethane	75-00-3	BRL	0.0130	mg/kg	02.18.14 20.31	U	1
Chloroform	67-66-3	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
Chloromethane	74-87-3	BRL	0.0130	mg/kg	02.18.14 20.31	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
Cyclohexane	110-82-7	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
Dibromochloromethane	124-48-1	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
Ethylbenzene	100-41-4	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
Isopropylbenzene	98-82-8	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
m,p-Xylenes	179601-23-1	BRL	0.0130	mg/kg	02.18.14 20.31	U	1
Methyl acetate	79-20-9	BRL	0.0130	mg/kg	02.18.14 20.31	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-1</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-048	Date Collected: 02.13.14 14.30	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 16.61
Analyst: ZHO	Date Prep: 02.18.14 13.01	Basis: Dry Weight
Seq Number: 934355		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
Methylcyclohexane	108-87-2	BRL	0.0130	mg/kg	02.18.14 20.31	U	1
Methylene Chloride	75-09-2	BRL	0.0261	mg/kg	02.18.14 20.31	U	1
o-Xylene	95-47-6	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
Styrene	100-42-5	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
Tetrachloroethene	127-18-4	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
Toluene	108-88-3	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
Trichloroethene	79-01-6	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00652	mg/kg	02.18.14 20.31	U	1
Vinyl Chloride	75-01-4	BRL	0.00261	mg/kg	02.18.14 20.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	100	%	53-142	02.18.14 20.31	
1,2-Dichloroethane-D4	17060-07-0	84	%	56-150	02.18.14 20.31	
Toluene-D8	2037-26-5	98	%	70-130	02.18.14 20.31	
4-Bromofluorobenzene	460-00-4	102	%	68-152	02.18.14 20.31	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-3** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-049 Date Collected: 02.13.14 14.35 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 20.39  
 Analyst: 4150 Date Prep: 02.19.14 12.37 Basis: Dry Weight  
 Seq Number: 934545

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0551	mg/kg	02.20.14 17.21	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 20.39  
 Analyst: 4150 Date Prep: 02.19.14 09.38 Basis: Dry Weight  
 Seq Number: 934533

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	6.22	mg/kg	02.20.14 20.43	U	1
<b>Barium</b>	7440-39-3	<b>59.7</b>	6.22	mg/kg	02.20.14 20.43		1
Cadmium	7440-43-9	BRL	1.24	mg/kg	02.20.14 20.43	U	1
<b>Chromium</b>	7440-47-3	<b>7.76</b>	6.22	mg/kg	02.20.14 20.43		1
<b>Lead</b>	7439-92-1	<b>10.6</b>	6.22	mg/kg	02.20.14 20.43		1
Selenium	7782-49-2	BRL	1.24	mg/kg	02.20.14 20.43	U	1
Silver	7440-22-4	BRL	1.24	mg/kg	02.20.14 20.43	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-3** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-049 Date Collected: 02.13.14 14.35 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 20.39  
 Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
 Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.416	mg/kg	02.19.14 19.34	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.416	mg/kg	02.19.14 19.34	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.416	mg/kg	02.19.14 19.34	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.416	mg/kg	02.19.14 19.34	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.416	mg/kg	02.19.14 19.34	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.416	mg/kg	02.19.14 19.34	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.416	mg/kg	02.19.14 19.34	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.416	mg/kg	02.19.14 19.34	U	1
2-Chloronaphthalene	91-58-7	BRL	0.416	mg/kg	02.19.14 19.34	U	1
2-Chlorophenol	95-57-8	BRL	0.416	mg/kg	02.19.14 19.34	U	1
2-Methylnaphthalene	91-57-6	BRL	0.416	mg/kg	02.19.14 19.34	U	1
2-methylphenol	95-48-7	BRL	0.416	mg/kg	02.19.14 19.34	U	1
2-Nitroaniline	88-74-4	BRL	0.416	mg/kg	02.19.14 19.34	U	1
2-Nitrophenol	88-75-5	BRL	0.416	mg/kg	02.19.14 19.34	U	1
3&4-Methylphenol	15831-10-4	BRL	0.416	mg/kg	02.19.14 19.34	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.416	mg/kg	02.19.14 19.34	U	1
3-Nitroaniline	99-09-2	BRL	0.416	mg/kg	02.19.14 19.34	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.416	mg/kg	02.19.14 19.34	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.416	mg/kg	02.19.14 19.34	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.416	mg/kg	02.19.14 19.34	U	1
4-Chloroaniline	106-47-8	BRL	0.416	mg/kg	02.19.14 19.34	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.416	mg/kg	02.19.14 19.34	U	1
4-Nitroaniline	100-01-6	BRL	0.416	mg/kg	02.19.14 19.34	U	1
4-Nitrophenol	100-02-7	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Acenaphthene	83-32-9	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Acenaphthylene	208-96-8	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Acetophenone	98-86-2	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Anthracene	120-12-7	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Benzo(a)anthracene	56-55-3	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Benzo(a)pyrene	50-32-8	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.416	mg/kg	02.19.14 19.34	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.416	mg/kg	02.19.14 19.34	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.416	mg/kg	02.19.14 19.34	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Butylbenzylphthalate	85-68-7	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Carbazole	86-74-8	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Chrysene	218-01-9	BRL	0.416	mg/kg	02.19.14 19.34	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-3** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-049 Date Collected: 02.13.14 14.35 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 20.39  
 Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
 Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Dibenzofuran	132-64-9	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Diethyl Phthalate	84-66-2	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Dimethyl Phthalate	131-11-3	BRL	0.416	mg/kg	02.19.14 19.34	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.416	mg/kg	02.19.14 19.34	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Fluoranthene	206-44-0	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Fluorene	86-73-7	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Hexachlorobenzene	118-74-1	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Hexachlorobutadiene	87-68-3	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Hexachloroethane	67-72-1	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Isophorone	78-59-1	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Naphthalene	91-20-3	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Nitrobenzene	98-95-3	BRL	0.416	mg/kg	02.19.14 19.34	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.416	mg/kg	02.19.14 19.34	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Pentachlorophenol	87-86-5	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Phenanthrene	85-01-8	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Phenol	108-95-2	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Pyrene	129-00-0	BRL	0.416	mg/kg	02.19.14 19.34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	61	%	20-112	02.19.14 19.34		
2-Fluorophenol	367-12-4	54	%	18-101	02.19.14 19.34		
Nitrobenzene-d5	4165-60-0	58	%	13-112	02.19.14 19.34		
Phenol-d5	4165-62-2	66	%	15-110	02.19.14 19.34		
Terphenyl-D14	1718-51-0	100	%	21-138	02.19.14 19.34		
2,4,6-Tribromophenol	118-79-6	77	%	21-128	02.19.14 19.34		



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-3</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-049	Date Collected: 02.13.14 14.35	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 20.39
Analyst: ZHO	Date Prep: 02.19.14 15.49	Basis: Dry Weight
Seq Number: 934444		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0110	mg/kg	02.19.14 16.35	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0548	mg/kg	02.19.14 16.35	U	1
2-Hexanone	591-78-6	BRL	0.0548	mg/kg	02.19.14 16.35	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0548	mg/kg	02.19.14 16.35	U	1
Acetone	67-64-1	BRL	0.110	mg/kg	02.19.14 16.35	U	1
Benzene	71-43-2	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
Bromochloromethane	74-97-5	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
Bromodichloromethane	75-27-4	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
Bromoform	75-25-2	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
Bromomethane	74-83-9	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
Carbon disulfide	75-15-0	BRL	0.0548	mg/kg	02.19.14 16.35	U	1
Carbon tetrachloride	56-23-5	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
Chlorobenzene	108-90-7	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
Chloroethane	75-00-3	BRL	0.0110	mg/kg	02.19.14 16.35	U	1
Chloroform	67-66-3	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
Chloromethane	74-87-3	BRL	0.0110	mg/kg	02.19.14 16.35	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
Cyclohexane	110-82-7	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
Dibromochloromethane	124-48-1	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
Ethylbenzene	100-41-4	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
Isopropylbenzene	98-82-8	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
m,p-Xylenes	179601-23-1	BRL	0.0110	mg/kg	02.19.14 16.35	U	1
Methyl acetate	79-20-9	BRL	0.0110	mg/kg	02.19.14 16.35	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-3</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-049	Date Collected: 02.13.14 14.35	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 20.39
Analyst: ZHO	Date Prep: 02.19.14 15.49	Basis: Dry Weight
Seq Number: 934444		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
Methylcyclohexane	108-87-2	BRL	0.0110	mg/kg	02.19.14 16.35	U	1
Methylene Chloride	75-09-2	BRL	0.0219	mg/kg	02.19.14 16.35	U	1
o-Xylene	95-47-6	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
Styrene	100-42-5	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
Tetrachloroethene	127-18-4	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
<b>Toluene</b>	108-88-3	<b>0.0228</b>	0.00548	mg/kg	02.19.14 16.35		1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
Trichloroethene	79-01-6	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00548	mg/kg	02.19.14 16.35	U	1
Vinyl Chloride	75-01-4	BRL	0.00219	mg/kg	02.19.14 16.35	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
Dibromofluoromethane	1868-53-7	107	%	53-142	02.19.14 16.35		
1,2-Dichloroethane-D4	17060-07-0	98	%	56-150	02.19.14 16.35		
Toluene-D8	2037-26-5	96	%	70-130	02.19.14 16.35		
4-Bromofluorobenzene	460-00-4	101	%	68-152	02.19.14 16.35		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-3** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-050 Date Collected: 02.13.14 14.37 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 25.23  
 Analyst: 4150 Date Prep: 02.19.14 12.40 Basis: Dry Weight  
 Seq Number: 934552

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0619	mg/kg	02.20.14 19.55	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 25.23  
 Analyst: 4150 Date Prep: 02.19.14 09.38 Basis: Dry Weight  
 Seq Number: 934533

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	6.25	mg/kg	02.20.14 20.45	U	1
Barium	7440-39-3	<b>168</b>	6.25	mg/kg	02.20.14 20.45		1
Cadmium	7440-43-9	<b>1.49</b>	1.25	mg/kg	02.20.14 20.45		1
Chromium	7440-47-3	<b>10.9</b>	6.25	mg/kg	02.20.14 20.45		1
Lead	7439-92-1	<b>15.2</b>	6.25	mg/kg	02.20.14 20.45		1
Selenium	7782-49-2	BRL	1.25	mg/kg	02.20.14 20.45	U	1
Silver	7440-22-4	BRL	1.25	mg/kg	02.20.14 20.45	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-3** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-050 Date Collected: 02.13.14 14.37 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 25.23  
Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.445	mg/kg	02.19.14 20.02	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.445	mg/kg	02.19.14 20.02	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.445	mg/kg	02.19.14 20.02	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.445	mg/kg	02.19.14 20.02	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.445	mg/kg	02.19.14 20.02	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.445	mg/kg	02.19.14 20.02	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.445	mg/kg	02.19.14 20.02	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.445	mg/kg	02.19.14 20.02	U	1
2-Chloronaphthalene	91-58-7	BRL	0.445	mg/kg	02.19.14 20.02	U	1
2-Chlorophenol	95-57-8	BRL	0.445	mg/kg	02.19.14 20.02	U	1
2-Methylnaphthalene	91-57-6	BRL	0.445	mg/kg	02.19.14 20.02	U	1
2-methylphenol	95-48-7	BRL	0.445	mg/kg	02.19.14 20.02	U	1
2-Nitroaniline	88-74-4	BRL	0.445	mg/kg	02.19.14 20.02	U	1
2-Nitrophenol	88-75-5	BRL	0.445	mg/kg	02.19.14 20.02	U	1
3&4-Methylphenol	15831-10-4	BRL	0.445	mg/kg	02.19.14 20.02	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.445	mg/kg	02.19.14 20.02	U	1
3-Nitroaniline	99-09-2	BRL	0.445	mg/kg	02.19.14 20.02	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.445	mg/kg	02.19.14 20.02	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.445	mg/kg	02.19.14 20.02	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.445	mg/kg	02.19.14 20.02	U	1
4-Chloroaniline	106-47-8	BRL	0.445	mg/kg	02.19.14 20.02	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.445	mg/kg	02.19.14 20.02	U	1
4-Nitroaniline	100-01-6	BRL	0.445	mg/kg	02.19.14 20.02	U	1
4-Nitrophenol	100-02-7	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Acenaphthene	83-32-9	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Acenaphthylene	208-96-8	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Acetophenone	98-86-2	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Anthracene	120-12-7	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Benzo(a)anthracene	56-55-3	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Benzo(a)pyrene	50-32-8	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.445	mg/kg	02.19.14 20.02	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.445	mg/kg	02.19.14 20.02	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.445	mg/kg	02.19.14 20.02	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Butylbenzylphthalate	85-68-7	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Carbazole	86-74-8	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Chrysene	218-01-9	BRL	0.445	mg/kg	02.19.14 20.02	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-3** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-050 Date Collected: 02.13.14 14.37 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 25.23  
Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Dibenzofuran	132-64-9	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Diethyl Phthalate	84-66-2	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Dimethyl Phthalate	131-11-3	BRL	0.445	mg/kg	02.19.14 20.02	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.445	mg/kg	02.19.14 20.02	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Fluoranthene	206-44-0	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Fluorene	86-73-7	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Hexachlorobenzene	118-74-1	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Hexachlorobutadiene	87-68-3	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Hexachloroethane	67-72-1	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Isophorone	78-59-1	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Naphthalene	91-20-3	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Nitrobenzene	98-95-3	BRL	0.445	mg/kg	02.19.14 20.02	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.445	mg/kg	02.19.14 20.02	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Pentachlorophenol	87-86-5	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Phenanthrene	85-01-8	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Phenol	108-95-2	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Pyrene	129-00-0	BRL	0.445	mg/kg	02.19.14 20.02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	45	%	20-112	02.19.14 20.02		
2-Fluorophenol	367-12-4	32	%	18-101	02.19.14 20.02		
Nitrobenzene-d5	4165-60-0	37	%	13-112	02.19.14 20.02		
Phenol-d5	4165-62-2	45	%	15-110	02.19.14 20.02		
Terphenyl-D14	1718-51-0	104	%	21-138	02.19.14 20.02		
2,4,6-Tribromophenol	118-79-6	64	%	21-128	02.19.14 20.02		

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-3</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-050	Date Collected: 02.13.14 14.37	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 25.23
Analyst: ZHO	Date Prep: 02.19.14 15.50	Basis: Dry Weight
Seq Number: 934444		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0150	mg/kg	02.19.14 17.00	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0748	mg/kg	02.19.14 17.00	U	1
2-Hexanone	591-78-6	BRL	0.0748	mg/kg	02.19.14 17.00	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0748	mg/kg	02.19.14 17.00	U	1
Acetone	67-64-1	BRL	0.150	mg/kg	02.19.14 17.00	U	1
Benzene	71-43-2	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
Bromochloromethane	74-97-5	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
Bromodichloromethane	75-27-4	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
Bromoform	75-25-2	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
Bromomethane	74-83-9	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
Carbon disulfide	75-15-0	BRL	0.0748	mg/kg	02.19.14 17.00	U	1
Carbon tetrachloride	56-23-5	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
Chlorobenzene	108-90-7	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
Chloroethane	75-00-3	BRL	0.0150	mg/kg	02.19.14 17.00	U	1
Chloroform	67-66-3	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
Chloromethane	74-87-3	BRL	0.0150	mg/kg	02.19.14 17.00	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
Cyclohexane	110-82-7	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
Dibromochloromethane	124-48-1	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
Ethylbenzene	100-41-4	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
Isopropylbenzene	98-82-8	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
m,p-Xylenes	179601-23-1	BRL	0.0150	mg/kg	02.19.14 17.00	U	1
Methyl acetate	79-20-9	BRL	0.0150	mg/kg	02.19.14 17.00	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-3</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-050	Date Collected: 02.13.14 14.37	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 25.23
Analyst: ZHO	Date Prep: 02.19.14 15.50	Basis: Dry Weight
Seq Number: 934444		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
Methylcyclohexane	108-87-2	BRL	0.0150	mg/kg	02.19.14 17.00	U	1
Methylene Chloride	75-09-2	BRL	0.0299	mg/kg	02.19.14 17.00	U	1
o-Xylene	95-47-6	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
Styrene	100-42-5	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
Tetrachloroethene	127-18-4	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
Toluene	108-88-3	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
Trichloroethene	79-01-6	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00748	mg/kg	02.19.14 17.00	U	1
Vinyl Chloride	75-01-4	BRL	0.00299	mg/kg	02.19.14 17.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	101	%	53-142	02.19.14 17.00	
1,2-Dichloroethane-D4	17060-07-0	92	%	56-150	02.19.14 17.00	
Toluene-D8	2037-26-5	97	%	70-130	02.19.14 17.00	
4-Bromofluorobenzene	460-00-4	105	%	68-152	02.19.14 17.00	



## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-8** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-051 Date Collected: 02.13.14 14.00 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 5.04  
 Analyst: 4150 Date Prep: 02.19.14 12.40 Basis: Dry Weight  
 Seq Number: 934552

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0479	mg/kg	02.20.14 20.20	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 5.04  
 Analyst: 4150 Date Prep: 02.19.14 09.38 Basis: Dry Weight  
 Seq Number: 934533

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.27	mg/kg	02.20.14 20.47	U	1
<b>Barium</b>	7440-39-3	<b>41.9</b>	5.27	mg/kg	02.20.14 20.47		1
Cadmium	7440-43-9	BRL	1.05	mg/kg	02.20.14 20.47	U	1
Chromium	7440-47-3	BRL	5.27	mg/kg	02.20.14 20.47	U	1
<b>Lead</b>	7439-92-1	<b>8.77</b>	5.27	mg/kg	02.20.14 20.47		1
Selenium	7782-49-2	BRL	1.05	mg/kg	02.20.14 20.47	U	1
Silver	7440-22-4	BRL	1.05	mg/kg	02.20.14 20.47	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-8** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-051 Date Collected: 02.13.14 14.00 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 5.04  
 Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
 Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.346	mg/kg	02.20.14 01.16	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.346	mg/kg	02.20.14 01.16	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.346	mg/kg	02.20.14 01.16	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.346	mg/kg	02.20.14 01.16	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.346	mg/kg	02.20.14 01.16	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.346	mg/kg	02.20.14 01.16	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.346	mg/kg	02.20.14 01.16	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.346	mg/kg	02.20.14 01.16	U	1
2-Chloronaphthalene	91-58-7	BRL	0.346	mg/kg	02.20.14 01.16	U	1
2-Chlorophenol	95-57-8	BRL	0.346	mg/kg	02.20.14 01.16	U	1
2-Methylnaphthalene	91-57-6	BRL	0.346	mg/kg	02.20.14 01.16	U	1
2-methylphenol	95-48-7	BRL	0.346	mg/kg	02.20.14 01.16	U	1
2-Nitroaniline	88-74-4	BRL	0.346	mg/kg	02.20.14 01.16	U	1
2-Nitrophenol	88-75-5	BRL	0.346	mg/kg	02.20.14 01.16	U	1
3&4-Methylphenol	15831-10-4	BRL	0.346	mg/kg	02.20.14 01.16	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.346	mg/kg	02.20.14 01.16	U	1
3-Nitroaniline	99-09-2	BRL	0.346	mg/kg	02.20.14 01.16	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.346	mg/kg	02.20.14 01.16	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.346	mg/kg	02.20.14 01.16	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.346	mg/kg	02.20.14 01.16	U	1
4-Chloroaniline	106-47-8	BRL	0.346	mg/kg	02.20.14 01.16	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.346	mg/kg	02.20.14 01.16	U	1
4-Nitroaniline	100-01-6	BRL	0.346	mg/kg	02.20.14 01.16	U	1
4-Nitrophenol	100-02-7	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Acenaphthene	83-32-9	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Acenaphthylene	208-96-8	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Acetophenone	98-86-2	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Anthracene	120-12-7	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Benzo(a)anthracene	56-55-3	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Benzo(a)pyrene	50-32-8	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.346	mg/kg	02.20.14 01.16	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.346	mg/kg	02.20.14 01.16	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.346	mg/kg	02.20.14 01.16	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Butylbenzylphthalate	85-68-7	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Carbazole	86-74-8	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Chrysene	218-01-9	BRL	0.346	mg/kg	02.20.14 01.16	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-8** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-051 Date Collected: 02.13.14 14.00 Sample Depth: 0 - 6 In  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 5.04  
Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Dibenzofuran	132-64-9	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Diethyl Phthalate	84-66-2	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Dimethyl Phthalate	131-11-3	BRL	0.346	mg/kg	02.20.14 01.16	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.346	mg/kg	02.20.14 01.16	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Fluoranthene	206-44-0	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Fluorene	86-73-7	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Hexachlorobenzene	118-74-1	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Hexachlorobutadiene	87-68-3	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Hexachloroethane	67-72-1	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Isophorone	78-59-1	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Naphthalene	91-20-3	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Nitrobenzene	98-95-3	BRL	0.346	mg/kg	02.20.14 01.16	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.346	mg/kg	02.20.14 01.16	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Pentachlorophenol	87-86-5	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Phenanthrene	85-01-8	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Phenol	108-95-2	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Pyrene	129-00-0	BRL	0.346	mg/kg	02.20.14 01.16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	55	%	20-112	02.20.14 01.16		
2-Fluorophenol	367-12-4	50	%	18-101	02.20.14 01.16		
Nitrobenzene-d5	4165-60-0	52	%	13-112	02.20.14 01.16		
Phenol-d5	4165-62-2	57	%	15-110	02.20.14 01.16		
Terphenyl-D14	1718-51-0	87	%	21-138	02.20.14 01.16		
2,4,6-Tribromophenol	118-79-6	73	%	21-128	02.20.14 01.16		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-8</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-051	Date Collected: 02.13.14 14.00	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 5.04
Analyst: ZHO	Date Prep: 02.19.14 15.51	Basis: Dry Weight
Seq Number: 934444		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.00940	mg/kg	02.19.14 17.25	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0470	mg/kg	02.19.14 17.25	U	1
2-Hexanone	591-78-6	BRL	0.0470	mg/kg	02.19.14 17.25	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0470	mg/kg	02.19.14 17.25	U	1
Acetone	67-64-1	BRL	0.0940	mg/kg	02.19.14 17.25	U	1
Benzene	71-43-2	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
Bromochloromethane	74-97-5	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
Bromodichloromethane	75-27-4	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
Bromoform	75-25-2	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
Bromomethane	74-83-9	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
Carbon disulfide	75-15-0	BRL	0.0470	mg/kg	02.19.14 17.25	U	1
Carbon tetrachloride	56-23-5	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
Chlorobenzene	108-90-7	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
Chloroethane	75-00-3	BRL	0.00940	mg/kg	02.19.14 17.25	U	1
Chloroform	67-66-3	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
Chloromethane	74-87-3	BRL	0.00940	mg/kg	02.19.14 17.25	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
Cyclohexane	110-82-7	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
Dibromochloromethane	124-48-1	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
Ethylbenzene	100-41-4	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
Isopropylbenzene	98-82-8	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
m,p-Xylenes	179601-23-1	BRL	0.00940	mg/kg	02.19.14 17.25	U	1
Methyl acetate	79-20-9	BRL	0.00940	mg/kg	02.19.14 17.25	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-8</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-051	Date Collected: 02.13.14 14.00	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 5.04
Analyst: ZHO	Date Prep: 02.19.14 15.51	Basis: Dry Weight
Seq Number: 934444		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
Methylcyclohexane	108-87-2	BRL	0.00940	mg/kg	02.19.14 17.25	U	1
Methylene Chloride	75-09-2	BRL	0.0188	mg/kg	02.19.14 17.25	U	1
o-Xylene	95-47-6	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
Styrene	100-42-5	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
Tetrachloroethene	127-18-4	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
Toluene	108-88-3	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
Trichloroethene	79-01-6	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00470	mg/kg	02.19.14 17.25	U	1
Vinyl Chloride	75-01-4	BRL	0.00188	mg/kg	02.19.14 17.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	101	%	53-142	02.19.14 17.25	
1,2-Dichloroethane-D4	17060-07-0	87	%	56-150	02.19.14 17.25	
Toluene-D8	2037-26-5	98	%	70-130	02.19.14 17.25	
4-Bromofluorobenzene	460-00-4	103	%	68-152	02.19.14 17.25	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-8** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-052 Date Collected: 02.13.14 14.03 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 10.73  
 Analyst: 4150 Date Prep: 02.19.14 12.40 Basis: Dry Weight  
 Seq Number: 934552

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	<b>0.107</b>	0.0539	mg/kg	02.20.14 20.23		1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 10.73  
 Analyst: 4150 Date Prep: 02.19.14 09.38 Basis: Dry Weight  
 Seq Number: 934533

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.28	mg/kg	02.20.14 20.49	U	1
Barium	7440-39-3	<b>62.3</b>	5.28	mg/kg	02.20.14 20.49		1
Cadmium	7440-43-9	BRL	1.06	mg/kg	02.20.14 20.49	U	1
Chromium	7440-47-3	<b>22.0</b>	5.28	mg/kg	02.20.14 20.49		1
Lead	7439-92-1	<b>18.9</b>	5.28	mg/kg	02.20.14 20.49		1
Selenium	7782-49-2	BRL	1.06	mg/kg	02.20.14 20.49	U	1
Silver	7440-22-4	BRL	1.06	mg/kg	02.20.14 20.49	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-8** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-052 Date Collected: 02.13.14 14.03 Sample Depth: 0.5 - 2 ft  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 10.73  
 Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
 Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.372	mg/kg	02.20.14 01.44	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.372	mg/kg	02.20.14 01.44	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.372	mg/kg	02.20.14 01.44	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.372	mg/kg	02.20.14 01.44	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.372	mg/kg	02.20.14 01.44	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.372	mg/kg	02.20.14 01.44	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.372	mg/kg	02.20.14 01.44	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.372	mg/kg	02.20.14 01.44	U	1
2-Chloronaphthalene	91-58-7	BRL	0.372	mg/kg	02.20.14 01.44	U	1
2-Chlorophenol	95-57-8	BRL	0.372	mg/kg	02.20.14 01.44	U	1
2-Methylnaphthalene	91-57-6	BRL	0.372	mg/kg	02.20.14 01.44	U	1
2-methylphenol	95-48-7	BRL	0.372	mg/kg	02.20.14 01.44	U	1
2-Nitroaniline	88-74-4	BRL	0.372	mg/kg	02.20.14 01.44	U	1
2-Nitrophenol	88-75-5	BRL	0.372	mg/kg	02.20.14 01.44	U	1
3&4-Methylphenol	15831-10-4	BRL	0.372	mg/kg	02.20.14 01.44	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.372	mg/kg	02.20.14 01.44	U	1
3-Nitroaniline	99-09-2	BRL	0.372	mg/kg	02.20.14 01.44	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.372	mg/kg	02.20.14 01.44	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.372	mg/kg	02.20.14 01.44	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.372	mg/kg	02.20.14 01.44	U	1
4-Chloroaniline	106-47-8	BRL	0.372	mg/kg	02.20.14 01.44	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.372	mg/kg	02.20.14 01.44	U	1
4-Nitroaniline	100-01-6	BRL	0.372	mg/kg	02.20.14 01.44	U	1
4-Nitrophenol	100-02-7	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Acenaphthene	83-32-9	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Acenaphthylene	208-96-8	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Acetophenone	98-86-2	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Anthracene	120-12-7	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Benzo(a)anthracene	56-55-3	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Benzo(a)pyrene	50-32-8	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.372	mg/kg	02.20.14 01.44	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.372	mg/kg	02.20.14 01.44	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.372	mg/kg	02.20.14 01.44	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Butylbenzylphthalate	85-68-7	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Carbazole	86-74-8	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Chrysene	218-01-9	BRL	0.372	mg/kg	02.20.14 01.44	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-8** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-052 Date Collected: 02.13.14 14.03 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 10.73  
Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Dibenzofuran	132-64-9	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Diethyl Phthalate	84-66-2	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Dimethyl Phthalate	131-11-3	BRL	0.372	mg/kg	02.20.14 01.44	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.372	mg/kg	02.20.14 01.44	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Fluoranthene	206-44-0	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Fluorene	86-73-7	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Hexachlorobenzene	118-74-1	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Hexachlorobutadiene	87-68-3	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Hexachloroethane	67-72-1	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Isophorone	78-59-1	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Naphthalene	91-20-3	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Nitrobenzene	98-95-3	BRL	0.372	mg/kg	02.20.14 01.44	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.372	mg/kg	02.20.14 01.44	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Pentachlorophenol	87-86-5	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Phenanthrene	85-01-8	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Phenol	108-95-2	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Pyrene	129-00-0	BRL	0.372	mg/kg	02.20.14 01.44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	64	%	20-112	02.20.14 01.44		
2-Fluorophenol	367-12-4	59	%	18-101	02.20.14 01.44		
Nitrobenzene-d5	4165-60-0	62	%	13-112	02.20.14 01.44		
Phenol-d5	4165-62-2	71	%	15-110	02.20.14 01.44		
Terphenyl-D14	1718-51-0	102	%	21-138	02.20.14 01.44		
2,4,6-Tribromophenol	118-79-6	86	%	21-128	02.20.14 01.44		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-8</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-052	Date Collected: 02.13.14 14.03	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 10.73
Analyst: ZHO	Date Prep: 02.18.14 18.05	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0112	mg/kg	02.18.14 20.24	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0558	mg/kg	02.18.14 20.24	U	1
2-Hexanone	591-78-6	BRL	0.0558	mg/kg	02.18.14 20.24	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0558	mg/kg	02.18.14 20.24	U	1
Acetone	67-64-1	BRL	0.112	mg/kg	02.18.14 20.24	U	1
Benzene	71-43-2	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
Bromochloromethane	74-97-5	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
Bromodichloromethane	75-27-4	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
Bromoform	75-25-2	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
Bromomethane	74-83-9	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
Carbon disulfide	75-15-0	BRL	0.0558	mg/kg	02.18.14 20.24	U	1
Carbon tetrachloride	56-23-5	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
Chlorobenzene	108-90-7	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
Chloroethane	75-00-3	BRL	0.0112	mg/kg	02.18.14 20.24	U	1
Chloroform	67-66-3	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
Chloromethane	74-87-3	BRL	0.0112	mg/kg	02.18.14 20.24	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
Cyclohexane	110-82-7	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
Dibromochloromethane	124-48-1	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
Ethylbenzene	100-41-4	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
Isopropylbenzene	98-82-8	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
m,p-Xylenes	179601-23-1	BRL	0.0112	mg/kg	02.18.14 20.24	U	1
Methyl acetate	79-20-9	BRL	0.0112	mg/kg	02.18.14 20.24	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-8</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-052	Date Collected: 02.13.14 14.03	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 10.73
Analyst: ZHO	Date Prep: 02.18.14 18.05	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
Methylcyclohexane	108-87-2	BRL	0.0112	mg/kg	02.18.14 20.24	U	1
Methylene Chloride	75-09-2	BRL	0.0223	mg/kg	02.18.14 20.24	U	1
o-Xylene	95-47-6	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
Styrene	100-42-5	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
Tetrachloroethene	127-18-4	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
Toluene	108-88-3	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
Trichloroethene	79-01-6	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00558	mg/kg	02.18.14 20.24	U	1
Vinyl Chloride	75-01-4	BRL	0.00223	mg/kg	02.18.14 20.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	123	%	53-142	02.18.14 20.24	
1,2-Dichloroethane-D4	17060-07-0	125	%	56-150	02.18.14 20.24	
Toluene-D8	2037-26-5	105	%	70-130	02.18.14 20.24	
4-Bromofluorobenzene	460-00-4	99	%	68-152	02.18.14 20.24	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-4** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-053 Date Collected: 02.13.14 14.44 Sample Depth: 0 - 6 In  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 17.6  
 Analyst: 4150 Date Prep: 02.19.14 12.40 Basis: Dry Weight  
 Seq Number: 934552

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0572	mg/kg	02.20.14 20.26	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 17.6  
 Analyst: 4150 Date Prep: 02.19.14 09.38 Basis: Dry Weight  
 Seq Number: 934533

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	5.78	mg/kg	02.20.14 20.51	U	1
<b>Barium</b>	7440-39-3	<b>116</b>	5.78	mg/kg	02.20.14 20.51		1
Cadmium	7440-43-9	BRL	1.16	mg/kg	02.20.14 20.51	U	1
<b>Chromium</b>	7440-47-3	<b>9.37</b>	5.78	mg/kg	02.20.14 20.51		1
<b>Lead</b>	7439-92-1	<b>13.9</b>	5.78	mg/kg	02.20.14 20.51		1
Selenium	7782-49-2	BRL	1.16	mg/kg	02.20.14 20.51	U	1
Silver	7440-22-4	BRL	1.16	mg/kg	02.20.14 20.51	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-4** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-053 Date Collected: 02.13.14 14.44 Sample Depth: 0 - 6 In  
 Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
 Tech: TUE % Moisture: 17.6  
 Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
 Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.402	mg/kg	02.19.14 20.29	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.402	mg/kg	02.19.14 20.29	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.402	mg/kg	02.19.14 20.29	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.402	mg/kg	02.19.14 20.29	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.402	mg/kg	02.19.14 20.29	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.402	mg/kg	02.19.14 20.29	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.402	mg/kg	02.19.14 20.29	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.402	mg/kg	02.19.14 20.29	U	1
2-Chloronaphthalene	91-58-7	BRL	0.402	mg/kg	02.19.14 20.29	U	1
2-Chlorophenol	95-57-8	BRL	0.402	mg/kg	02.19.14 20.29	U	1
2-Methylnaphthalene	91-57-6	BRL	0.402	mg/kg	02.19.14 20.29	U	1
2-methylphenol	95-48-7	BRL	0.402	mg/kg	02.19.14 20.29	U	1
2-Nitroaniline	88-74-4	BRL	0.402	mg/kg	02.19.14 20.29	U	1
2-Nitrophenol	88-75-5	BRL	0.402	mg/kg	02.19.14 20.29	U	1
3&4-Methylphenol	15831-10-4	BRL	0.402	mg/kg	02.19.14 20.29	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.402	mg/kg	02.19.14 20.29	U	1
3-Nitroaniline	99-09-2	BRL	0.402	mg/kg	02.19.14 20.29	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.402	mg/kg	02.19.14 20.29	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.402	mg/kg	02.19.14 20.29	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.402	mg/kg	02.19.14 20.29	U	1
4-Chloroaniline	106-47-8	BRL	0.402	mg/kg	02.19.14 20.29	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.402	mg/kg	02.19.14 20.29	U	1
4-Nitroaniline	100-01-6	BRL	0.402	mg/kg	02.19.14 20.29	U	1
4-Nitrophenol	100-02-7	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Acenaphthene	83-32-9	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Acenaphthylene	208-96-8	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Acetophenone	98-86-2	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Anthracene	120-12-7	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Benzo(a)anthracene	56-55-3	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Benzo(a)pyrene	50-32-8	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.402	mg/kg	02.19.14 20.29	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.402	mg/kg	02.19.14 20.29	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.402	mg/kg	02.19.14 20.29	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Butylbenzylphthalate	85-68-7	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Carbazole	86-74-8	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Chrysene	218-01-9	BRL	0.402	mg/kg	02.19.14 20.29	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-4** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-053 Date Collected: 02.13.14 14.44 Sample Depth: 0 - 6 In  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 17.6  
Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Dibenzofuran	132-64-9	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Diethyl Phthalate	84-66-2	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Dimethyl Phthalate	131-11-3	BRL	0.402	mg/kg	02.19.14 20.29	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.402	mg/kg	02.19.14 20.29	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Fluoranthene	206-44-0	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Fluorene	86-73-7	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Hexachlorobenzene	118-74-1	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Hexachlorobutadiene	87-68-3	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Hexachloroethane	67-72-1	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Isophorone	78-59-1	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Naphthalene	91-20-3	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Nitrobenzene	98-95-3	BRL	0.402	mg/kg	02.19.14 20.29	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.402	mg/kg	02.19.14 20.29	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Pentachlorophenol	87-86-5	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Phenanthrene	85-01-8	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Phenol	108-95-2	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Pyrene	129-00-0	BRL	0.402	mg/kg	02.19.14 20.29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	58	%	20-112	02.19.14 20.29		
2-Fluorophenol	367-12-4	52	%	18-101	02.19.14 20.29		
Nitrobenzene-d5	4165-60-0	56	%	13-112	02.19.14 20.29		
Phenol-d5	4165-62-2	63	%	15-110	02.19.14 20.29		
Terphenyl-D14	1718-51-0	99	%	21-138	02.19.14 20.29		
2,4,6-Tribromophenol	118-79-6	79	%	21-128	02.19.14 20.29		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-4</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-053	Date Collected: 02.13.14 14.44	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 17.6
Analyst: ZHO	Date Prep: 02.18.14 18.06	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0106	mg/kg	02.18.14 20.49	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0532	mg/kg	02.18.14 20.49	U	1
2-Hexanone	591-78-6	BRL	0.0532	mg/kg	02.18.14 20.49	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0532	mg/kg	02.18.14 20.49	U	1
Acetone	67-64-1	BRL	0.106	mg/kg	02.18.14 20.49	U	1
Benzene	71-43-2	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
Bromochloromethane	74-97-5	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
Bromodichloromethane	75-27-4	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
Bromoform	75-25-2	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
Bromomethane	74-83-9	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
Carbon disulfide	75-15-0	BRL	0.0532	mg/kg	02.18.14 20.49	U	1
Carbon tetrachloride	56-23-5	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
Chlorobenzene	108-90-7	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
Chloroethane	75-00-3	BRL	0.0106	mg/kg	02.18.14 20.49	U	1
Chloroform	67-66-3	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
Chloromethane	74-87-3	BRL	0.0106	mg/kg	02.18.14 20.49	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
Cyclohexane	110-82-7	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
Dibromochloromethane	124-48-1	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
Ethylbenzene	100-41-4	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
Isopropylbenzene	98-82-8	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
m,p-Xylenes	179601-23-1	BRL	0.0106	mg/kg	02.18.14 20.49	U	1
Methyl acetate	79-20-9	BRL	0.0106	mg/kg	02.18.14 20.49	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-4</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-053	Date Collected: 02.13.14 14.44	Sample Depth: 0 - 6 In
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 17.6
Analyst: ZHO	Date Prep: 02.18.14 18.06	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
Methylcyclohexane	108-87-2	BRL	0.0106	mg/kg	02.18.14 20.49	U	1
Methylene Chloride	75-09-2	BRL	0.0213	mg/kg	02.18.14 20.49	U	1
o-Xylene	95-47-6	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
Styrene	100-42-5	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
Tetrachloroethene	127-18-4	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
Toluene	108-88-3	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
Trichloroethene	79-01-6	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00532	mg/kg	02.18.14 20.49	U	1
Vinyl Chloride	75-01-4	BRL	0.00213	mg/kg	02.18.14 20.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	129	%	53-142	02.18.14 20.49	
1,2-Dichloroethane-D4	17060-07-0	106	%	56-150	02.18.14 20.49	
Toluene-D8	2037-26-5	104	%	70-130	02.18.14 20.49	
4-Bromofluorobenzene	460-00-4	91	%	68-152	02.18.14 20.49	

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: **GB-4** Matrix: Soil Date Received: 02.14.14 12.30  
 Lab Sample Id: 479331-054 Date Collected: 02.13.14 14.46 Sample Depth: 0.5 - 2 ft  
 Analytical Method: Mercury by SW-846 7471B Prep Method: SW7471P  
 Tech: JDR % Moisture: 20  
 Analyst: 4150 Date Prep: 02.19.14 12.40 Basis: Dry Weight  
 Seq Number: 934552

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Mercury	7439-97-6	BRL	0.0568	mg/kg	02.20.14 20.29	U	1

Analytical Method: RCRA Metals by SW-846 6010C Prep Method: SW3050B  
 Tech: JDR % Moisture: 20  
 Analyst: 4150 Date Prep: 02.19.14 09.38 Basis: Dry Weight  
 Seq Number: 934533

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Arsenic	7440-38-2	BRL	6.25	mg/kg	02.20.14 20.53	U	1
<b>Barium</b>	7440-39-3	<b>95.7</b>	6.25	mg/kg	02.20.14 20.53		1
Cadmium	7440-43-9	BRL	1.25	mg/kg	02.20.14 20.53	U	1
<b>Chromium</b>	7440-47-3	<b>8.59</b>	6.25	mg/kg	02.20.14 20.53		1
<b>Lead</b>	7439-92-1	<b>11.9</b>	6.25	mg/kg	02.20.14 20.53		1
Selenium	7782-49-2	BRL	1.25	mg/kg	02.20.14 20.53	U	1
Silver	7440-22-4	BRL	1.25	mg/kg	02.20.14 20.53	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-4** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-054 Date Collected: 02.13.14 14.46 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 20  
Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
2,3,4,6-Tetrachlorophenol	58-90-2	BRL	0.416	mg/kg	02.19.14 20.57	U	1
2,4,5-Trichlorophenol	95-95-4	BRL	0.416	mg/kg	02.19.14 20.57	U	1
2,4,6-Trichlorophenol	88-06-2	BRL	0.416	mg/kg	02.19.14 20.57	U	1
2,4-Dichlorophenol	120-83-2	BRL	0.416	mg/kg	02.19.14 20.57	U	1
2,4-Dimethylphenol	105-67-9	BRL	0.416	mg/kg	02.19.14 20.57	U	1
2,4-Dinitrophenol	51-28-5	BRL	0.416	mg/kg	02.19.14 20.57	U	1
2,4-Dinitrotoluene	121-14-2	BRL	0.416	mg/kg	02.19.14 20.57	U	1
2,6-Dinitrotoluene	606-20-2	BRL	0.416	mg/kg	02.19.14 20.57	U	1
2-Chloronaphthalene	91-58-7	BRL	0.416	mg/kg	02.19.14 20.57	U	1
2-Chlorophenol	95-57-8	BRL	0.416	mg/kg	02.19.14 20.57	U	1
2-Methylnaphthalene	91-57-6	BRL	0.416	mg/kg	02.19.14 20.57	U	1
2-methylphenol	95-48-7	BRL	0.416	mg/kg	02.19.14 20.57	U	1
2-Nitroaniline	88-74-4	BRL	0.416	mg/kg	02.19.14 20.57	U	1
2-Nitrophenol	88-75-5	BRL	0.416	mg/kg	02.19.14 20.57	U	1
3&4-Methylphenol	15831-10-4	BRL	0.416	mg/kg	02.19.14 20.57	U	1
3,3-Dichlorobenzidine	91-94-1	BRL	0.416	mg/kg	02.19.14 20.57	U	1
3-Nitroaniline	99-09-2	BRL	0.416	mg/kg	02.19.14 20.57	U	1
4,6-dinitro-2-methyl phenol	534-52-1	BRL	0.416	mg/kg	02.19.14 20.57	U	1
4-Bromophenyl-phenylether	101-55-3	BRL	0.416	mg/kg	02.19.14 20.57	U	1
4-chloro-3-methylphenol	59-50-7	BRL	0.416	mg/kg	02.19.14 20.57	U	1
4-Chloroaniline	106-47-8	BRL	0.416	mg/kg	02.19.14 20.57	U	1
4-Chlorophenyl Phenyl Ether	7005-72-3	BRL	0.416	mg/kg	02.19.14 20.57	U	1
4-Nitroaniline	100-01-6	BRL	0.416	mg/kg	02.19.14 20.57	U	1
4-Nitrophenol	100-02-7	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Acenaphthene	83-32-9	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Acenaphthylene	208-96-8	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Acetophenone	98-86-2	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Anthracene	120-12-7	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Benzo(a)anthracene	56-55-3	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Benzo(a)pyrene	50-32-8	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Benzo(b)fluoranthene	205-99-2	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Benzo(g,h,i)perylene	191-24-2	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Benzo(k)fluoranthene	207-08-9	BRL	0.416	mg/kg	02.19.14 20.57	U	1
bis(2-chloroethoxy) methane	111-91-1	BRL	0.416	mg/kg	02.19.14 20.57	U	1
bis(2-chloroethyl) ether	111-44-4	BRL	0.416	mg/kg	02.19.14 20.57	U	1
bis(2-ethylhexyl) phthalate	117-81-7	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Butylbenzylphthalate	85-68-7	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Carbazole	86-74-8	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Chrysene	218-01-9	BRL	0.416	mg/kg	02.19.14 20.57	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **GB-4** Matrix: Soil Date Received: 02.14.14 12.30  
Lab Sample Id: 479331-054 Date Collected: 02.13.14 14.46 Sample Depth: 0.5 - 2 ft  
Analytical Method: SVOCs by SW-846 8270D Prep Method: SW3550  
Tech: TUE % Moisture: 20  
Analyst: VIC Date Prep: 02.18.14 12.00 Basis: Dry Weight  
Seq Number: 934473

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Dibenz(a,h)Anthracene	53-70-3	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Dibenzofuran	132-64-9	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Diethyl Phthalate	84-66-2	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Dimethyl Phthalate	131-11-3	BRL	0.416	mg/kg	02.19.14 20.57	U	1
di-n-Butyl Phthalate	84-74-2	BRL	0.416	mg/kg	02.19.14 20.57	U	1
di-n-Octyl Phthalate	117-84-0	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Fluoranthene	206-44-0	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Fluorene	86-73-7	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Hexachlorobenzene	118-74-1	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Hexachlorobutadiene	87-68-3	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Hexachlorocyclopentadiene	77-47-4	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Hexachloroethane	67-72-1	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Indeno(1,2,3-c,d)Pyrene	193-39-5	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Isophorone	78-59-1	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Naphthalene	91-20-3	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Nitrobenzene	98-95-3	BRL	0.416	mg/kg	02.19.14 20.57	U	1
N-Nitrosodi-n-Propylamine	621-64-7	BRL	0.416	mg/kg	02.19.14 20.57	U	1
N-Nitrosodiphenylamine	86-30-6	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Pentachlorophenol	87-86-5	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Phenanthrene	85-01-8	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Phenol	108-95-2	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Pyrene	129-00-0	BRL	0.416	mg/kg	02.19.14 20.57	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
2-Fluorobiphenyl	321-60-8	46	%	20-112	02.19.14 20.57		
2-Fluorophenol	367-12-4	13	%	18-101	02.19.14 20.57	**	
Nitrobenzene-d5	4165-60-0	23	%	13-112	02.19.14 20.57		
Phenol-d5	4165-62-2	33	%	15-110	02.19.14 20.57		
Terphenyl-D14	1718-51-0	95	%	21-138	02.19.14 20.57		
2,4,6-Tribromophenol	118-79-6	77	%	21-128	02.19.14 20.57		

## Geotechnical & Environmental Consultants, Inc., Macon, GA

### Macon 2 MGP

Sample Id: <b>GB-4</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-054	Date Collected: 02.13.14 14.46	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 20
Analyst: ZHO	Date Prep: 02.18.14 18.07	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	0.0113	mg/kg	02.18.14 21.15	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
2-Butanone (MEK)	78-93-3	BRL	0.0564	mg/kg	02.18.14 21.15	U	1
2-Hexanone	591-78-6	BRL	0.0564	mg/kg	02.18.14 21.15	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	0.0564	mg/kg	02.18.14 21.15	U	1
Acetone	67-64-1	BRL	0.113	mg/kg	02.18.14 21.15	U	1
Benzene	71-43-2	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
Bromochloromethane	74-97-5	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
Bromodichloromethane	75-27-4	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
Bromoform	75-25-2	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
Bromomethane	74-83-9	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
Carbon disulfide	75-15-0	BRL	0.0564	mg/kg	02.18.14 21.15	U	1
Carbon tetrachloride	56-23-5	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
Chlorobenzene	108-90-7	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
Chloroethane	75-00-3	BRL	0.0113	mg/kg	02.18.14 21.15	U	1
Chloroform	67-66-3	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
Chloromethane	74-87-3	BRL	0.0113	mg/kg	02.18.14 21.15	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
Cyclohexane	110-82-7	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
Dibromochloromethane	124-48-1	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
Ethylbenzene	100-41-4	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
Isopropylbenzene	98-82-8	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
m,p-Xylenes	179601-23-1	BRL	0.0113	mg/kg	02.18.14 21.15	U	1
Methyl acetate	79-20-9	BRL	0.0113	mg/kg	02.18.14 21.15	U	1

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: <b>GB-4</b>	Matrix: Soil	Date Received: 02.14.14 12.30
Lab Sample Id: 479331-054	Date Collected: 02.13.14 14.46	Sample Depth: 0.5 - 2 ft
Analytical Method: VOCs by SW-846 8260B		Prep Method: SW5035
Tech: ZHO		% Moisture: 20
Analyst: ZHO	Date Prep: 02.18.14 18.07	Basis: Dry Weight
Seq Number: 934377		SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methyl tert-butyl ether	1634-04-4	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
Methylcyclohexane	108-87-2	BRL	0.0113	mg/kg	02.18.14 21.15	U	1
Methylene Chloride	75-09-2	BRL	0.0226	mg/kg	02.18.14 21.15	U	1
o-Xylene	95-47-6	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
Styrene	100-42-5	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
Tetrachloroethene	127-18-4	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
Toluene	108-88-3	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
Trichloroethene	79-01-6	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00564	mg/kg	02.18.14 21.15	U	1
Vinyl Chloride	75-01-4	BRL	0.00226	mg/kg	02.18.14 21.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	127	%	53-142	02.18.14 21.15	
1,2-Dichloroethane-D4	17060-07-0	111	%	56-150	02.18.14 21.15	
Toluene-D8	2037-26-5	102	%	70-130	02.18.14 21.15	
4-Bromofluorobenzene	460-00-4	93	%	68-152	02.18.14 21.15	

## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **Trip Blank**

Matrix: Water

Date Received: 02.14.14 12.30

Lab Sample Id: 479331-055

Date Collected: 02.13.14 00.00

Analytical Method: VOCs by SW-846 8260B

Prep Method: SW5030B

Tech: ZHO

% Moisture:

Analyst: ZHO

Date Prep: 02.19.14 19.35

Seq Number: 934441

SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Bromobenzene	108-86-1	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Bromochloromethane	74-97-5	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Bromodichloromethane	75-27-4	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Bromoform	75-25-2	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Methyl bromide	74-83-9	BRL	0.00500	mg/L	02.19.14 20.20	U	1
n-Butylbenzene	104-51-8	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Sec-Butylbenzene	135-98-8	BRL	0.00500	mg/L	02.19.14 20.20	U	1
tert-Butylbenzene	98-06-6	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Carbon Tetrachloride	56-23-5	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Chlorobenzene	108-90-7	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Chloroethane	75-00-3	BRL	0.0100	mg/L	02.19.14 20.20	U	1
Chloroform	67-66-3	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Methyl Chloride	74-87-3	BRL	0.0100	mg/L	02.19.14 20.20	U	1
2-Chlorotoluene	95-49-8	BRL	0.00500	mg/L	02.19.14 20.20	U	1
4-Chlorotoluene	106-43-4	BRL	0.00500	mg/L	02.19.14 20.20	U	1
p-Cymene (p-Isopropyltoluene)	99-87-6	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Dibromochloromethane	124-48-1	BRL	0.00500	mg/L	02.19.14 20.20	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	BRL	0.00500	mg/L	02.19.14 20.20	U	1
1,2-Dibromoethane	106-93-4	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Methylene bromide	74-95-3	BRL	0.00500	mg/L	02.19.14 20.20	U	1
1,2-Dichlorobenzene	95-50-1	BRL	0.00500	mg/L	02.19.14 20.20	U	1
1,3-Dichlorobenzene	541-73-1	BRL	0.00500	mg/L	02.19.14 20.20	U	1
1,4-Dichlorobenzene	106-46-7	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Dichlorodifluoromethane	75-71-8	BRL	0.00500	mg/L	02.19.14 20.20	U	1
1,1-Dichloroethane	75-34-3	BRL	0.00500	mg/L	02.19.14 20.20	U	1
1,2-Dichloroethane	107-06-2	BRL	0.00500	mg/L	02.19.14 20.20	U	1
1,1-Dichloroethene	75-35-4	BRL	0.00500	mg/L	02.19.14 20.20	U	1
cis-1,2-Dichloroethylene	156-59-2	BRL	0.00500	mg/L	02.19.14 20.20	U	1
trans-1,2-dichloroethylene	156-60-5	BRL	0.00500	mg/L	02.19.14 20.20	U	1
1,2-Dichloropropane	78-87-5	BRL	0.00500	mg/L	02.19.14 20.20	U	1
1,3-Dichloropropane	142-28-9	BRL	0.00500	mg/L	02.19.14 20.20	U	1
2,2-Dichloropropane	594-20-7	BRL	0.00500	mg/L	02.19.14 20.20	U	1
1,1-Dichloropropene	563-58-6	BRL	0.00500	mg/L	02.19.14 20.20	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	0.00500	mg/L	02.19.14 20.20	U	1
trans-1,3-dichloropropene	10061-02-6	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Ethylbenzene	100-41-4	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Hexachlorobutadiene	87-68-3	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Isopropylbenzene	98-82-8	BRL	0.00500	mg/L	02.19.14 20.20	U	1



## Geotechnical & Environmental Consultants, Inc., Macon, GA Macon 2 MGP

Sample Id: **Trip Blank**

Matrix: Water

Date Received: 02.14.14 12.30

Lab Sample Id: 479331-055

Date Collected: 02.13.14 00.00

Analytical Method: VOCs by SW-846 8260B

Prep Method: SW5030B

Tech: ZHO

% Moisture:

Analyst: ZHO

Date Prep: 02.19.14 19.35

Seq Number: 934441

SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methylene Chloride	75-09-2	BRL	0.00500	mg/L	02.19.14 20.20	U	1
MTBE	1634-04-4	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Naphthalene	91-20-3	BRL	0.0100	mg/L	02.19.14 20.20	U	1
n-Propylbenzene	103-65-1	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Styrene	100-42-5	BRL	0.00500	mg/L	02.19.14 20.20	U	1
1,1,1,2-Tetrachloroethane	630-20-6	BRL	0.00500	mg/L	02.19.14 20.20	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Tetrachloroethylene	127-18-4	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Toluene	108-88-3	BRL	0.00500	mg/L	02.19.14 20.20	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	0.00500	mg/L	02.19.14 20.20	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	0.00500	mg/L	02.19.14 20.20	U	1
1,1,1-Trichloroethane	71-55-6	BRL	0.00500	mg/L	02.19.14 20.20	U	1
1,1,2-Trichloroethane	79-00-5	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Trichloroethylene	79-01-6	BRL	0.00500	mg/L	02.19.14 20.20	U	1
Trichlorofluoromethane	75-69-4	BRL	0.00500	mg/L	02.19.14 20.20	U	1
1,2,3-Trichloropropane	96-18-4	BRL	0.00500	mg/L	02.19.14 20.20	U	1
1,2,4-Trimethylbenzene	95-63-6	BRL	0.00500	mg/L	02.19.14 20.20	U	1
1,3,5-Trimethylbenzene	108-67-8	BRL	0.00500	mg/L	02.19.14 20.20	U	1
o-Xylene	95-47-6	BRL	0.00500	mg/L	02.19.14 20.20	U	1
m,p-Xylenes	179601-23-1	BRL	0.0100	mg/L	02.19.14 20.20	U	1
Vinyl Chloride	75-01-4	BRL	0.00200	mg/L	02.19.14 20.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	100	%	75-131	02.19.14 20.20	
1,2-Dichloroethane-D4	17060-07-0	90	%	63-144	02.19.14 20.20	
Toluene-D8	2037-26-5	96	%	80-117	02.19.14 20.20	
4-Bromofluorobenzene	460-00-4	105	%	74-124	02.19.14 20.20	

# Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **SQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

***Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.***

*Certified and approved by numerous States and Agencies.*

***A Small Business and Minority Status Company that delivers SERVICE and QUALITY***

Houston - Dallas - San Antonio - Atlanta - Midland/Odessa - Tampa/Lakeland - Phoenix - Latin America

4143 Greenbriar Dr, Stafford, TX 77477  
9701 Harry Hines Blvd, Dallas, TX 75220  
5332 Blackberry Drive, San Antonio TX 78238  
2505 North Falkenburg Rd, Tampa, FL 33619  
12600 West I-20 East, Odessa, TX 79765  
6017 Financial Drive, Norcross, GA 30071  
3725 E. Atlanta Ave, Phoenix, AZ 85040

Phone	Fax
(281) 240-4200	(281) 240-4280
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** Mercury by SW-846 7471B

Seq Number: 934364

MB Sample Id: 651087-1-BLK

Matrix: Solid

LCS Sample Id: 651087-1-BKS

Prep Method: SW7471P

Date Prep: 02.16.14

LCSD Sample Id: 651087-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Mercury	<0.00300	0.500	0.520	104	0.513	103	80-120	1	20	mg/kg	02.18.14 13:12	

**Analytical Method:** Mercury by SW-846 7471B

Seq Number: 934549

MB Sample Id: 651245-1-BLK

Matrix: Solid

LCS Sample Id: 651245-1-BKS

Prep Method: SW7471P

Date Prep: 02.19.14

LCSD Sample Id: 651245-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Mercury	<0.00300	0.500	0.516	103	0.518	104	80-120	0	20	mg/kg	02.20.14 17:41	

**Analytical Method:** Mercury by SW-846 7471B

Seq Number: 934545

MB Sample Id: 651247-1-BLK

Matrix: Solid

LCS Sample Id: 651247-1-BKS

Prep Method: SW7471P

Date Prep: 02.19.14

LCSD Sample Id: 651247-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Mercury	<0.00300	0.500	0.509	102	0.507	101	80-120	0	20	mg/kg	02.20.14 15:48	

**Analytical Method:** Mercury by SW-846 7471B

Seq Number: 934552

MB Sample Id: 651250-1-BLK

Matrix: Solid

LCS Sample Id: 651250-1-BKS

Prep Method: SW7471P

Date Prep: 02.19.14

LCSD Sample Id: 651250-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Mercury	<0.00300	0.500	0.538	108	0.540	108	80-120	0	20	mg/kg	02.20.14 19:49	

**Analytical Method:** Mercury by SW-846 7471B

Seq Number: 934364

Parent Sample Id: 478640-001

Matrix: Soil

MD Sample Id: 478640-001 D

Prep Method: SW7471P

Date Prep: 02.16.14

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Mercury	<0.0498	<0.0498	0	20	mg/kg	02.18.14 13:21	U

**Analytical Method:** Mercury by SW-846 7471B

Seq Number: 934549

Parent Sample Id: 479331-010

Matrix: Soil

MD Sample Id: 479331-010 D

Prep Method: SW7471P

Date Prep: 02.19.14

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Mercury	0.743	0.398	60	20	mg/kg	02.20.14 17:50	F

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** Mercury by SW-846 7471B

Seq Number: 934545

Parent Sample Id: 479331-030

Matrix: Soil

MD Sample Id: 479331-030 D

Prep Method: SW7471P

Date Prep: 02.19.14

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Mercury	<0.0534	0.136	NC	20	mg/kg	02.20.14 15:57	

**Analytical Method:** Mercury by SW-846 7471B

Seq Number: 934552

Parent Sample Id: 479331-050

Matrix: Soil

MD Sample Id: 479331-050 D

Prep Method: SW7471P

Date Prep: 02.19.14

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Mercury	<0.0619	<0.0619	0	20	mg/kg	02.20.14 20:05	U

**Analytical Method:** Mercury by SW-846 7471B

Seq Number: 934364

Parent Sample Id: 478640-001

Matrix: Soil

MS Sample Id: 478640-001 S

Prep Method: SW7471P

Date Prep: 02.16.14

MSD Sample Id: 478640-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Mercury	0.00824	0.547	0.551	99	0.504	101	80-120	9	20	mg/kg	02.18.14 13:24	

**Analytical Method:** Mercury by SW-846 7471B

Seq Number: 934549

Parent Sample Id: 479331-010

Matrix: Soil

MS Sample Id: 479331-010 S

Prep Method: SW7471P

Date Prep: 02.19.14

MSD Sample Id: 479331-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Mercury	0.743	0.562	0.887	26	0.803	12	80-120	10	20	mg/kg	02.20.14 17:53	X

**Analytical Method:** Mercury by SW-846 7471B

Seq Number: 934545

Parent Sample Id: 479331-030

Matrix: Soil

MS Sample Id: 479331-030 S

Prep Method: SW7471P

Date Prep: 02.19.14

MSD Sample Id: 479331-030 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Mercury	0.0379	0.555	0.670	114	0.654	113	80-120	2	20	mg/kg	02.20.14 16:00	

**Analytical Method:** Mercury by SW-846 7471B

Seq Number: 934552

Parent Sample Id: 479331-050

Matrix: Soil

MS Sample Id: 479331-050 S

Prep Method: SW7471P

Date Prep: 02.19.14

MSD Sample Id: 479331-050 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Mercury	0.0455	0.597	0.629	98	0.826	121	80-120	27	20	mg/kg	02.20.14 20:08	XF

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** RCRA Metals by SW-846 6010C

Seq Number: 934418

Matrix: Solid

Prep Method: SW3050B

Date Prep: 02.18.14

MB Sample Id: 651157-1-BLK

LCS Sample Id: 651157-1-BKS

LCSD Sample Id: 651157-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Arsenic	<0.617	100	94.5	95	94.0	94	75-125	1	20	mg/kg	02.19.14 14:02	
Barium	<0.204	100	91.9	92	91.0	91	75-125	1	20	mg/kg	02.19.14 14:02	
Cadmium	<0.0200	100	94.3	94	93.6	94	75-125	1	20	mg/kg	02.19.14 14:02	
Chromium	<0.0600	100	97.6	98	96.7	97	75-125	1	20	mg/kg	02.19.14 14:02	
Lead	<0.279	100	94.4	94	93.5	94	75-125	1	20	mg/kg	02.19.14 14:02	
Selenium	<0.760	100	93.4	93	93.2	93	75-125	0	20	mg/kg	02.19.14 14:02	
Silver	<0.0300	100	95.1	95	94.3	94	75-125	1	20	mg/kg	02.19.14 14:02	

**Analytical Method:** RCRA Metals by SW-846 6010C

Seq Number: 934494

Matrix: Solid

Prep Method: SW3050B

Date Prep: 02.19.14

MB Sample Id: 651225-1-BLK

LCS Sample Id: 651225-1-BKS

LCSD Sample Id: 651225-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Arsenic	<0.617	100	100	100	101	101	75-125	1	20	mg/kg	02.20.14 17:33	
Barium	<0.204	100	99.4	99	101	101	75-125	2	20	mg/kg	02.20.14 17:33	
Cadmium	<0.0200	100	101	101	102	102	75-125	1	20	mg/kg	02.20.14 17:33	
Chromium	<0.0600	100	104	104	105	105	75-125	1	20	mg/kg	02.20.14 17:33	
Lead	<0.279	100	100	100	101	101	75-125	1	20	mg/kg	02.20.14 17:33	
Selenium	<0.760	100	101	101	102	102	75-125	1	20	mg/kg	02.20.14 17:33	
Silver	<0.0300	100	101	101	102	102	75-125	1	20	mg/kg	02.20.14 17:33	

**Analytical Method:** RCRA Metals by SW-846 6010C

Seq Number: 934533

Matrix: Solid

Prep Method: SW3050B

Date Prep: 02.19.14

MB Sample Id: 651226-1-BLK

LCS Sample Id: 651226-1-BKS

LCSD Sample Id: 651226-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Arsenic	<0.617	100	99.6	100	99.1	99	75-125	1	20	mg/kg	02.20.14 19:03	
Barium	<0.204	100	98.7	99	97.7	98	75-125	1	20	mg/kg	02.20.14 19:03	
Cadmium	<0.0200	100	101	101	99.6	100	75-125	1	20	mg/kg	02.20.14 19:03	
Chromium	<0.0600	100	103	103	102	102	75-125	1	20	mg/kg	02.20.14 19:03	
Lead	<0.279	100	99.4	99	98.5	99	75-125	1	20	mg/kg	02.20.14 19:03	
Selenium	<0.760	100	101	101	99.4	99	75-125	2	20	mg/kg	02.20.14 19:03	
Silver	<0.0300	100	101	101	99.8	100	75-125	1	20	mg/kg	02.20.14 19:03	

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** RCRA Metals by SW-846 6010C

Seq Number: 934418

Matrix: Soil

Prep Method: SW3050B

Date Prep: 02.18.14

Parent Sample Id: 479399-013

MD Sample Id: 479399-013 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Arsenic	14.1	<5.54	NC	20	mg/kg	02.19.14 14:08	U
Barium	37.3	35.2	6	20	mg/kg	02.19.14 14:08	
Cadmium	1.23	<1.11	NC	20	mg/kg	02.19.14 14:08	U
Chromium	29.3	25.4	14	20	mg/kg	02.19.14 14:08	
Lead	13.5	12.7	6	20	mg/kg	02.19.14 14:08	
Selenium	<1.11	<1.11	0	20	mg/kg	02.19.14 14:08	U
Silver	<1.11	<1.11	0	20	mg/kg	02.19.14 14:08	U

**Analytical Method:** RCRA Metals by SW-846 6010C

Seq Number: 934494

Matrix: Soil

Prep Method: SW3050B

Date Prep: 02.19.14

Parent Sample Id: 479331-016

MD Sample Id: 479331-016 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Arsenic	<5.20	<5.20	0	20	mg/kg	02.20.14 17:39	U
Barium	44.8	50.1	11	20	mg/kg	02.20.14 17:39	
Cadmium	<1.04	<1.04	0	20	mg/kg	02.20.14 17:39	U
Chromium	18.8	21.2	12	20	mg/kg	02.20.14 17:39	
Lead	7.14	7.57	6	20	mg/kg	02.20.14 17:39	
Selenium	<1.04	<1.04	0	20	mg/kg	02.20.14 17:39	U
Silver	<1.04	<1.04	0	20	mg/kg	02.20.14 17:39	U

**Analytical Method:** RCRA Metals by SW-846 6010C

Seq Number: 934533

Matrix: Soil

Prep Method: SW3050B

Date Prep: 02.19.14

Parent Sample Id: 479331-036

MD Sample Id: 479331-036 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Arsenic	<5.02	<5.02	0	20	mg/kg	02.20.14 19:09	U
Barium	209	219	5	20	mg/kg	02.20.14 19:09	
Cadmium	<1.00	<1.00	0	20	mg/kg	02.20.14 19:09	U
Chromium	9.40	9.34	1	20	mg/kg	02.20.14 19:09	
Lead	465	532	13	20	mg/kg	02.20.14 19:09	
Selenium	<1.00	<1.00	0	20	mg/kg	02.20.14 19:09	U
Silver	1.48	1.42	4	20	mg/kg	02.20.14 19:09	

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** RCRA Metals by SW-846 6010C

Seq Number: 934418

Parent Sample Id: 479399-013

Matrix: Soil

MS Sample Id: 479399-013 S

Prep Method: SW3050B

Date Prep: 02.18.14

MSD Sample Id: 479399-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Arsenic	14.1	117	119	90	112	82	75-125	6	20	mg/kg	02.19.14 14:10	
Barium	37.3	117	149	95	146	91	75-125	2	20	mg/kg	02.19.14 14:10	
Cadmium	1.23	117	112	95	111	92	75-125	1	20	mg/kg	02.19.14 14:10	
Chromium	29.3	117	158	110	148	100	75-125	7	20	mg/kg	02.19.14 14:10	
Lead	13.5	117	124	94	121	90	75-125	2	20	mg/kg	02.19.14 14:10	
Selenium	<0.892	117	109	93	108	91	75-125	1	20	mg/kg	02.19.14 14:10	
Silver	<0.0352	117	114	97	113	95	75-125	1	20	mg/kg	02.19.14 14:10	

**Analytical Method:** RCRA Metals by SW-846 6010C

Seq Number: 934494

Parent Sample Id: 479331-016

Matrix: Soil

MS Sample Id: 479331-016 S

Prep Method: SW3050B

Date Prep: 02.19.14

MSD Sample Id: 479331-016 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Arsenic	4.54	105	109	99	111	99	75-125	2	20	mg/kg	02.20.14 17:41	
Barium	44.8	105	149	99	148	96	75-125	1	20	mg/kg	02.20.14 17:41	
Cadmium	0.826	105	106	100	108	100	75-125	2	20	mg/kg	02.20.14 17:41	
Chromium	18.8	105	131	107	129	103	75-125	2	20	mg/kg	02.20.14 17:41	
Lead	7.14	105	110	98	111	97	75-125	1	20	mg/kg	02.20.14 17:41	
Selenium	<0.798	105	104	99	106	99	75-125	2	20	mg/kg	02.20.14 17:41	
Silver	<0.0315	105	108	103	110	103	75-125	2	20	mg/kg	02.20.14 17:41	

**Analytical Method:** RCRA Metals by SW-846 6010C

Seq Number: 934533

Parent Sample Id: 479331-036

Matrix: Soil

MS Sample Id: 479331-036 S

Prep Method: SW3050B

Date Prep: 02.19.14

MSD Sample Id: 479331-036 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Arsenic	2.95	94.4	99.8	103	114	105	75-125	13	20	mg/kg	02.20.14 19:11	
Barium	209	94.4	381	182	410	190	75-125	7	20	mg/kg	02.20.14 19:11	X
Cadmium	0.689	94.4	97.5	103	109	102	75-125	11	20	mg/kg	02.20.14 19:11	
Chromium	9.40	94.4	114	111	136	119	75-125	18	20	mg/kg	02.20.14 19:11	
Lead	465	94.4	696	245	750	269	75-125	7	20	mg/kg	02.20.14 19:11	X
Selenium	<0.717	94.4	96.4	102	109	103	75-125	12	20	mg/kg	02.20.14 19:11	
Silver	1.48	94.4	102	106	116	108	75-125	13	20	mg/kg	02.20.14 19:11	

**Analytical Method:** Percent Moisture by ASTM 2216D

Seq Number: 934099

Parent Sample Id: 479331-001

Matrix: Soil

MD Sample Id: 479331-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Percent Moisture	13.0	12.5	4	20	%	02.14.14 16:50	



**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method: Percent Moisture by ASTM 2216D**

Seq Number: 934099 Matrix: Soil  
Parent Sample Id: 479331-011 MD Sample Id: 479331-011 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Percent Moisture	15.9	13.5	16	20	%	02.14.14 16:50	

**Analytical Method: Percent Moisture by ASTM 2216D**

Seq Number: 934101 Matrix: Soil  
Parent Sample Id: 479331-021 MD Sample Id: 479331-021 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Percent Moisture	12.3	10.5	16	20	%	02.14.14 16:50	

**Analytical Method: Percent Moisture by ASTM 2216D**

Seq Number: 934101 Matrix: Soil  
Parent Sample Id: 479331-031 MD Sample Id: 479331-031 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Percent Moisture	7.12	8.35	16	20	%	02.14.14 16:50	

**Analytical Method: Percent Moisture by ASTM 2216D**

Seq Number: 934105 Matrix: Soil  
Parent Sample Id: 479331-041 MD Sample Id: 479331-041 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Percent Moisture	20.6	18.9	9	20	%	02.14.14 16:50	

**Analytical Method: Percent Moisture by ASTM 2216D**

Seq Number: 934105 Matrix: Soil  
Parent Sample Id: 479331-051 MD Sample Id: 479331-051 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Percent Moisture	5.04	5.33	6	20	%	02.14.14 16:50	

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method: SVOCs by SW-846 8270D**

Seq Number: 934342

MB Sample Id: 651150-1-BLK

Matrix: Solid

LCS Sample Id: 651150-1-BKS

Prep Method: SW3550

Date Prep: 02.17.14

LCSD Sample Id: 651150-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
2,3,4,6-Tetrachlorophenol	<0.0500	1.67	1.56	93	1.62	97	40-130	4	30	mg/kg	02.18.14 10:10	
2,4,5-Trichlorophenol	<0.0613	1.67	1.19	71	1.21	72	50-113	2	30	mg/kg	02.18.14 10:10	
2,4,6-Trichlorophenol	<0.0643	1.67	1.21	72	1.23	74	47-118	2	30	mg/kg	02.18.14 10:10	
2,4-Dichlorophenol	<0.0423	1.67	1.23	74	1.19	71	51-109	3	30	mg/kg	02.18.14 10:10	
2,4-Dimethylphenol	<0.0607	1.67	1.06	63	1.13	68	46-106	6	30	mg/kg	02.18.14 10:10	
2,4-Dinitrophenol	<0.0537	1.67	1.24	74	1.07	64	15-130	15	30	mg/kg	02.18.14 10:10	
2,4-Dinitrotoluene	<0.0537	1.67	1.45	87	1.48	89	53-125	2	30	mg/kg	02.18.14 10:10	
2,6-Dinitrotoluene	<0.0433	1.67	1.42	85	1.42	85	48-128	0	30	mg/kg	02.18.14 10:10	
2-Chloronaphthalene	<0.0607	1.67	1.21	72	1.25	75	54-109	3	30	mg/kg	02.18.14 10:10	
2-Chlorophenol	<0.0597	1.67	0.970	58	1.17	70	47-105	19	30	mg/kg	02.18.14 10:10	
2-Methylnaphthalene	<0.0510	1.67	1.28	77	1.35	81	45-102	5	30	mg/kg	02.18.14 10:10	
2-methylphenol	<0.0467	1.67	1.08	65	1.18	71	48-106	9	30	mg/kg	02.18.14 10:10	
2-Nitroaniline	<0.0447	1.67	1.26	75	1.35	81	43-123	7	30	mg/kg	02.18.14 10:10	
2-Nitrophenol	<0.0420	1.67	1.17	70	1.19	71	38-118	2	30	mg/kg	02.18.14 10:10	
3&4-Methylphenol	<0.0987	1.67	1.09	65	1.19	71	40-105	9	30	mg/kg	02.18.14 10:10	
3-Nitroaniline	<0.0460	1.67	1.33	80	1.38	83	39-101	4	30	mg/kg	02.18.14 10:10	
4,6-dinitro-2-methyl phenol	<0.0580	1.67	1.66	99	1.41	84	14-141	16	30	mg/kg	02.18.14 10:10	
4-Bromophenyl-phenylether	<0.0567	1.67	1.33	80	1.34	80	54-119	1	30	mg/kg	02.18.14 10:10	
4-chloro-3-methylphenol	<0.0477	1.67	1.29	77	1.30	78	45-115	1	30	mg/kg	02.18.14 10:10	
4-Chloroaniline	<0.0553	1.67	1.32	79	1.38	83	16-139	4	30	mg/kg	02.18.14 10:10	
4-Chlorophenyl Phenyl Ether	<0.0633	1.67	1.27	76	1.25	75	56-113	2	30	mg/kg	02.18.14 10:10	
4-Nitroaniline	<0.0507	1.67	1.34	80	1.39	83	46-115	4	30	mg/kg	02.18.14 10:10	
4-Nitrophenol	<0.0410	1.67	1.27	76	1.22	73	35-122	4	30	mg/kg	02.18.14 10:10	
Acenaphthene	<0.0467	1.67	1.22	73	1.25	75	50-113	2	30	mg/kg	02.18.14 10:10	
Acenaphthylene	<0.0567	1.67	1.33	80	1.34	80	57-126	1	30	mg/kg	02.18.14 10:10	
Anthracene	<0.0493	1.67	1.36	81	1.38	83	60-116	1	30	mg/kg	02.18.14 10:10	
Benzo(a)anthracene	<0.0540	1.67	1.51	90	1.52	91	56-123	1	30	mg/kg	02.18.14 10:10	
Benzo(a)pyrene	<0.0490	1.67	1.50	90	1.54	92	58-101	3	30	mg/kg	02.18.14 10:10	
Benzo(b)fluoranthene	<0.0543	1.67	1.35	81	1.42	85	60-111	5	30	mg/kg	02.18.14 10:10	
Benzo(g,h,i)perylene	<0.0550	1.67	1.53	92	1.55	93	57-122	1	30	mg/kg	02.18.14 10:10	
Benzo(k)fluoranthene	<0.0573	1.67	1.45	87	1.52	91	59-116	5	30	mg/kg	02.18.14 10:10	
bis(2-chloroethoxy) methane	<0.0400	1.67	1.17	70	1.27	76	50-106	8	30	mg/kg	02.18.14 10:10	
bis(2-chloroethyl) ether	<0.0473	1.67	0.928	56	1.17	70	50-103	23	30	mg/kg	02.18.14 10:10	
bis(2-ethylhexyl) phthalate	<0.0540	1.67	1.56	93	1.52	91	46-137	3	30	mg/kg	02.18.14 10:10	
Butylbenzylphthalate	<0.0500	1.67	1.53	92	1.52	91	44-137	1	30	mg/kg	02.18.14 10:10	
Carbazole	<0.0570	1.67	1.47	88	1.48	89	51-117	1	30	mg/kg	02.18.14 10:10	
Chrysene	<0.0443	1.67	1.48	89	1.51	90	57-114	2	30	mg/kg	02.18.14 10:10	
Dibenz(a,h)Anthracene	<0.0647	1.67	1.50	90	1.50	90	57-123	0	30	mg/kg	02.18.14 10:10	
Dibenzofuran	<0.0427	1.67	1.23	74	1.22	73	50-109	1	30	mg/kg	02.18.14 10:10	
Diethyl Phthalate	<0.0537	1.67	1.36	81	1.38	83	51-124	1	30	mg/kg	02.18.14 10:10	
Dimethyl Phthalate	<0.0503	1.67	1.35	81	1.34	80	53-116	1	30	mg/kg	02.18.14 10:10	
di-n-Butyl Phthalate	<0.0613	1.67	1.43	86	1.38	83	53-127	4	30	mg/kg	02.18.14 10:10	
di-n-Octyl Phthalate	<0.0553	1.67	1.46	87	1.43	86	46-133	2	30	mg/kg	02.18.14 10:10	
Fluoranthene	<0.0433	1.67	1.45	87	1.47	88	61-115	1	30	mg/kg	02.18.14 10:10	
Fluorene	<0.0407	1.67	1.30	78	1.29	77	55-114	1	30	mg/kg	02.18.14 10:10	
Hexachlorobenzene	<0.0557	1.67	1.33	80	1.33	80	54-121	0	30	mg/kg	02.18.14 10:10	
Hexachlorobutadiene	<0.0370	1.67	0.905	54	1.04	62	50-110	14	30	mg/kg	02.18.14 10:10	
Hexachlorocyclopentadiene	<0.0573	1.67	1.04	62	1.04	62	60-144	0	30	mg/kg	02.18.14 10:10	
Hexachloroethane	<0.0517	1.67	0.821	49	1.07	64	42-109	26	30	mg/kg	02.18.14 10:10	
Indeno(1,2,3-c,d)Pyrene	<0.0607	1.67	1.49	89	1.52	91	58-127	2	30	mg/kg	02.18.14 10:10	
Isophorone	<0.0343	1.67	1.13	68	1.22	73	47-143	8	30	mg/kg	02.18.14 10:10	
Naphthalene	<0.0533	1.67	1.06	63	1.18	71	50-106	11	30	mg/kg	02.18.14 10:10	

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method: SVOCs by SW-846 8270D**

Seq Number: 934342

Matrix: Solid

Prep Method: SW3550

Date Prep: 02.17.14

MB Sample Id: 651150-1-BLK

LCS Sample Id: 651150-1-BKS

LCSD Sample Id: 651150-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Nitrobenzene	<0.0593	1.67	1.45	87	1.61	96	47-107	10	30	mg/kg	02.18.14 10:10	
N-Nitrosodi-n-Propylamine	<0.0477	1.67	1.27	76	1.35	81	43-125	6	30	mg/kg	02.18.14 10:10	
N-Nitrosodiphenylamine	<0.0700	1.67	1.59	95	1.59	95	54-127	0	30	mg/kg	02.18.14 10:10	
Pentachlorophenol	<0.0603	1.67	1.08	65	1.11	66	10-141	3	30	mg/kg	02.18.14 10:10	
Phenanthrene	<0.0553	1.67	1.36	81	1.38	83	59-112	1	30	mg/kg	02.18.14 10:10	
Phenol	<0.0467	1.67	1.02	61	1.12	67	45-108	9	30	mg/kg	02.18.14 10:10	
Pyrene	<0.0567	1.67	1.49	89	1.49	89	52-124	0	30	mg/kg	02.18.14 10:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	62		64		71		20-112	%	02.18.14 10:10
2-Fluorophenol	54		41		60		18-101	%	02.18.14 10:10
Nitrobenzene-d5	56		58		64		13-112	%	02.18.14 10:10
Phenol-d5	60		62		74		15-110	%	02.18.14 10:10
Terphenyl-D14	96		96		98		21-138	%	02.18.14 10:10
2,4,6-Tribromophenol	68		76		80		21-128	%	02.18.14 10:10

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** SVOCs by SW-846 8270D

**Seq Number:** 934471

**MB Sample Id:** 651214-1-BLK

**Matrix:** Solid

**LCS Sample Id:** 651214-1-BKS

**Prep Method:** SW3550

**Date Prep:** 02.18.14

**LCSD Sample Id:** 651214-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
2,3,4,6-Tetrachlorophenol	<0.0500	1.67	1.49	89	1.44	86	40-130	3	30	mg/kg	02.19.14 21:53	
2,4,5-Trichlorophenol	<0.0613	1.67	1.39	83	1.26	75	50-113	10	30	mg/kg	02.19.14 21:53	
2,4,6-Trichlorophenol	<0.0643	1.67	1.36	81	1.27	76	47-118	7	30	mg/kg	02.19.14 21:53	
2,4-Dichlorophenol	<0.0423	1.67	1.45	87	1.43	86	51-109	1	30	mg/kg	02.19.14 21:53	
2,4-Dimethylphenol	<0.0607	1.67	1.24	74	1.19	71	46-106	4	30	mg/kg	02.19.14 21:53	
2,4-Dinitrophenol	<0.0537	1.67	1.12	67	1.14	68	15-130	2	30	mg/kg	02.19.14 21:53	
2,4-Dinitrotoluene	<0.0537	1.67	1.51	90	1.44	86	53-125	5	30	mg/kg	02.19.14 21:53	
2,6-Dinitrotoluene	<0.0433	1.67	1.47	88	1.37	82	48-128	7	30	mg/kg	02.19.14 21:53	
2-Chloronaphthalene	<0.0607	1.67	1.37	82	1.28	77	54-109	7	30	mg/kg	02.19.14 21:53	
2-Chlorophenol	<0.0597	1.67	1.42	85	1.36	81	47-105	4	30	mg/kg	02.19.14 21:53	
2-Methylnaphthalene	<0.0510	1.67	1.51	90	1.31	78	45-102	14	30	mg/kg	02.19.14 21:53	
2-methylphenol	<0.0467	1.67	1.39	83	1.31	78	48-106	6	30	mg/kg	02.19.14 21:53	
2-Nitroaniline	<0.0447	1.67	1.37	82	1.22	73	43-123	12	30	mg/kg	02.19.14 21:53	
2-Nitrophenol	<0.0420	1.67	1.46	87	1.38	83	38-118	6	30	mg/kg	02.19.14 21:53	
3&4-Methylphenol	<0.0987	1.67	1.41	84	1.33	80	40-105	6	30	mg/kg	02.19.14 21:53	
3-Nitroaniline	<0.0460	1.67	1.48	89	1.44	86	39-101	3	30	mg/kg	02.19.14 21:53	
4,6-dinitro-2-methyl phenol	<0.0580	1.67	1.36	81	1.36	81	14-141	0	30	mg/kg	02.19.14 21:53	
4-Bromophenyl-phenylether	<0.0567	1.67	1.36	81	1.27	76	54-119	7	30	mg/kg	02.19.14 21:53	
4-chloro-3-methylphenol	<0.0477	1.67	1.39	83	1.33	80	45-115	4	30	mg/kg	02.19.14 21:53	
4-Chloroaniline	<0.0553	1.67	1.47	88	1.45	87	16-139	1	30	mg/kg	02.19.14 21:53	
4-Chlorophenyl Phenyl Ether	<0.0633	1.67	1.30	78	1.22	73	56-113	6	30	mg/kg	02.19.14 21:53	
4-Nitroaniline	<0.0507	1.67	1.41	84	1.40	84	46-115	1	30	mg/kg	02.19.14 21:53	
4-Nitrophenol	<0.0410	1.67	1.20	72	1.16	69	35-122	3	30	mg/kg	02.19.14 21:53	
Acenaphthene	<0.0467	1.67	1.34	80	1.23	74	50-113	9	30	mg/kg	02.19.14 21:53	
Acenaphthylene	<0.0567	1.67	1.46	87	1.35	81	57-126	8	30	mg/kg	02.19.14 21:53	
Anthracene	<0.0493	1.67	1.40	84	1.34	80	60-116	4	30	mg/kg	02.19.14 21:53	
Benzo(a)anthracene	<0.0540	1.67	1.59	95	1.42	85	56-123	11	30	mg/kg	02.19.14 21:53	
Benzo(a)pyrene	<0.0490	1.67	1.60	96	1.44	86	58-101	11	30	mg/kg	02.19.14 21:53	
Benzo(b)fluoranthene	<0.0543	1.67	1.71	102	1.46	87	60-111	16	30	mg/kg	02.19.14 21:53	
Benzo(g,h,i)perylene	<0.0550	1.67	1.55	93	1.37	82	57-122	12	30	mg/kg	02.19.14 21:53	
Benzo(k)fluoranthene	<0.0573	1.67	1.52	91	1.41	84	59-116	8	30	mg/kg	02.19.14 21:53	
bis(2-chloroethoxy) methane	<0.0400	1.67	1.39	83	1.29	77	50-106	7	30	mg/kg	02.19.14 21:53	
bis(2-chloroethyl) ether	<0.0473	1.67	1.40	84	1.26	75	50-103	11	30	mg/kg	02.19.14 21:53	
bis(2-ethylhexyl) phthalate	<0.0540	1.67	1.59	95	1.43	86	46-137	11	30	mg/kg	02.19.14 21:53	
Butylbenzylphthalate	<0.0500	1.67	1.56	93	1.43	86	44-137	9	30	mg/kg	02.19.14 21:53	
Carbazole	<0.0570	1.67	1.51	90	1.43	86	51-117	5	30	mg/kg	02.19.14 21:53	
Chrysene	<0.0443	1.67	1.37	82	1.34	80	57-114	2	30	mg/kg	02.19.14 21:53	
Dibenz(a,h)Anthracene	<0.0647	1.67	1.48	89	1.34	80	57-123	10	30	mg/kg	02.19.14 21:53	
Dibenzofuran	<0.0427	1.67	1.29	77	1.18	71	50-109	9	30	mg/kg	02.19.14 21:53	
Diethyl Phthalate	<0.0537	1.67	1.38	83	1.30	78	51-124	6	30	mg/kg	02.19.14 21:53	
Dimethyl Phthalate	<0.0503	1.67	1.34	80	1.27	76	53-116	5	30	mg/kg	02.19.14 21:53	
di-n-Butyl Phthalate	<0.0613	1.67	1.43	86	1.30	78	53-127	10	30	mg/kg	02.19.14 21:53	
di-n-Octyl Phthalate	<0.0553	1.67	1.53	92	1.38	83	46-133	10	30	mg/kg	02.19.14 21:53	
Fluoranthene	<0.0433	1.67	1.46	87	1.38	83	61-115	6	30	mg/kg	02.19.14 21:53	
Fluorene	<0.0407	1.67	1.33	80	1.24	74	55-114	7	30	mg/kg	02.19.14 21:53	
Hexachlorobenzene	<0.0557	1.67	1.36	81	1.31	78	54-121	4	30	mg/kg	02.19.14 21:53	
Hexachlorobutadiene	<0.0370	1.67	1.24	74	1.15	69	50-110	8	30	mg/kg	02.19.14 21:53	
Hexachlorocyclopentadiene	<0.0573	1.67	1.07	64	1.07	64	60-144	0	30	mg/kg	02.19.14 21:53	
Hexachloroethane	<0.0517	1.67	1.31	78	1.21	72	42-109	8	30	mg/kg	02.19.14 21:53	
Indeno(1,2,3-c,d)Pyrene	<0.0607	1.67	1.50	90	1.35	81	58-127	11	30	mg/kg	02.19.14 21:53	
Isophorone	<0.0343	1.67	1.31	78	1.21	72	47-143	8	30	mg/kg	02.19.14 21:53	
Naphthalene	<0.0533	1.67	1.32	79	1.26	75	50-106	5	30	mg/kg	02.19.14 21:53	

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** SVOCs by SW-846 8270D

Seq Number: 934471

MB Sample Id: 651214-1-BLK

Matrix: Solid

LCS Sample Id: 651214-1-BKS

Prep Method: SW3550

Date Prep: 02.18.14

LCSD Sample Id: 651214-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Nitrobenzene	<0.0593	1.67	1.80	108	1.69	101	47-107	6	30	mg/kg	02.19.14 21:53	H
N-Nitrosodi-n-Propylamine	<0.0477	1.67	1.46	87	1.36	81	43-125	7	30	mg/kg	02.19.14 21:53	
N-Nitrosodiphenylamine	<0.0700	1.67	1.59	95	1.52	91	54-127	5	30	mg/kg	02.19.14 21:53	
Pentachlorophenol	<0.0603	1.67	1.39	83	1.35	81	10-141	3	30	mg/kg	02.19.14 21:53	
Phenanthrene	<0.0553	1.67	1.37	82	1.29	77	59-112	6	30	mg/kg	02.19.14 21:53	
Phenol	<0.0467	1.67	1.38	83	1.31	78	45-108	5	30	mg/kg	02.19.14 21:53	
Pyrene	<0.0567	1.67	1.50	90	1.39	83	52-124	8	30	mg/kg	02.19.14 21:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	80		76		72		20-112	%	02.19.14 21:53
2-Fluorophenol	80		76		74		18-101	%	02.19.14 21:53
Nitrobenzene-d5	80		78		71		13-112	%	02.19.14 21:53
Phenol-d5	89		89		87		15-110	%	02.19.14 21:53
Terphenyl-D14	111		105		97		21-138	%	02.19.14 21:53
2,4,6-Tribromophenol	96		85		83		21-128	%	02.19.14 21:53

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** SVOCs by SW-846 8270D

**Seq Number:** 934473

**MB Sample Id:** 651215-1-BLK

**Matrix:** Solid

**LCS Sample Id:** 651215-1-BKS

**Prep Method:** SW3550

**Date Prep:** 02.18.14

**LCSD Sample Id:** 651215-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
2,3,4,6-Tetrachlorophenol	<0.0500	1.67	1.41	84	1.48	89	40-130	5	30	mg/kg	02.19.14 12:29	
2,4,5-Trichlorophenol	<0.0613	1.67	1.08	65	1.12	67	50-113	4	30	mg/kg	02.19.14 12:29	
2,4,6-Trichlorophenol	<0.0643	1.67	1.11	66	1.10	66	47-118	1	30	mg/kg	02.19.14 12:29	
2,4-Dichlorophenol	<0.0423	1.67	1.19	71	1.22	73	51-109	2	30	mg/kg	02.19.14 12:29	
2,4-Dimethylphenol	<0.0607	1.67	1.01	60	1.00	60	46-106	1	30	mg/kg	02.19.14 12:29	
2,4-Dinitrophenol	<0.0537	1.67	1.25	75	1.22	73	15-130	2	30	mg/kg	02.19.14 12:29	
2,4-Dinitrotoluene	<0.0537	1.67	1.38	83	1.41	84	53-125	2	30	mg/kg	02.19.14 12:29	
2,6-Dinitrotoluene	<0.0433	1.67	1.26	75	1.33	80	48-128	5	30	mg/kg	02.19.14 12:29	
2-Chloronaphthalene	<0.0607	1.67	1.10	66	1.13	68	54-109	3	30	mg/kg	02.19.14 12:29	
2-Chlorophenol	<0.0597	1.67	1.17	70	1.14	68	47-105	3	30	mg/kg	02.19.14 12:29	
2-Methylnaphthalene	<0.0510	1.67	1.20	72	1.19	71	45-102	1	30	mg/kg	02.19.14 12:29	
2-methylphenol	<0.0467	1.67	1.11	66	1.10	66	48-106	1	30	mg/kg	02.19.14 12:29	
2-Nitroaniline	<0.0447	1.67	1.16	69	1.17	70	43-123	1	30	mg/kg	02.19.14 12:29	
2-Nitrophenol	<0.0420	1.67	1.20	72	1.23	74	38-118	2	30	mg/kg	02.19.14 12:29	
3&4-Methylphenol	<0.0987	1.67	1.14	68	1.14	68	40-105	0	30	mg/kg	02.19.14 12:29	
3-Nitroaniline	<0.0460	1.67	1.24	74	1.29	77	39-101	4	30	mg/kg	02.19.14 12:29	
4,6-dinitro-2-methyl phenol	<0.0580	1.67	1.60	96	1.59	95	14-141	1	30	mg/kg	02.19.14 12:29	
4-Bromophenyl-phenylether	<0.0567	1.67	1.11	66	1.17	70	54-119	5	30	mg/kg	02.19.14 12:29	
4-chloro-3-methylphenol	<0.0477	1.67	1.14	68	1.14	68	45-115	0	30	mg/kg	02.19.14 12:29	
4-Chloroaniline	<0.0553	1.67	1.25	75	1.33	80	16-139	6	30	mg/kg	02.19.14 12:29	
4-Chlorophenyl Phenyl Ether	<0.0633	1.67	1.08	65	1.10	66	56-113	2	30	mg/kg	02.19.14 12:29	
4-Nitroaniline	<0.0507	1.67	1.19	71	1.34	80	46-115	12	30	mg/kg	02.19.14 12:29	
4-Nitrophenol	<0.0410	1.67	1.19	71	1.31	78	35-122	10	30	mg/kg	02.19.14 12:29	
Acenaphthene	<0.0467	1.67	1.08	65	1.11	66	50-113	3	30	mg/kg	02.19.14 12:29	
Acenaphthylene	<0.0567	1.67	1.17	70	1.18	71	57-126	1	30	mg/kg	02.19.14 12:29	
Anthracene	<0.0493	1.67	1.21	72	1.27	76	60-116	5	30	mg/kg	02.19.14 12:29	
Benzo(a)anthracene	<0.0540	1.67	1.45	87	1.53	92	56-123	5	30	mg/kg	02.19.14 12:29	
Benzo(a)pyrene	<0.0490	1.67	1.40	84	1.49	89	58-101	6	30	mg/kg	02.19.14 12:29	
Benzo(b)fluoranthene	<0.0543	1.67	1.54	92	1.41	84	60-111	9	30	mg/kg	02.19.14 12:29	
Benzo(g,h,i)perylene	<0.0550	1.67	1.40	84	1.51	90	57-122	8	30	mg/kg	02.19.14 12:29	
Benzo(k)fluoranthene	<0.0573	1.67	1.30	78	1.44	86	59-116	10	30	mg/kg	02.19.14 12:29	
bis(2-chloroethoxy) methane	<0.0400	1.67	1.11	66	1.14	68	50-106	3	30	mg/kg	02.19.14 12:29	
bis(2-chloroethyl) ether	<0.0473	1.67	1.06	63	1.05	63	50-103	1	30	mg/kg	02.19.14 12:29	
bis(2-ethylhexyl) phthalate	<0.0540	1.67	1.43	86	1.48	89	46-137	3	30	mg/kg	02.19.14 12:29	
Butylbenzylphthalate	<0.0500	1.67	1.43	86	1.45	87	44-137	1	30	mg/kg	02.19.14 12:29	
Carbazole	<0.0570	1.67	1.30	78	1.40	84	51-117	7	30	mg/kg	02.19.14 12:29	
Chrysene	<0.0443	1.67	1.34	80	1.37	82	57-114	2	30	mg/kg	02.19.14 12:29	
Dibenz(a,h)Anthracene	<0.0647	1.67	1.35	81	1.43	86	57-123	6	30	mg/kg	02.19.14 12:29	
Dibenzofuran	<0.0427	1.67	1.04	62	1.06	63	50-109	2	30	mg/kg	02.19.14 12:29	
Diethyl Phthalate	<0.0537	1.67	1.17	70	1.22	73	51-124	4	30	mg/kg	02.19.14 12:29	
Dimethyl Phthalate	<0.0503	1.67	1.14	68	1.18	71	53-116	3	30	mg/kg	02.19.14 12:29	
di-n-Butyl Phthalate	<0.0613	1.67	1.29	77	1.36	81	53-127	5	30	mg/kg	02.19.14 12:29	
di-n-Octyl Phthalate	<0.0553	1.67	1.42	85	1.49	89	46-133	5	30	mg/kg	02.19.14 12:29	
Fluoranthene	<0.0433	1.67	1.28	77	1.37	82	61-115	7	30	mg/kg	02.19.14 12:29	
Fluorene	<0.0407	1.67	1.09	65	1.12	67	55-114	3	30	mg/kg	02.19.14 12:29	
Hexachlorobenzene	<0.0557	1.67	1.16	69	1.24	74	54-121	7	30	mg/kg	02.19.14 12:29	
Hexachlorobutadiene	<0.0370	1.67	0.956	57	0.992	59	50-110	4	30	mg/kg	02.19.14 12:29	
Hexachlorocyclopentadiene	<0.0573	1.67	1.12	67	1.08	65	60-144	4	30	mg/kg	02.19.14 12:29	
Hexachloroethane	<0.0517	1.67	1.03	62	1.03	62	42-109	0	30	mg/kg	02.19.14 12:29	
Indeno(1,2,3-c,d)Pyrene	<0.0607	1.67	1.36	81	1.44	86	58-127	6	30	mg/kg	02.19.14 12:29	
Isophorone	<0.0343	1.67	1.07	64	1.06	63	47-143	1	30	mg/kg	02.19.14 12:29	
Naphthalene	<0.0533	1.67	1.06	63	1.08	65	50-106	2	30	mg/kg	02.19.14 12:29	



**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method: SVOCs by SW-846 8270D**

Seq Number: 934473

MB Sample Id: 651215-1-BLK

Matrix: Solid

LCS Sample Id: 651215-1-BKS

Prep Method: SW3550

Date Prep: 02.18.14

LCSD Sample Id: 651215-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Nitrobenzene	<0.0593	1.67	1.44	86	1.47	88	47-107	2	30	mg/kg	02.19.14 12:29	
N-Nitrosodi-n-Propylamine	<0.0477	1.67	1.22	73	1.21	72	43-125	1	30	mg/kg	02.19.14 12:29	
N-Nitrosodiphenylamine	<0.0700	1.67	1.34	80	1.42	85	54-127	6	30	mg/kg	02.19.14 12:29	
Pentachlorophenol	<0.0603	1.67	1.19	71	1.26	75	10-141	6	30	mg/kg	02.19.14 12:29	
Phenanthrene	<0.0553	1.67	1.17	70	1.24	74	59-112	6	30	mg/kg	02.19.14 12:29	
Phenol	<0.0467	1.67	1.09	65	1.11	66	45-108	2	30	mg/kg	02.19.14 12:29	
Pyrene	<0.0567	1.67	1.34	80	1.40	84	52-124	4	30	mg/kg	02.19.14 12:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	58		60		60		20-112	%	02.19.14 12:29
2-Fluorophenol	54		59		56		18-101	%	02.19.14 12:29
Nitrobenzene-d5	59		59		58		13-112	%	02.19.14 12:29
Phenol-d5	59		70		71		15-110	%	02.19.14 12:29
Terphenyl-D14	102		95		100		21-138	%	02.19.14 12:29
2,4,6-Tribromophenol	70		71		73		21-128	%	02.19.14 12:29

**Analytical Method: SVOCs by SW-846 8270D**

Seq Number: 934342

Matrix: Solid

MB Sample Id: 651150-1-BLK

Prep Method: SW3550

Date Prep: 02.17.14

Parameter	MB Result	Units	Analysis Date	Flag
3,3-Dichlorobenzidine	BRL	mg/kg	02.18.14 09:42	
Acetophenone	BRL	mg/kg	02.18.14 09:42	

**Analytical Method: SVOCs by SW-846 8270D**

Seq Number: 934471

Matrix: Solid

MB Sample Id: 651214-1-BLK

Prep Method: SW3550

Date Prep: 02.18.14

Parameter	MB Result	Units	Analysis Date	Flag
3,3-Dichlorobenzidine	BRL	mg/kg	02.19.14 21:25	
Acetophenone	BRL	mg/kg	02.19.14 21:25	

**Analytical Method: SVOCs by SW-846 8270D**

Seq Number: 934473

Matrix: Solid

MB Sample Id: 651215-1-BLK

Prep Method: SW3550

Date Prep: 02.18.14

Parameter	MB Result	Units	Analysis Date	Flag
3,3-Dichlorobenzidine	BRL	mg/kg	02.19.14 12:01	
Acetophenone	BRL	mg/kg	02.19.14 12:01	



**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** SVOCs by SW-846 8270D

Seq Number: 934342

Parent Sample Id: 479331-002

Matrix: Soil

MS Sample Id: 479331-002 S

Prep Method: SW3550

Date Prep: 02.17.14

MSD Sample Id: 479331-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
2,3,4,6-Tetrachlorophenol	<0.0561	1.87	1.69	90	1.83	99	37-125	8	30	mg/kg	02.18.14 12:01	
2,4,5-Trichlorophenol	<0.0688	1.87	1.33	71	1.40	76	50-110	5	30	mg/kg	02.18.14 12:01	
2,4,6-Trichlorophenol	<0.0722	1.87	1.32	71	1.40	76	45-110	6	30	mg/kg	02.18.14 12:01	
2,4-Dichlorophenol	<0.0475	1.87	1.40	75	1.56	84	45-110	11	30	mg/kg	02.18.14 12:01	
2,4-Dimethylphenol	<0.0680	1.87	1.17	63	1.29	70	30-105	10	30	mg/kg	02.18.14 12:01	
2,4-Dinitrophenol	<0.0602	1.87	1.29	69	1.21	65	15-130	6	30	mg/kg	02.18.14 12:01	
2,4-Dinitrotoluene	<0.0602	1.87	1.56	83	1.64	89	50-115	5	30	mg/kg	02.18.14 12:01	
2,6-Dinitrotoluene	<0.0486	1.87	1.50	80	1.60	86	50-110	6	30	mg/kg	02.18.14 12:01	
2-Chloronaphthalene	<0.0680	1.87	1.31	70	1.43	77	45-105	9	30	mg/kg	02.18.14 12:01	
2-Chlorophenol	<0.0669	1.87	1.28	68	1.42	77	45-105	10	30	mg/kg	02.18.14 12:01	
2-Methylnaphthalene	<0.0572	1.87	1.40	75	1.55	84	45-105	10	30	mg/kg	02.18.14 12:01	
2-methylphenol	<0.0523	1.87	1.24	66	1.41	76	40-105	13	30	mg/kg	02.18.14 12:01	
2-Nitroaniline	<0.0501	1.87	1.40	75	1.43	77	45-120	2	30	mg/kg	02.18.14 12:01	
2-Nitrophenol	<0.0471	1.87	1.37	73	1.54	83	40-110	12	30	mg/kg	02.18.14 12:01	
3&4-Methylphenol	<0.111	1.87	1.31	70	1.46	79	40-105	11	30	mg/kg	02.18.14 12:01	
3-Nitroaniline	<0.0516	1.87	1.46	78	1.51	82	25-110	3	30	mg/kg	02.18.14 12:01	
4,6-dinitro-2-methyl phenol	<0.0651	1.87	1.93	103	1.69	91	30-135	13	30	mg/kg	02.18.14 12:01	
4-Bromophenyl-phenylether	<0.0636	1.87	1.37	73	1.48	80	45-115	8	30	mg/kg	02.18.14 12:01	
4-chloro-3-methylphenol	<0.0535	1.87	1.35	72	1.47	79	45-115	9	30	mg/kg	02.18.14 12:01	
4-Chloroaniline	<0.0621	1.87	1.48	79	1.56	84	4-149	5	30	mg/kg	02.18.14 12:01	
4-Chlorophenyl Phenyl Ether	<0.0710	1.87	1.32	71	1.38	75	45-110	4	30	mg/kg	02.18.14 12:01	
4-Nitroaniline	<0.0568	1.87	1.43	76	1.49	81	35-115	4	30	mg/kg	02.18.14 12:01	
4-Nitrophenol	<0.0460	1.87	1.36	73	1.42	77	15-140	4	30	mg/kg	02.18.14 12:01	
Acenaphthene	<0.0523	1.87	1.32	71	1.43	77	45-110	8	30	mg/kg	02.18.14 12:01	
Acenaphthylene	<0.0636	1.87	1.39	74	1.53	83	45-105	10	30	mg/kg	02.18.14 12:01	
Anthracene	<0.0553	1.87	1.45	78	1.52	82	55-105	5	30	mg/kg	02.18.14 12:01	
Benzo(a)anthracene	<0.0606	1.87	1.61	86	1.69	91	50-110	5	30	mg/kg	02.18.14 12:01	
Benzo(a)pyrene	<0.0550	1.87	1.57	84	1.63	88	50-110	4	30	mg/kg	02.18.14 12:01	
Benzo(b)fluoranthene	<0.0609	1.87	1.46	78	1.62	88	45-115	10	30	mg/kg	02.18.14 12:01	
Benzo(g,h,i)perylene	<0.0617	1.87	1.59	85	1.65	89	40-125	4	30	mg/kg	02.18.14 12:01	
Benzo(k)fluoranthene	<0.0643	1.87	1.50	80	1.62	88	45-125	8	30	mg/kg	02.18.14 12:01	
bis(2-chloroethoxy) methane	<0.0449	1.87	1.34	72	1.48	80	45-110	10	30	mg/kg	02.18.14 12:01	
bis(2-chloroethyl) ether	<0.0531	1.87	1.27	68	1.43	77	40-105	12	30	mg/kg	02.18.14 12:01	
bis(2-ethylhexyl) phthalate	<0.0606	1.87	1.65	88	1.72	93	45-125	4	30	mg/kg	02.18.14 12:01	
Butylbenzylphthalate	<0.0561	1.87	1.65	88	1.70	92	50-125	3	30	mg/kg	02.18.14 12:01	
Carbazole	<0.0639	1.87	1.55	83	1.65	89	45-115	6	30	mg/kg	02.18.14 12:01	
Chrysene	<0.0497	1.87	1.53	82	1.62	88	55-110	6	30	mg/kg	02.18.14 12:01	
Dibenz(a,h)Anthracene	<0.0725	1.87	1.54	82	1.62	88	40-125	5	30	mg/kg	02.18.14 12:01	
Dibenzofuran	<0.0479	1.87	1.29	69	1.38	75	50-105	7	30	mg/kg	02.18.14 12:01	
Diethyl Phthalate	<0.0602	1.87	1.41	75	1.51	82	50-115	7	30	mg/kg	02.18.14 12:01	
Dimethyl Phthalate	<0.0565	1.87	1.40	75	1.50	81	50-110	7	30	mg/kg	02.18.14 12:01	
di-n-Butyl Phthalate	<0.0688	1.87	1.47	79	1.60	86	55-110	8	30	mg/kg	02.18.14 12:01	
di-n-Octyl Phthalate	<0.0621	1.87	1.58	84	1.68	91	40-130	6	30	mg/kg	02.18.14 12:01	
Fluoranthene	<0.0486	1.87	1.51	81	1.62	88	55-115	7	30	mg/kg	02.18.14 12:01	
Fluorene	<0.0456	1.87	1.34	72	1.45	78	50-110	8	30	mg/kg	02.18.14 12:01	
Hexachlorobenzene	<0.0624	1.87	1.40	75	1.53	83	45-120	9	30	mg/kg	02.18.14 12:01	
Hexachlorobutadiene	<0.0415	1.87	1.13	60	1.25	68	40-115	10	30	mg/kg	02.18.14 12:01	
Hexachlorocyclopentadiene	<0.0643	1.87	1.22	65	1.26	68	65-135	3	30	mg/kg	02.18.14 12:01	
Hexachloroethane	<0.0580	1.87	1.15	61	1.30	70	35-110	12	30	mg/kg	02.18.14 12:01	
Indeno(1,2,3-c,d)Pyrene	<0.0680	1.87	1.55	83	1.60	86	40-120	3	30	mg/kg	02.18.14 12:01	
Isophorone	<0.0385	1.87	1.26	67	1.32	71	45-110	5	30	mg/kg	02.18.14 12:01	
Naphthalene	<0.0598	1.87	1.23	66	1.36	74	40-105	10	30	mg/kg	02.18.14 12:01	

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** SVOCs by SW-846 8270D

Seq Number: 934342

Parent Sample Id: 479331-002

Matrix: Soil

MS Sample Id: 479331-002 S

Prep Method: SW3550

Date Prep: 02.17.14

MSD Sample Id: 479331-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Nitrobenzene	<0.0666	1.87	1.69	90	1.93	104	40-115	13	30	mg/kg	02.18.14 12:01	
N-Nitrosodi-n-Propylamine	<0.0535	1.87	1.39	74	1.58	85	40-115	13	30	mg/kg	02.18.14 12:01	
N-Nitrosodiphenylamine	<0.0785	1.87	1.69	90	1.80	97	50-115	6	30	mg/kg	02.18.14 12:01	
Pentachlorophenol	<0.0677	1.87	1.21	65	1.31	71	25-120	8	30	mg/kg	02.18.14 12:01	
Phenanthrene	<0.0621	1.87	1.44	77	1.54	83	50-110	7	30	mg/kg	02.18.14 12:01	
Phenol	<0.0523	1.87	1.23	66	1.40	76	40-100	13	30	mg/kg	02.18.14 12:01	
Pyrene	<0.0636	1.87	1.58	84	1.65	89	45-125	4	30	mg/kg	02.18.14 12:01	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	69		75		20-112	%	02.18.14 12:01
2-Fluorophenol	62		69		18-101	%	02.18.14 12:01
Nitrobenzene-d5	63		70		13-112	%	02.18.14 12:01
Phenol-d5	75		78		15-110	%	02.18.14 12:01
Terphenyl-D14	98		103		21-138	%	02.18.14 12:01
2,4,6-Tribromophenol	80		88		21-128	%	02.18.14 12:01

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** SVOCs by SW-846 8270D

**Seq Number:** 934471

**Parent Sample Id:** 479331-022

**Matrix:** Soil

**MS Sample Id:** 479331-022 S

**Prep Method:** SW3550

**Date Prep:** 02.18.14

**MSD Sample Id:** 479331-022 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
2,3,4,6-Tetrachlorophenol	<0.0544	1.81	1.64	91	1.76	98	37-125	7	30	mg/kg	02.20.14 09:35	
2,4,5-Trichlorophenol	<0.0668	1.81	1.31	72	1.36	76	50-110	4	30	mg/kg	02.20.14 09:35	
2,4,6-Trichlorophenol	<0.0701	1.81	1.29	71	1.33	74	45-110	3	30	mg/kg	02.20.14 09:35	
2,4-Dichlorophenol	<0.0461	1.81	1.40	77	1.47	82	45-110	5	30	mg/kg	02.20.14 09:35	
2,4-Dimethylphenol	<0.0661	1.81	1.19	66	1.23	68	30-105	3	30	mg/kg	02.20.14 09:35	
2,4-Dinitrophenol	<0.0584	1.81	0.517	29	0.531	30	15-130	3	30	mg/kg	02.20.14 09:35	
2,4-Dinitrotoluene	<0.0584	1.81	1.26	70	1.29	72	50-115	2	30	mg/kg	02.20.14 09:35	
2,6-Dinitrotoluene	<0.0472	1.81	1.24	69	1.26	70	50-110	2	30	mg/kg	02.20.14 09:35	
2-Chloronaphthalene	<0.0661	1.81	1.24	69	1.28	71	45-105	3	30	mg/kg	02.20.14 09:35	
2-Chlorophenol	<0.0650	1.81	1.30	72	1.34	74	45-105	3	30	mg/kg	02.20.14 09:35	
2-Methylnaphthalene	<0.0555	1.81	1.34	74	1.46	81	45-105	9	30	mg/kg	02.20.14 09:35	
2-methylphenol	<0.0508	1.81	1.24	69	1.33	74	40-105	7	30	mg/kg	02.20.14 09:35	
2-Nitroaniline	<0.0486	1.81	1.40	77	1.43	79	45-120	2	30	mg/kg	02.20.14 09:35	
2-Nitrophenol	<0.0457	1.81	0.717	40	0.775	43	40-110	8	30	mg/kg	02.20.14 09:35	
3&4-Methylphenol	<0.107	1.81	1.29	71	1.36	76	40-105	5	30	mg/kg	02.20.14 09:35	
3-Nitroaniline	<0.0501	1.81	1.63	90	1.72	96	25-110	5	30	mg/kg	02.20.14 09:35	
4,6-dinitro-2-methyl phenol	<0.0632	1.81	<0.0632	0	<0.0627	0	30-135	NC	30	mg/kg	02.20.14 09:35	X
4-Bromophenyl-phenylether	<0.0617	1.81	1.34	74	1.38	77	45-115	3	30	mg/kg	02.20.14 09:35	
4-chloro-3-methylphenol	<0.0519	1.81	1.34	74	1.34	74	45-115	0	30	mg/kg	02.20.14 09:35	
4-Chloroaniline	<0.0603	1.81	1.52	84	1.60	89	4-149	5	30	mg/kg	02.20.14 09:35	
4-Chlorophenyl Phenyl Ether	<0.0690	1.81	1.26	70	1.27	71	45-110	1	30	mg/kg	02.20.14 09:35	
4-Nitroaniline	<0.0552	1.81	1.67	92	1.68	93	35-115	1	30	mg/kg	02.20.14 09:35	
4-Nitrophenol	<0.0446	1.81	1.46	81	1.45	81	15-140	1	30	mg/kg	02.20.14 09:35	
Acenaphthene	<0.0508	1.81	1.24	69	1.28	71	45-110	3	30	mg/kg	02.20.14 09:35	
Acenaphthylene	<0.0617	1.81	1.36	75	1.41	78	45-105	4	30	mg/kg	02.20.14 09:35	
Anthracene	<0.0537	1.81	1.46	81	1.49	83	55-105	2	30	mg/kg	02.20.14 09:35	
Benzo(a)anthracene	0.149	1.81	1.83	93	1.81	92	50-110	1	30	mg/kg	02.20.14 09:35	
Benzo(a)pyrene	0.100	1.81	1.77	92	1.76	92	50-110	1	30	mg/kg	02.20.14 09:35	
Benzo(b)fluoranthene	0.144	1.81	1.76	89	1.91	98	45-115	8	30	mg/kg	02.20.14 09:35	
Benzo(g,h,i)perylene	0.102	1.81	1.70	88	1.69	88	40-125	1	30	mg/kg	02.20.14 09:35	
Benzo(k)fluoranthene	0.0847	1.81	1.54	80	1.52	80	45-125	1	30	mg/kg	02.20.14 09:35	
bis(2-chloroethoxy) methane	<0.0436	1.81	1.25	69	1.32	73	45-110	5	30	mg/kg	02.20.14 09:35	
bis(2-chloroethyl) ether	<0.0515	1.81	1.18	65	1.20	67	40-105	2	30	mg/kg	02.20.14 09:35	
bis(2-ethylhexyl) phthalate	<0.0588	1.81	1.66	92	1.72	96	45-125	4	30	mg/kg	02.20.14 09:35	
Butylbenzylphthalate	<0.0544	1.81	1.58	87	1.62	90	50-125	3	30	mg/kg	02.20.14 09:35	
Carbazole	<0.0621	1.81	1.57	87	1.61	89	45-115	3	30	mg/kg	02.20.14 09:35	
Chrysene	0.161	1.81	1.62	81	1.60	80	55-110	1	30	mg/kg	02.20.14 09:35	
Dibenz(a,h)Anthracene	<0.0704	1.81	1.55	86	1.55	86	40-125	0	30	mg/kg	02.20.14 09:35	
Dibenzofuran	<0.0465	1.81	1.21	67	1.25	69	50-105	3	30	mg/kg	02.20.14 09:35	
Diethyl Phthalate	<0.0584	1.81	1.28	71	1.30	72	50-115	2	30	mg/kg	02.20.14 09:35	
Dimethyl Phthalate	<0.0548	1.81	1.29	71	1.32	73	50-110	2	30	mg/kg	02.20.14 09:35	
di-n-Butyl Phthalate	<0.0668	1.81	1.41	78	1.45	81	55-110	3	30	mg/kg	02.20.14 09:35	
di-n-Octyl Phthalate	<0.0603	1.81	1.66	92	1.65	92	40-130	1	30	mg/kg	02.20.14 09:35	
Fluoranthene	0.241	1.81	1.81	87	1.78	86	55-115	2	30	mg/kg	02.20.14 09:35	
Fluorene	<0.0443	1.81	1.31	72	1.33	74	50-110	2	30	mg/kg	02.20.14 09:35	
Hexachlorobenzene	<0.0606	1.81	1.36	75	1.40	78	45-120	3	30	mg/kg	02.20.14 09:35	
Hexachlorobutadiene	<0.0403	1.81	1.09	60	1.12	62	40-115	3	30	mg/kg	02.20.14 09:35	
Hexachlorocyclopentadiene	<0.0624	1.81	1.05	58	1.04	58	65-135	1	30	mg/kg	02.20.14 09:35	X
Hexachloroethane	<0.0563	1.81	0.838	46	0.878	49	35-110	5	30	mg/kg	02.20.14 09:35	
Indeno(1,2,3-c,d)Pyrene	<0.0661	1.81	1.59	88	1.61	89	40-120	1	30	mg/kg	02.20.14 09:35	
Isophorone	<0.0374	1.81	1.18	65	1.26	70	45-110	7	30	mg/kg	02.20.14 09:35	
Naphthalene	<0.0581	1.81	1.21	67	1.24	69	40-105	2	30	mg/kg	02.20.14 09:35	

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** SVOCs by SW-846 8270D

Seq Number: 934471

Parent Sample Id: 479331-022

Matrix: Soil

MS Sample Id: 479331-022 S

Prep Method: SW3550

Date Prep: 02.18.14

MSD Sample Id: 479331-022 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Nitrobenzene	<0.0646	1.81	1.60	88	1.62	90	40-115	1	30	mg/kg	02.20.14 09:35	
N-Nitrosodi-n-Propylamine	<0.0519	1.81	1.32	73	1.40	78	40-115	6	30	mg/kg	02.20.14 09:35	
N-Nitrosodiphenylamine	<0.0762	1.81	1.63	90	1.68	93	50-115	3	30	mg/kg	02.20.14 09:35	
Pentachlorophenol	<0.0657	1.81	1.79	99	1.89	105	25-120	5	30	mg/kg	02.20.14 09:35	
Phenanthrene	0.0994	1.81	1.51	78	1.52	79	50-110	1	30	mg/kg	02.20.14 09:35	
Phenol	<0.0508	1.81	1.24	69	1.32	73	40-100	6	30	mg/kg	02.20.14 09:35	
Pyrene	0.204	1.81	1.85	91	1.84	91	45-125	1	30	mg/kg	02.20.14 09:35	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	63		67		20-112	%	02.20.14 09:35
2-Fluorophenol	61		64		18-101	%	02.20.14 09:35
Nitrobenzene-d5	62		67		13-112	%	02.20.14 09:35
Phenol-d5	75		79		15-110	%	02.20.14 09:35
Terphenyl-D14	102		103		21-138	%	02.20.14 09:35
2,4,6-Tribromophenol	82		84		21-128	%	02.20.14 09:35

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** SVOCs by SW-846 8270D

**Seq Number:** 934473

**Parent Sample Id:** 479331-045

**Matrix:** Soil

**MS Sample Id:** 479331-045 S

**Prep Method:** SW3550

**Date Prep:** 02.18.14

**MSD Sample Id:** 479331-045 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
2,3,4,6-Tetrachlorophenol	<0.0667	2.22	2.11	95	1.91	88	37-125	10	30	mg/kg	02.19.14 17:14	
2,4,5-Trichlorophenol	<0.0818	2.22	1.67	75	1.66	76	50-110	1	30	mg/kg	02.19.14 17:14	
2,4,6-Trichlorophenol	<0.0858	2.22	1.65	74	1.61	74	45-110	2	30	mg/kg	02.19.14 17:14	
2,4-Dichlorophenol	<0.0565	2.22	1.81	82	1.55	71	45-110	15	30	mg/kg	02.19.14 17:14	
2,4-Dimethylphenol	<0.0809	2.22	1.51	68	1.36	62	30-105	10	30	mg/kg	02.19.14 17:14	
2,4-Dinitrophenol	<0.0716	2.22	1.66	75	1.36	62	15-130	20	30	mg/kg	02.19.14 17:14	
2,4-Dinitrotoluene	<0.0716	2.22	2.01	91	2.08	95	50-115	3	30	mg/kg	02.19.14 17:14	
2,6-Dinitrotoluene	<0.0578	2.22	1.90	86	1.87	86	50-110	2	30	mg/kg	02.19.14 17:14	
2-Chloronaphthalene	<0.0809	2.22	1.58	71	1.53	70	45-105	3	30	mg/kg	02.19.14 17:14	
2-Chlorophenol	<0.0796	2.22	1.53	69	1.04	48	45-105	38	30	mg/kg	02.19.14 17:14	F
2-Methylnaphthalene	<0.0680	2.22	1.77	80	1.54	71	45-105	14	30	mg/kg	02.19.14 17:14	
2-methylphenol	<0.0622	2.22	1.56	70	1.29	59	40-105	19	30	mg/kg	02.19.14 17:14	
2-Nitroaniline	<0.0596	2.22	1.68	76	1.77	81	45-120	5	30	mg/kg	02.19.14 17:14	
2-Nitrophenol	<0.0560	2.22	1.67	75	1.40	64	40-110	18	30	mg/kg	02.19.14 17:14	
3&4-Methylphenol	<0.132	2.22	1.67	75	1.40	64	40-105	18	30	mg/kg	02.19.14 17:14	
3-Nitroaniline	<0.0614	2.22	1.78	80	1.88	86	25-110	5	30	mg/kg	02.19.14 17:14	
4,6-dinitro-2-methyl phenol	<0.0774	2.22	2.06	93	2.06	94	30-135	0	30	mg/kg	02.19.14 17:14	
4-Bromophenyl-phenylether	<0.0756	2.22	1.77	80	1.72	79	45-115	3	30	mg/kg	02.19.14 17:14	
4-chloro-3-methylphenol	<0.0636	2.22	1.76	79	1.69	78	45-115	4	30	mg/kg	02.19.14 17:14	
4-Chloroaniline	<0.0738	2.22	1.65	74	1.61	74	4-149	2	30	mg/kg	02.19.14 17:14	
4-Chlorophenyl Phenyl Ether	<0.0845	2.22	1.61	73	1.64	75	45-110	2	30	mg/kg	02.19.14 17:14	
4-Nitroaniline	<0.0676	2.22	1.72	77	1.88	86	35-115	9	30	mg/kg	02.19.14 17:14	
4-Nitrophenol	<0.0547	2.22	1.89	85	2.12	97	15-140	11	30	mg/kg	02.19.14 17:14	
Acenaphthene	<0.0622	2.22	1.58	71	1.57	72	45-110	1	30	mg/kg	02.19.14 17:14	
Acenaphthylene	<0.0756	2.22	1.68	76	1.67	77	45-105	1	30	mg/kg	02.19.14 17:14	
Anthracene	<0.0658	2.22	1.88	85	1.87	86	55-105	1	30	mg/kg	02.19.14 17:14	
Benzo(a)anthracene	<0.0720	2.22	2.16	97	2.19	100	50-110	1	30	mg/kg	02.19.14 17:14	
Benzo(a)pyrene	<0.0654	2.22	2.07	93	2.13	98	50-110	3	30	mg/kg	02.19.14 17:14	
Benzo(b)fluoranthene	<0.0725	2.22	2.00	90	2.53	116	45-115	23	30	mg/kg	02.19.14 17:14	X
Benzo(g,h,i)perylene	<0.0734	2.22	2.04	92	2.11	97	40-125	3	30	mg/kg	02.19.14 17:14	
Benzo(k)fluoranthene	<0.0765	2.22	1.93	87	2.29	105	45-125	17	30	mg/kg	02.19.14 17:14	
bis(2-chloroethoxy) methane	<0.0534	2.22	1.63	73	1.40	64	45-110	15	30	mg/kg	02.19.14 17:14	
bis(2-chloroethyl) ether	<0.0631	2.22	1.49	67	0.945	43	40-105	45	30	mg/kg	02.19.14 17:14	F
bis(2-ethylhexyl) phthalate	<0.0720	2.22	2.09	94	2.09	96	45-125	0	30	mg/kg	02.19.14 17:14	
Butylbenzylphthalate	<0.0667	2.22	2.16	97	2.11	97	50-125	2	30	mg/kg	02.19.14 17:14	
Carbazole	<0.0760	2.22	2.03	91	2.13	98	45-115	5	30	mg/kg	02.19.14 17:14	
Chrysene	<0.0591	2.22	2.00	90	1.96	90	55-110	2	30	mg/kg	02.19.14 17:14	
Dibenz(a,h)Anthracene	<0.0863	2.22	2.00	90	2.06	94	40-125	3	30	mg/kg	02.19.14 17:14	
Dibenzofuran	<0.0569	2.22	1.54	69	1.53	70	50-105	1	30	mg/kg	02.19.14 17:14	
Diethyl Phthalate	<0.0716	2.22	1.78	80	1.80	83	50-115	1	30	mg/kg	02.19.14 17:14	
Dimethyl Phthalate	<0.0671	2.22	1.70	77	1.70	78	50-110	0	30	mg/kg	02.19.14 17:14	
di-n-Butyl Phthalate	<0.0818	2.22	1.91	86	1.98	91	55-110	4	30	mg/kg	02.19.14 17:14	
di-n-Octyl Phthalate	<0.0738	2.22	2.14	96	2.12	97	40-130	1	30	mg/kg	02.19.14 17:14	
Fluoranthene	<0.0578	2.22	1.99	90	2.06	94	55-115	3	30	mg/kg	02.19.14 17:14	
Fluorene	<0.0542	2.22	1.67	75	1.68	77	50-110	1	30	mg/kg	02.19.14 17:14	
Hexachlorobenzene	<0.0742	2.22	1.77	80	1.79	82	45-120	1	30	mg/kg	02.19.14 17:14	
Hexachlorobutadiene	<0.0493	2.22	1.32	59	0.957	44	40-115	32	30	mg/kg	02.19.14 17:14	F
Hexachlorocyclopentadiene	<0.0765	2.22	1.37	62	1.32	61	65-135	4	30	mg/kg	02.19.14 17:14	X
Hexachloroethane	<0.0689	2.22	1.35	61	0.675	31	35-110	67	30	mg/kg	02.19.14 17:14	XF
Indeno(1,2,3-c,d)Pyrene	<0.0809	2.22	2.01	91	2.06	94	40-120	2	30	mg/kg	02.19.14 17:14	
Isophorone	<0.0458	2.22	1.56	70	1.41	65	45-110	10	30	mg/kg	02.19.14 17:14	
Naphthalene	<0.0711	2.22	1.48	67	1.19	55	40-105	22	30	mg/kg	02.19.14 17:14	

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** SVOCs by SW-846 8270D

Seq Number: 934473

Parent Sample Id: 479331-045

Matrix: Soil

MS Sample Id: 479331-045 S

Prep Method: SW3550

Date Prep: 02.18.14

MSD Sample Id: 479331-045 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Nitrobenzene	<0.0791	2.22	2.06	93	1.61	74	40-115	25	30	mg/kg	02.19.14 17:14	
N-Nitrosodi-n-Propylamine	<0.0636	2.22	1.72	77	1.52	70	40-115	12	30	mg/kg	02.19.14 17:14	
N-Nitrosodiphenylamine	<0.0934	2.22	2.10	95	2.12	97	50-115	1	30	mg/kg	02.19.14 17:14	
Pentachlorophenol	<0.0805	2.22	2.14	96	2.07	95	25-120	3	30	mg/kg	02.19.14 17:14	
Phenanthrene	<0.0738	2.22	1.84	83	1.84	84	50-110	0	30	mg/kg	02.19.14 17:14	
Phenol	<0.0622	2.22	1.57	71	1.22	56	40-100	25	30	mg/kg	02.19.14 17:14	
Pyrene	<0.0756	2.22	2.07	93	2.11	97	45-125	2	30	mg/kg	02.19.14 17:14	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
2-Fluorobiphenyl	67		63		20-112	%	02.19.14 17:14
2-Fluorophenol	63		32		18-101	%	02.19.14 17:14
Nitrobenzene-d5	62		47		13-112	%	02.19.14 17:14
Phenol-d5	77		53		15-110	%	02.19.14 17:14
Terphenyl-D14	109		104		21-138	%	02.19.14 17:14
2,4,6-Tribromophenol	90		85		21-128	%	02.19.14 17:14



**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method: VOCs by SW-846 8260B**

Seq Number: 934441

Matrix: Water

Prep Method: SW5030B

Date Prep: 02.19.14

MB Sample Id: 651334-1-BLK

LCS Sample Id: 651334-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<0.000204	0.0500	0.0449	90	68-123	mg/L	02.19.14 14:41	
Bromobenzene	<0.000324	0.0500	0.0499	100	83-124	mg/L	02.19.14 14:41	
Bromochloromethane	<0.000562	0.0500	0.0446	89	68-119	mg/L	02.19.14 14:41	
Bromodichloromethane	<0.000242	0.0500	0.0514	103	72-132	mg/L	02.19.14 14:41	
Bromoform	<0.000848	0.0500	0.0477	95	65-136	mg/L	02.19.14 14:41	
Methyl bromide	<0.000450	0.0500	0.0385	77	48-120	mg/L	02.19.14 14:41	
n-Butylbenzene	<0.0000832	0.0500	0.0490	98	82-128	mg/L	02.19.14 14:41	
Sec-Butylbenzene	<0.000101	0.0500	0.0490	98	83-130	mg/L	02.19.14 14:41	
tert-Butylbenzene	<0.000178	0.0500	0.0507	101	83-131	mg/L	02.19.14 14:41	
Carbon Tetrachloride	<0.000279	0.0500	0.0583	117	68-135	mg/L	02.19.14 14:41	
Chlorobenzene	<0.000223	0.0500	0.0453	91	78-124	mg/L	02.19.14 14:41	
Chloroethane	<0.000253	0.0500	0.0396	79	55-120	mg/L	02.19.14 14:41	
Chloroform	<0.000241	0.0500	0.0504	101	71-119	mg/L	02.19.14 14:41	
Methyl Chloride	<0.000465	0.0500	0.0393	79	54-114	mg/L	02.19.14 14:41	
2-Chlorotoluene	<0.000143	0.0500	0.0486	97	83-128	mg/L	02.19.14 14:41	
4-Chlorotoluene	<0.000174	0.0500	0.0489	98	81-125	mg/L	02.19.14 14:41	
p-Cymene (p-Isopropyltoluene)	<0.000577	0.0500	0.0482	96	85-129	mg/L	02.19.14 14:41	
Dibromochloromethane	<0.000452	0.0500	0.0494	99	74-135	mg/L	02.19.14 14:41	
1,2-Dibromo-3-Chloropropane	<0.00160	0.0500	0.0504	101	62-134	mg/L	02.19.14 14:41	
1,2-Dibromoethane	<0.000494	0.0500	0.0451	90	77-129	mg/L	02.19.14 14:41	
Methylene bromide	<0.000411	0.0500	0.0473	95	71-124	mg/L	02.19.14 14:41	
1,2-Dichlorobenzene	<0.000286	0.0500	0.0459	92	81-123	mg/L	02.19.14 14:41	
1,3-Dichlorobenzene	<0.000417	0.0500	0.0474	95	82-126	mg/L	02.19.14 14:41	
1,4-Dichlorobenzene	<0.000198	0.0500	0.0471	94	80-119	mg/L	02.19.14 14:41	
Dichlorodifluoromethane	<0.000311	0.0500	0.0570	114	59-121	mg/L	02.19.14 14:41	
1,1-Dichloroethane	<0.000158	0.0500	0.0483	97	75-125	mg/L	02.19.14 14:41	
1,2-Dichloroethane	<0.000158	0.0500	0.0535	107	64-130	mg/L	02.19.14 14:41	
1,1-Dichloroethene	<0.000272	0.0500	0.0488	98	68-116	mg/L	02.19.14 14:41	
cis-1,2-Dichloroethylene	<0.000447	0.0500	0.0441	88	74-130	mg/L	02.19.14 14:41	
trans-1,2-dichloroethylene	<0.000269	0.0500	0.0479	96	64-109	mg/L	02.19.14 14:41	
1,2-Dichloropropane	<0.000474	0.0500	0.0443	89	72-127	mg/L	02.19.14 14:41	
1,3-Dichloropropane	<0.000475	0.0500	0.0451	90	79-133	mg/L	02.19.14 14:41	
2,2-Dichloropropane	<0.000453	0.0500	0.0545	109	71-134	mg/L	02.19.14 14:41	
1,1-Dichloropropene	<0.000227	0.0500	0.0513	103	69-124	mg/L	02.19.14 14:41	
cis-1,3-Dichloropropene	<0.000380	0.0500	0.0494	99	74-138	mg/L	02.19.14 14:41	
trans-1,3-dichloropropene	<0.000291	0.0500	0.0476	95	70-132	mg/L	02.19.14 14:41	
Ethylbenzene	<0.000221	0.0500	0.0461	92	69-131	mg/L	02.19.14 14:41	
Hexachlorobutadiene	<0.000456	0.0500	0.0447	89	74-130	mg/L	02.19.14 14:41	
Isopropylbenzene	<0.0000915	0.0500	0.0503	101	66-133	mg/L	02.19.14 14:41	
Methylene Chloride	0.00260	0.0500	0.0505	101	60-121	mg/L	02.19.14 14:41	
MTBE	<0.00122	0.0500	0.0464	93	60-152	mg/L	02.19.14 14:41	
Naphthalene	<0.000182	0.0500	0.0423	85	69-140	mg/L	02.19.14 14:41	
n-Propylbenzene	<0.000167	0.0500	0.0524	105	86-129	mg/L	02.19.14 14:41	
Styrene	<0.000153	0.0500	0.0441	88	79-128	mg/L	02.19.14 14:41	
1,1,1,2-Tetrachloroethane	<0.000276	0.0500	0.0486	97	78-131	mg/L	02.19.14 14:41	
1,1,2,2-Tetrachloroethane	<0.000321	0.0500	0.0451	90	80-133	mg/L	02.19.14 14:41	
Tetrachloroethylene	<0.000229	0.0500	0.0506	101	79-122	mg/L	02.19.14 14:41	
Toluene	<0.000187	0.0500	0.0438	88	62-132	mg/L	02.19.14 14:41	
1,2,3-Trichlorobenzene	<0.000272	0.0500	0.0419	84	76-126	mg/L	02.19.14 14:41	
1,2,4-Trichlorobenzene	<0.000207	0.0500	0.0450	90	77-127	mg/L	02.19.14 14:41	
1,1,1-Trichloroethane	<0.000213	0.0500	0.0531	106	72-124	mg/L	02.19.14 14:41	
1,1,2-Trichloroethane	<0.000461	0.0500	0.0470	94	71-135	mg/L	02.19.14 14:41	



**Geotechnical & Environmental Consultants, Inc.**  
Macon 2 MGP

**Analytical Method:** VOCs by SW-846 8260B

Seq Number: 934441

Matrix: Water

Prep Method: SW5030B

Date Prep: 02.19.14

MB Sample Id: 651334-1-BLK

LCS Sample Id: 651334-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Trichloroethylene	<0.000383	0.0500	0.0534	107	74-123	mg/L	02.19.14 14:41	
Trichlorofluoromethane	<0.000419	0.0500	0.0558	112	70-143	mg/L	02.19.14 14:41	
1,2,3-Trichloropropane	<0.000214	0.0500	0.0479	96	75-134	mg/L	02.19.14 14:41	
1,2,4-Trimethylbenzene	<0.0000719	0.0500	0.0514	103	79-132	mg/L	02.19.14 14:41	
1,3,5-Trimethylbenzene	<0.000134	0.0500	0.0498	100	72-139	mg/L	02.19.14 14:41	
o-Xylene	<0.000149	0.0500	0.0463	93	67-132	mg/L	02.19.14 14:41	
m,p-Xylenes	<0.000847	0.100	0.0904	90	69-132	mg/L	02.19.14 14:41	
Vinyl Chloride	<0.000292	0.0500	0.0414	83	59-124	mg/L	02.19.14 14:41	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	93		96		75-131	%	02.19.14 14:41
1,2-Dichloroethane-D4	80		84		63-144	%	02.19.14 14:41
Toluene-D8	98		100		80-117	%	02.19.14 14:41
4-Bromofluorobenzene	100		105		74-124	%	02.19.14 14:41

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** VOCs by SW-846 8260B

**Seq Number:** 934441

**Parent Sample Id:** 479331-055

**Matrix:** Water

**MS Sample Id:** 479331-055 S

**Prep Method:** SW5030B

**Date Prep:** 02.19.14

**MSD Sample Id:** 479331-055 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000204	0.0500	0.0423	85	0.0455	91	66-142	7	25	mg/L	02.19.14 20:45	
Bromobenzene	<0.000324	0.0500	0.0439	88	0.0472	94	75-125	7	25	mg/L	02.19.14 20:45	
Bromochloromethane	<0.000562	0.0500	0.0435	87	0.0428	86	60-140	2	25	mg/L	02.19.14 20:45	
Bromodichloromethane	<0.000242	0.0500	0.0514	103	0.0521	104	75-125	1	25	mg/L	02.19.14 20:45	
Bromoform	<0.000848	0.0500	0.0500	100	0.0488	98	75-125	2	25	mg/L	02.19.14 20:45	
Methyl bromide	<0.000450	0.0500	0.0366	73	0.0384	77	60-140	5	25	mg/L	02.19.14 20:45	
n-Butylbenzene	<0.0000832	0.0500	0.0458	92	0.0498	100	75-125	8	25	mg/L	02.19.14 20:45	
Sec-Butylbenzene	<0.000101	0.0500	0.0442	88	0.0480	96	75-125	8	25	mg/L	02.19.14 20:45	
tert-Butylbenzene	<0.000178	0.0500	0.0467	93	0.0491	98	75-125	5	25	mg/L	02.19.14 20:45	
Carbon Tetrachloride	<0.000279	0.0500	0.0566	113	0.0592	118	62-125	4	25	mg/L	02.19.14 20:45	
Chlorobenzene	<0.000223	0.0500	0.0429	86	0.0456	91	60-133	6	25	mg/L	02.19.14 20:45	
Chloroethane	<0.000253	0.0500	0.0360	72	0.0380	76	60-140	5	25	mg/L	02.19.14 20:45	
Chloroform	<0.000241	0.0500	0.0488	98	0.0492	98	70-130	1	25	mg/L	02.19.14 20:45	
Methyl Chloride	<0.000465	0.0500	0.0331	66	0.0389	78	60-140	16	25	mg/L	02.19.14 20:45	
2-Chlorotoluene	<0.000143	0.0500	0.0428	86	0.0458	92	73-125	7	25	mg/L	02.19.14 20:45	
4-Chlorotoluene	<0.000174	0.0500	0.0446	89	0.0473	95	74-125	6	25	mg/L	02.19.14 20:45	
p-Cymene (p-Isopropyltoluene)	<0.000577	0.0500	0.0437	87	0.0471	94	75-125	7	25	mg/L	02.19.14 20:45	
Dibromochloromethane	<0.000452	0.0500	0.0496	99	0.0505	101	73-125	2	25	mg/L	02.19.14 20:45	
1,2-Dibromo-3-Chloropropane	<0.00160	0.0500	0.0488	98	0.0509	102	59-125	4	25	mg/L	02.19.14 20:45	
1,2-Dibromoethane	<0.000494	0.0500	0.0455	91	0.0445	89	73-125	2	25	mg/L	02.19.14 20:45	
Methylene bromide	<0.000411	0.0500	0.0486	97	0.0469	94	69-127	4	25	mg/L	02.19.14 20:45	
1,2-Dichlorobenzene	<0.000286	0.0500	0.0439	88	0.0463	93	75-125	5	25	mg/L	02.19.14 20:45	
1,3-Dichlorobenzene	<0.000417	0.0500	0.0433	87	0.0468	94	75-125	8	25	mg/L	02.19.14 20:45	
1,4-Dichlorobenzene	<0.000198	0.0500	0.0439	88	0.0473	95	75-125	7	25	mg/L	02.19.14 20:45	
Dichlorodifluoromethane	<0.000311	0.0500	0.0517	103	0.0559	112	70-130	8	25	mg/L	02.19.14 20:45	
1,1-Dichloroethane	<0.000158	0.0500	0.0459	92	0.0471	94	72-125	3	25	mg/L	02.19.14 20:45	
1,2-Dichloroethane	<0.000158	0.0500	0.0538	108	0.0538	108	68-127	0	25	mg/L	02.19.14 20:45	
1,1-Dichloroethene	<0.000272	0.0500	0.0441	88	0.0443	89	59-172	0	25	mg/L	02.19.14 20:45	
cis-1,2-Dichloroethylene	<0.000447	0.0500	0.0423	85	0.0440	88	75-125	4	25	mg/L	02.19.14 20:45	
trans-1,2-dichloroethylene	<0.000269	0.0500	0.0454	91	0.0461	92	75-125	2	25	mg/L	02.19.14 20:45	
1,2-Dichloropropane	<0.000474	0.0500	0.0428	86	0.0446	89	74-125	4	25	mg/L	02.19.14 20:45	
1,3-Dichloropropane	<0.000475	0.0500	0.0443	89	0.0454	91	75-125	2	25	mg/L	02.19.14 20:45	
2,2-Dichloropropane	<0.000453	0.0500	0.0503	101	0.0527	105	75-125	5	25	mg/L	02.19.14 20:45	
1,1-Dichloropropene	<0.000227	0.0500	0.0479	96	0.0514	103	75-125	7	25	mg/L	02.19.14 20:45	
cis-1,3-Dichloropropene	<0.000380	0.0500	0.0476	95	0.0496	99	74-125	4	25	mg/L	02.19.14 20:45	
trans-1,3-dichloropropene	<0.000291	0.0500	0.0478	96	0.0493	99	66-125	3	25	mg/L	02.19.14 20:45	
Ethylbenzene	<0.000221	0.0500	0.0431	86	0.0456	91	75-125	6	25	mg/L	02.19.14 20:45	
Hexachlorobutadiene	<0.000456	0.0500	0.0446	89	0.0482	96	75-125	8	25	mg/L	02.19.14 20:45	
Isopropylbenzene	<0.0000915	0.0500	0.0440	88	0.0473	95	75-125	7	25	mg/L	02.19.14 20:45	
Methylene Chloride	<0.000927	0.0500	0.0437	87	0.0439	88	75-125	0	25	mg/L	02.19.14 20:45	
MTBE	<0.00122	0.0500	0.0455	91	0.0444	89	65-135	2	25	mg/L	02.19.14 20:45	
Naphthalene	<0.000182	0.0500	0.0457	91	0.0473	95	70-130	3	25	mg/L	02.19.14 20:45	
n-Propylbenzene	<0.000167	0.0500	0.0466	93	0.0500	100	75-125	7	25	mg/L	02.19.14 20:45	
Styrene	<0.000153	0.0500	0.0437	87	0.0452	90	75-125	3	25	mg/L	02.19.14 20:45	
1,1,1,2-Tetrachloroethane	<0.000276	0.0500	0.0486	97	0.0501	100	72-125	3	25	mg/L	02.19.14 20:45	
1,1,2,2-Tetrachloroethane	<0.000321	0.0500	0.0437	87	0.0429	86	74-125	2	25	mg/L	02.19.14 20:45	
Tetrachloroethylene	<0.000229	0.0500	0.0458	92	0.0484	97	71-125	6	25	mg/L	02.19.14 20:45	
Toluene	<0.000187	0.0500	0.0421	84	0.0444	89	59-139	5	25	mg/L	02.19.14 20:45	
1,2,3-Trichlorobenzene	<0.000272	0.0500	0.0438	88	0.0495	99	75-137	12	25	mg/L	02.19.14 20:45	
1,2,4-Trichlorobenzene	<0.000207	0.0500	0.0460	92	0.0496	99	75-135	8	25	mg/L	02.19.14 20:45	
1,1,1-Trichloroethane	<0.000213	0.0500	0.0520	104	0.0527	105	75-125	1	25	mg/L	02.19.14 20:45	
1,1,2-Trichloroethane	<0.000461	0.0500	0.0485	97	0.0487	97	75-127	0	25	mg/L	02.19.14 20:45	

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** VOCs by SW-846 8260B

Seq Number: 934441

Parent Sample Id: 479331-055

Matrix: Water

MS Sample Id: 479331-055 S

Prep Method: SW5030B

Date Prep: 02.19.14

MSD Sample Id: 479331-055 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Trichloroethylene	<0.000383	0.0500	0.0505	101	0.0537	107	62-137	6	25	mg/L	02.19.14 20:45	
Trichlorofluoromethane	<0.000419	0.0500	0.0525	105	0.0550	110	60-140	5	25	mg/L	02.19.14 20:45	
1,2,3-Trichloropropane	<0.000214	0.0500	0.0456	91	0.0469	94	75-125	3	25	mg/L	02.19.14 20:45	
1,2,4-Trimethylbenzene	<0.0000719	0.0500	0.0465	93	0.0501	100	75-125	7	25	mg/L	02.19.14 20:45	
1,3,5-Trimethylbenzene	<0.000134	0.0500	0.0455	91	0.0492	98	70-125	8	25	mg/L	02.19.14 20:45	
o-Xylene	<0.000149	0.0500	0.0438	88	0.0459	92	75-125	5	25	mg/L	02.19.14 20:45	
m,p-Xylenes	<0.000847	0.100	0.0823	82	0.0880	88	75-125	7	25	mg/L	02.19.14 20:45	
Vinyl Chloride	<0.000292	0.0500	0.0356	71	0.0404	81	60-140	13	25	mg/L	02.19.14 20:45	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	96		93		75-131	%	02.19.14 20:45
1,2-Dichloroethane-D4	84		84		63-144	%	02.19.14 20:45
Toluene-D8	98		99		80-117	%	02.19.14 20:45
4-Bromofluorobenzene	97		101		74-124	%	02.19.14 20:45

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method: VOCs by SW-846 8260B**

Seq Number: 934197

Matrix: Solid

Prep Method: SW5030B

Date Prep: 02.15.14

MB Sample Id: 651151-1-BLK

LCS Sample Id: 651151-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
1,1,1-Trichloroethane	<0.000339	0.0500	0.0454	91	71-124	mg/kg	02.15.14 10:53	
1,1,2,2-Tetrachloroethane	<0.000459	0.0500	0.0446	89	75-133	mg/kg	02.15.14 10:53	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.000685	0.0500	0.0447	89	72-122	mg/kg	02.15.14 10:53	
1,1,2-Trichloroethane	<0.000326	0.0500	0.0459	92	75-131	mg/kg	02.15.14 10:53	
1,1-Dichloroethane	<0.000201	0.0500	0.0489	98	73-124	mg/kg	02.15.14 10:53	
1,1-Dichloroethene	<0.000237	0.0500	0.0489	98	68-119	mg/kg	02.15.14 10:53	
1,2,3-Trichlorobenzene	<0.000243	0.0500	0.0464	93	75-131	mg/kg	02.15.14 10:53	
1,2,4-Trichlorobenzene	<0.000434	0.0500	0.0477	95	79-128	mg/kg	02.15.14 10:53	
1,2-Dibromo-3-chloropropane (DBCP)	<0.00155	0.0500	0.0440	88	58-133	mg/kg	02.15.14 10:53	
1,2-Dibromoethane (EDB)	<0.000423	0.0500	0.0443	89	80-127	mg/kg	02.15.14 10:53	
1,2-Dichlorobenzene	<0.000431	0.0500	0.0438	88	84-121	mg/kg	02.15.14 10:53	
1,2-Dichloroethane	<0.000351	0.0500	0.0429	86	70-123	mg/kg	02.15.14 10:53	
1,2-Dichloropropane	<0.000472	0.0500	0.0449	90	75-122	mg/kg	02.15.14 10:53	
1,3-Dichlorobenzene	<0.000371	0.0500	0.0440	88	84-124	mg/kg	02.15.14 10:53	
1,4-Dichlorobenzene	<0.000238	0.0500	0.0447	89	82-120	mg/kg	02.15.14 10:53	
2-Butanone (MEK)	<0.00292	0.100	0.0829	83	46-137	mg/kg	02.15.14 10:53	
2-Hexanone	<0.00281	0.100	0.0924	92	52-137	mg/kg	02.15.14 10:53	
4-Methyl-2-pentanone (MIBK)	<0.00199	0.100	0.0898	90	65-128	mg/kg	02.15.14 10:53	
Acetone	<0.00481	0.100	0.0894	89	33-148	mg/kg	02.15.14 10:53	
Benzene	<0.000157	0.0500	0.0443	89	71-119	mg/kg	02.15.14 10:53	
Bromochloromethane	<0.000475	0.0500	0.0442	88	71-120	mg/kg	02.15.14 10:53	
Bromodichloromethane	<0.000265	0.0500	0.0438	88	78-126	mg/kg	02.15.14 10:53	
Bromoform	<0.000698	0.0500	0.0464	93	63-136	mg/kg	02.15.14 10:53	
Bromomethane	<0.00106	0.0500	0.0391	78	57-118	mg/kg	02.15.14 10:53	
Carbon disulfide	<0.00110	0.0500	0.0412	82	55-136	mg/kg	02.15.14 10:53	
Carbon tetrachloride	<0.000234	0.0500	0.0446	89	63-135	mg/kg	02.15.14 10:53	
Chlorobenzene	<0.000239	0.0500	0.0449	90	83-121	mg/kg	02.15.14 10:53	
Chloroethane	<0.000549	0.0500	0.0412	82	57-122	mg/kg	02.15.14 10:53	
Chloroform	<0.000292	0.0500	0.0469	94	74-118	mg/kg	02.15.14 10:53	
Chloromethane	<0.000299	0.0500	0.0402	80	58-110	mg/kg	02.15.14 10:53	
cis-1,2-Dichloroethene	<0.000340	0.0500	0.0460	92	72-131	mg/kg	02.15.14 10:53	
cis-1,3-Dichloropropene	<0.000428	0.0500	0.0479	96	74-135	mg/kg	02.15.14 10:53	
Cyclohexane	<0.000190	0.0500	0.0457	91	64-119	mg/kg	02.15.14 10:53	
Dibromochloromethane	<0.000473	0.0500	0.0459	92	77-130	mg/kg	02.15.14 10:53	
Dichlorodifluoromethane	<0.000426	0.0500	0.0488	98	54-122	mg/kg	02.15.14 10:53	
Ethylbenzene	<0.000430	0.0500	0.0448	90	80-123	mg/kg	02.15.14 10:53	
Isopropylbenzene	<0.000167	0.0500	0.0453	91	55-155	mg/kg	02.15.14 10:53	
m,p-Xylenes	<0.000386	0.100	0.0876	88	78-127	mg/kg	02.15.14 10:53	
Methyl acetate	<0.00308	0.550	0.460	84	41-138	mg/kg	02.15.14 10:53	
Methyl tert-butyl ether	<0.000340	0.0500	0.0449	90	64-148	mg/kg	02.15.14 10:53	
Methylcyclohexane	<0.000240	0.0500	0.0458	92	68-118	mg/kg	02.15.14 10:53	
Methylene Chloride	<0.000588	0.0500	0.0506	101	57-134	mg/kg	02.15.14 10:53	
o-Xylene	<0.000279	0.0500	0.0458	92	79-125	mg/kg	02.15.14 10:53	
Styrene	<0.000150	0.0500	0.0454	91	80-126	mg/kg	02.15.14 10:53	
Tetrachloroethene	<0.000256	0.0500	0.0464	93	79-124	mg/kg	02.15.14 10:53	
Toluene	0.000120	0.0500	0.0437	87	74-122	mg/kg	02.15.14 10:53	
trans-1,2-Dichloroethene	<0.000292	0.0500	0.0497	99	63-110	mg/kg	02.15.14 10:53	
trans-1,3-Dichloropropene	<0.000303	0.0500	0.0444	89	73-125	mg/kg	02.15.14 10:53	
Trichloroethene	<0.000327	0.0500	0.0467	93	78-119	mg/kg	02.15.14 10:53	
Trichlorofluoromethane	<0.000485	0.0500	0.0429	86	71-148	mg/kg	02.15.14 10:53	
Vinyl Chloride	<0.000827	0.0500	0.0418	84	60-123	mg/kg	02.15.14 10:53	

**Geotechnical & Environmental Consultants, Inc.**  
Macon 2 MGP

**Analytical Method:** VOCs by SW-846 8260B

Seq Number: 934197

Matrix: Solid

Prep Method: SW5030B

Date Prep: 02.15.14

MB Sample Id: 651151-1-BLK

LCS Sample Id: 651151-1-BKS

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	89		99		53-142	%	02.15.14 10:53
1,2-Dichloroethane-D4	87		99		56-150	%	02.15.14 10:53
Toluene-D8	96		98		70-130	%	02.15.14 10:53
4-Bromofluorobenzene	100		101		68-152	%	02.15.14 10:53

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method: VOCs by SW-846 8260B**

Seq Number: 934254

Matrix: Solid

Prep Method: SW5030B

Date Prep: 02.17.14

MB Sample Id: 651190-1-BLK

LCS Sample Id: 651190-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
1,1,1-Trichloroethane	<0.000339	0.0500	0.0503	101	71-124	mg/kg	02.17.14 11:39	
1,1,2,2-Tetrachloroethane	<0.000459	0.0500	0.0451	90	75-133	mg/kg	02.17.14 11:39	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.000685	0.0500	0.0549	110	72-122	mg/kg	02.17.14 11:39	
1,1,2-Trichloroethane	<0.000326	0.0500	0.0459	92	75-131	mg/kg	02.17.14 11:39	
1,1-Dichloroethane	<0.000201	0.0500	0.0485	97	73-124	mg/kg	02.17.14 11:39	
1,1-Dichloroethene	<0.000237	0.0500	0.0483	97	68-119	mg/kg	02.17.14 11:39	
1,2,3-Trichlorobenzene	<0.000243	0.0500	0.0497	99	75-131	mg/kg	02.17.14 11:39	
1,2,4-Trichlorobenzene	<0.000434	0.0500	0.0503	101	79-128	mg/kg	02.17.14 11:39	
1,2-Dibromo-3-chloropropane (DBCP)	<0.00155	0.0500	0.0535	107	58-133	mg/kg	02.17.14 11:39	
1,2-Dibromoethane (EDB)	<0.000423	0.0500	0.0452	90	80-127	mg/kg	02.17.14 11:39	
1,2-Dichlorobenzene	<0.000431	0.0500	0.0458	92	84-121	mg/kg	02.17.14 11:39	
1,2-Dichloroethane	<0.000351	0.0500	0.0521	104	70-123	mg/kg	02.17.14 11:39	
1,2-Dichloropropane	<0.000472	0.0500	0.0426	85	75-122	mg/kg	02.17.14 11:39	
1,3-Dichlorobenzene	<0.000371	0.0500	0.0448	90	84-124	mg/kg	02.17.14 11:39	
1,4-Dichlorobenzene	<0.000238	0.0500	0.0463	93	82-120	mg/kg	02.17.14 11:39	
2-Butanone (MEK)	<0.00292	0.100	0.0862	86	46-137	mg/kg	02.17.14 11:39	
2-Hexanone	<0.00281	0.100	0.105	105	52-137	mg/kg	02.17.14 11:39	
4-Methyl-2-pentanone (MIBK)	<0.00199	0.100	0.0995	100	65-128	mg/kg	02.17.14 11:39	
Acetone	<0.00481	0.100	0.0928	93	33-148	mg/kg	02.17.14 11:39	
Benzene	<0.000157	0.0500	0.0438	88	71-119	mg/kg	02.17.14 11:39	
Bromochloromethane	<0.000475	0.0500	0.0447	89	71-120	mg/kg	02.17.14 11:39	
Bromodichloromethane	<0.000265	0.0500	0.0500	100	78-126	mg/kg	02.17.14 11:39	
Bromoform	<0.000698	0.0500	0.0500	100	63-136	mg/kg	02.17.14 11:39	
Bromomethane	<0.00106	0.0500	0.0430	86	57-118	mg/kg	02.17.14 11:39	
Carbon disulfide	<0.00110	0.0500	0.0427	85	55-136	mg/kg	02.17.14 11:39	
Carbon tetrachloride	<0.000234	0.0500	0.0543	109	63-135	mg/kg	02.17.14 11:39	
Chlorobenzene	<0.000239	0.0500	0.0436	87	83-121	mg/kg	02.17.14 11:39	
Chloroethane	<0.000549	0.0500	0.0443	89	57-122	mg/kg	02.17.14 11:39	
Chloroform	<0.000292	0.0500	0.0501	100	74-118	mg/kg	02.17.14 11:39	
Chloromethane	<0.000299	0.0500	0.0431	86	58-110	mg/kg	02.17.14 11:39	
cis-1,2-Dichloroethene	<0.000340	0.0500	0.0451	90	72-131	mg/kg	02.17.14 11:39	
cis-1,3-Dichloropropene	<0.000428	0.0500	0.0487	97	74-135	mg/kg	02.17.14 11:39	
Cyclohexane	<0.000190	0.0500	0.0481	96	64-119	mg/kg	02.17.14 11:39	
Dibromochloromethane	<0.000473	0.0500	0.0483	97	77-130	mg/kg	02.17.14 11:39	
Dichlorodifluoromethane	<0.000426	0.0500	0.0586	117	54-122	mg/kg	02.17.14 11:39	
Ethylbenzene	<0.000430	0.0500	0.0445	89	80-123	mg/kg	02.17.14 11:39	
Isopropylbenzene	<0.000167	0.0500	0.0455	91	55-155	mg/kg	02.17.14 11:39	
m,p-Xylenes	<0.000386	0.100	0.0869	87	78-127	mg/kg	02.17.14 11:39	
Methyl acetate	<0.00308	0.500	0.466	93	41-138	mg/kg	02.17.14 11:39	
Methyl tert-butyl ether	<0.000340	0.0500	0.0480	96	64-148	mg/kg	02.17.14 11:39	
Methylcyclohexane	<0.000240	0.0500	0.0462	92	68-118	mg/kg	02.17.14 11:39	
Methylene Chloride	<0.000588	0.0500	0.0484	97	57-134	mg/kg	02.17.14 11:39	
o-Xylene	<0.000279	0.0500	0.0458	92	79-125	mg/kg	02.17.14 11:39	
Styrene	<0.000150	0.0500	0.0442	88	80-126	mg/kg	02.17.14 11:39	
Tetrachloroethene	<0.000256	0.0500	0.0466	93	79-124	mg/kg	02.17.14 11:39	
Toluene	0.000170	0.0500	0.0428	86	74-122	mg/kg	02.17.14 11:39	
trans-1,2-Dichloroethene	<0.000292	0.0500	0.0493	99	63-110	mg/kg	02.17.14 11:39	
trans-1,3-Dichloropropene	<0.000303	0.0500	0.0460	92	73-125	mg/kg	02.17.14 11:39	
Trichloroethene	<0.000327	0.0500	0.0505	101	78-119	mg/kg	02.17.14 11:39	
Trichlorofluoromethane	<0.000485	0.0500	0.0553	111	71-148	mg/kg	02.17.14 11:39	
Vinyl Chloride	<0.000827	0.0500	0.0445	89	60-123	mg/kg	02.17.14 11:39	

**Geotechnical & Environmental Consultants, Inc.**  
Macon 2 MGP

**Analytical Method:** VOCs by SW-846 8260B

Seq Number: 934254

Matrix: Solid

Prep Method: SW5030B

Date Prep: 02.17.14

MB Sample Id: 651190-1-BLK

LCS Sample Id: 651190-1-BKS

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	94		100		53-142	%	02.17.14 11:39
1,2-Dichloroethane-D4	87		91		56-150	%	02.17.14 11:39
Toluene-D8	97		100		70-130	%	02.17.14 11:39
4-Bromofluorobenzene	100		100		68-152	%	02.17.14 11:39



**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method: VOCs by SW-846 8260B**

Seq Number: 934346

Matrix: Solid

Prep Method: SW5035

Date Prep: 02.17.14

MB Sample Id: 651262-1-BLK

LCS Sample Id: 651262-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
1,1,1-Trichloroethane	<0.000339	0.0500	0.0413	83	71-124	mg/kg	02.17.14 12:05	
1,1,2,2-Tetrachloroethane	<0.000459	0.0500	0.0456	91	75-133	mg/kg	02.17.14 12:05	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.000685	0.0500	0.0469	94	72-122	mg/kg	02.17.14 12:05	
1,1,2-Trichloroethane	<0.000326	0.0500	0.0527	105	75-131	mg/kg	02.17.14 12:05	
1,1-Dichloroethane	<0.000201	0.0500	0.0474	95	73-124	mg/kg	02.17.14 12:05	
1,1-Dichloroethene	<0.000237	0.0500	0.0474	95	68-119	mg/kg	02.17.14 12:05	
1,2,3-Trichlorobenzene	<0.000243	0.0500	0.0463	93	75-131	mg/kg	02.17.14 12:05	
1,2,4-Trichlorobenzene	<0.000434	0.0500	0.0498	100	79-128	mg/kg	02.17.14 12:05	
1,2-Dibromo-3-chloropropane (DBCP)	<0.00155	0.0500	0.0502	100	58-133	mg/kg	02.17.14 12:05	
1,2-Dibromoethane (EDB)	<0.000423	0.0500	0.0519	104	80-127	mg/kg	02.17.14 12:05	
1,2-Dichlorobenzene	<0.000431	0.0500	0.0550	110	84-121	mg/kg	02.17.14 12:05	
1,2-Dichloroethane	<0.000351	0.0500	0.0414	83	70-123	mg/kg	02.17.14 12:05	
1,2-Dichloropropane	<0.000472	0.0500	0.0461	92	75-122	mg/kg	02.17.14 12:05	
1,3-Dichlorobenzene	<0.000371	0.0500	0.0519	104	84-124	mg/kg	02.17.14 12:05	
1,4-Dichlorobenzene	<0.000238	0.0500	0.0466	93	82-120	mg/kg	02.17.14 12:05	
2-Butanone (MEK)	<0.00292	0.100	0.0910	91	46-137	mg/kg	02.17.14 12:05	
2-Hexanone	<0.00281	0.100	0.116	116	52-137	mg/kg	02.17.14 12:05	
4-Methyl-2-pentanone (MIBK)	<0.00199	0.100	0.103	103	65-128	mg/kg	02.17.14 12:05	
Acetone	0.0156	0.100	0.0682	68	33-148	mg/kg	02.17.14 12:05	
Benzene	<0.000157	0.0500	0.0430	86	71-119	mg/kg	02.17.14 12:05	
Bromochloromethane	<0.000475	0.0500	0.0526	105	71-120	mg/kg	02.17.14 12:05	
Bromodichloromethane	<0.000265	0.0500	0.0448	90	78-126	mg/kg	02.17.14 12:05	
Bromoform	<0.000698	0.0500	0.0499	100	63-136	mg/kg	02.17.14 12:05	
Bromomethane	<0.00106	0.0500	0.0432	86	57-118	mg/kg	02.17.14 12:05	
Carbon disulfide	<0.00110	0.0500	0.0420	84	55-136	mg/kg	02.17.14 12:05	
Carbon tetrachloride	<0.000234	0.0500	0.0441	88	63-135	mg/kg	02.17.14 12:05	
Chlorobenzene	<0.000239	0.0500	0.0459	92	83-121	mg/kg	02.17.14 12:05	
Chloroethane	<0.000549	0.0500	0.0412	82	57-122	mg/kg	02.17.14 12:05	
Chloroform	<0.000292	0.0500	0.0419	84	74-118	mg/kg	02.17.14 12:05	
Chloromethane	<0.000299	0.0500	0.0377	75	58-110	mg/kg	02.17.14 12:05	
cis-1,2-Dichloroethene	<0.000340	0.0500	0.0480	96	72-131	mg/kg	02.17.14 12:05	
cis-1,3-Dichloropropene	<0.000428	0.0500	0.0506	101	74-135	mg/kg	02.17.14 12:05	
Cyclohexane	<0.000190	0.0500	0.0487	97	64-119	mg/kg	02.17.14 12:05	
Dibromochloromethane	<0.000473	0.0500	0.0532	106	77-130	mg/kg	02.17.14 12:05	
Dichlorodifluoromethane	<0.000426	0.0500	0.0414	83	54-122	mg/kg	02.17.14 12:05	
Ethylbenzene	<0.000430	0.0500	0.0474	95	80-123	mg/kg	02.17.14 12:05	
Isopropylbenzene	<0.000167	0.0500	0.0525	105	55-155	mg/kg	02.17.14 12:05	
m,p-Xylenes	<0.000386	0.100	0.105	105	78-127	mg/kg	02.17.14 12:05	
Methyl acetate	<0.00308	0.500	0.458	92	41-138	mg/kg	02.17.14 12:05	
Methyl tert-butyl ether	<0.000340	0.0500	0.0476	95	64-148	mg/kg	02.17.14 12:05	
Methylcyclohexane	<0.000240	0.0500	0.0482	96	68-118	mg/kg	02.17.14 12:05	
Methylene Chloride	0.00465	0.0500	0.0486	97	57-134	mg/kg	02.17.14 12:05	
o-Xylene	<0.000279	0.0500	0.0544	109	79-125	mg/kg	02.17.14 12:05	
Styrene	<0.000150	0.0500	0.0521	104	80-126	mg/kg	02.17.14 12:05	
Tetrachloroethene	<0.000256	0.0500	0.0532	106	79-124	mg/kg	02.17.14 12:05	
Toluene	<0.000112	0.0500	0.0492	98	74-122	mg/kg	02.17.14 12:05	
trans-1,2-Dichloroethene	<0.000292	0.0500	0.0479	96	63-110	mg/kg	02.17.14 12:05	
trans-1,3-Dichloropropene	<0.000303	0.0500	0.0491	98	73-125	mg/kg	02.17.14 12:05	
Trichloroethene	<0.000327	0.0500	0.0448	90	78-119	mg/kg	02.17.14 12:05	
Trichlorofluoromethane	<0.000485	0.0500	0.0429	86	71-148	mg/kg	02.17.14 12:05	
Vinyl Chloride	<0.000827	0.0500	0.0440	88	60-123	mg/kg	02.17.14 12:05	

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** VOCs by SW-846 8260B

Seq Number: 934346

Matrix: Solid

Prep Method: SW5035

Date Prep: 02.17.14

MB Sample Id: 651262-1-BLK

LCS Sample Id: 651262-1-BKS

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	98		94		53-142	%	02.17.14 12:05
1,2-Dichloroethane-D4	95		92		56-150	%	02.17.14 12:05
Toluene-D8	101		98		70-130	%	02.17.14 12:05
4-Bromofluorobenzene	100		98		68-152	%	02.17.14 12:05

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method: VOCs by SW-846 8260B**

Seq Number: 934355

Matrix: Solid

Prep Method: SW5035

Date Prep: 02.18.14

MB Sample Id: 651270-1-BLK

LCS Sample Id: 651270-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
1,1,1-Trichloroethane	<0.000339	0.0500	0.0516	103	71-124	mg/kg	02.18.14 11:34	
1,1,2,2-Tetrachloroethane	<0.000459	0.0500	0.0381	76	75-133	mg/kg	02.18.14 11:34	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.000685	0.0500	0.0579	116	72-122	mg/kg	02.18.14 11:34	
1,1,2-Trichloroethane	<0.000326	0.0500	0.0431	86	75-131	mg/kg	02.18.14 11:34	
1,1-Dichloroethane	<0.000201	0.0500	0.0454	91	73-124	mg/kg	02.18.14 11:34	
1,1-Dichloroethene	<0.000237	0.0500	0.0452	90	68-119	mg/kg	02.18.14 11:34	
1,2,3-Trichlorobenzene	<0.000243	0.0500	0.0433	87	75-131	mg/kg	02.18.14 11:34	
1,2,4-Trichlorobenzene	<0.000434	0.0500	0.0462	92	79-128	mg/kg	02.18.14 11:34	
1,2-Dibromo-3-chloropropane (DBCP)	<0.00155	0.0500	0.0438	88	58-133	mg/kg	02.18.14 11:34	
1,2-Dibromoethane (EDB)	<0.000423	0.0500	0.0418	84	80-127	mg/kg	02.18.14 11:34	
1,2-Dichlorobenzene	<0.000431	0.0500	0.0427	85	84-121	mg/kg	02.18.14 11:34	
1,2-Dichloroethane	<0.000351	0.0500	0.0499	100	70-123	mg/kg	02.18.14 11:34	
1,2-Dichloropropane	<0.000472	0.0500	0.0418	84	75-122	mg/kg	02.18.14 11:34	
1,3-Dichlorobenzene	<0.000371	0.0500	0.0444	89	84-124	mg/kg	02.18.14 11:34	
1,4-Dichlorobenzene	<0.000238	0.0500	0.0449	90	82-120	mg/kg	02.18.14 11:34	
2-Butanone (MEK)	<0.00292	0.100	0.0659	66	46-137	mg/kg	02.18.14 11:34	
2-Hexanone	<0.00281	0.100	0.0852	85	52-137	mg/kg	02.18.14 11:34	
4-Methyl-2-pentanone (MIBK)	<0.00199	0.100	0.0826	83	65-128	mg/kg	02.18.14 11:34	
Acetone	<0.00481	0.100	0.0764	76	33-148	mg/kg	02.18.14 11:34	
Benzene	<0.000157	0.0500	0.0419	84	71-119	mg/kg	02.18.14 11:34	
Bromochloromethane	<0.000475	0.0500	0.0408	82	71-120	mg/kg	02.18.14 11:34	
Bromodichloromethane	<0.000265	0.0500	0.0489	98	78-126	mg/kg	02.18.14 11:34	
Bromoform	<0.000698	0.0500	0.0458	92	63-136	mg/kg	02.18.14 11:34	
Bromomethane	<0.00106	0.0500	0.0406	81	57-118	mg/kg	02.18.14 11:34	
Carbon disulfide	<0.00110	0.0500	0.0387	77	55-136	mg/kg	02.18.14 11:34	
Carbon tetrachloride	<0.000234	0.0500	0.0578	116	63-135	mg/kg	02.18.14 11:34	
Chlorobenzene	<0.000239	0.0500	0.0424	85	83-121	mg/kg	02.18.14 11:34	
Chloroethane	<0.000549	0.0500	0.0410	82	57-122	mg/kg	02.18.14 11:34	
Chloroform	<0.000292	0.0500	0.0473	95	74-118	mg/kg	02.18.14 11:34	
Chloromethane	<0.000299	0.0500	0.0401	80	58-110	mg/kg	02.18.14 11:34	
cis-1,2-Dichloroethene	<0.000340	0.0500	0.0414	83	72-131	mg/kg	02.18.14 11:34	
cis-1,3-Dichloropropene	<0.000428	0.0500	0.0456	91	74-135	mg/kg	02.18.14 11:34	
Cyclohexane	<0.000190	0.0500	0.0477	95	64-119	mg/kg	02.18.14 11:34	
Dibromochloromethane	<0.000473	0.0500	0.0468	94	77-130	mg/kg	02.18.14 11:34	
Dichlorodifluoromethane	<0.000426	0.0500	0.0621	124	54-122	mg/kg	02.18.14 11:34	H
Ethylbenzene	<0.000430	0.0500	0.0441	88	80-123	mg/kg	02.18.14 11:34	
Isopropylbenzene	<0.000167	0.0500	0.0460	92	55-155	mg/kg	02.18.14 11:34	
m,p-Xylenes	<0.000386	0.100	0.0864	86	78-127	mg/kg	02.18.14 11:34	
Methyl acetate	<0.00308	0.500	0.375	75	41-138	mg/kg	02.18.14 11:34	
Methyl tert-butyl ether	<0.000340	0.0500	0.0410	82	64-148	mg/kg	02.18.14 11:34	
Methylcyclohexane	<0.000240	0.0500	0.0455	91	68-118	mg/kg	02.18.14 11:34	
Methylene Chloride	<0.000588	0.0500	0.0424	85	57-134	mg/kg	02.18.14 11:34	
o-Xylene	<0.000279	0.0500	0.0447	89	79-125	mg/kg	02.18.14 11:34	
Styrene	<0.000150	0.0500	0.0424	85	80-126	mg/kg	02.18.14 11:34	
Tetrachloroethene	<0.000256	0.0500	0.0478	96	79-124	mg/kg	02.18.14 11:34	
Toluene	0.000120	0.0500	0.0422	84	74-122	mg/kg	02.18.14 11:34	
trans-1,2-Dichloroethene	<0.000292	0.0500	0.0455	91	63-110	mg/kg	02.18.14 11:34	
trans-1,3-Dichloropropene	<0.000303	0.0500	0.0452	90	73-125	mg/kg	02.18.14 11:34	
Trichloroethene	<0.000327	0.0500	0.0509	102	78-119	mg/kg	02.18.14 11:34	
Trichlorofluoromethane	<0.000485	0.0500	0.0575	115	71-148	mg/kg	02.18.14 11:34	
Vinyl Chloride	<0.000827	0.0500	0.0429	86	60-123	mg/kg	02.18.14 11:34	

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** VOCs by SW-846 8260B

Seq Number: 934355

Matrix: Solid

Prep Method: SW5035

Date Prep: 02.18.14

MB Sample Id: 651270-1-BLK

LCS Sample Id: 651270-1-BKS

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	94		96		53-142	%	02.18.14 11:34
1,2-Dichloroethane-D4	84		82		56-150	%	02.18.14 11:34
Toluene-D8	98		100		70-130	%	02.18.14 11:34
4-Bromofluorobenzene	100		100		68-152	%	02.18.14 11:34

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method: VOCs by SW-846 8260B**

Seq Number: 934377

Matrix: Solid

Prep Method: SW5035

Date Prep: 02.18.14

MB Sample Id: 651286-1-BLK

LCS Sample Id: 651286-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
1,1,1-Trichloroethane	<0.000339	0.0500	0.0446	89	71-124	mg/kg	02.18.14 11:42	
1,1,2,2-Tetrachloroethane	<0.000459	0.0500	0.0444	89	75-133	mg/kg	02.18.14 11:42	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.000685	0.0500	0.0508	102	72-122	mg/kg	02.18.14 11:42	
1,1,2-Trichloroethane	<0.000326	0.0500	0.0530	106	75-131	mg/kg	02.18.14 11:42	
1,1-Dichloroethane	<0.000201	0.0500	0.0501	100	73-124	mg/kg	02.18.14 11:42	
1,1-Dichloroethene	<0.000237	0.0500	0.0469	94	68-119	mg/kg	02.18.14 11:42	
1,2,3-Trichlorobenzene	<0.000243	0.0500	0.0428	86	75-131	mg/kg	02.18.14 11:42	
1,2,4-Trichlorobenzene	<0.000434	0.0500	0.0433	87	79-128	mg/kg	02.18.14 11:42	
1,2-Dibromo-3-chloropropane (DBCP)	<0.00155	0.0500	0.0478	96	58-133	mg/kg	02.18.14 11:42	
1,2-Dibromoethane (EDB)	<0.000423	0.0500	0.0540	108	80-127	mg/kg	02.18.14 11:42	
1,2-Dichlorobenzene	<0.000431	0.0500	0.0493	99	84-121	mg/kg	02.18.14 11:42	
1,2-Dichloroethane	<0.000351	0.0500	0.0433	87	70-123	mg/kg	02.18.14 11:42	
1,2-Dichloropropane	<0.000472	0.0500	0.0439	88	75-122	mg/kg	02.18.14 11:42	
1,3-Dichlorobenzene	<0.000371	0.0500	0.0497	99	84-124	mg/kg	02.18.14 11:42	
1,4-Dichlorobenzene	<0.000238	0.0500	0.0419	84	82-120	mg/kg	02.18.14 11:42	
2-Butanone (MEK)	<0.00292	0.100	0.0818	82	46-137	mg/kg	02.18.14 11:42	
2-Hexanone	<0.00281	0.100	0.0942	94	52-137	mg/kg	02.18.14 11:42	
4-Methyl-2-pentanone (MIBK)	<0.00199	0.100	0.0868	87	65-128	mg/kg	02.18.14 11:42	
Acetone	0.00888	0.100	0.0866	87	33-148	mg/kg	02.18.14 11:42	
Benzene	<0.000157	0.0500	0.0433	87	71-119	mg/kg	02.18.14 11:42	
Bromochloromethane	<0.000475	0.0500	0.0432	86	71-120	mg/kg	02.18.14 11:42	
Bromodichloromethane	<0.000265	0.0500	0.0462	92	78-126	mg/kg	02.18.14 11:42	
Bromoform	<0.000698	0.0500	0.0501	100	63-136	mg/kg	02.18.14 11:42	
Bromomethane	<0.00106	0.0500	0.0428	86	57-118	mg/kg	02.18.14 11:42	
Carbon disulfide	<0.00110	0.0500	0.0433	87	55-136	mg/kg	02.18.14 11:42	
Carbon tetrachloride	<0.000234	0.0500	0.0474	95	63-135	mg/kg	02.18.14 11:42	
Chlorobenzene	<0.000239	0.0500	0.0457	91	83-121	mg/kg	02.18.14 11:42	
Chloroethane	<0.000549	0.0500	0.0422	84	57-122	mg/kg	02.18.14 11:42	
Chloroform	<0.000292	0.0500	0.0423	85	74-118	mg/kg	02.18.14 11:42	
Chloromethane	<0.000299	0.0500	0.0353	71	58-110	mg/kg	02.18.14 11:42	
cis-1,2-Dichloroethene	<0.000340	0.0500	0.0461	92	72-131	mg/kg	02.18.14 11:42	
cis-1,3-Dichloropropene	<0.000428	0.0500	0.0483	97	74-135	mg/kg	02.18.14 11:42	
Cyclohexane	<0.000190	0.0500	0.0498	100	64-119	mg/kg	02.18.14 11:42	
Dibromochloromethane	<0.000473	0.0500	0.0516	103	77-130	mg/kg	02.18.14 11:42	
Dichlorodifluoromethane	<0.000426	0.0500	0.0477	95	54-122	mg/kg	02.18.14 11:42	
Ethylbenzene	<0.000430	0.0500	0.0474	95	80-123	mg/kg	02.18.14 11:42	
Isopropylbenzene	<0.000167	0.0500	0.0519	104	55-155	mg/kg	02.18.14 11:42	
m,p-Xylenes	<0.000386	0.100	0.104	104	78-127	mg/kg	02.18.14 11:42	
Methyl acetate	<0.00308	0.550	0.432	79	41-138	mg/kg	02.18.14 11:42	
Methyl tert-butyl ether	<0.000340	0.0500	0.0454	91	64-148	mg/kg	02.18.14 11:42	
Methylcyclohexane	<0.000240	0.0500	0.0477	95	68-118	mg/kg	02.18.14 11:42	
Methylene Chloride	0.00447	0.0500	0.0510	102	57-134	mg/kg	02.18.14 11:42	
o-Xylene	<0.000279	0.0500	0.0515	103	79-125	mg/kg	02.18.14 11:42	
Styrene	<0.000150	0.0500	0.0506	101	80-126	mg/kg	02.18.14 11:42	
Tetrachloroethene	<0.000256	0.0500	0.0498	100	79-124	mg/kg	02.18.14 11:42	
Toluene	<0.000112	0.0500	0.0475	95	74-122	mg/kg	02.18.14 11:42	
trans-1,2-Dichloroethene	<0.000292	0.0500	0.0454	91	63-110	mg/kg	02.18.14 11:42	
trans-1,3-Dichloropropene	<0.000303	0.0500	0.0476	95	73-125	mg/kg	02.18.14 11:42	
Trichloroethene	<0.000327	0.0500	0.0488	98	78-119	mg/kg	02.18.14 11:42	
Trichlorofluoromethane	<0.000485	0.0500	0.0491	98	71-148	mg/kg	02.18.14 11:42	
Vinyl Chloride	<0.000827	0.0500	0.0446	89	60-123	mg/kg	02.18.14 11:42	

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** VOCs by SW-846 8260B

Seq Number: 934377

Matrix: Solid

Prep Method: SW5035

Date Prep: 02.18.14

MB Sample Id: 651286-1-BLK

LCS Sample Id: 651286-1-BKS

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	109		95		53-142	%	02.18.14 11:42
1,2-Dichloroethane-D4	98		98		56-150	%	02.18.14 11:42
Toluene-D8	100		99		70-130	%	02.18.14 11:42
4-Bromofluorobenzene	100		94		68-152	%	02.18.14 11:42

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** VOCs by SW-846 8260B

Seq Number: 934444

Matrix: Solid

Prep Method: SW5035

Date Prep: 02.19.14

MB Sample Id: 651336-1-BLK

LCS Sample Id: 651336-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
1,1,1-Trichloroethane	<0.000339	0.0500	0.0531	106	71-124	mg/kg	02.19.14 14:41	
1,1,2,2-Tetrachloroethane	<0.000459	0.0500	0.0451	90	75-133	mg/kg	02.19.14 14:41	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.000685	0.0500	0.0581	116	72-122	mg/kg	02.19.14 14:41	
1,1,2-Trichloroethane	<0.000326	0.0500	0.0470	94	75-131	mg/kg	02.19.14 14:41	
1,1-Dichloroethane	<0.000201	0.0500	0.0483	97	73-124	mg/kg	02.19.14 14:41	
1,1-Dichloroethene	<0.000237	0.0500	0.0488	98	68-119	mg/kg	02.19.14 14:41	
1,2,3-Trichlorobenzene	<0.000243	0.0500	0.0419	84	75-131	mg/kg	02.19.14 14:41	
1,2,4-Trichlorobenzene	<0.000434	0.0500	0.0450	90	79-128	mg/kg	02.19.14 14:41	
1,2-Dibromo-3-chloropropane (DBCP)	<0.00155	0.0500	0.0504	101	58-133	mg/kg	02.19.14 14:41	
1,2-Dibromoethane (EDB)	<0.000423	0.0500	0.0451	90	80-127	mg/kg	02.19.14 14:41	
1,2-Dichlorobenzene	<0.000431	0.0500	0.0459	92	84-121	mg/kg	02.19.14 14:41	
1,2-Dichloroethane	<0.000351	0.0500	0.0535	107	70-123	mg/kg	02.19.14 14:41	
1,2-Dichloropropane	<0.000472	0.0500	0.0443	89	75-122	mg/kg	02.19.14 14:41	
1,3-Dichlorobenzene	<0.000371	0.0500	0.0474	95	84-124	mg/kg	02.19.14 14:41	
1,4-Dichlorobenzene	<0.000238	0.0500	0.0471	94	82-120	mg/kg	02.19.14 14:41	
2-Butanone (MEK)	<0.00292	0.100	0.0830	83	46-137	mg/kg	02.19.14 14:41	
2-Hexanone	<0.00281	0.100	0.0975	98	52-137	mg/kg	02.19.14 14:41	
4-Methyl-2-pentanone (MIBK)	<0.00199	0.100	0.0974	97	65-128	mg/kg	02.19.14 14:41	
Acetone	<0.00481	0.100	0.0941	94	33-148	mg/kg	02.19.14 14:41	
Benzene	<0.000157	0.0500	0.0449	90	71-119	mg/kg	02.19.14 14:41	
Bromochloromethane	<0.000475	0.0500	0.0446	89	71-120	mg/kg	02.19.14 14:41	
Bromodichloromethane	<0.000265	0.0500	0.0514	103	78-126	mg/kg	02.19.14 14:41	
Bromoform	<0.000698	0.0500	0.0477	95	63-136	mg/kg	02.19.14 14:41	
Bromomethane	<0.00106	0.0500	0.0385	77	57-118	mg/kg	02.19.14 14:41	
Carbon disulfide	<0.00110	0.0500	0.0405	81	55-136	mg/kg	02.19.14 14:41	
Carbon tetrachloride	<0.000234	0.0500	0.0583	117	63-135	mg/kg	02.19.14 14:41	
Chlorobenzene	<0.000239	0.0500	0.0453	91	83-121	mg/kg	02.19.14 14:41	
Chloroethane	<0.000549	0.0500	0.0396	79	57-122	mg/kg	02.19.14 14:41	
Chloroform	<0.000292	0.0500	0.0504	101	74-118	mg/kg	02.19.14 14:41	
Chloromethane	<0.000299	0.0500	0.0393	79	58-110	mg/kg	02.19.14 14:41	
cis-1,2-Dichloroethene	<0.000340	0.0500	0.0441	88	72-131	mg/kg	02.19.14 14:41	
cis-1,3-Dichloropropene	<0.000428	0.0500	0.0494	99	74-135	mg/kg	02.19.14 14:41	
Cyclohexane	<0.000190	0.0500	0.0497	99	64-119	mg/kg	02.19.14 14:41	
Dibromochloromethane	<0.000473	0.0500	0.0494	99	77-130	mg/kg	02.19.14 14:41	
Dichlorodifluoromethane	<0.000426	0.0500	0.0570	114	54-122	mg/kg	02.19.14 14:41	
Ethylbenzene	<0.000430	0.0500	0.0461	92	80-123	mg/kg	02.19.14 14:41	
Isopropylbenzene	<0.000167	0.0500	0.0503	101	55-155	mg/kg	02.19.14 14:41	
m,p-Xylenes	<0.000386	0.100	0.0904	90	78-127	mg/kg	02.19.14 14:41	
Methyl acetate	<0.00308	0.500	0.444	89	41-138	mg/kg	02.19.14 14:41	
Methyl tert-butyl ether	<0.000340	0.0500	0.0464	93	64-148	mg/kg	02.19.14 14:41	
Methylcyclohexane	<0.000240	0.0500	0.0482	96	68-118	mg/kg	02.19.14 14:41	
Methylene Chloride	0.00338	0.0500	0.0505	101	57-134	mg/kg	02.19.14 14:41	
o-Xylene	<0.000279	0.0500	0.0463	93	79-125	mg/kg	02.19.14 14:41	
Styrene	<0.000150	0.0500	0.0441	88	80-126	mg/kg	02.19.14 14:41	
Tetrachloroethene	<0.000256	0.0500	0.0506	101	79-124	mg/kg	02.19.14 14:41	
Toluene	0.000130	0.0500	0.0438	88	74-122	mg/kg	02.19.14 14:41	
trans-1,2-Dichloroethene	<0.000292	0.0500	0.0479	96	63-110	mg/kg	02.19.14 14:41	
trans-1,3-Dichloropropene	<0.000303	0.0500	0.0476	95	73-125	mg/kg	02.19.14 14:41	
Trichloroethene	<0.000327	0.0500	0.0534	107	78-119	mg/kg	02.19.14 14:41	
Trichlorofluoromethane	<0.000485	0.0500	0.0558	112	71-148	mg/kg	02.19.14 14:41	
Vinyl Chloride	<0.000827	0.0500	0.0414	83	60-123	mg/kg	02.19.14 14:41	



**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** VOCs by SW-846 8260B

Seq Number: 934444

Matrix: Solid

Prep Method: SW5035

Date Prep: 02.19.14

MB Sample Id: 651336-1-BLK

LCS Sample Id: 651336-1-BKS

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	Limits	Units	Analysis Date
Dibromofluoromethane	96		96		53-142	%	02.19.14 14:41
1,2-Dichloroethane-D4	85		84		56-150	%	02.19.14 14:41
Toluene-D8	97		100		70-130	%	02.19.14 14:41
4-Bromofluorobenzene	104		105		68-152	%	02.19.14 14:41

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method: VOCs by SW-846 8260B**

Seq Number: 934197

Parent Sample Id: 479364-003

Matrix: Soil

MS Sample Id: 479364-003 S

Prep Method: SW5030B

Date Prep: 02.15.14

MSD Sample Id: 479364-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,1,1-Trichloroethane	<0.000393	0.0581	0.0478	82	0.0520	89	75-125	8	25	mg/kg	02.15.14 15:15	
1,1,2,2-Tetrachloroethane	<0.000533	0.0581	0.0503	87	0.0546	93	74-125	8	25	mg/kg	02.15.14 15:15	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.000796	0.0581	0.0560	96	0.0595	101	60-140	6	25	mg/kg	02.15.14 15:15	
1,1,2-Trichloroethane	<0.000378	0.0581	0.0506	87	0.0541	92	75-127	7	25	mg/kg	02.15.14 15:15	
1,1-Dichloroethane	<0.000234	0.0581	0.0502	86	0.0544	93	72-125	8	25	mg/kg	02.15.14 15:15	
1,1-Dichloroethene	<0.000275	0.0581	0.0484	83	0.0530	90	59-172	9	25	mg/kg	02.15.14 15:15	
1,2,3-Trichlorobenzene	<0.000282	0.0581	0.0514	88	0.0540	92	75-137	5	25	mg/kg	02.15.14 15:15	
1,2,4-Trichlorobenzene	<0.000504	0.0581	0.0530	91	0.0533	91	75-135	1	25	mg/kg	02.15.14 15:15	
1,2-Dibromo-3-chloropropane (DBCP)	<0.00180	0.0581	0.0498	86	0.0575	98	59-125	14	25	mg/kg	02.15.14 15:15	
1,2-Dibromoethane (EDB)	<0.000492	0.0581	0.0510	88	0.0540	92	73-125	6	25	mg/kg	02.15.14 15:15	
1,2-Dichlorobenzene	<0.000501	0.0581	0.0504	87	0.0530	90	75-125	5	25	mg/kg	02.15.14 15:15	
1,2-Dichloroethane	<0.000408	0.0581	0.0489	84	0.0521	89	68-127	6	25	mg/kg	02.15.14 15:15	
1,2-Dichloropropane	<0.000549	0.0581	0.0476	82	0.0512	87	74-125	7	25	mg/kg	02.15.14 15:15	
1,3-Dichlorobenzene	<0.000431	0.0581	0.0495	85	0.0520	89	75-125	5	25	mg/kg	02.15.14 15:15	
1,4-Dichlorobenzene	<0.000276	0.0581	0.0501	86	0.0523	89	75-125	4	25	mg/kg	02.15.14 15:15	
2-Butanone (MEK)	<0.00339	0.116	0.0765	66	0.0905	77	75-125	17	25	mg/kg	02.15.14 15:15	X
2-Hexanone	<0.00326	0.116	0.0968	83	0.111	95	75-125	14	25	mg/kg	02.15.14 15:15	
4-Methyl-2-pentanone (MIBK)	<0.00231	0.116	0.0970	84	0.110	94	60-140	13	25	mg/kg	02.15.14 15:15	
Acetone	<0.00559	0.116	0.0881	76	0.106	91	50-150	18	25	mg/kg	02.15.14 15:15	
Benzene	<0.000182	0.0581	0.0475	82	0.0515	88	66-142	8	25	mg/kg	02.15.14 15:15	
Bromochloromethane	<0.000552	0.0581	0.0473	81	0.0522	89	60-140	10	25	mg/kg	02.15.14 15:15	
Bromodichloromethane	<0.000308	0.0581	0.0503	87	0.0532	91	75-125	6	25	mg/kg	02.15.14 15:15	
Bromoform	<0.000811	0.0581	0.0530	91	0.0585	100	75-125	10	25	mg/kg	02.15.14 15:15	
Bromomethane	<0.00123	0.0581	0.0426	73	0.0419	71	60-140	2	25	mg/kg	02.15.14 15:15	
Carbon disulfide	<0.00127	0.0581	0.0409	70	0.0453	77	60-140	10	25	mg/kg	02.15.14 15:15	
Carbon tetrachloride	<0.000271	0.0581	0.0505	87	0.0548	93	62-125	8	25	mg/kg	02.15.14 15:15	
Chlorobenzene	<0.000278	0.0581	0.0501	86	0.0530	90	60-133	6	25	mg/kg	02.15.14 15:15	
Chloroethane	<0.000637	0.0581	0.0424	73	0.0437	74	60-140	3	25	mg/kg	02.15.14 15:15	
Chloroform	<0.000340	0.0581	0.0502	86	0.0548	93	74-125	9	25	mg/kg	02.15.14 15:15	
Chloromethane	<0.000347	0.0581	0.0406	70	0.0400	68	60-140	1	25	mg/kg	02.15.14 15:15	
cis-1,2-Dichloroethene	<0.000395	0.0581	0.0489	84	0.0530	90	75-125	8	25	mg/kg	02.15.14 15:15	
cis-1,3-Dichloropropene	<0.000497	0.0581	0.0511	88	0.0541	92	74-125	6	25	mg/kg	02.15.14 15:15	
Cyclohexane	<0.000221	0.0581	0.0479	82	0.0521	89	70-130	8	25	mg/kg	02.15.14 15:15	
Dibromochloromethane	<0.000549	0.0581	0.0536	92	0.0567	97	73-125	6	25	mg/kg	02.15.14 15:15	
Dichlorodifluoromethane	<0.000494	0.0581	0.0496	85	0.0479	82	65-135	3	25	mg/kg	02.15.14 15:15	
Ethylbenzene	<0.000499	0.0581	0.0495	85	0.0518	88	75-125	5	25	mg/kg	02.15.14 15:15	
Isopropylbenzene	<0.000194	0.0581	0.0501	86	0.0537	91	75-125	7	25	mg/kg	02.15.14 15:15	
m,p-Xylenes	<0.000449	0.116	0.0977	84	0.101	86	75-125	3	25	mg/kg	02.15.14 15:15	
Methyl acetate	<0.00358	0.581	0.456	78	0.516	88	65-135	12	25	mg/kg	02.15.14 15:15	
Methyl tert-butyl ether	<0.000395	0.0581	0.0464	80	0.0519	88	60-140	11	25	mg/kg	02.15.14 15:15	
Methylcyclohexane	<0.000278	0.0581	0.0476	82	0.0512	87	65-135	7	25	mg/kg	02.15.14 15:15	
Methylene Chloride	0.00254	0.0581	0.0569	94	0.0627	102	75-125	10	25	mg/kg	02.15.14 15:15	
o-Xylene	<0.000324	0.0581	0.0513	88	0.0549	94	75-125	7	25	mg/kg	02.15.14 15:15	
Styrene	<0.000174	0.0581	0.0510	88	0.0540	92	75-125	6	25	mg/kg	02.15.14 15:15	
Tetrachloroethene	<0.000297	0.0581	0.0506	87	0.0536	91	71-125	6	25	mg/kg	02.15.14 15:15	
Toluene	0.000175	0.0581	0.0463	79	0.0486	82	59-139	5	25	mg/kg	02.15.14 15:15	
trans-1,2-Dichloroethene	<0.000340	0.0581	0.0502	86	0.0529	90	75-125	5	25	mg/kg	02.15.14 15:15	
trans-1,3-Dichloropropene	<0.000353	0.0581	0.0475	82	0.0516	88	66-125	8	25	mg/kg	02.15.14 15:15	
Trichloroethene	<0.000380	0.0581	0.0526	91	0.0565	96	62-137	7	25	mg/kg	02.15.14 15:15	
Trichlorofluoromethane	<0.000564	0.0581	0.0465	80	0.0456	78	67-125	2	25	mg/kg	02.15.14 15:15	
Vinyl Chloride	<0.000961	0.0581	0.0414	71	0.0418	71	60-140	1	25	mg/kg	02.15.14 15:15	

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** VOCs by SW-846 8260B

Seq Number: 934197

Parent Sample Id: 479364-003

Matrix: Soil

MS Sample Id: 479364-003 S

Prep Method: SW5030B

Date Prep: 02.15.14

MSD Sample Id: 479364-003 SD

**Surrogate**

	<b>MS %Rec</b>	<b>MS Flag</b>	<b>MSD %Rec</b>	<b>MSD Flag</b>	<b>Limits</b>	<b>Units</b>	<b>Analysis Date</b>
Dibromofluoromethane	91		95		53-142	%	02.15.14 15:15
1,2-Dichloroethane-D4	83		88		56-150	%	02.15.14 15:15
Toluene-D8	98		98		70-130	%	02.15.14 15:15
4-Bromofluorobenzene	99		101		68-152	%	02.15.14 15:15

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** VOCs by SW-846 8260B

**Seq Number:** 934254

**Parent Sample Id:** 479364-002

**Matrix:** Soil

**MS Sample Id:** 479364-002 S

**Prep Method:** SW5030B

**Date Prep:** 02.17.14

**MSD Sample Id:** 479364-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,1,1-Trichloroethane	<0.000802	0.118	0.118	100	0.121	103	75-125	3	25	mg/kg	02.17.14 13:51	
1,1,2,2-Tetrachloroethane	<0.00109	0.118	0.0962	82	0.0952	81	74-125	1	25	mg/kg	02.17.14 13:51	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.00162	0.118	0.108	92	0.144	122	60-140	29	25	mg/kg	02.17.14 13:51	F
1,1,2-Trichloroethane	<0.000771	0.118	0.110	93	0.110	93	75-127	0	25	mg/kg	02.17.14 13:51	
1,1-Dichloroethane	<0.000476	0.118	0.111	94	0.114	97	72-125	3	25	mg/kg	02.17.14 13:51	
1,1-Dichloroethene	<0.000561	0.118	0.104	88	0.110	93	59-172	6	25	mg/kg	02.17.14 13:51	
1,2,3-Trichlorobenzene	<0.000574	0.118	0.115	97	0.110	93	75-137	4	25	mg/kg	02.17.14 13:51	
1,2,4-Trichlorobenzene	<0.00103	0.118	0.116	98	0.112	95	75-135	4	25	mg/kg	02.17.14 13:51	
1,2-Dibromo-3-chloropropane (DBCP)	<0.00367	0.118	0.115	97	0.118	100	59-125	3	25	mg/kg	02.17.14 13:51	
1,2-Dibromoethane (EDB)	<0.00100	0.118	0.105	89	0.106	90	73-125	1	25	mg/kg	02.17.14 13:51	
1,2-Dichlorobenzene	<0.00102	0.118	0.109	92	0.109	92	75-125	0	25	mg/kg	02.17.14 13:51	
1,2-Dichloroethane	<0.000830	0.118	0.122	103	0.122	103	68-127	0	25	mg/kg	02.17.14 13:51	
1,2-Dichloropropane	<0.00112	0.118	0.101	86	0.106	90	74-125	5	25	mg/kg	02.17.14 13:51	
1,3-Dichlorobenzene	<0.000879	0.118	0.108	92	0.108	92	75-125	0	25	mg/kg	02.17.14 13:51	
1,4-Dichlorobenzene	<0.000562	0.118	0.109	92	0.109	92	75-125	0	25	mg/kg	02.17.14 13:51	
2-Butanone (MEK)	<0.00690	0.237	0.180	76	0.189	80	75-125	5	25	mg/kg	02.17.14 13:51	
2-Hexanone	<0.00665	0.237	0.221	93	0.217	92	75-125	2	25	mg/kg	02.17.14 13:51	
4-Methyl-2-pentanone (MIBK)	<0.00471	0.237	0.215	91	0.218	92	60-140	1	25	mg/kg	02.17.14 13:51	
Acetone	<0.0114	0.237	0.198	84	0.194	82	50-150	2	25	mg/kg	02.17.14 13:51	
Benzene	<0.000371	0.118	0.102	86	0.106	90	66-142	4	25	mg/kg	02.17.14 13:51	
Bromochloromethane	<0.00112	0.118	0.107	91	0.106	90	60-140	1	25	mg/kg	02.17.14 13:51	
Bromodichloromethane	<0.000628	0.118	0.118	100	0.120	102	75-125	2	25	mg/kg	02.17.14 13:51	
Bromoform	<0.00165	0.118	0.112	95	0.119	101	75-125	6	25	mg/kg	02.17.14 13:51	
Bromomethane	<0.00250	0.118	0.0982	83	0.103	87	60-140	5	25	mg/kg	02.17.14 13:51	
Carbon disulfide	<0.00260	0.118	0.0947	80	0.0988	84	60-140	4	25	mg/kg	02.17.14 13:51	
Carbon tetrachloride	<0.000553	0.118	0.124	105	0.130	110	62-125	5	25	mg/kg	02.17.14 13:51	
Chlorobenzene	<0.000566	0.118	0.103	87	0.109	92	60-133	6	25	mg/kg	02.17.14 13:51	
Chloroethane	<0.00130	0.118	0.0855	72	0.0968	82	60-140	12	25	mg/kg	02.17.14 13:51	
Chloroform	<0.000692	0.118	0.116	98	0.118	100	74-125	2	25	mg/kg	02.17.14 13:51	
Chloromethane	<0.000707	0.118	0.0962	82	0.0996	84	60-140	3	25	mg/kg	02.17.14 13:51	
cis-1,2-Dichloroethene	<0.000805	0.118	0.106	90	0.104	88	75-125	2	25	mg/kg	02.17.14 13:51	
cis-1,3-Dichloropropene	<0.00101	0.118	0.114	97	0.115	97	74-125	1	25	mg/kg	02.17.14 13:51	
Cyclohexane	<0.000450	0.118	0.108	92	0.114	97	70-130	5	25	mg/kg	02.17.14 13:51	
Dibromochloromethane	<0.00112	0.118	0.114	97	0.119	101	73-125	4	25	mg/kg	02.17.14 13:51	
Dichlorodifluoromethane	<0.00101	0.118	0.137	116	0.134	114	65-135	2	25	mg/kg	02.17.14 13:51	
Ethylbenzene	<0.00102	0.118	0.103	87	0.109	92	75-125	6	25	mg/kg	02.17.14 13:51	
Isopropylbenzene	<0.000396	0.118	0.106	90	0.109	92	75-125	3	25	mg/kg	02.17.14 13:51	
m,p-Xylenes	<0.000914	0.237	0.201	85	0.212	90	75-125	5	25	mg/kg	02.17.14 13:51	
Methyl acetate	<0.00729	1.18	0.991	84	0.968	82	65-135	2	25	mg/kg	02.17.14 13:51	
Methyl tert-butyl ether	<0.000805	0.118	0.108	92	0.108	92	60-140	0	25	mg/kg	02.17.14 13:51	
Methylcyclohexane	<0.000567	0.118	0.103	87	0.109	92	65-135	6	25	mg/kg	02.17.14 13:51	
Methylene Chloride	0.00270	0.118	0.113	93	0.115	95	75-125	2	25	mg/kg	02.17.14 13:51	
o-Xylene	<0.000659	0.118	0.106	90	0.111	94	75-125	5	25	mg/kg	02.17.14 13:51	
Styrene	<0.000355	0.118	0.103	87	0.109	92	75-125	6	25	mg/kg	02.17.14 13:51	
Tetrachloroethene	<0.000606	0.118	0.110	93	0.114	97	71-125	4	25	mg/kg	02.17.14 13:51	
Toluene	0.000587	0.118	0.100	84	0.104	88	59-139	4	25	mg/kg	02.17.14 13:51	
trans-1,2-Dichloroethene	<0.000692	0.118	0.110	93	0.113	96	75-125	3	25	mg/kg	02.17.14 13:51	
trans-1,3-Dichloropropene	<0.000718	0.118	0.110	93	0.111	94	66-125	1	25	mg/kg	02.17.14 13:51	
Trichloroethene	<0.000774	0.118	0.123	104	0.125	106	62-137	2	25	mg/kg	02.17.14 13:51	
Trichlorofluoromethane	<0.00115	0.118	0.119	101	0.126	107	67-125	6	25	mg/kg	02.17.14 13:51	
Vinyl Chloride	<0.00196	0.118	0.0935	79	0.101	86	60-140	8	25	mg/kg	02.17.14 13:51	

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** VOCs by SW-846 8260B

Seq Number: 934254

Parent Sample Id: 479364-002

Matrix: Soil

MS Sample Id: 479364-002 S

Prep Method: SW5030B

Date Prep: 02.17.14

MSD Sample Id: 479364-002 SD

**Surrogate**

	<b>MS %Rec</b>	<b>MS Flag</b>	<b>MSD %Rec</b>	<b>MSD Flag</b>	<b>Limits</b>	<b>Units</b>	<b>Analysis Date</b>
Dibromofluoromethane	94		93		53-142	%	02.17.14 13:51
1,2-Dichloroethane-D4	83		83		56-150	%	02.17.14 13:51
Toluene-D8	98		100		70-130	%	02.17.14 13:51
4-Bromofluorobenzene	98		99		68-152	%	02.17.14 13:51

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** VOCs by SW-846 8260B

**Seq Number:** 934346

**Parent Sample Id:** 479331-005

**Matrix:** Soil

**MS Sample Id:** 479331-005 S

**Prep Method:** SW5035

**Date Prep:** 02.17.14

**MSD Sample Id:** 479331-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,1,1-Trichloroethane	<0.000389	0.0575	0.0418	73	0.0419	73	75-125	0	25	mg/kg	02.17.14 19:22	X
1,1,2,2-Tetrachloroethane	<0.000527	0.0575	0.0470	82	0.0280	49	74-125	51	25	mg/kg	02.17.14 19:22	XF
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.000788	0.0575	0.0471	82	0.0523	91	60-140	10	25	mg/kg	02.17.14 19:22	
1,1,2-Trichloroethane	<0.000374	0.0575	0.0512	89	0.0305	53	75-127	51	25	mg/kg	02.17.14 19:22	XF
1,1-Dichloroethane	<0.000231	0.0575	0.0466	81	0.0414	72	72-125	12	25	mg/kg	02.17.14 19:22	
1,1-Dichloroethene	<0.000273	0.0575	0.0428	74	0.0461	80	59-172	7	25	mg/kg	02.17.14 19:22	
1,2,3-Trichlorobenzene	<0.000279	0.0575	0.0392	68	0.0232	40	75-137	51	25	mg/kg	02.17.14 19:22	XF
1,2,4-Trichlorobenzene	<0.000499	0.0575	0.0399	69	0.0241	42	75-135	49	25	mg/kg	02.17.14 19:22	XF
1,2-Dibromo-3-chloropropane (DBCP)	<0.00178	0.0575	0.0454	79	0.0272	47	59-125	50	25	mg/kg	02.17.14 19:22	XF
1,2-Dibromoethane (EDB)	<0.000487	0.0575	0.0459	80	0.0299	52	73-125	42	25	mg/kg	02.17.14 19:22	XF
1,2-Dichlorobenzene	<0.000495	0.0575	0.0509	89	0.0312	54	75-125	48	25	mg/kg	02.17.14 19:22	XF
1,2-Dichloroethane	<0.000403	0.0575	0.0450	78	0.0247	43	68-127	58	25	mg/kg	02.17.14 19:22	XF
1,2-Dichloropropane	<0.000543	0.0575	0.0469	82	0.0293	51	74-125	46	25	mg/kg	02.17.14 19:22	XF
1,3-Dichlorobenzene	<0.000427	0.0575	0.0483	84	0.0320	56	75-125	41	25	mg/kg	02.17.14 19:22	XF
1,4-Dichlorobenzene	<0.000273	0.0575	0.0437	76	0.0283	49	75-125	43	25	mg/kg	02.17.14 19:22	XF
2-Butanone (MEK)	<0.00335	0.115	0.0885	77	0.0832	72	75-125	6	25	mg/kg	02.17.14 19:22	X
2-Hexanone	<0.00323	0.115	0.0962	84	0.0696	61	75-125	32	25	mg/kg	02.17.14 19:22	XF
4-Methyl-2-pentanone (MIBK)	<0.00229	0.115	0.0955	83	0.0650	57	60-140	38	25	mg/kg	02.17.14 19:22	XF
Acetone	0.0132	0.115	0.111	85	0.110	84	50-150	1	25	mg/kg	02.17.14 19:22	
Benzene	<0.000180	0.0575	0.0421	73	0.0323	56	66-142	26	25	mg/kg	02.17.14 19:22	XF
Bromochloromethane	<0.000546	0.0575	0.0448	78	0.0300	52	60-140	40	25	mg/kg	02.17.14 19:22	XF
Bromodichloromethane	<0.000305	0.0575	0.0448	78	0.0289	50	75-125	43	25	mg/kg	02.17.14 19:22	XF
Bromoform	<0.000803	0.0575	0.0473	82	0.0272	47	75-125	54	25	mg/kg	02.17.14 19:22	XF
Bromomethane	<0.00121	0.0575	0.0427	74	0.0367	64	60-140	15	25	mg/kg	02.17.14 19:22	
Carbon disulfide	<0.00126	0.0575	0.0351	61	0.0353	61	60-140	1	25	mg/kg	02.17.14 19:22	
Carbon tetrachloride	<0.000269	0.0575	0.0434	75	0.0456	79	62-125	5	25	mg/kg	02.17.14 19:22	
Chlorobenzene	<0.000275	0.0575	0.0434	75	0.0327	57	60-133	28	25	mg/kg	02.17.14 19:22	XF
Chloroethane	<0.000631	0.0575	0.0429	75	0.0403	70	60-140	6	25	mg/kg	02.17.14 19:22	
Chloroform	<0.000336	0.0575	0.0412	72	0.0316	55	74-125	26	25	mg/kg	02.17.14 19:22	XF
Chloromethane	<0.000343	0.0575	0.0391	68	0.0335	58	60-140	15	25	mg/kg	02.17.14 19:22	X
cis-1,2-Dichloroethene	<0.000391	0.0575	0.0458	80	0.0346	60	75-125	28	25	mg/kg	02.17.14 19:22	XF
cis-1,3-Dichloropropene	<0.000492	0.0575	0.0524	91	0.0301	52	74-125	54	25	mg/kg	02.17.14 19:22	XF
Cyclohexane	<0.000218	0.0575	0.0417	73	0.0510	89	70-130	20	25	mg/kg	02.17.14 19:22	
Dibromochloromethane	<0.000543	0.0575	0.0503	87	0.0288	50	73-125	54	25	mg/kg	02.17.14 19:22	XF
Dichlorodifluoromethane	<0.000489	0.0575	0.0522	91	0.0541	94	65-135	4	25	mg/kg	02.17.14 19:22	
Ethylbenzene	<0.000494	0.0575	0.0469	82	0.0390	68	75-125	18	25	mg/kg	02.17.14 19:22	X
Isopropylbenzene	<0.000192	0.0575	0.0474	82	0.0422	73	75-125	12	25	mg/kg	02.17.14 19:22	X
m,p-Xylenes	<0.000444	0.115	0.101	88	0.0798	69	75-125	23	25	mg/kg	02.17.14 19:22	X
Methyl acetate	0.0134	0.575	0.453	76	0.341	57	65-135	28	25	mg/kg	02.17.14 19:22	XF
Methyl tert-butyl ether	<0.000391	0.0575	0.0450	78	0.0261	45	60-140	53	25	mg/kg	02.17.14 19:22	XF
Methylcyclohexane	<0.000275	0.0575	0.0453	79	0.0491	85	65-135	8	25	mg/kg	02.17.14 19:22	
Methylene Chloride	0.00339	0.0575	0.0504	82	0.0362	57	75-125	33	25	mg/kg	02.17.14 19:22	XF
o-Xylene	<0.000320	0.0575	0.0491	85	0.0387	67	75-125	24	25	mg/kg	02.17.14 19:22	X
Styrene	<0.000173	0.0575	0.0469	82	0.0337	59	75-125	33	25	mg/kg	02.17.14 19:22	XF
Tetrachloroethene	<0.000294	0.0575	0.0529	92	0.0486	85	71-125	8	25	mg/kg	02.17.14 19:22	
Toluene	0.000252	0.0575	0.0453	78	0.0375	65	59-139	19	25	mg/kg	02.17.14 19:22	
trans-1,2-Dichloroethene	<0.000336	0.0575	0.0439	76	0.0416	72	75-125	5	25	mg/kg	02.17.14 19:22	X
trans-1,3-Dichloropropene	<0.000349	0.0575	0.0458	80	0.0260	45	66-125	55	25	mg/kg	02.17.14 19:22	XF
Trichloroethene	<0.000376	0.0575	0.0452	79	0.0408	71	62-137	10	25	mg/kg	02.17.14 19:22	
Trichlorofluoromethane	<0.000558	0.0575	0.0494	86	0.0520	90	67-125	5	25	mg/kg	02.17.14 19:22	
Vinyl Chloride	<0.000951	0.0575	0.0460	80	0.0476	83	60-140	3	25	mg/kg	02.17.14 19:22	

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** VOCs by SW-846 8260B

Seq Number: 934346

Parent Sample Id: 479331-005

Matrix: Soil

MS Sample Id: 479331-005 S

Prep Method: SW5035

Date Prep: 02.17.14

MSD Sample Id: 479331-005 SD

**Surrogate**

	<b>MS %Rec</b>	<b>MS Flag</b>	<b>MSD %Rec</b>	<b>MSD Flag</b>	<b>Limits</b>	<b>Units</b>	<b>Analysis Date</b>
Dibromofluoromethane	91		96		53-142	%	02.17.14 19:22
1,2-Dichloroethane-D4	94		112		56-150	%	02.17.14 19:22
Toluene-D8	98		101		70-130	%	02.17.14 19:22
4-Bromofluorobenzene	100		100		68-152	%	02.17.14 19:22



**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** VOCs by SW-846 8260B

**Seq Number:** 934355

**Parent Sample Id:** 479331-030

**Matrix:** Soil

**MS Sample Id:** 479331-030 S

**Prep Method:** SW5035

**Date Prep:** 02.18.14

**MSD Sample Id:** 479331-030 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,1,1-Trichloroethane	<0.000380	0.0561	0.0616	110	0.0604	108	75-125	2	25	mg/kg	02.18.14 16:23	
1,1,2,2-Tetrachloroethane	<0.000514	0.0561	0.0518	92	0.0478	85	74-125	8	25	mg/kg	02.18.14 16:23	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.000768	0.0561	0.0804	143	0.0679	121	60-140	17	25	mg/kg	02.18.14 16:23	X
1,1,2-Trichloroethane	<0.000365	0.0561	0.0552	98	0.0528	94	75-127	4	25	mg/kg	02.18.14 16:23	
1,1-Dichloroethane	<0.000225	0.0561	0.0553	99	0.0530	94	72-125	4	25	mg/kg	02.18.14 16:23	
1,1-Dichloroethene	<0.000266	0.0561	0.0523	93	0.0538	96	59-172	3	25	mg/kg	02.18.14 16:23	
1,2,3-Trichlorobenzene	<0.000272	0.0561	0.0496	88	0.0450	80	75-137	10	25	mg/kg	02.18.14 16:23	
1,2,4-Trichlorobenzene	<0.000487	0.0561	0.0502	89	0.0468	83	75-135	7	25	mg/kg	02.18.14 16:23	
1,2-Dibromo-3-chloropropane (DBCP)	<0.00174	0.0561	0.0604	108	0.0533	95	59-125	12	25	mg/kg	02.18.14 16:23	
1,2-Dibromoethane (EDB)	<0.000475	0.0561	0.0529	94	0.0506	90	73-125	4	25	mg/kg	02.18.14 16:23	
1,2-Dichlorobenzene	<0.000483	0.0561	0.0524	93	0.0484	86	75-125	8	25	mg/kg	02.18.14 16:23	
1,2-Dichloroethane	<0.000393	0.0561	0.0650	116	0.0604	108	68-127	7	25	mg/kg	02.18.14 16:23	
1,2-Dichloropropane	<0.000530	0.0561	0.0495	88	0.0482	86	74-125	3	25	mg/kg	02.18.14 16:23	
1,3-Dichlorobenzene	<0.000416	0.0561	0.0519	93	0.0488	87	75-125	6	25	mg/kg	02.18.14 16:23	
1,4-Dichlorobenzene	<0.000266	0.0561	0.0527	94	0.0495	88	75-125	6	25	mg/kg	02.18.14 16:23	
2-Butanone (MEK)	<0.00327	0.112	0.104	93	0.0892	80	75-125	15	25	mg/kg	02.18.14 16:23	
2-Hexanone	<0.00315	0.112	0.117	104	0.104	93	75-125	12	25	mg/kg	02.18.14 16:23	
4-Methyl-2-pentanone (MIBK)	<0.00223	0.112	0.116	104	0.102	91	60-140	13	25	mg/kg	02.18.14 16:23	
Acetone	<0.00539	0.112	0.147	131	0.127	113	50-150	15	25	mg/kg	02.18.14 16:23	
Benzene	0.000413	0.0561	0.0499	88	0.0494	87	66-142	1	25	mg/kg	02.18.14 16:23	
Bromochloromethane	<0.000533	0.0561	0.0528	94	0.0506	90	60-140	4	25	mg/kg	02.18.14 16:23	
Bromodichloromethane	<0.000298	0.0561	0.0606	108	0.0572	102	75-125	6	25	mg/kg	02.18.14 16:23	
Bromoform	<0.000783	0.0561	0.0601	107	0.0557	99	75-125	8	25	mg/kg	02.18.14 16:23	
Bromomethane	<0.00118	0.0561	0.0490	87	0.0459	82	60-140	7	25	mg/kg	02.18.14 16:23	
Carbon disulfide	<0.00123	0.0561	0.0462	82	0.0449	80	60-140	3	25	mg/kg	02.18.14 16:23	
Carbon tetrachloride	<0.000262	0.0561	0.0672	120	0.0666	119	62-125	1	25	mg/kg	02.18.14 16:23	
Chlorobenzene	<0.000268	0.0561	0.0508	91	0.0492	88	60-133	3	25	mg/kg	02.18.14 16:23	
Chloroethane	<0.000615	0.0561	0.0465	83	0.0460	82	60-140	1	25	mg/kg	02.18.14 16:23	
Chloroform	<0.000328	0.0561	0.0601	107	0.0567	101	74-125	6	25	mg/kg	02.18.14 16:23	
Chloromethane	<0.000335	0.0561	0.0442	79	0.0431	77	60-140	3	25	mg/kg	02.18.14 16:23	
cis-1,2-Dichloroethene	<0.000381	0.0561	0.0512	91	0.0487	87	75-125	5	25	mg/kg	02.18.14 16:23	
cis-1,3-Dichloropropene	<0.000480	0.0561	0.0550	98	0.0555	99	74-125	1	25	mg/kg	02.18.14 16:23	
Cyclohexane	<0.000213	0.0561	0.0549	98	0.0536	96	70-130	2	25	mg/kg	02.18.14 16:23	
Dibromochloromethane	<0.000530	0.0561	0.0589	105	0.0555	99	73-125	6	25	mg/kg	02.18.14 16:23	
Dichlorodifluoromethane	<0.000477	0.0561	0.0679	121	0.0631	112	65-135	7	25	mg/kg	02.18.14 16:23	
Ethylbenzene	<0.000482	0.0561	0.0515	92	0.0501	89	75-125	3	25	mg/kg	02.18.14 16:23	
Isopropylbenzene	<0.000188	0.0561	0.0530	94	0.0523	93	75-125	1	25	mg/kg	02.18.14 16:23	
m,p-Xylenes	<0.000433	0.112	0.0984	88	0.0951	85	75-125	3	25	mg/kg	02.18.14 16:23	
Methyl acetate	0.0104	0.561	0.565	99	0.509	89	65-135	10	25	mg/kg	02.18.14 16:23	
Methyl tert-butyl ether	<0.000381	0.0561	0.0536	96	0.0495	88	60-140	8	25	mg/kg	02.18.14 16:23	
Methylcyclohexane	<0.000269	0.0561	0.0521	93	0.0520	93	65-135	0	25	mg/kg	02.18.14 16:23	
Methylene Chloride	<0.000660	0.0561	0.0645	115	0.0614	109	75-125	5	25	mg/kg	02.18.14 16:23	
o-Xylene	<0.000312	0.0561	0.0518	92	0.0499	89	75-125	4	25	mg/kg	02.18.14 16:23	
Styrene	<0.000168	0.0561	0.0504	90	0.0488	87	75-125	3	25	mg/kg	02.18.14 16:23	
Tetrachloroethene	<0.000287	0.0561	0.0543	97	0.0534	95	71-125	2	25	mg/kg	02.18.14 16:23	
Toluene	0.000206	0.0561	0.0498	88	0.0493	88	59-139	1	25	mg/kg	02.18.14 16:23	
trans-1,2-Dichloroethene	<0.000328	0.0561	0.0548	98	0.0531	95	75-125	3	25	mg/kg	02.18.14 16:23	
trans-1,3-Dichloropropene	<0.000340	0.0561	0.0555	99	0.0533	95	66-125	4	25	mg/kg	02.18.14 16:23	
Trichloroethene	<0.000367	0.0561	0.0585	104	0.0577	103	62-137	1	25	mg/kg	02.18.14 16:23	
Trichlorofluoromethane	<0.000544	0.0561	0.0661	118	0.0610	109	67-125	8	25	mg/kg	02.18.14 16:23	
Vinyl Chloride	<0.000927	0.0561	0.0449	80	0.0440	78	60-140	2	25	mg/kg	02.18.14 16:23	

**Geotechnical & Environmental Consultants, Inc.**  
Macon 2 MGP

**Analytical Method:** VOCs by SW-846 8260B

Seq Number: 934355

Parent Sample Id: 479331-030

Matrix: Soil

MS Sample Id: 479331-030 S

Prep Method: SW5035

Date Prep: 02.18.14

MSD Sample Id: 479331-030 SD

**Surrogate**

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	103		99		53-142	%	02.18.14 16:23
1,2-Dichloroethane-D4	88		89		56-150	%	02.18.14 16:23
Toluene-D8	100		100		70-130	%	02.18.14 16:23
4-Bromofluorobenzene	101		97		68-152	%	02.18.14 16:23

Geotechnical & Environmental Consultants, Inc.  
Macon 2 MGP

Analytical Method: VOCs by SW-846 8260B

Seq Number: 934377

Parent Sample Id: 479331-034

Matrix: Soil

MS Sample Id: 479331-034 S

Prep Method: SW5035

Date Prep: 02.18.14

MSD Sample Id: 479331-034 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,1,1-Trichloroethane	<0.000385	0.0569	0.0481	85	0.0521	91	75-125	8	25	mg/kg	02.18.14 16:33	
1,1,2,2-Tetrachloroethane	<0.000522	0.0569	0.0608	107	0.0711	124	74-125	16	25	mg/kg	02.18.14 16:33	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.000780	0.0569	0.0497	87	0.0571	100	60-140	14	25	mg/kg	02.18.14 16:33	
1,1,2-Trichloroethane	<0.000370	0.0569	0.0633	111	0.0641	112	75-127	1	25	mg/kg	02.18.14 16:33	
1,1-Dichloroethane	<0.000229	0.0569	0.0537	94	0.0567	99	72-125	5	25	mg/kg	02.18.14 16:33	
1,1-Dichloroethene	<0.000270	0.0569	0.0473	83	0.0480	84	59-172	1	25	mg/kg	02.18.14 16:33	
1,2,3-Trichlorobenzene	<0.000276	0.0569	0.0311	55	0.0234	41	75-137	28	25	mg/kg	02.18.14 16:33	XF
1,2,4-Trichlorobenzene	<0.000494	0.0569	0.0316	56	0.0247	43	75-135	25	25	mg/kg	02.18.14 16:33	X
1,2-Dibromo-3-chloropropane (DBCP)	<0.00177	0.0569	0.0621	109	0.0638	111	59-125	3	25	mg/kg	02.18.14 16:33	
1,2-Dibromoethane (EDB)	<0.000482	0.0569	0.0600	105	0.0608	106	73-125	1	25	mg/kg	02.18.14 16:33	
1,2-Dichlorobenzene	<0.000490	0.0569	0.0519	91	0.0535	93	75-125	3	25	mg/kg	02.18.14 16:33	
1,2-Dichloroethane	<0.000399	0.0569	0.0558	98	0.0545	95	68-127	2	25	mg/kg	02.18.14 16:33	
1,2-Dichloropropane	<0.000538	0.0569	0.0512	90	0.0491	86	74-125	4	25	mg/kg	02.18.14 16:33	
1,3-Dichlorobenzene	<0.000423	0.0569	0.0507	89	0.0508	89	75-125	0	25	mg/kg	02.18.14 16:33	
1,4-Dichlorobenzene	<0.000270	0.0569	0.0459	81	0.0461	80	75-125	0	25	mg/kg	02.18.14 16:33	
2-Butanone (MEK)	<0.00332	0.114	0.110	96	0.114	99	75-125	4	25	mg/kg	02.18.14 16:33	
2-Hexanone	<0.00319	0.114	0.131	115	0.123	107	75-125	6	25	mg/kg	02.18.14 16:33	
4-Methyl-2-pentanone (MIBK)	<0.00227	0.114	0.122	107	0.122	106	60-140	0	25	mg/kg	02.18.14 16:33	
Acetone	0.0113	0.114	0.115	91	0.123	97	50-150	7	25	mg/kg	02.18.14 16:33	
Benzene	0.000932	0.0569	0.0474	82	0.0478	82	66-142	1	25	mg/kg	02.18.14 16:33	
Bromochloromethane	<0.000540	0.0569	0.0509	89	0.0570	99	60-140	11	25	mg/kg	02.18.14 16:33	
Bromodichloromethane	<0.000302	0.0569	0.0555	98	0.0525	92	75-125	6	25	mg/kg	02.18.14 16:33	
Bromoform	<0.000795	0.0569	0.0557	98	0.0552	96	75-125	1	25	mg/kg	02.18.14 16:33	
Bromomethane	<0.00120	0.0569	0.0459	81	0.0547	95	60-140	17	25	mg/kg	02.18.14 16:33	
Carbon disulfide	<0.00125	0.0569	0.0412	72	0.0460	80	60-140	11	25	mg/kg	02.18.14 16:33	
Carbon tetrachloride	<0.000266	0.0569	0.0491	86	0.0509	89	62-125	4	25	mg/kg	02.18.14 16:33	
Chlorobenzene	<0.000272	0.0569	0.0490	86	0.0469	82	60-133	4	25	mg/kg	02.18.14 16:33	
Chloroethane	<0.000624	0.0569	0.0415	73	0.0537	94	60-140	26	25	mg/kg	02.18.14 16:33	F
Chloroform	<0.000333	0.0569	0.0482	85	0.0511	89	74-125	6	25	mg/kg	02.18.14 16:33	
Chloromethane	<0.000340	0.0569	0.0365	64	0.0446	78	60-140	20	25	mg/kg	02.18.14 16:33	
cis-1,2-Dichloroethene	<0.000387	0.0569	0.0518	91	0.0548	96	75-125	6	25	mg/kg	02.18.14 16:33	
cis-1,3-Dichloropropene	<0.000487	0.0569	0.0575	101	0.0525	92	74-125	9	25	mg/kg	02.18.14 16:33	
Cyclohexane	<0.000216	0.0569	0.0484	85	0.0525	92	70-130	8	25	mg/kg	02.18.14 16:33	
Dibromochloromethane	<0.000538	0.0569	0.0597	105	0.0582	102	73-125	3	25	mg/kg	02.18.14 16:33	
Dichlorodifluoromethane	<0.000484	0.0569	0.0482	85	0.0539	94	65-135	11	25	mg/kg	02.18.14 16:33	
Ethylbenzene	<0.000489	0.0569	0.0525	92	0.0512	89	75-125	3	25	mg/kg	02.18.14 16:33	
Isopropylbenzene	<0.000190	0.0569	0.0537	94	0.0511	89	75-125	5	25	mg/kg	02.18.14 16:33	
m,p-Xylenes	<0.000439	0.114	0.108	95	0.112	97	75-125	4	25	mg/kg	02.18.14 16:33	
Methyl acetate	<0.00350	0.626	0.603	96	0.636	101	65-135	5	25	mg/kg	02.18.14 16:33	
Methyl tert-butyl ether	<0.000387	0.0569	0.0525	92	0.0593	103	60-140	12	25	mg/kg	02.18.14 16:33	
Methylcyclohexane	<0.000273	0.0569	0.0478	84	0.0437	76	65-135	9	25	mg/kg	02.18.14 16:33	
Methylene Chloride	0.00646	0.0569	0.0688	110	0.0745	119	75-125	8	25	mg/kg	02.18.14 16:33	
o-Xylene	<0.000317	0.0569	0.0559	98	0.0560	98	75-125	0	25	mg/kg	02.18.14 16:33	
Styrene	<0.000171	0.0569	0.0509	89	0.0495	86	75-125	3	25	mg/kg	02.18.14 16:33	
Tetrachloroethene	<0.000291	0.0569	0.0595	105	0.0574	100	71-125	4	25	mg/kg	02.18.14 16:33	
Toluene	0.000278	0.0569	0.0544	95	0.0544	94	59-139	0	25	mg/kg	02.18.14 16:33	
trans-1,2-Dichloroethene	<0.000333	0.0569	0.0486	85	0.0515	90	75-125	6	25	mg/kg	02.18.14 16:33	
trans-1,3-Dichloropropene	<0.000345	0.0569	0.0537	94	0.0549	96	66-125	2	25	mg/kg	02.18.14 16:33	
Trichloroethene	<0.000372	0.0569	0.0533	94	0.0486	85	62-137	9	25	mg/kg	02.18.14 16:33	
Trichlorofluoromethane	<0.000552	0.0569	0.0501	88	0.0552	96	67-125	10	25	mg/kg	02.18.14 16:33	
Vinyl Chloride	<0.000941	0.0569	0.0471	83	0.0510	89	60-140	8	25	mg/kg	02.18.14 16:33	

**Geotechnical & Environmental Consultants, Inc.**  
Macon 2 MGP

**Analytical Method:** VOCs by SW-846 8260B

Seq Number: 934377

Parent Sample Id: 479331-034

Matrix: Soil

MS Sample Id: 479331-034 S

Prep Method: SW5035

Date Prep: 02.18.14

MSD Sample Id: 479331-034 SD

**Surrogate**

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	99		100		53-142	%	02.18.14 16:33
1,2-Dichloroethane-D4	108		93		56-150	%	02.18.14 16:33
Toluene-D8	104		110		70-130	%	02.18.14 16:33
4-Bromofluorobenzene	118		125		68-152	%	02.18.14 16:33

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method: VOCs by SW-846 8260B**

Seq Number: 934444

Parent Sample Id: 479331-051

Matrix: Soil

MS Sample Id: 479331-051 S

Prep Method: SW5035

Date Prep: 02.19.14

MSD Sample Id: 479331-051 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,1,1-Trichloroethane	<0.000353	0.0521	0.0505	97	0.0460	86	75-125	9	25	mg/kg	02.19.14 18:40	
1,1,2,2-Tetrachloroethane	<0.000478	0.0521	0.0312	60	0.0194	36	74-125	47	25	mg/kg	02.19.14 18:40	XF
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.000714	0.0521	0.0629	121	0.0639	120	60-140	2	25	mg/kg	02.19.14 18:40	
1,1,2-Trichloroethane	<0.000340	0.0521	0.0360	69	0.0232	44	75-127	43	25	mg/kg	02.19.14 18:40	XF
1,1-Dichloroethane	<0.000210	0.0521	0.0436	84	0.0359	67	72-125	19	25	mg/kg	02.19.14 18:40	X
1,1-Dichloroethene	<0.000247	0.0521	0.0436	84	0.0427	80	59-172	2	25	mg/kg	02.19.14 18:40	
1,2,3-Trichlorobenzene	<0.000253	0.0521	0.0276	53	0.0182	34	75-137	41	25	mg/kg	02.19.14 18:40	XF
1,2,4-Trichlorobenzene	<0.000452	0.0521	0.0293	56	0.0189	36	75-135	43	25	mg/kg	02.19.14 18:40	XF
1,2-Dibromo-3-chloropropane (DBCP)	<0.00162	0.0521	0.0375	72	0.0219	41	59-125	53	25	mg/kg	02.19.14 18:40	XF
1,2-Dibromoethane (EDB)	<0.000441	0.0521	0.0342	66	0.0219	41	73-125	44	25	mg/kg	02.19.14 18:40	XF
1,2-Dichlorobenzene	<0.000449	0.0521	0.0340	65	0.0215	40	75-125	45	25	mg/kg	02.19.14 18:40	XF
1,2-Dichloroethane	<0.000366	0.0521	0.0438	84	0.0294	55	68-127	39	25	mg/kg	02.19.14 18:40	XF
1,2-Dichloropropane	<0.000493	0.0521	0.0363	70	0.0268	50	74-125	30	25	mg/kg	02.19.14 18:40	XF
1,3-Dichlorobenzene	<0.000387	0.0521	0.0351	67	0.0234	44	75-125	40	25	mg/kg	02.19.14 18:40	XF
1,4-Dichlorobenzene	<0.000248	0.0521	0.0352	68	0.0223	42	75-125	45	25	mg/kg	02.19.14 18:40	XF
2-Butanone (MEK)	<0.00304	0.104	0.0732	70	0.0447	42	75-125	48	25	mg/kg	02.19.14 18:40	XF
2-Hexanone	<0.00293	0.104	0.0710	68	0.0453	43	75-125	44	25	mg/kg	02.19.14 18:40	XF
4-Methyl-2-pentanone (MIBK)	<0.00208	0.104	0.0685	66	0.0442	42	60-140	43	25	mg/kg	02.19.14 18:40	XF
Acetone	0.00693	0.104	0.121	110	0.0813	70	50-150	39	25	mg/kg	02.19.14 18:40	F
Benzene	<0.000164	0.0521	0.0380	73	0.0310	58	66-142	20	25	mg/kg	02.19.14 18:40	X
Bromochloromethane	<0.000495	0.0521	0.0368	71	0.0256	48	60-140	36	25	mg/kg	02.19.14 18:40	XF
Bromodichloromethane	<0.000277	0.0521	0.0425	82	0.0292	55	75-125	37	25	mg/kg	02.19.14 18:40	XF
Bromoform	<0.000728	0.0521	0.0349	67	0.0224	42	75-125	44	25	mg/kg	02.19.14 18:40	XF
Bromomethane	<0.00110	0.0521	0.0339	65	0.0284	53	60-140	18	25	mg/kg	02.19.14 18:40	X
Carbon disulfide	<0.00114	0.0521	0.0372	71	0.0341	64	60-140	9	25	mg/kg	02.19.14 18:40	
Carbon tetrachloride	<0.000244	0.0521	0.0552	106	0.0502	94	62-125	9	25	mg/kg	02.19.14 18:40	
Chlorobenzene	<0.000249	0.0521	0.0362	69	0.0258	48	60-133	34	25	mg/kg	02.19.14 18:40	XF
Chloroethane	<0.000572	0.0521	0.0354	68	0.0318	60	60-140	11	25	mg/kg	02.19.14 18:40	
Chloroform	<0.000305	0.0521	0.0451	87	0.0341	64	74-125	28	25	mg/kg	02.19.14 18:40	XF
Chloromethane	<0.000311	0.0521	0.0317	61	0.0284	53	60-140	11	25	mg/kg	02.19.14 18:40	X
cis-1,2-Dichloroethene	<0.000355	0.0521	0.0386	74	0.0311	58	75-125	22	25	mg/kg	02.19.14 18:40	X
cis-1,3-Dichloropropene	<0.000446	0.0521	0.0383	74	0.0266	50	74-125	36	25	mg/kg	02.19.14 18:40	XF
Cyclohexane	<0.000198	0.0521	0.0454	87	0.0453	85	70-130	0	25	mg/kg	02.19.14 18:40	
Dibromochloromethane	<0.000493	0.0521	0.0384	74	0.0240	45	73-125	46	25	mg/kg	02.19.14 18:40	XF
Dichlorodifluoromethane	<0.000444	0.0521	0.0534	102	0.0526	99	65-135	2	25	mg/kg	02.19.14 18:40	
Ethylbenzene	<0.000448	0.0521	0.0386	74	0.0304	57	75-125	24	25	mg/kg	02.19.14 18:40	X
Isopropylbenzene	<0.000174	0.0521	0.0408	78	0.0322	61	75-125	24	25	mg/kg	02.19.14 18:40	X
m,p-Xylenes	<0.000403	0.104	0.0742	71	0.0582	55	75-125	24	25	mg/kg	02.19.14 18:40	X
Methyl acetate	<0.00321	0.521	0.352	68	0.235	44	65-135	40	25	mg/kg	02.19.14 18:40	XF
Methyl tert-butyl ether	<0.000355	0.0521	0.0351	67	0.0233	44	60-140	40	25	mg/kg	02.19.14 18:40	XF
Methylcyclohexane	<0.000250	0.0521	0.0439	84	0.0430	81	65-135	2	25	mg/kg	02.19.14 18:40	
Methylene Chloride	0.00244	0.0521	0.0423	77	0.0303	52	75-125	33	25	mg/kg	02.19.14 18:40	XF
o-Xylene	<0.000290	0.0521	0.0383	74	0.0283	53	75-125	30	25	mg/kg	02.19.14 18:40	XF
Styrene	<0.000157	0.0521	0.0341	65	0.0238	45	75-125	36	25	mg/kg	02.19.14 18:40	XF
Tetrachloroethene	<0.000267	0.0521	0.0432	83	0.0365	69	71-125	17	25	mg/kg	02.19.14 18:40	X
Toluene	<0.000117	0.0521	0.0375	72	0.0296	56	59-139	24	25	mg/kg	02.19.14 18:40	X
trans-1,2-Dichloroethene	<0.000305	0.0521	0.0445	85	0.0380	71	75-125	16	25	mg/kg	02.19.14 18:40	X
trans-1,3-Dichloropropene	<0.000316	0.0521	0.0369	71	0.0236	44	66-125	44	25	mg/kg	02.19.14 18:40	XF
Trichloroethene	<0.000341	0.0521	0.0477	92	0.0391	73	62-137	20	25	mg/kg	02.19.14 18:40	
Trichlorofluoromethane	<0.000506	0.0521	0.0519	100	0.0519	98	67-125	0	25	mg/kg	02.19.14 18:40	
Vinyl Chloride	<0.000862	0.0521	0.0341	65	0.0340	64	60-140	0	25	mg/kg	02.19.14 18:40	

**Geotechnical & Environmental Consultants, Inc.**  
**Macon 2 MGP**

**Analytical Method:** VOCs by SW-846 8260B

Seq Number: 934444

Parent Sample Id: 479331-051

Matrix: Soil

MS Sample Id: 479331-051 S

Prep Method: SW5035

Date Prep: 02.19.14

MSD Sample Id: 479331-051 SD

**Surrogate**

	<b>MS %Rec</b>	<b>MS Flag</b>	<b>MSD %Rec</b>	<b>MSD Flag</b>	<b>Limits</b>	<b>Units</b>	<b>Analysis Date</b>
Dibromofluoromethane	101		108		53-142	%	02.19.14 18:40
1,2-Dichloroethane-D4	94		101		56-150	%	02.19.14 18:40
Toluene-D8	100		99		70-130	%	02.19.14 18:40
4-Bromofluorobenzene	100		100		68-152	%	02.19.14 18:40



# XENCO LABORATORIES CHAIN OF CUSTODY

Page 1 of 6  
6017 Financial Drive, Norcross, GA 30071  
Phone # (770) 449-8800 Fax # (770) 449-5477

Company Name: <u>GES</u>				Receiver's Initials/Temp: <u>DL / 1.4°C</u>			
Address: <u>514 Hillcrest Industrial Blvd</u>				Custody Seal(s): <u>Y N</u> Lab Work Order # <u>479331</u>			
Results Sent to: <u>Town Driver</u>				P.O.# (if required):			
Email address: <u>TDriver@GECconsultants.com</u>				Field Comments / Lab Precautions:			
Contact Phone #: <u>478757-1606</u> Cell#: <u></u>							
Project Name (Site): <u>MACOM 2-MG-IP</u>							
Project Number (ID): <u>130659.240</u>							
Regulatory Program: <u></u>				Analysis Requested			
Sampler(s): (signature) <u>Anthony Whipple</u>							
Sampler(s): (printed) <u>Anthony Whipple</u>							
Container Type: <u></u>							
Chemical Preservation Code: <u></u>							
Line No.	Sample ID #	Sample Depth (ft)	Collection Date / Time	Matrix (See below)	Grab	No. of Containers	
1	GB9	0-6"	2/13/14 10:5	S	X	5	
2	GB9	6"-2'	10:18				
3	GB-13	0-6"	11:9				
4	GB-13	6"-2'	12:3				
5	GB-15	0-6"	12:34				
6	GB-15	6"-2'	12:35				
7	GB-12	0-6"	12:29				
8	GB-12	6"-2'	12:33				
9	GB-14	0-6"	12:51				
10	GB-14	6"-2'	12:33				
1) Relinquished By: <u>Anthony Whipple</u> Date / Time: <u>2/13/14 4:20</u>				2) Received By: <u>M.D. Maack</u> Date / Time: <u>2/13/14 4:20</u>			
3) Relinquished By: <u>M.D. Maack</u> Date / Time: <u>2/14/14 12:30</u>				4) Received By: <u>Anthony Whipple</u> Date / Time: <u>2/14/14 12:30</u>			
5) Relinquished By: <u></u> Date / Time: <u></u>				6) Received By: <u></u> Date / Time: <u></u>			
Turnaround Time (business days) TAT Starts when samples are rec'd by 2PM <u>10 Days ; 5-7 Days; 3 Days</u>				Delivered by: (Circle One) Fed Ex / UPS / Courier / Lab Pickup / Hand / Other <u>2 Days ; 1 Day; Same Day</u>			

Matrix Guide: (W=Water) (DW = Drinking Water) (GW = Groundwater) (SW = Surface Water) (L = Liquid) (O = Oil) (S = Soil) (SD = Solid) (SL = Sludge) (A = Air) (C = Air Cartridge)  
Chemical Preservation Codes: 1 = HCL / 2 = HNO<sub>3</sub> / 3 = H<sub>2</sub>SO<sub>4</sub> / 4 = NaOH + NaAsO<sub>2</sub> / 5 = NaOH + ZnAc / 6 = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> / 7 = NaHSO<sub>4</sub> & MeOH / 8 = DI Water & MeOH  
Container Type: VC=Vial (Clear); VA =Vial (Amber); GC=Glass (Clear); GA=Glass (Amber); P=Plastic (HDPE); TB=Tedlar Bag; ES=EnCore Sampler; ZB=Ziploc Bag; O=Other





# **XENCO LABORATORIES** **CHAIN OF CUSTODY**

Page 2 of 6  
6017 Financial Drive, Norcross, GA 30071  
Phone # (770) 449-8800 Fax # (770) 449-5477

Company Name: GEC  
Address: 514 Hillcrest Industrial Blvd  
Results Sent to: Tom Driver  
Email address: TDriver@GECconsultants.com  
Contact Phone #: Cell#:  
Project Name (Site): MACON Z MGP  
Project Number (ID): 130659.040  
Regulatory Program:

Receiver's Initials/Temp: DL / 14.4°C  
Custody Seal(s): Y N Lab Work Order # 479331  
P.O.# (if required):   
Field Comments / Lab Precautions:

Container Type:   
Chemical Preservation Code:   
Analysis Requested:

Sampler(s): (signature)			Sampler(s): (printed)																	
Anthony Whipple			Anthony Whipple																	
Line No.	Sample ID #	Sample Depth (Ft)	Collection Date / Time	Matrix (See below)	Composite	Grab	No. of Containers	VOC's	SVOC's	PCOA Metals										
1	GB-19	0-6"	2/13/14 1231	S	X		5	X	X	X										
2	GB-19	6"-2'	1233																	
3	GB-20	0-6"	1238																	
4	GB-20	6"-2'	1240																	
5	GB-21	0-6"	1242																	
6	GB-21	6"-2'	1244																	
7	GB-16	0-6"	1246																	
8	GB-16	6"-2'	1249																	
9	GB-17	0-6"	1255																	
10	GB-17	6"-2'	1257																	

Relinquished By: [Signature] Date / Time: 2/13/14 4:20  
Relinquished By: [Signature] Date / Time: 2/13/14 4:20  
Relinquished By: [Signature] Date / Time: 2/14/14 12:30  
Relinquished By: [Signature] Date / Time: 2/14/14 12:30

Delivered by: (Circle One)  
Fed Ex / UPS / Courier / Lab Pickup / Hand / Other  
Turnaround Time (business days)  
TAT Starts when samples are rec'd by 2PM  
10 Days ; 5-7 Days; 3 Days  
2 Days ; 1 Day; Same Day

Matrix Guide: (W=Water) (DW = Drinking Water) (GW = Groundwater) (SW = Surface Water) (L = Liquid) (O = Oil) (S = Soil) (SD = Solid) (SL = Sludge) (A = Air) (C = Air Cartridge)  
Chemical Preservation Codes: 1 = HCL / 2 = HNO<sub>3</sub> / 3 = H<sub>2</sub>SO<sub>4</sub> / 4 = NaOH + NaAsO<sub>2</sub> / 5 = NaOH + ZnAc / 6 = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> / 7 = NaHSO<sub>4</sub> & MeOH / 8 = DI Water & MeOH  
Container Type: VC=Vial (Clear); VA =Vial (Amber); GC=Glass (Clear); GA=Glass (Amber); P=Plastic (HDPE); TB=Tedlar Bag; ES=En Core Sampler; ZB=Ziploc Bag; O=Other



# XENCO LABORATORIES CHAIN OF CUSTODY

Page 3 of 6  
6017 Financial Drive, Norcross, GA 30071  
Phone # (770) 449-8800 Fax # (770) 449-5477

Company Name: <u>GEC</u>				Receiver's Initials/Temp: <u>1.4°C</u>			
Address: <u>514 Hillcrest Industrial Blvd</u>				Custody Seal(s): <u>(Y) N</u> Lab Work Order # <u>479331</u>			
Results Sent to: <u>Tom Driver</u>				P.O.# (if required):			
Email address: <u>TDriver@GECConsultants.com</u>				Field Comments / Lab Precautions:			
Contact Phone #: <u>478-757-1606</u> Cell#: <u>47</u>							
Project Name (Site): <u>MACOM 2 MGP</u>							
Project Number (ID): <u>130659.240</u>							
Regulatory Program:				Analysis Requested			
Container Type:							
Chemical Preservation Code:							
Sampler(s): (signature) <u>Anthony Whipple</u>		Sampler(s): (printed) <u>Anthony Whipple</u>					
Line No.	Sample ID #	Sample Depth (ft)	Collection Date / Time	Matrix (See below)	Grab	No. of Containers	
1	GB-22	0-6"	2/13/14 12:59	S	X	5	
2	GB-22	6"-2'	10:10pm				
3	GB-25	0-6"	10:4				
4	GB-25	6"-2'	1:06				
5	GB-26	0-6"	1:13				
6	GB-26	6"-2'	1:16				
7	GB-27	0-6"	1:18				
8	GB-27	6"-2'	1:20				
9	GB-24	0-6"	1:25				
10	GB-24	6"-2'	1:27				
1) Relinquished By: <u>Anthony Whipple</u> Date / Time: <u>2/13/14 4:20</u>				Delivered by: (Circle One) Fed Ex / UPS / Courier / Lab Pickup / Hand / Other			
3) Relinquished By: <u>Mark March</u> Date / Time: <u>2/14/14 12:30</u>				Turnaround Time (business days) TAT Starts when samples are rec'd by 2PM <u>10</u> Days; <u>5-7</u> Days; <u>3</u> Days			
5) Relinquished By: <u>Mark March</u> Date / Time: <u>2/14/14 12:30</u>				2 Days; 1 Day; Same Day			

Matrix Guide: (W=Water) (DW = Drinking Water) (GW = Groundwater) (SW = Surface Water) (L = Liquid) (O = Oil) (S = Soil) (SD = Solid) (SL = Sludge) (A = Air) (C = Air Cartridge)  
Chemical Preservation Codes: 1 = HCL / 2 = HNO<sub>3</sub> / 3 = H<sub>2</sub>SO<sub>4</sub> / 4 = NaOH + NaAsO<sub>2</sub> / 5 = NaOH + ZnAc / 6 = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> / 7 = NaHSO<sub>4</sub> & MeOH / 8 = DI Water & MeOH  
Container Type: VC=Vial (Clear); VA =Vial (Amber); GC=Glass (Clear); GA=Glass (Amber); P=Plastic (Amber); ES=EnCore Sampler; ZB=Ziploc Bag; O=Other



**XENCO LABORATORIES**  
**CHAIN OF CUSTODY**

Page 4 of 6  
6017 Financial Drive, Norcross, GA 30071  
Phone # (770) 449-8800 Fax # (770) 449-5477

Company Name: <u>GEC</u>				Receiver's Initials/Temp: <u>W / 1.4°C</u>			
Address: <u>514 Hillcrest Industrial Blvd</u>				Custody Seal(s): <u>Y N</u> Lab Work Order # <u>479331</u>			
Results Sent to: <u>Tom Driver</u>				P.O.# (if required):			
Email address: <u>TDriver@GECconsultants.com</u>				Field Comments / Lab Precautions:			
Contact Phone #: <u>Cell#:</u>							
Project Name (Site): <u>MACON 2 MGP</u>				Analysis Requested			
Project Number (ID): <u>130659.240</u>							
Regulatory Program:							
Sampler(s): (signature) <u>Anthony Whipper</u>		Sampler(s): (printed) <u>Anthony Whipper</u>					
Line No.	Sample ID #	Sample Depth (Ft)	Collection Date / Time	Matrix (See below)	Composite	Grab	No. of Containers
1	GB-23	0-6"	2/13/14 1:30	S	X		5
2	GB-23	6"-2'	1:33				
3	GB-18	0-6"	1:36				
4	GB-18	6"-2'	1:38				
5	GB-11	0-6"	1:40				
6	GB-11	6"-2'	1:42				
7	GB-10	0-6"	1:44				
8	GB-10	6"-2'	1:46				
9	GB-7	0-6"	1:52				
10	GB-7	6"-2'	1:54				
1) Relinquished By: <u>Anthony Whipper</u> 2/13/14 4:20				Date / Time			
2) Received By: <u>Mike Marshall</u> 2/13/14 4:20				Date / Time			
3) Relinquished By: <u>Mike Marshall</u> 2/14/14 12:30				Date / Time			
4) Received By: <u>Anthony Whipper</u> 2/14/14 12:30				Date / Time			
5) Relinquished By:				Date / Time			
6) Received By:				Date / Time			
Turnaround Time (business days)				TAT Starts when samples are rec'd by 2PM			
10 Days ; 5-7 Days ; 3 Days				2 Days ; 1 Day ; Same Day			

Matrix Guide: (W=Water) (DW = Drinking Water) (GW = Groundwater) (SW = Surface Water) (L = Liquid) (O = Oil) (S = Soil) (SD = Solid) (SL = Sludge) (A = Air) (C = Air Cartridge)

Chemical Preservation Codes: 1 = HCL / 2 = HNO<sub>3</sub> / 3 = H<sub>2</sub>SO<sub>4</sub> / 4 = NaOH / 5 = NaOH + NaAsO<sub>2</sub> / 6 = NaOH + ZnAc / 7 = NaHSO<sub>4</sub> & MeOH / 8 = DI Water & MeOH

Container Type: VC=Vial (Clear); VA =Vial (Amber); GC=Glass (Clear); GA=Glass (Amber); P=Plastic (HDPE); TB=Tedlar Bag; ES=EnCore Sampler; ZB=Ziploc Bag; O=Other



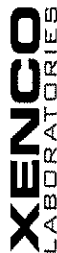
# **XENCO LABORATORIES** **CHAIN OF CUSTODY**

**XENCO**  
LABORATORIES

Page 5 of 6  
6017 Financial Drive, Norcross, GA 30071  
Phone # (770) 449-8800 Fax # (770) 449-5477

Company Name: <u>GEC</u>				Receiver's Initials/Temp: <u>AN / 14°C</u>			
Address: <u>514 Hillcrest Industrial Blvd</u>				Custody Seal(s): <u>Y N</u> Lab Work Order # <u>479331</u>			
Results Sent to: <u>Tom Driver</u>				P.O.# (if required):			
Email address: <u>TDRIVER@GECconsultants.com</u>				Field Comments / Lab Precautions:			
Contact Phone #: <u>478 757-1606</u> Cell#: <u></u>							
Project Name (Site): <u>MACAN 2 MGP</u>							
Project Number (ID): <u>130659.240</u>							
Regulatory Program:				Analysis Requested			
Sampler(s): (signature) <u>Anthony Whipple</u>				Container Type:			
Sampler(s): (printed) <u>Anthony Whipple</u>				Chemical Preservation Code:			
Line No.	Sample ID #	Sample Depth (Ft)	Collection Date / Time	Matrix (See below)	Composite	Grab	No. of Containers
1	GB-6	0-6"	2/13/14 1:56	S	X		5
2	GB-6	6"-2'	1:58				
3	GB-5	0-6"	2:07				
4	GB-5	6"-2'	2:09				
5	GB-2	0-6"	2:13				
6	GB-2	6"-2'	2:15				
7	GB-1	0-6"	2:27				
8	GB-1	6"-2'	2:30				
9	GB-3	0-6"	2:35				
10	GB-3	6"-2'	2:37				
1) Relinquished By: <u>Anthony Whipple</u> Date / Time: <u>2/13/14 4:20</u>				2) Received By: <u>Mike Marshall</u> Date / Time: <u>2-13-14 4:40</u>			
3) Relinquished By: <u>Mike Marshall</u> Date / Time: <u>2-14-14 12:30</u>				4) Received By: <u>Anthony Whipple</u> Date / Time: <u>2/14/14 12:30</u>			
5) Relinquished By: <u>Mike Marshall</u> Date / Time: <u></u>				6) Received By: <u></u> Date / Time: <u></u>			
Delivered by: (Circle One) Fed Ex / UPS / Courier / Lab Pickup / Hand / Other				Turnaround Time (business days) TAT Starts when samples are rec'd by 2PM <u>10</u> Days; <u>5-7</u> Days; <u>3</u> Days <u>2</u> Days; <u>1</u> Day; <u>Same Day</u>			

Matrix Guide: (W=Water) (DW = Drinking Water) (GW = Groundwater) (SW = Surface Water) (L = Liquid) (O = Oil) (S = Soil) (SD = Solid) (SL = Sludge) (A = Air) (C = Air Cartridge)  
Chemical Preservation Codes: 1 = HCL / 2 = HNO<sub>3</sub> / 3 = H<sub>2</sub>SO<sub>4</sub> / 4 = NaOH + NaAsO<sub>2</sub> / 5 = NaOH + ZnAc / 6 = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> / 7 = NaHSO<sub>4</sub> & MeOH / 8 = DI Water & MeOH  
Container Type: VC=Vial (Clear); VA =Vial (Amber); GC=Glass (Clear); GA=Glass (Amber); P=Plastic (HDPE); TB=Tedlar Bag; ES=EnCore Sampler; ZB=Ziploc Bag; O=Other



## XENCO LABORATORIES CHAIN OF CUSTODY

Page 6 of 6  
6017 Financial Drive, Norcross, GA 30071  
Phone # (770) 449-8800 Fax # (770) 449-5477

Company Name: <b>GEC</b>		Receiver's Initials/Temp: <b>W / 10.0°C</b>		Custody Seal(s): <b>Y</b> N Lab Work Order # <b>4791331</b>	
Address: <b>514 Hilcrest Industrial Blvd</b>		P.O. # (if required):		Field Comments / Lab Precautions:	
Results Sent to: <b>Tom Driver</b>		Analysis Requested			
Email address: <b>TDriver@GECconsultants.com</b>					
Contact Phone #: <b>478 757-1609</b> Cell#:					
Project Name (Site): <b>MACON 2 MGP</b>					
Project Number (ID): <b>130659.240</b>					
Regulatory Program:					
Sampler(s): (signature) <i>Anthony Whipple</i>		Sampler(s): (printed) <b>Anthony Whipple</b>			
Container Type:		Chemical Preservation Code:			
Line No.		Sample ID #		Sample Depth (Ft)	
Collection Date / Time		Matrix (See below)		Grab Composite	
No. of Containers		VOC's		SVOC's	
1		GB-8		0-6" 2/13/14 2:00	
2		GB-8		6"-2' 2:03	
3		GB-4		0-6" 2:44	
4		GB-4		6"-2' 2:46	
5					
6					
7					
8					
9					
10					
1) Relinquished By: <i>Tom Driver</i>		Date / Time: <b>2/13/14 4:20</b>		2) Received By: <i>Mike Mand</i>	
3) Relinquished By: <i>Mike Mand</i>		Date / Time: <b>2-14-14 1:13</b>		4) Received By: <i>David L. L...</i>	
5) Relinquished By:		Date / Time:		6) Received By:	
Delivered by: (Circle One)		Date / Time: <b>2/14/14 12:30</b>		Fed Ex / UPS / Courier / Lab Pickup / Hand / Other	
Turnaround Time (business days)		Date / Time: <b>2/14/14 12:30</b>		TAT Starts when samples are rec'd by 2PM	
10 Days ; 5-7 Days ; 3 Days		Date / Time:		2 Days ; 1 Day ; Same Day	

**Matrix Guide:** (W=Water) (DW = Drinking Water) (GW = Groundwater) (SW = Surface Water) (L = Liquid) (O = Oil) (S = Soil) (SD = Solid) (SL = Sludge) (A = Air) (C = Air Cartridge)

**Chemical Preservation Codes:** 1 = HCL / 2 = HNO<sub>3</sub> / 3 = H<sub>2</sub>SO<sub>4</sub> / 4 = NaOH + NaAsO<sub>2</sub> / 5 = NaOH + ZnAc / 6 = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> / 7 = NaHSO<sub>4</sub> & MeOH / 8 = DI Water & MeOH

**Container Type:** VC=Vial (Clear); VA =Vial (Amber); GC=Glass (Clear); GA=Glass (Amber); P=Plastic (HDPE); TB=Tedlar Bag; ES=EnCore Sampler; ZB=Ziploc Bag; O=Other

# **APPENDIX VIII**

## **VRP First Semi-Annual Progress Report and EPD Comments and Correspondence**

**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, GEORGIA 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

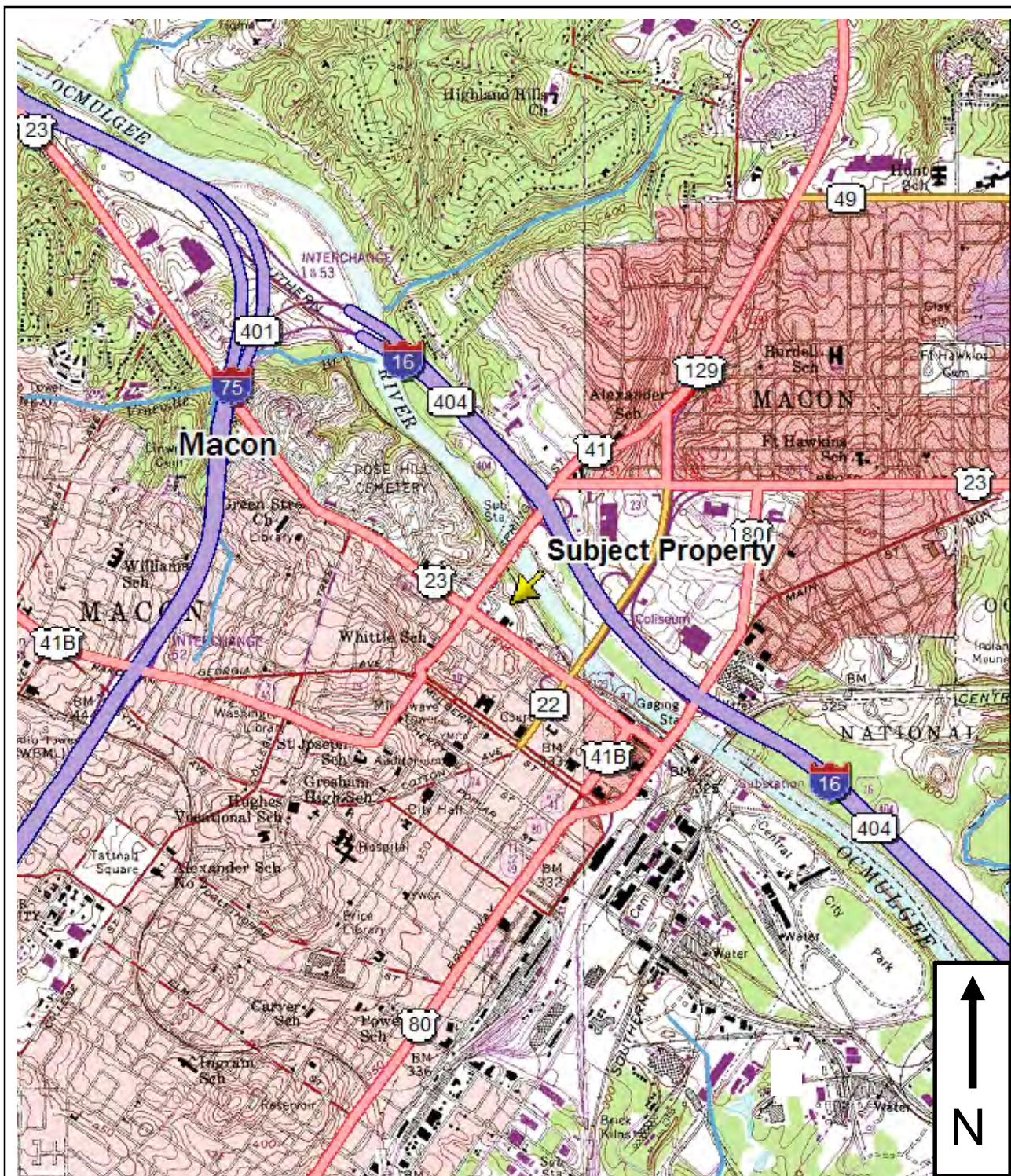
The results of extensive sampling and laboratory analysis of soil samples collected from the site and the results of statistical calculation of the 95% UCL indicated that soils located within the upper 15-feet of the Residential Use Target Zone are suitable for Residential Use. As noted previously, GEC 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'**

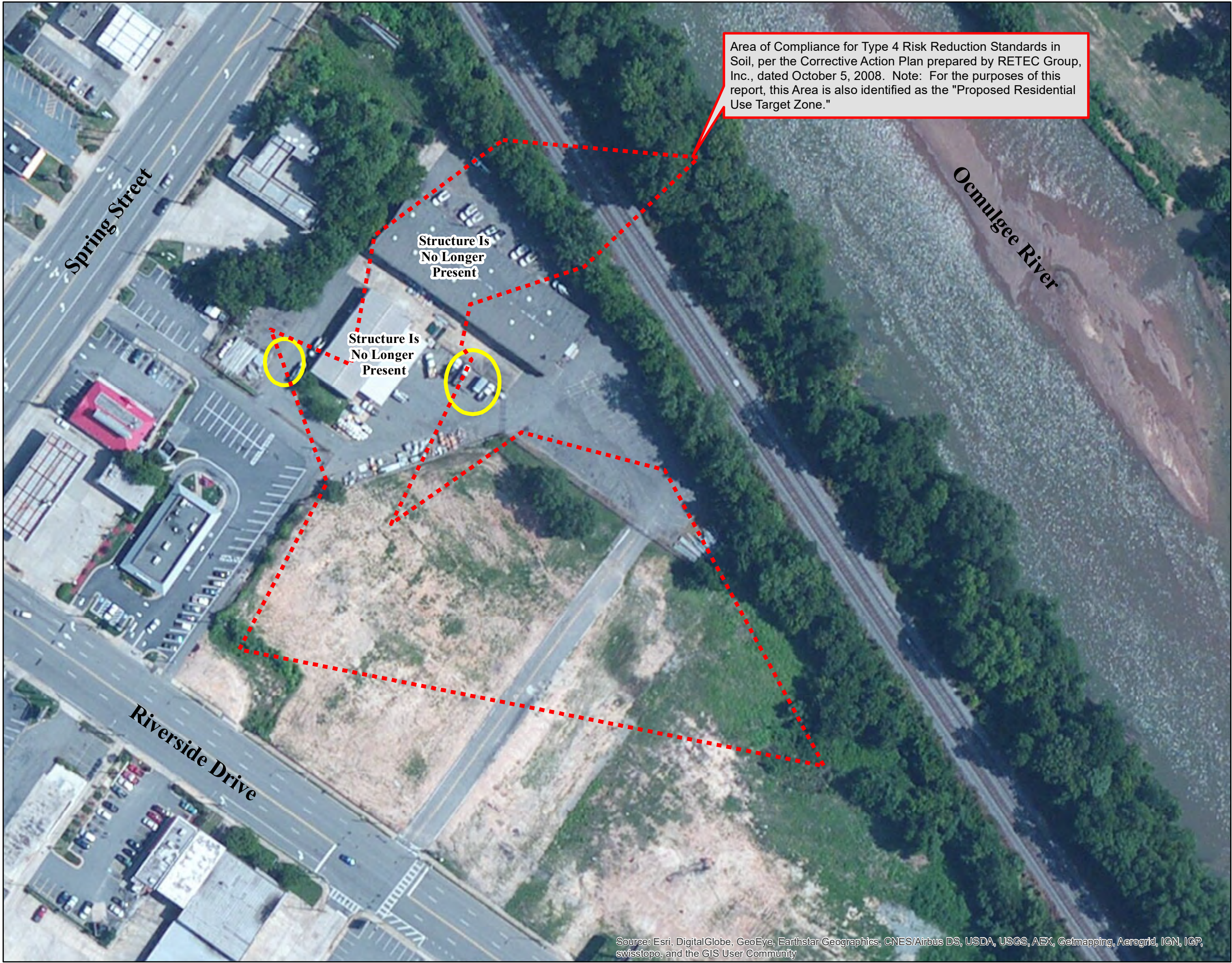
**Source: Macon West, GA Quadrangle (1985)**

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

514 Hillcrest Industrial Boulevard, Macon, GA 31204 • Phone: (478) 757-1606 • Fax: (478) 757-1608

5031 Milgen Court, Columbus, GA 31907 • Phone: (706) 569-0008 • Fax: (706) 569-0940





**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:**

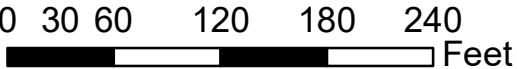
514 Hillcrest Industrial Blvd  
Macon, Ga

March 2016

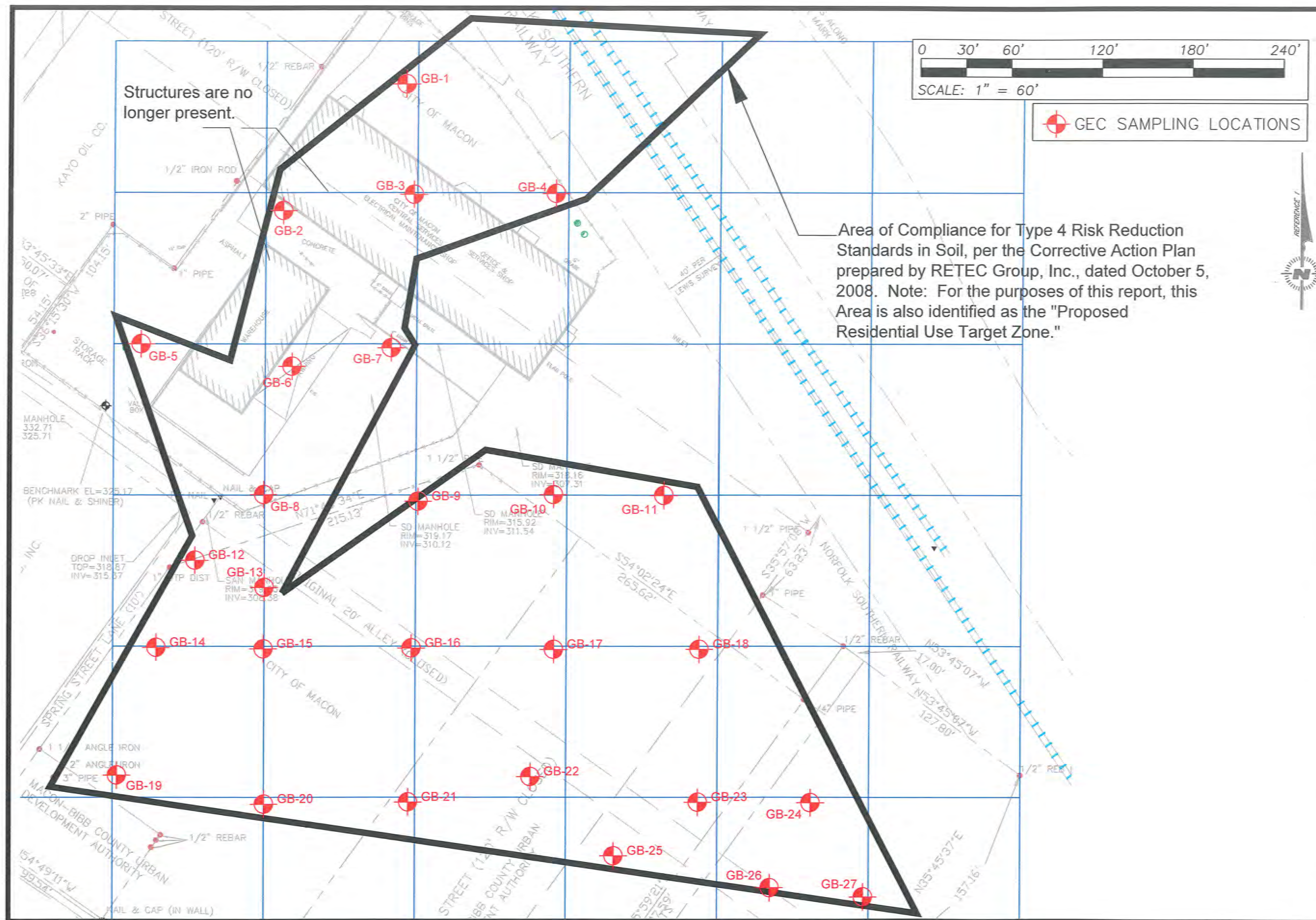
**Legend**

 Proposed Residential Use Target Zone

 Former Gas Holders







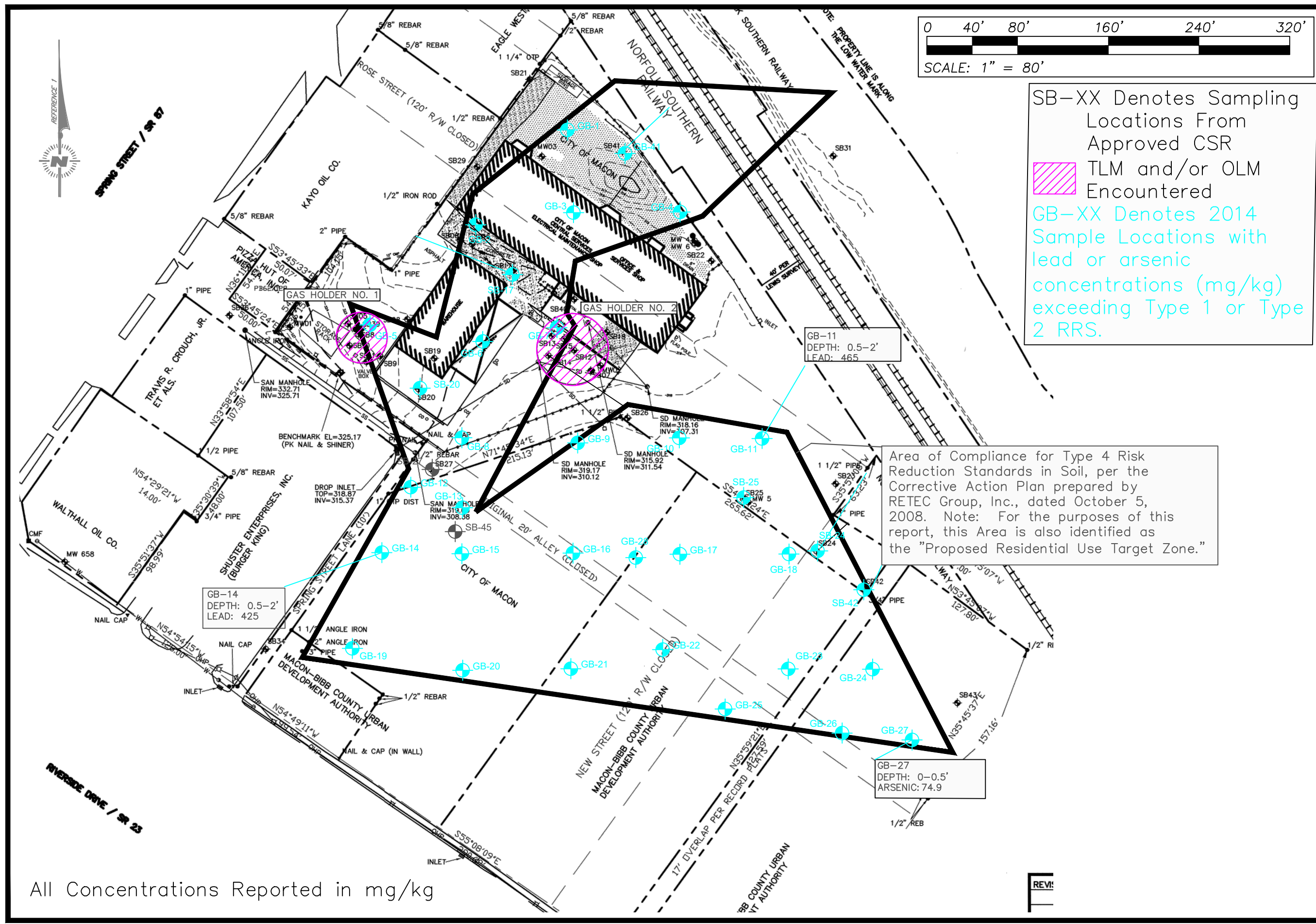
**GEC**  
GEOTECHNICAL  
&  
ENVIRONMENTAL  
CONSULTANTS, INC.

514 HILLCREST INDUSTRIAL BLVD.  
MACON, GEORGIA 31204  
478-757-1606 (Fax) 478-757-1608  
WWW.GECONSULTANTS.COM

FIGURE 3: GEC SAMPLING LOCATIONS  
FORMER MACON MGP #2 PLANT  
MACON, GEORGIA

GEC PROJECT NO. 130659.241





All Concentrations Reported in mg/kg

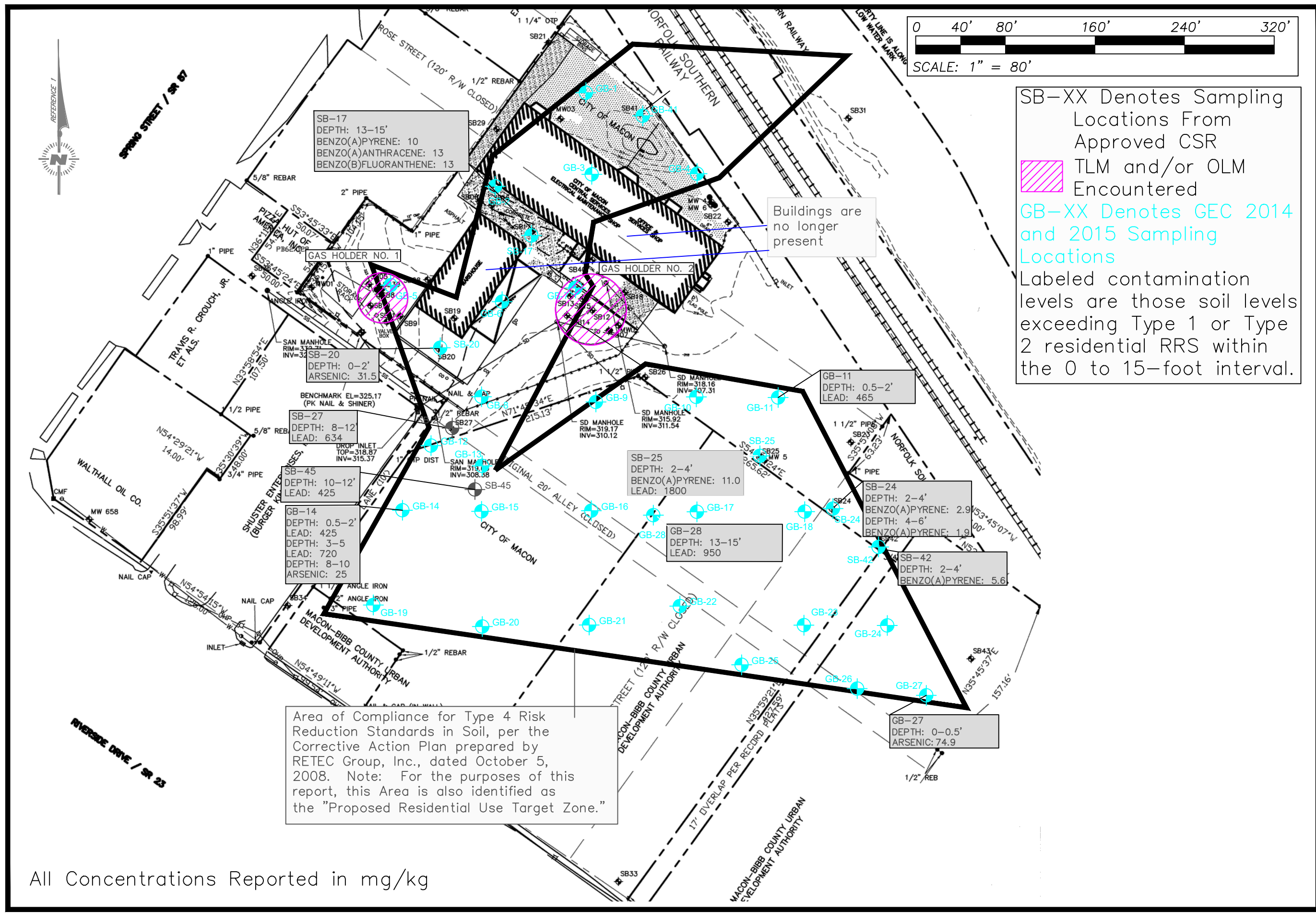
FIGURE 4: SOIL EXCEEDANCES MAP  
FORMER MACON 2 MPG SITE  
MACON, GEORGIA

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

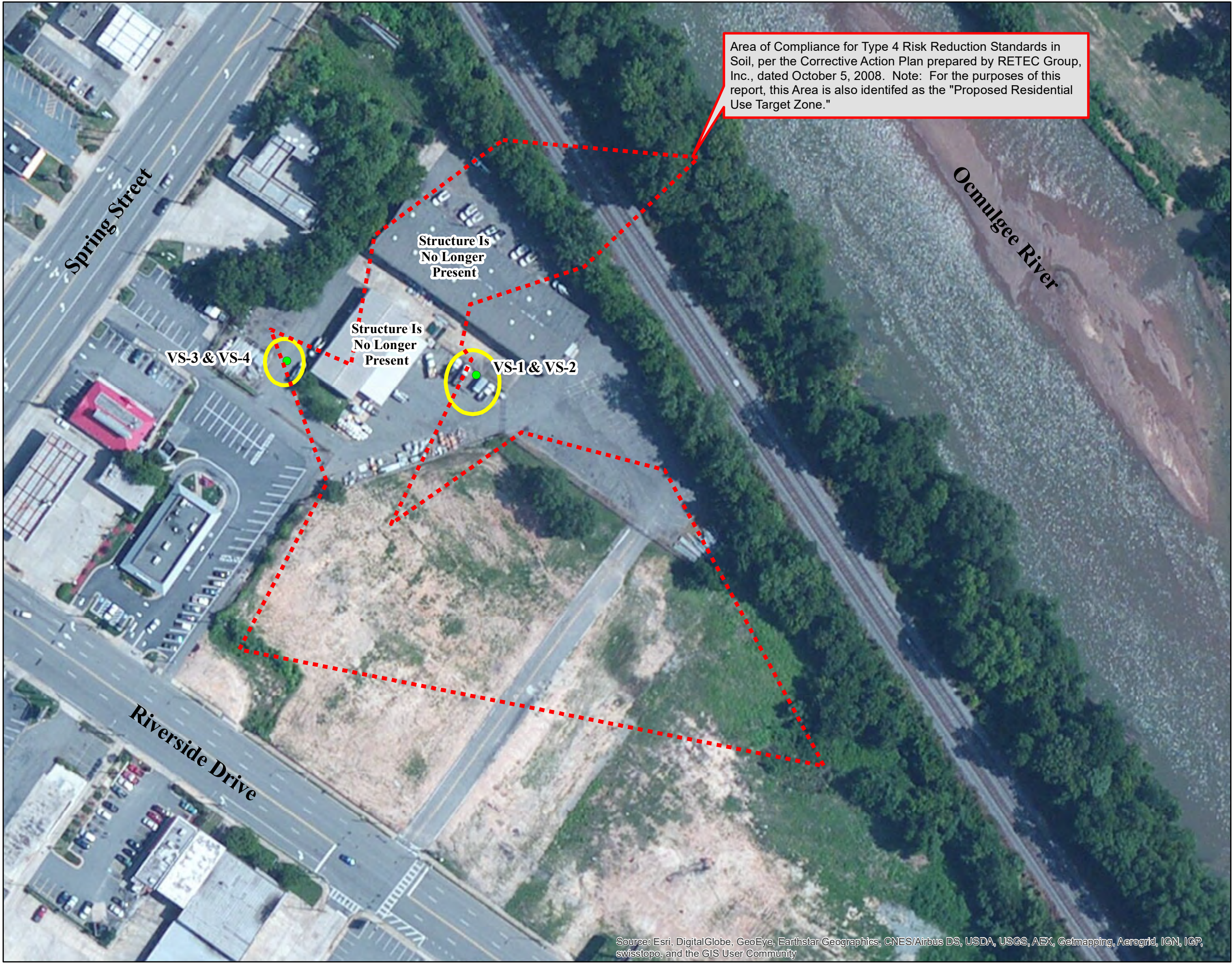
514 HILLCREST INDUSTRIAL BLVD.  
MACON, GEORGIA 31204  
478-757-1606 (Fax) 478-757-1608  
WWW.GECONSULTANTS.COM

GEC PROJECT NO. 130659.241









**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


**Prepared By:**  
  
514 Hillcrest Industrial Blvd  
Macon, Ga  
  
March 2016

**Legend**

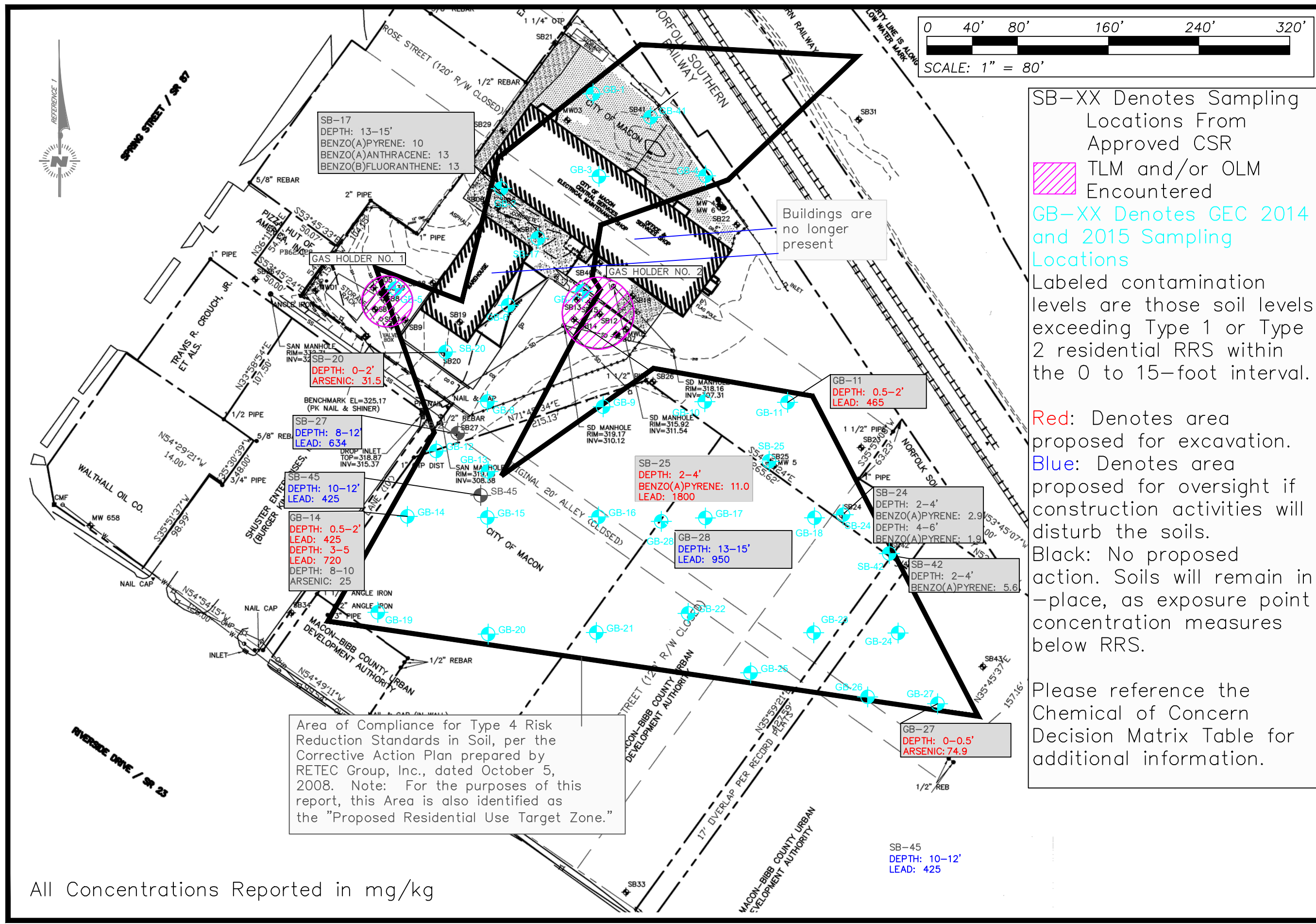
-  Proposed Residential Use Target Zone
-  Former Gas Holders
-  Vapor Intrusion Sample Location



0 30 60 120 180 240 Feet







**FIGURE 7: SOIL MANAGEMENT MAP  
 0 TO 15-FOOT INTERVAL  
 FORMER MACON 2 MPG SITE  
 MACON, GEORGIA  
 GEC PROJECT NO. 130659.241**

**GEC**  
**GEOTECHNICAL & ENVIRONMENTAL CONSULTANTS, INC.**  
 514 HILLCREST INDUSTRIAL BLVD.  
 MACON, GEORGIA 31204  
 478-757-1606 (Fax) 478-757-1608  
 WWW.GECONSULTANTS.COM

## **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

---

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:

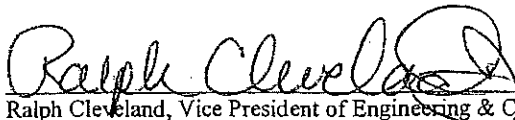
Parcel No. OC-98-5A  
Parcel No. OC-98-5C  
Parcel No. OC-98-5D  
Parcel No. OC-98-5G  
Parcel No. OC-98-5H  
Parcel No. OC-98-5I  
Parcel No. OC-98-5JA  
Parcel No. OC-98-4F  
Parcel No. OC-98-4H  
Parcel No. OC-98-3A(3B)  
Parcel No. OC-98-3D  
Parcel No. OC-98-2A(2B)

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

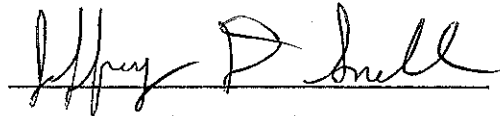
Certified by:

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
<b>9.3</b>	<b>Potential Receptors at Exposure Points .....</b>	<b>40</b>
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
<b>9.4</b>	<b>Exposure Routes .....</b>	<b>42</b>
<b>9.5</b>	<b>HSRA Evaluation .....</b>	<b>42</b>
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</b>	<b>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</b>	<b>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</b>	<b>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



---

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

**SECTION 1  
INTRODUCTION**

---

# 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).



---

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

**SECTION 2  
SITE BACKGROUND**

---

## SECTION 2

### SITE BACKGROUND

---

#### 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**

---

### **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

---

### 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**

---

### **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**

---

### **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

---

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**

---

## 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 shown 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**

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
organics												
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+(K<sub>d</sub>i)/(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 <sub>a</sub> )
110	L - Source Length Parallel to GW Flow (m)	Site-specific
7.0	d <sub>a</sub> - 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	0.0450	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**

---

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**

---

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

---

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.

Geology and Ground-Water Resources of the Macon Area, Georgia, H. E. LeGrand, Georgia Geologic Survey Bulletin 72, 1962.

Geology and Ground-Water Resources of Central-East Georgia, H. E. LeGrand, A. S. Furcron, R. F. Carter, and A. C. Lendo, Georgia Geologic Survey Bulletin 64, 1956.

Subsurface Geology of the Georgia Coastal Plain, Stephen M. Herrick and Robert C. Vorhis, Georgia Geologic Survey Information Circular 25, 1963.

The Geohydrology of the Cretaceous Aquifer System in Georgia, Lin D. Pollard and Robert C. Vorhis, Georgia Geologic Survey Hydrologic Atlas 3, 1980.

Groundwater Hydrogeology and Hydraulics, D. B. McWhorter and D. K. Sunada, 1977.

Preliminary Assessment, Former Manufactured Gas Plant Site, Macon, Georgia, LAW Environmental, Inc., 1991.

Site Inspection, Former Manufactured Gas Plant Site, Macon, Georgia, LAW Environmental, Inc., 1992.

An Introduction to the Rock-Forming Minerals, W.A. Deer, R.A. Howie, and J. Zussman, 1971.

Igneous and Metamorphic Petrology, F.J. Turner and J. Verhoogen, 1960.

Solutions, Minerals, and Equilibria, R.M. Garrels and C.L. Christ, 1965.

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

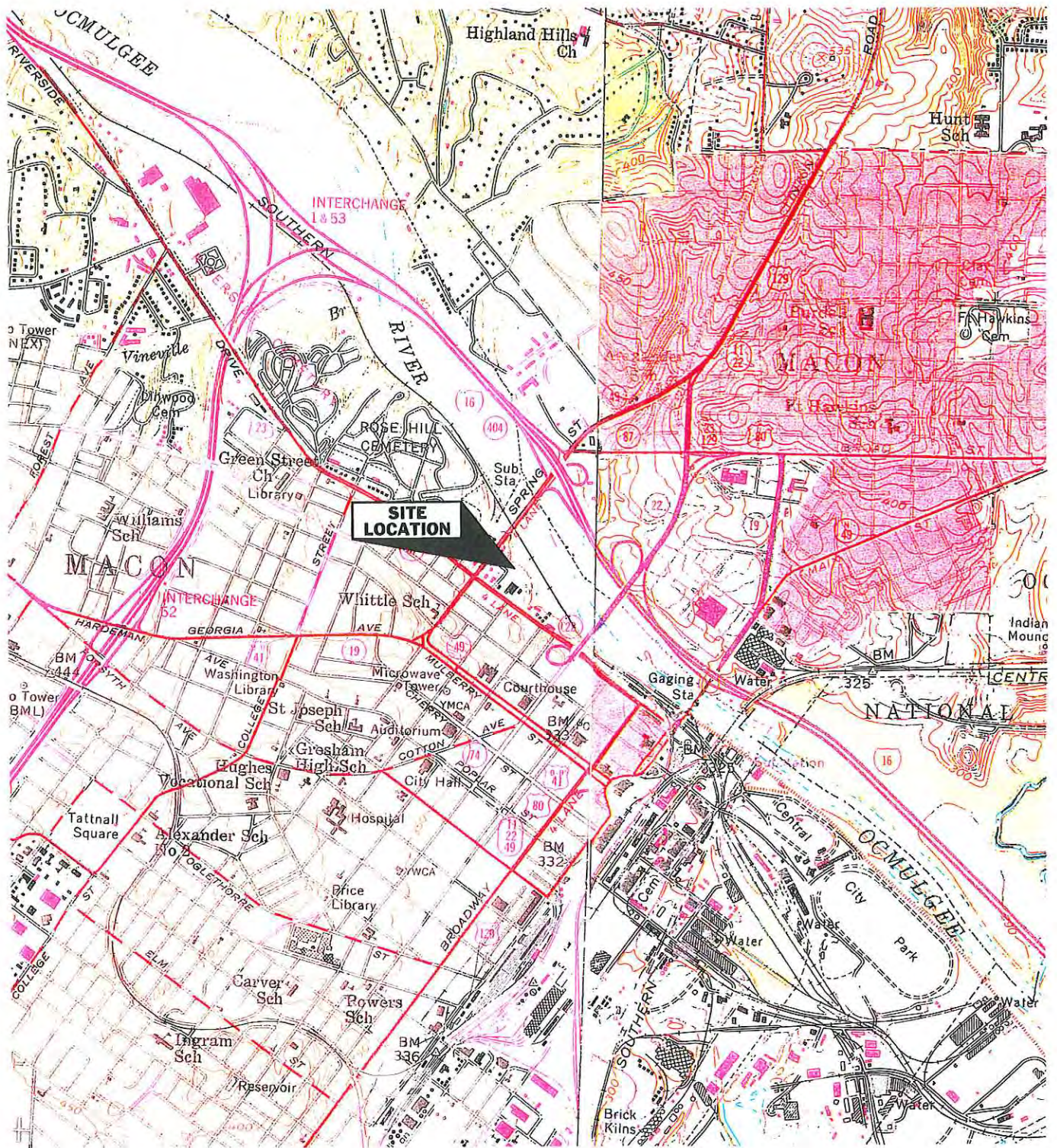
"Determination of Background Concentrations of Inorganics in Soils and Sediments at Hazardous Waste Sites." Breckenridge, R. P., and Crockett, A. B. (1995). U.S. Environmental Protection Agency. Washington, D. C.

"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.



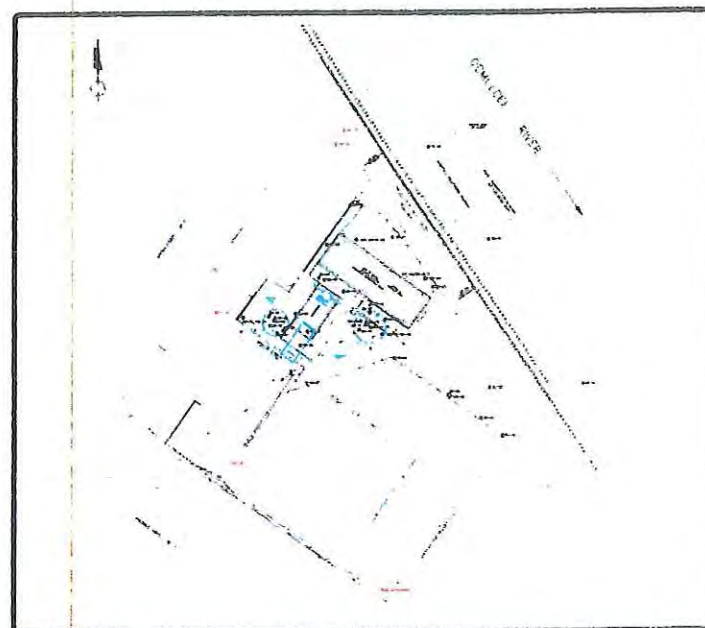
A Williams Group International Company  
600 Chase Park South, Suite 150, Birmingham, Alabama 35244  
205-988-8305 Fax: 205-988-5249



# 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 SOIL
7	TOTAL DETECTED NITROGEN AND AMMONIA IN SOIL
8	TOTAL DETECTED NITROGEN AND AMMONIA IN SOIL
9	LEAD AND MERCURY IN SOIL
10	ARSENIC, COPPER AND ZINC IN SOIL
11	CHROMIUM AND CADMIUM IN SOIL
12	WATER TABLE ELEVATION MAP FOR AUGUST 25, 2003
13	TOTAL DETECTED ARSENIC, CHROMIUM, COPPER, AND ZINC IN SOIL
14	VEGETATION INDICATIONS OF TLM AND DLM IN SOIL

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

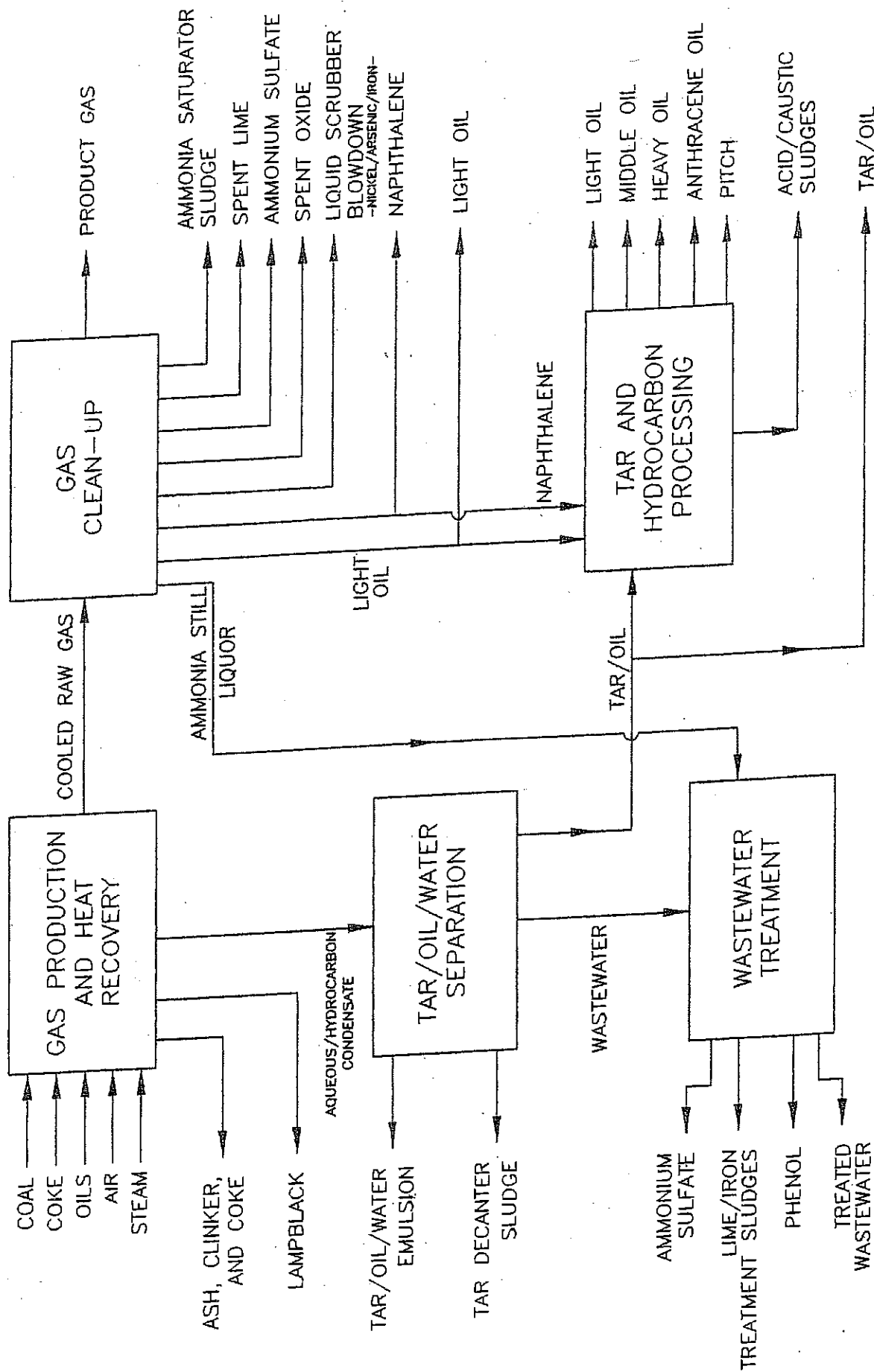
FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

Prepared By:

**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







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

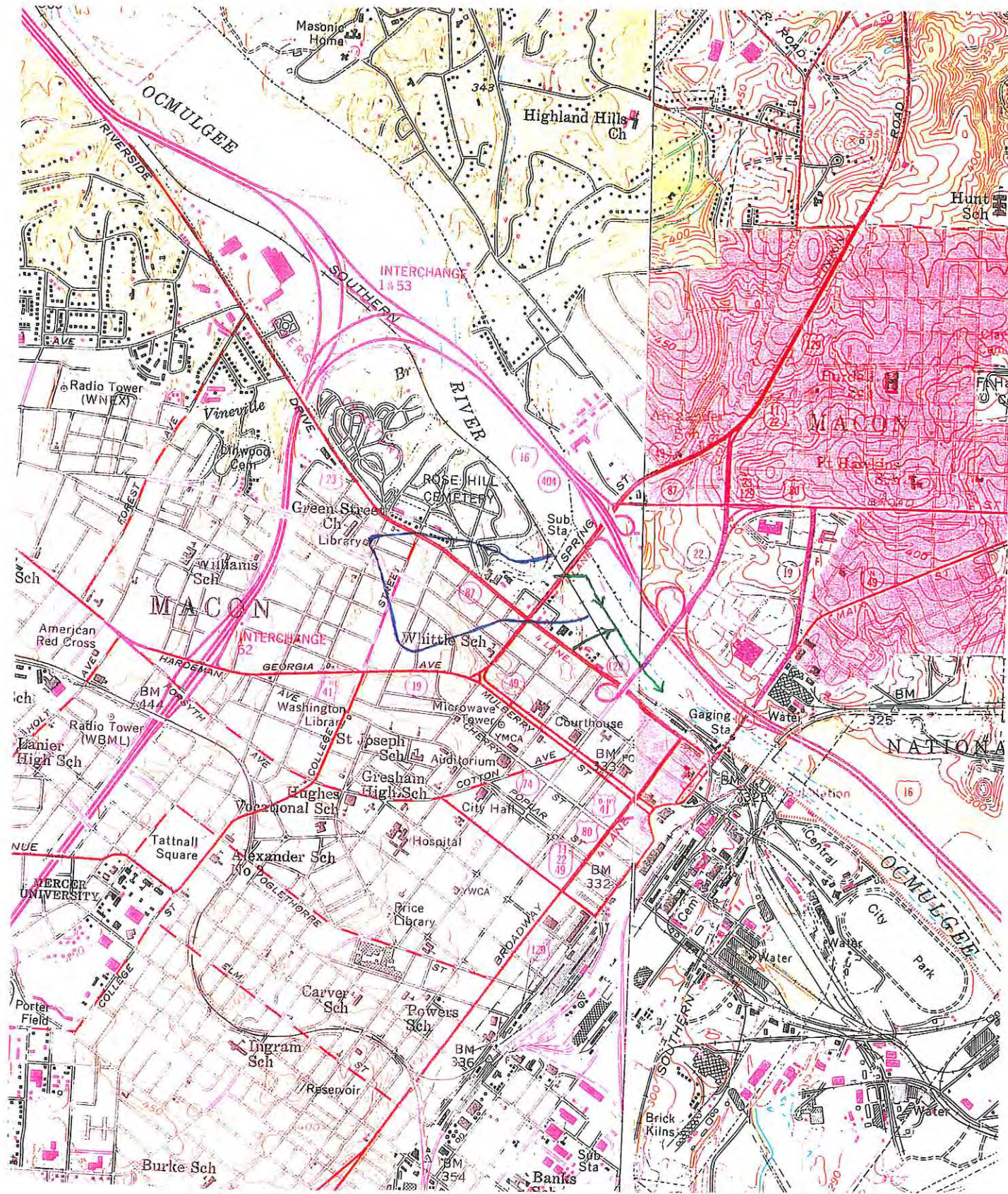
LTR.	DATE	REVISIONS	BY

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

MANUFACTURED GAS PROCESS AND GENERATED RESIDUALS (SOURCE: GAS RESEARCH INSTITUTE)  
 FORMER MACON 2 MGP FACILITY  
 MACON, GEORGIA

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





APPROXIMATE DRAINAGE BASIN FOR  
OUTFALL

**DRAFT**

DATE	REVISIONS	BY

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

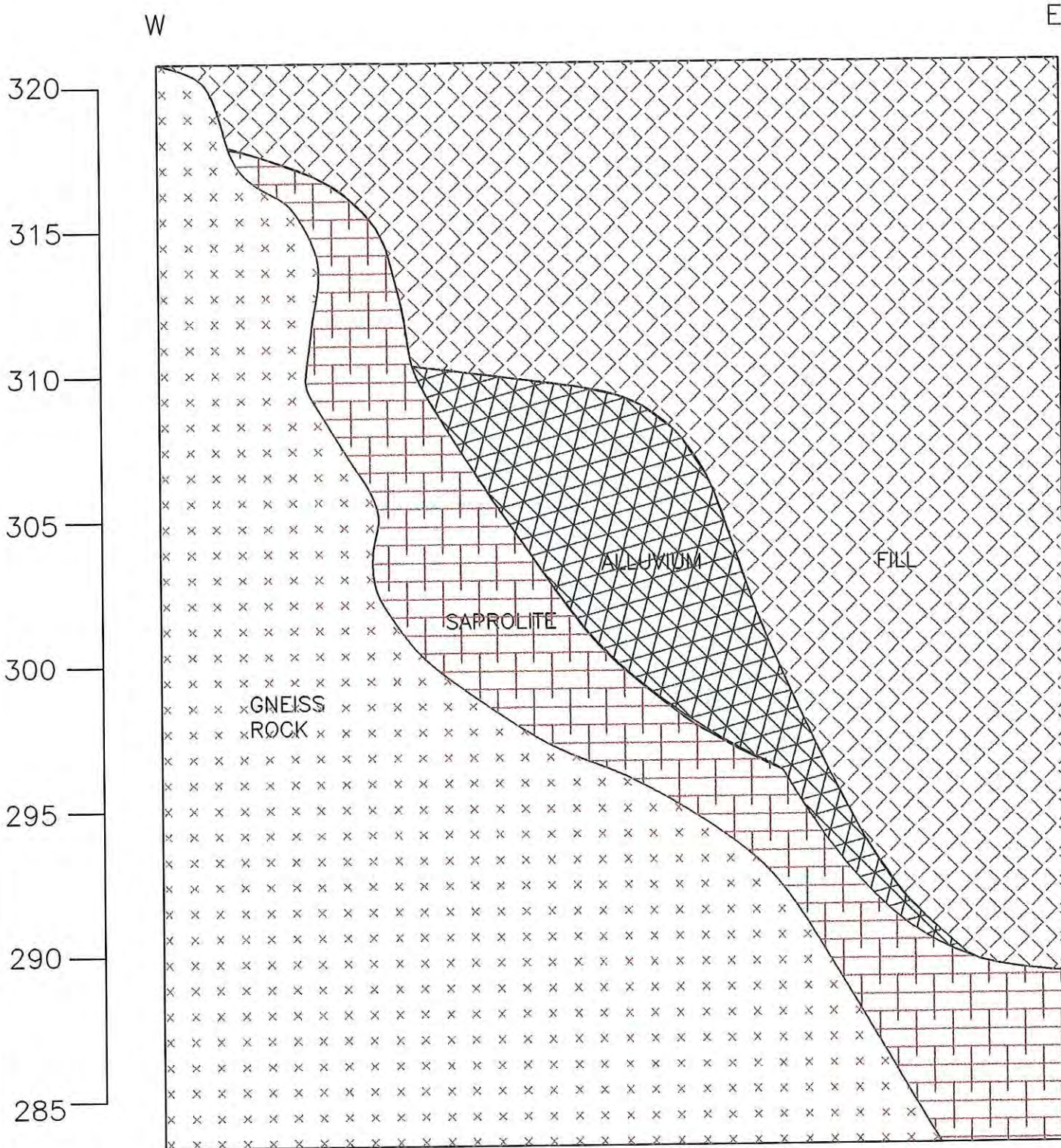
SURFACE/STORM WATER FLOW PATH

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

DESIGNED	-
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

Prepared By:

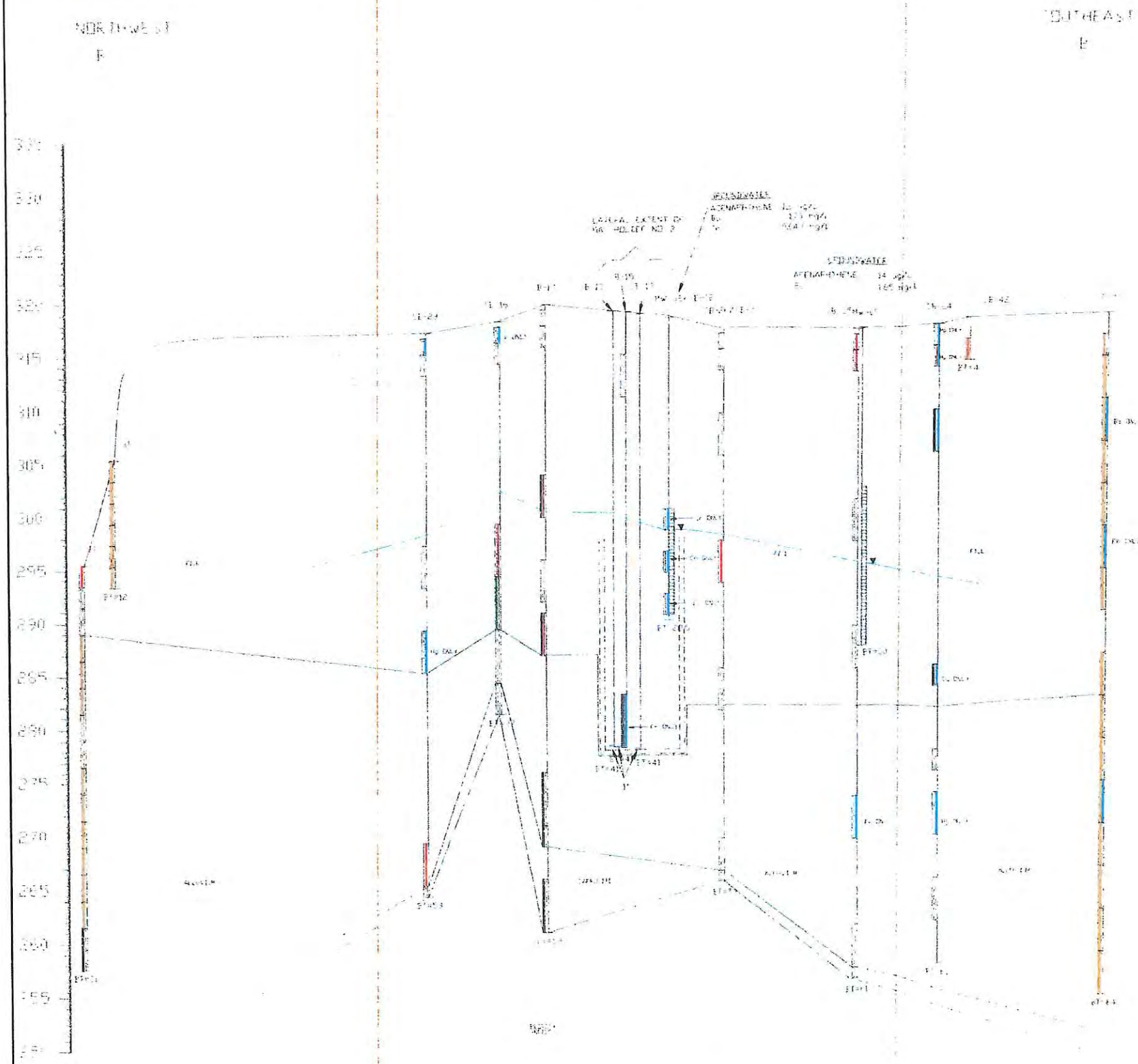
**WILLIAMS ENVIRONMENTAL SERVICES, INC.**



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







Symbol	Description
—	Topography
—	Groundwater
—	Water Table
—	Clay
—	Sand
—	Gravel
—	Landfill
—	Road
—	Building
—	Well
—	Drill Hole
—	Property Line
—	Survey Line
—	Utility Line
—	Other

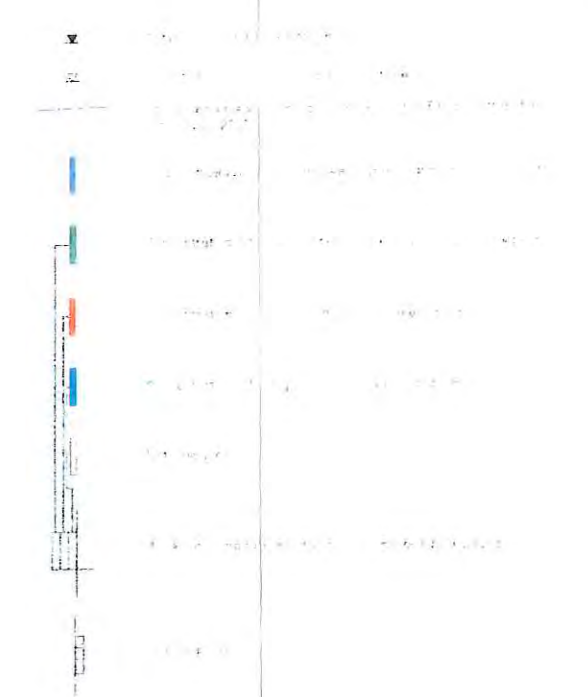
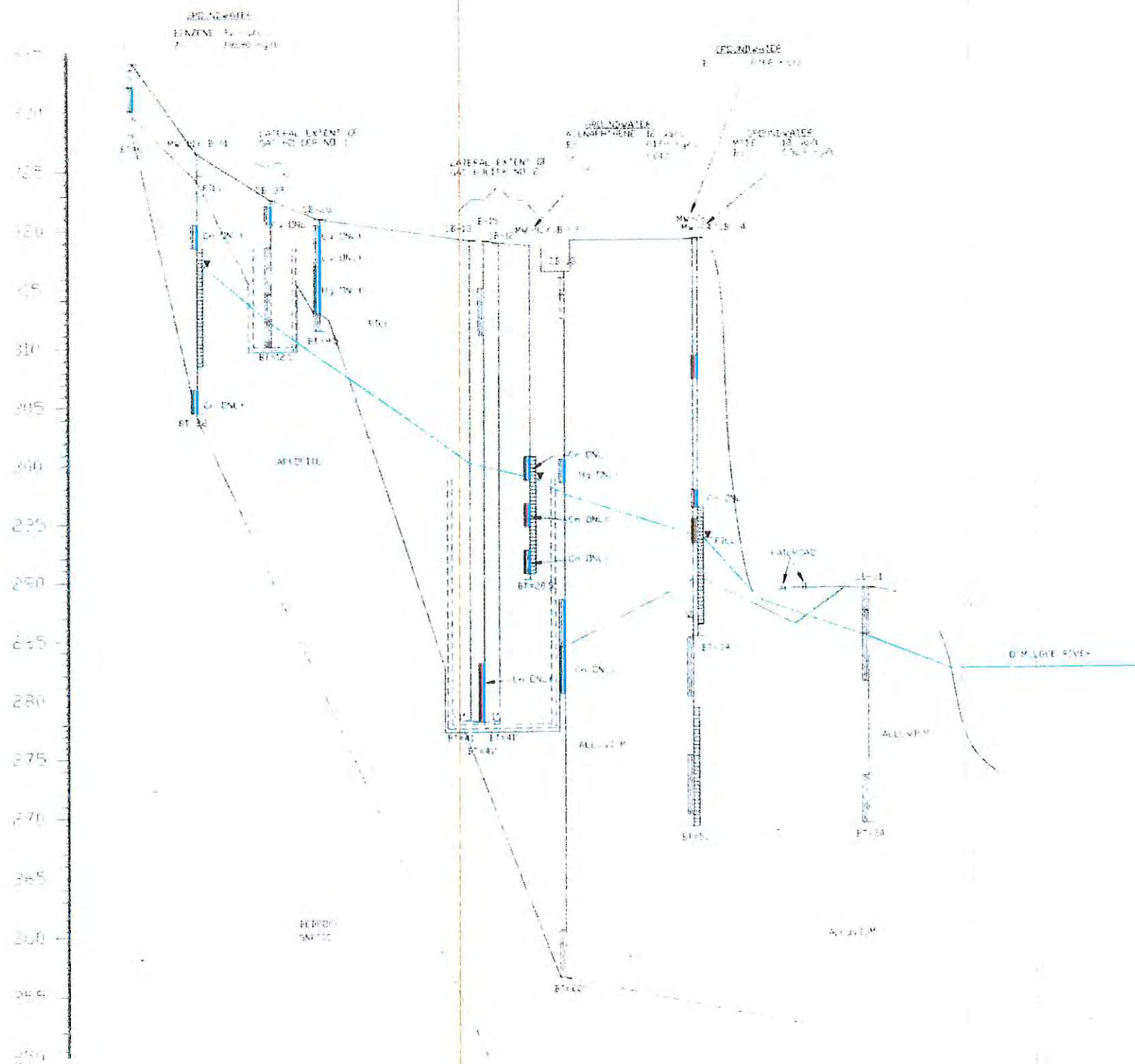
CROSS SECTION B - B'

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

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: 205-988-9249





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

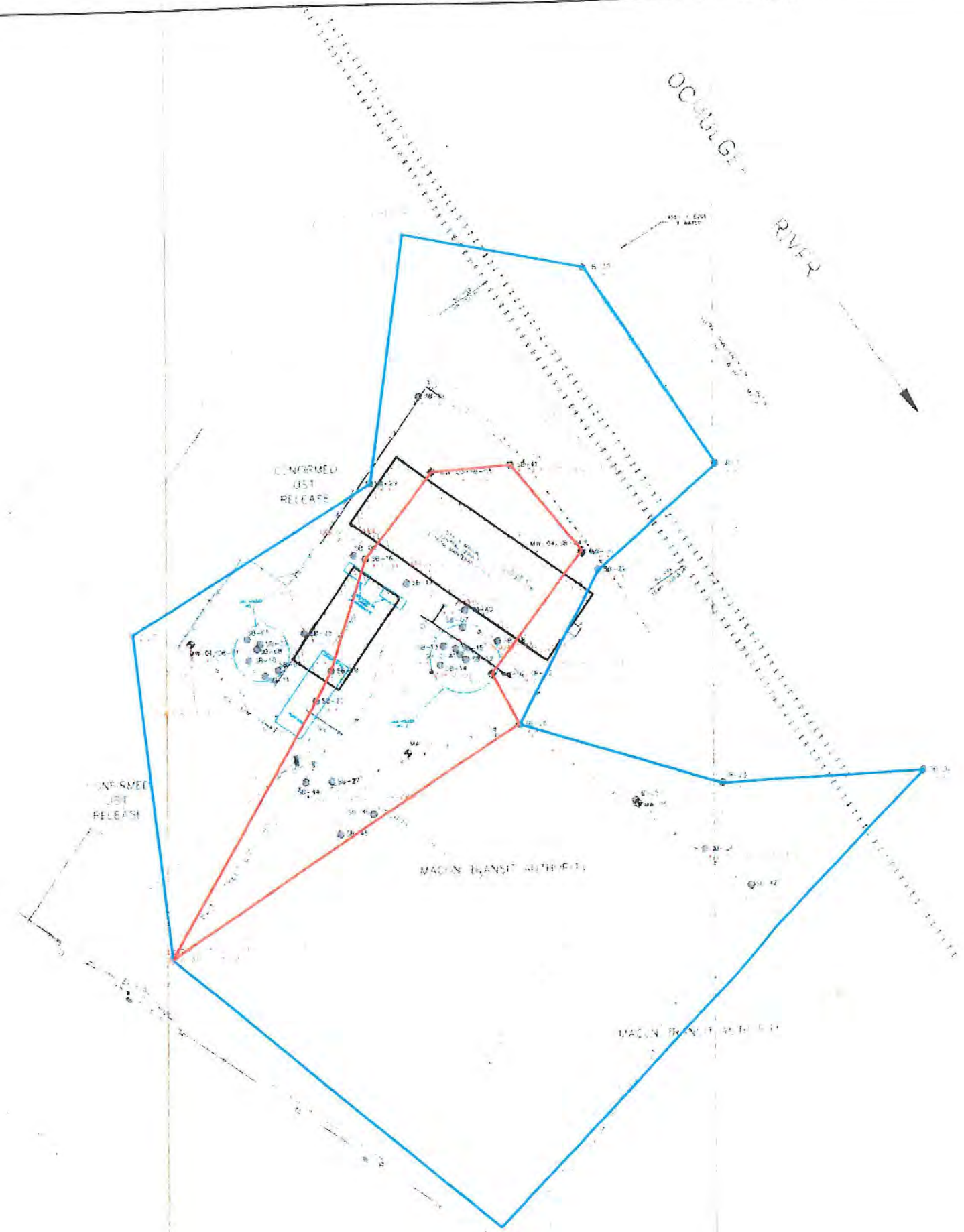


CROSS SECTION C - C'

FORMER MACON 2 MGP FACILITY  
 MACON, GEORGIA

Soil

1/25/94



# 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

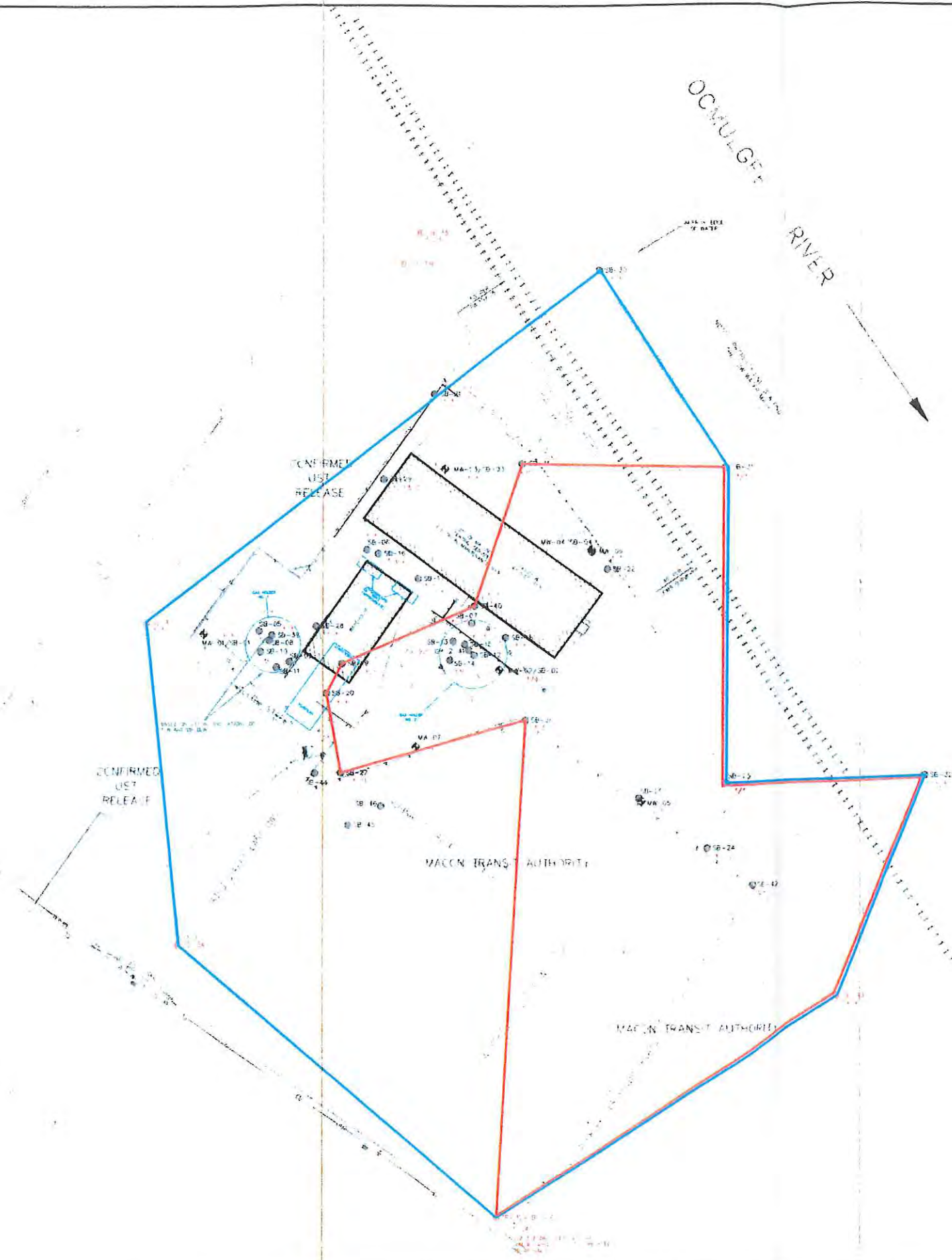
FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

Prepared By:



Williams Environmental Services, Inc.  
A Subsidiary of Williams Group International, Inc.  
500 Chase Park South, Suite 150, Birmingham, Alabama 35244  
205-988-9305 Fax: 205-988-5249





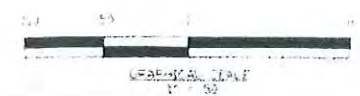
### LEGEND

- 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)	
	PER MATERIAL	NATURAL SOIL
NAPHTHALENE	0.56	15
1-METHYLNAPHTHALENE	0.09	15
2-METHYLNAPHTHALENE	0.09	15
3-METHYLNAPHTHALENE	0.09	15
4-METHYLNAPHTHALENE	0.09	15
5-METHYLNAPHTHALENE	0.09	15
6-METHYLNAPHTHALENE	0.09	15
7-METHYLNAPHTHALENE	0.09	15
8-METHYLNAPHTHALENE	0.09	15
9-METHYLNAPHTHALENE	0.09	15
10-METHYLNAPHTHALENE	0.09	15
11-METHYLNAPHTHALENE	0.09	15
12-METHYLNAPHTHALENE	0.09	15
13-METHYLNAPHTHALENE	0.09	15
14-METHYLNAPHTHALENE	0.09	15
15-METHYLNAPHTHALENE	0.09	15
16-METHYLNAPHTHALENE	0.09	15
17-METHYLNAPHTHALENE	0.09	15
18-METHYLNAPHTHALENE	0.09	15
19-METHYLNAPHTHALENE	0.09	15
20-METHYLNAPHTHALENE	0.09	15
21-METHYLNAPHTHALENE	0.09	15
22-METHYLNAPHTHALENE	0.09	15
23-METHYLNAPHTHALENE	0.09	15
24-METHYLNAPHTHALENE	0.09	15
25-METHYLNAPHTHALENE	0.09	15
26-METHYLNAPHTHALENE	0.09	15
27-METHYLNAPHTHALENE	0.09	15
28-METHYLNAPHTHALENE	0.09	15
29-METHYLNAPHTHALENE	0.09	15
30-METHYLNAPHTHALENE	0.09	15
31-METHYLNAPHTHALENE	0.09	15
32-METHYLNAPHTHALENE	0.09	15
33-METHYLNAPHTHALENE	0.09	15
34-METHYLNAPHTHALENE	0.09	15
35-METHYLNAPHTHALENE	0.09	15
36-METHYLNAPHTHALENE	0.09	15
37-METHYLNAPHTHALENE	0.09	15
38-METHYLNAPHTHALENE	0.09	15
39-METHYLNAPHTHALENE	0.09	15
40-METHYLNAPHTHALENE	0.09	15
41-METHYLNAPHTHALENE	0.09	15
42-METHYLNAPHTHALENE	0.09	15
43-METHYLNAPHTHALENE	0.09	15
44-METHYLNAPHTHALENE	0.09	15
45-METHYLNAPHTHALENE	0.09	15
46-METHYLNAPHTHALENE	0.09	15
47-METHYLNAPHTHALENE	0.09	15
48-METHYLNAPHTHALENE	0.09	15
49-METHYLNAPHTHALENE	0.09	15
50-METHYLNAPHTHALENE	0.09	15
51-METHYLNAPHTHALENE	0.09	15
52-METHYLNAPHTHALENE	0.09	15
53-METHYLNAPHTHALENE	0.09	15
54-METHYLNAPHTHALENE	0.09	15
55-METHYLNAPHTHALENE	0.09	15
56-METHYLNAPHTHALENE	0.09	15
57-METHYLNAPHTHALENE	0.09	15
58-METHYLNAPHTHALENE	0.09	15
59-METHYLNAPHTHALENE	0.09	15
60-METHYLNAPHTHALENE	0.09	15
61-METHYLNAPHTHALENE	0.09	15
62-METHYLNAPHTHALENE	0.09	15
63-METHYLNAPHTHALENE	0.09	15
64-METHYLNAPHTHALENE	0.09	15
65-METHYLNAPHTHALENE	0.09	15
66-METHYLNAPHTHALENE	0.09	15
67-METHYLNAPHTHALENE	0.09	15
68-METHYLNAPHTHALENE	0.09	15
69-METHYLNAPHTHALENE	0.09	15
70-METHYLNAPHTHALENE	0.09	15
71-METHYLNAPHTHALENE	0.09	15
72-METHYLNAPHTHALENE	0.09	15
73-METHYLNAPHTHALENE	0.09	15
74-METHYLNAPHTHALENE	0.09	15
75-METHYLNAPHTHALENE	0.09	15
76-METHYLNAPHTHALENE	0.09	15
77-METHYLNAPHTHALENE	0.09	15
78-METHYLNAPHTHALENE	0.09	15
79-METHYLNAPHTHALENE	0.09	15
80-METHYLNAPHTHALENE	0.09	15
81-METHYLNAPHTHALENE	0.09	15
82-METHYLNAPHTHALENE	0.09	15
83-METHYLNAPHTHALENE	0.09	15
84-METHYLNAPHTHALENE	0.09	15
85-METHYLNAPHTHALENE	0.09	15
86-METHYLNAPHTHALENE	0.09	15
87-METHYLNAPHTHALENE	0.09	15
88-METHYLNAPHTHALENE	0.09	15
89-METHYLNAPHTHALENE	0.09	15
90-METHYLNAPHTHALENE	0.09	15
91-METHYLNAPHTHALENE	0.09	15
92-METHYLNAPHTHALENE	0.09	15
93-METHYLNAPHTHALENE	0.09	15
94-METHYLNAPHTHALENE	0.09	15
95-METHYLNAPHTHALENE	0.09	15
96-METHYLNAPHTHALENE	0.09	15
97-METHYLNAPHTHALENE	0.09	15
98-METHYLNAPHTHALENE	0.09	15
99-METHYLNAPHTHALENE	0.09	15
100-METHYLNAPHTHALENE	0.09	15



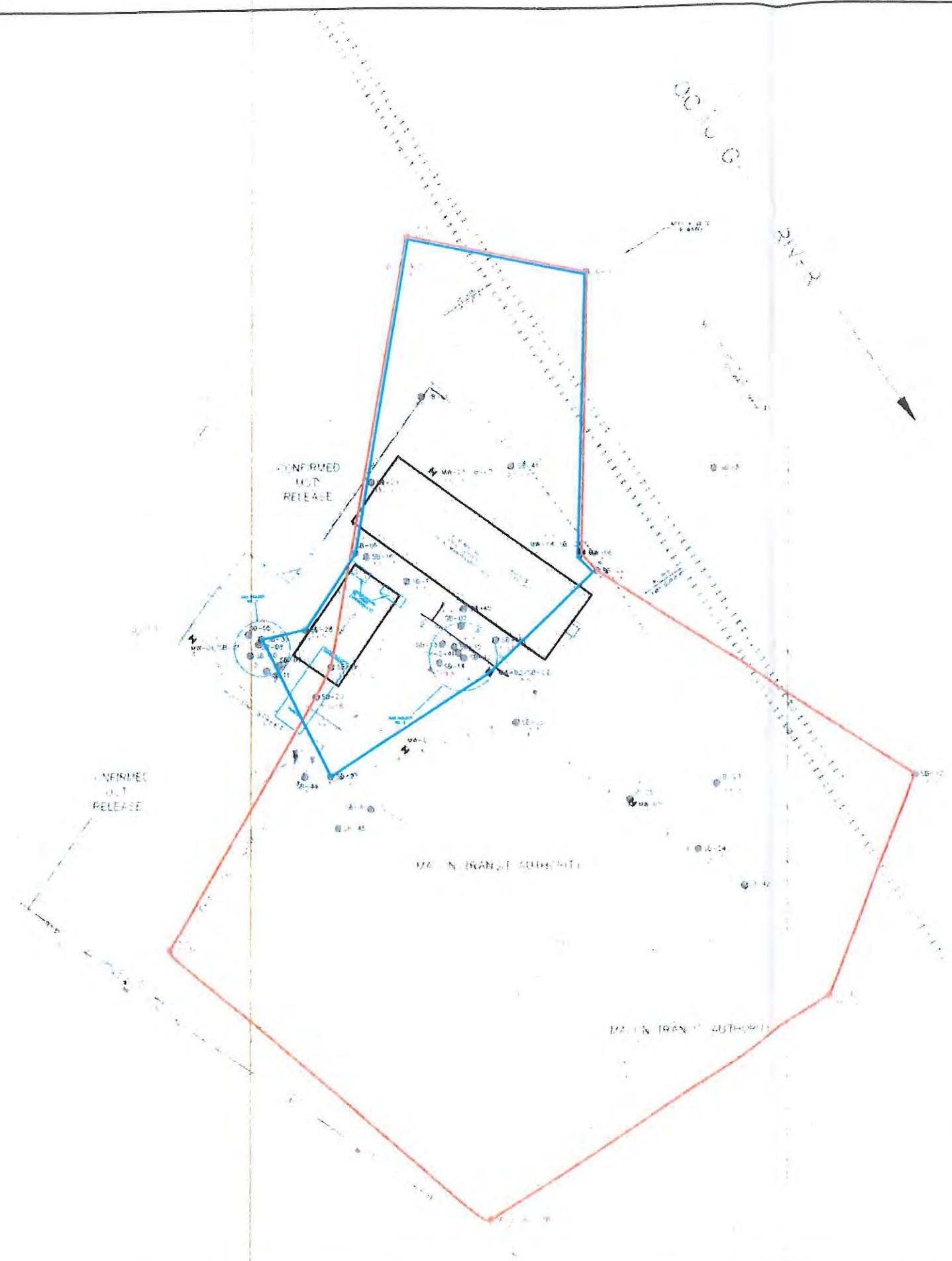
TOTAL DETECTED NAPHTHALENE AND SVOCs IN SOIL

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

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







# 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 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
- SPINE SAMPLE RECOVERY NOT WITHIN RECOVERY LIMITS
- INDICATES AN ESTIMATED VALUE

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



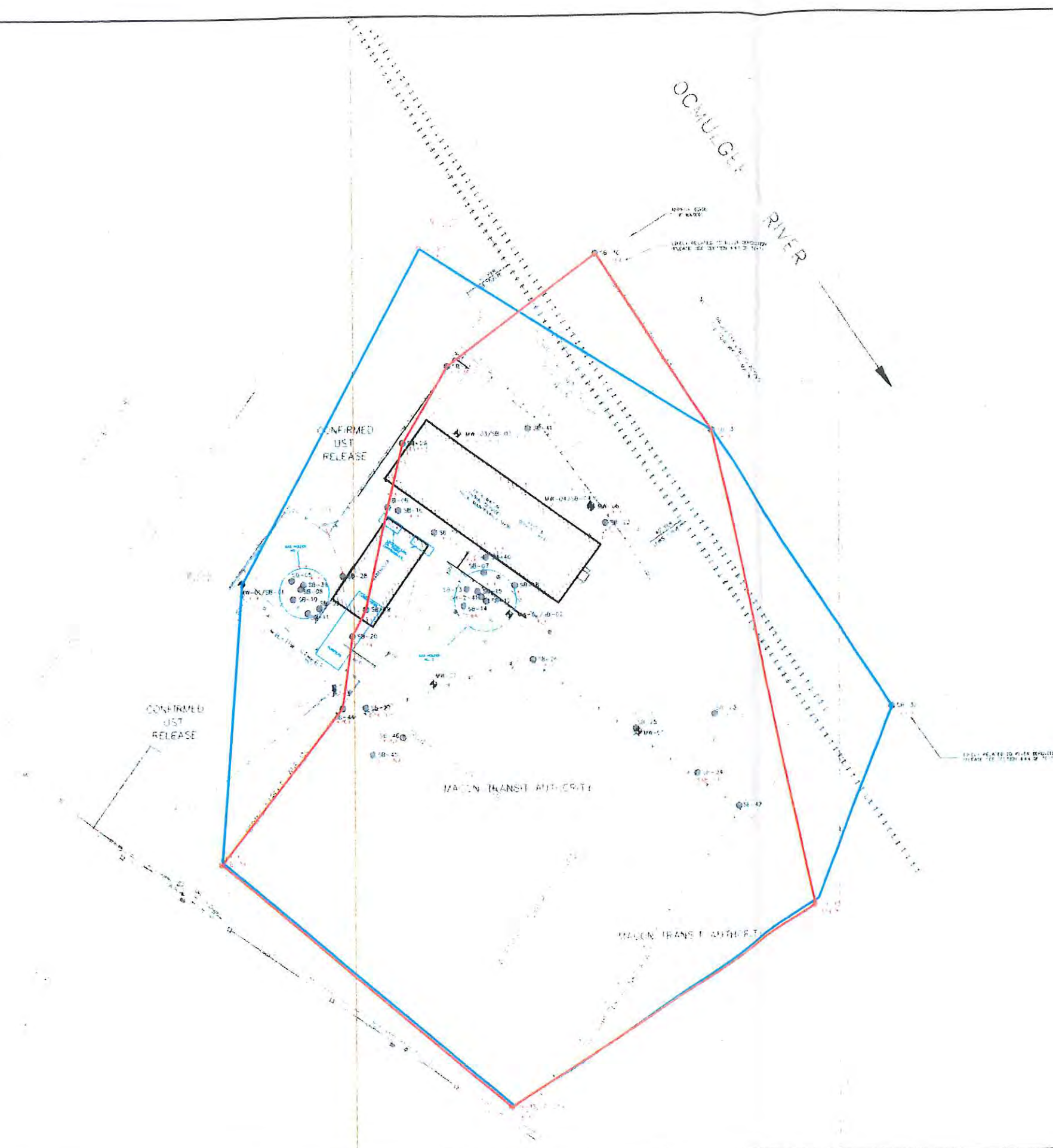
Prepared By:

**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



BARIUM AND VANADIUM 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 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	DL
DL - DETECTION LIMIT		

Prepared By:

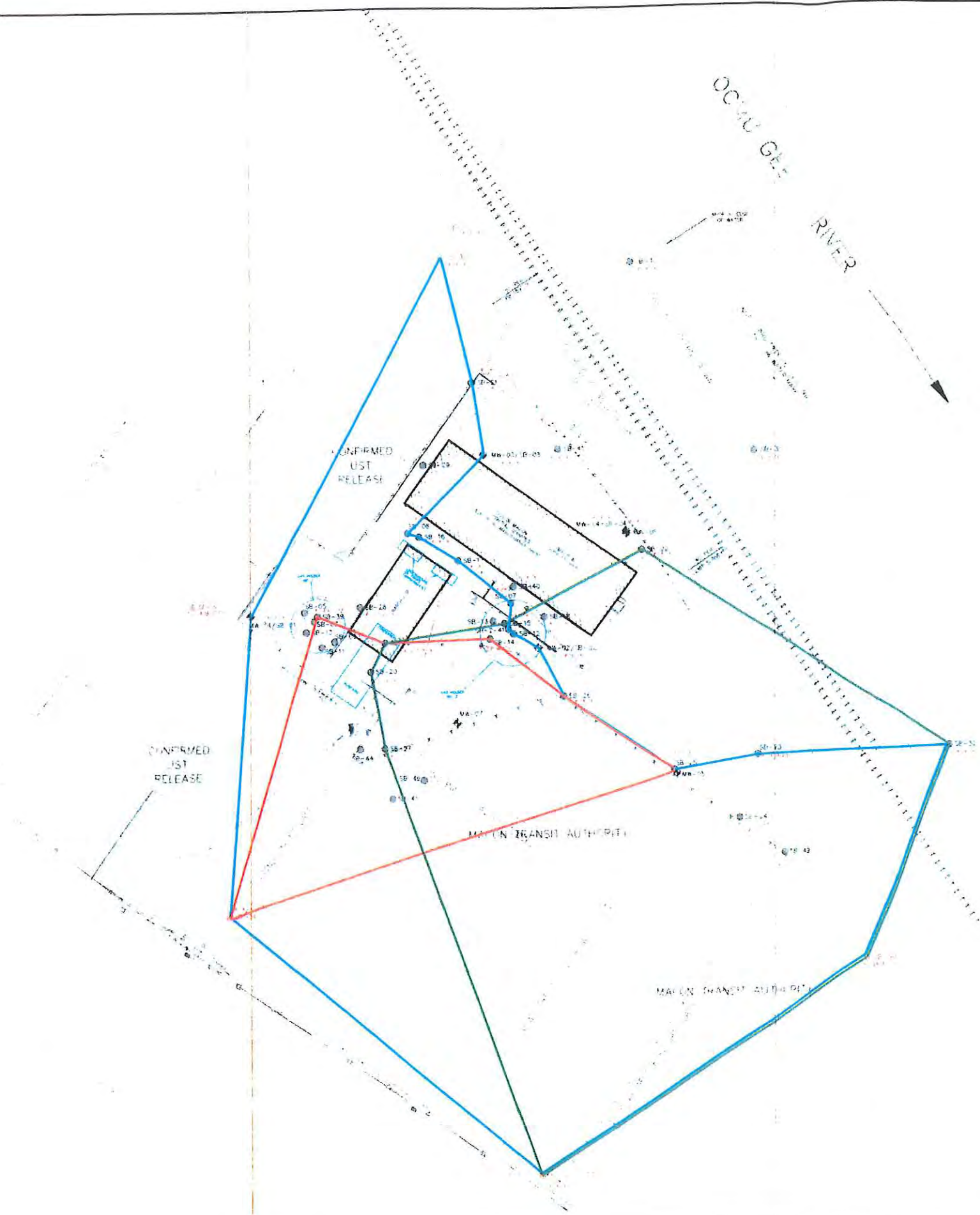
**Williams Environmental Services, Inc.**  
A Subsidiary of Williams Group International, Inc.  
500 Chase Park South, Suite 150, Birmingham, Alabama 35244  
205-988-9305 Fax: 205-988-5249



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)	
	FILL MATERIAL	NATURAL SOILS
ARSENIC	15	5
COPPER	47	35
ZINC	257	150
DL - DETECTION LIMIT		



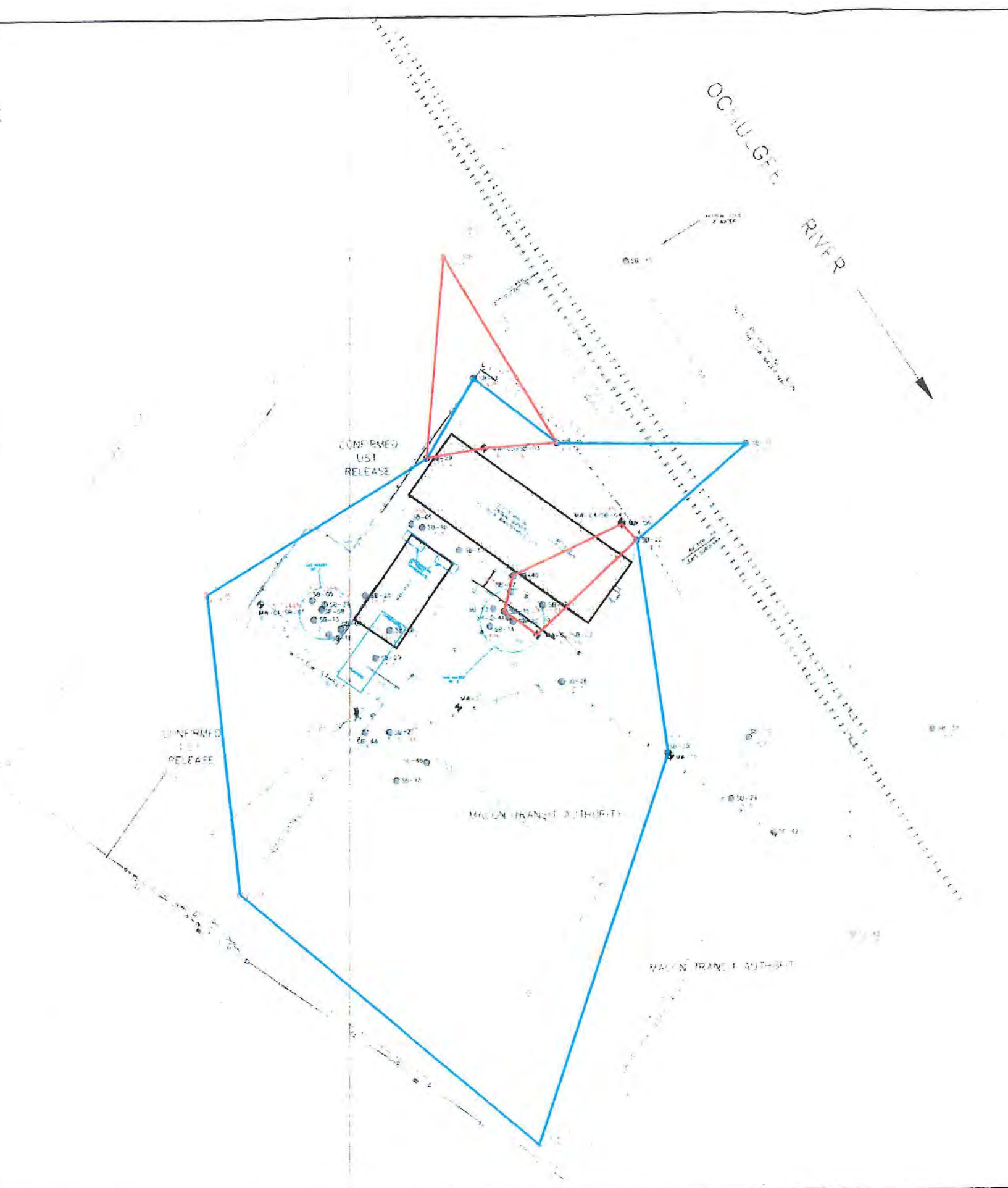
Prepared By:

**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



ARSENIC, COPPER, AND ZINC IN SOILS

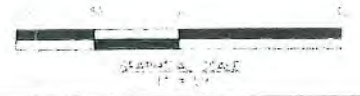
FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA



# 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)
- 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

UPPER BACKGROUND LIMITS		
COMPOUND	UBL (mg/kg)	
	RES. MATH	SAFETY DATA
CHROMIUM	10.0	10.0
TOTAL CYANIDE	0.5	0.5
As specified		



Prepared By:

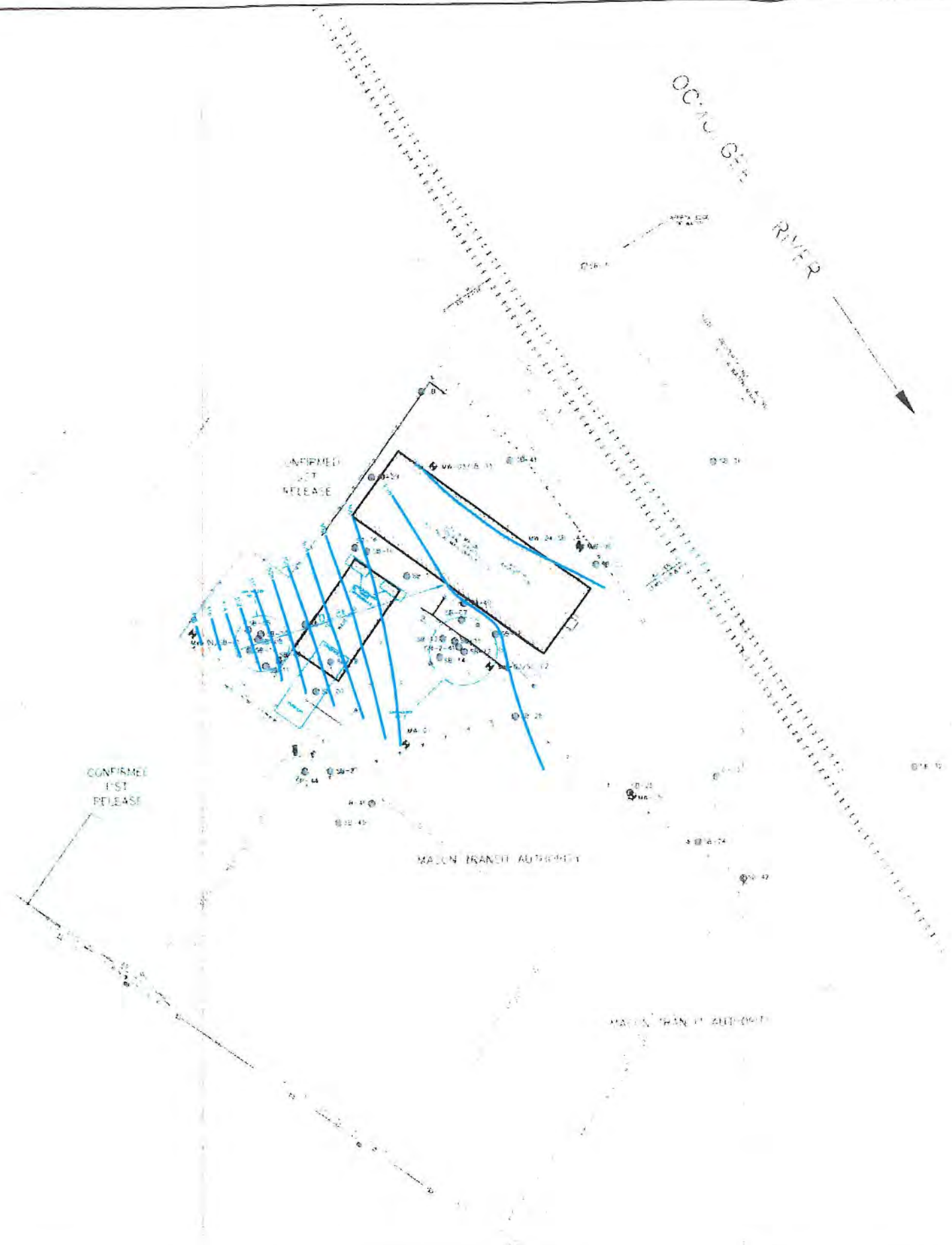
**Williams Environmental Services, Inc.**  
A Subsidiary of Williams Group International, Inc.  
500 Chase Park South, Suite 150, Birmingham, Alabama 35244  
205-988-8305 Fax: 205-988-5249



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

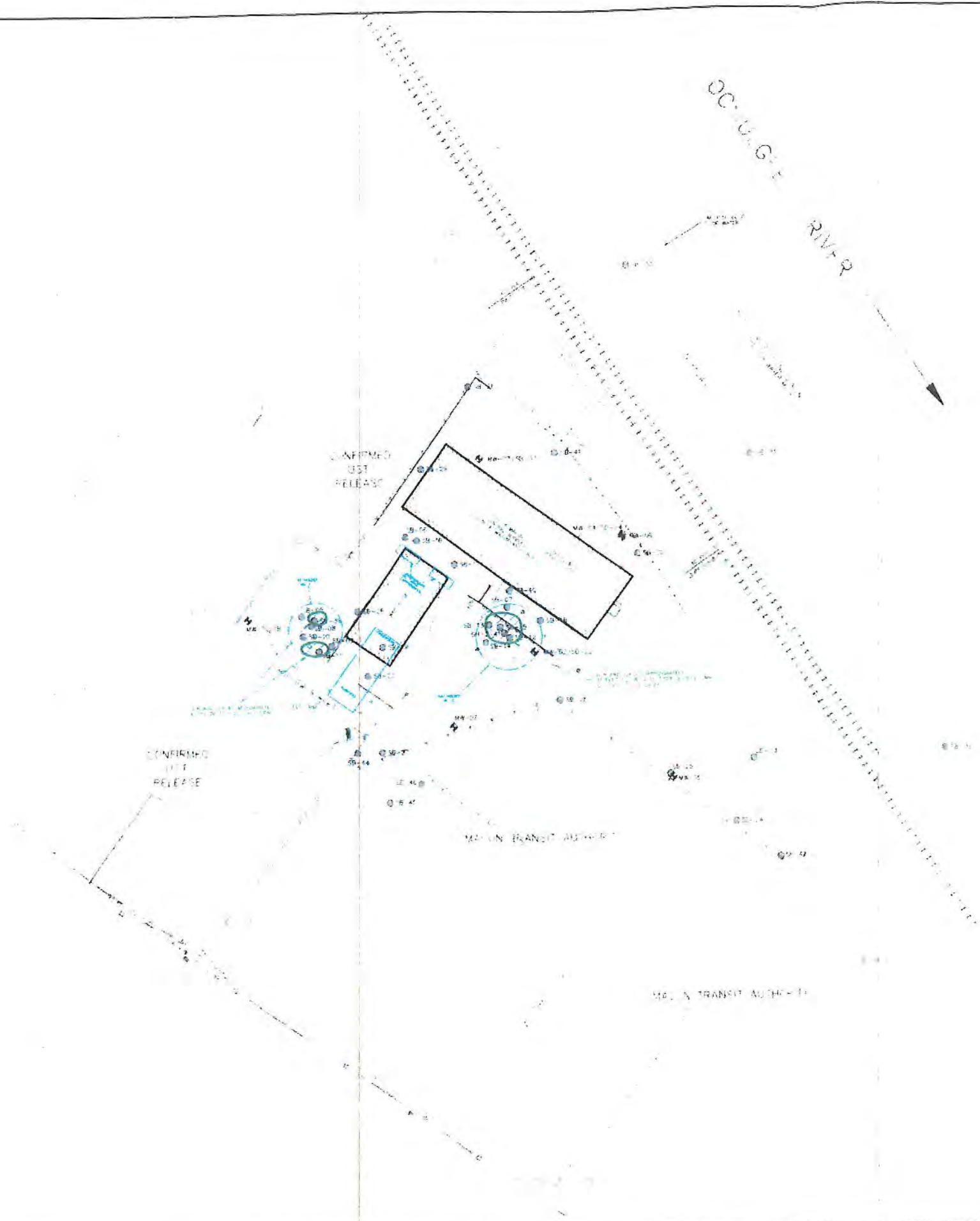
Prepared By:



**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







# 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)
- 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

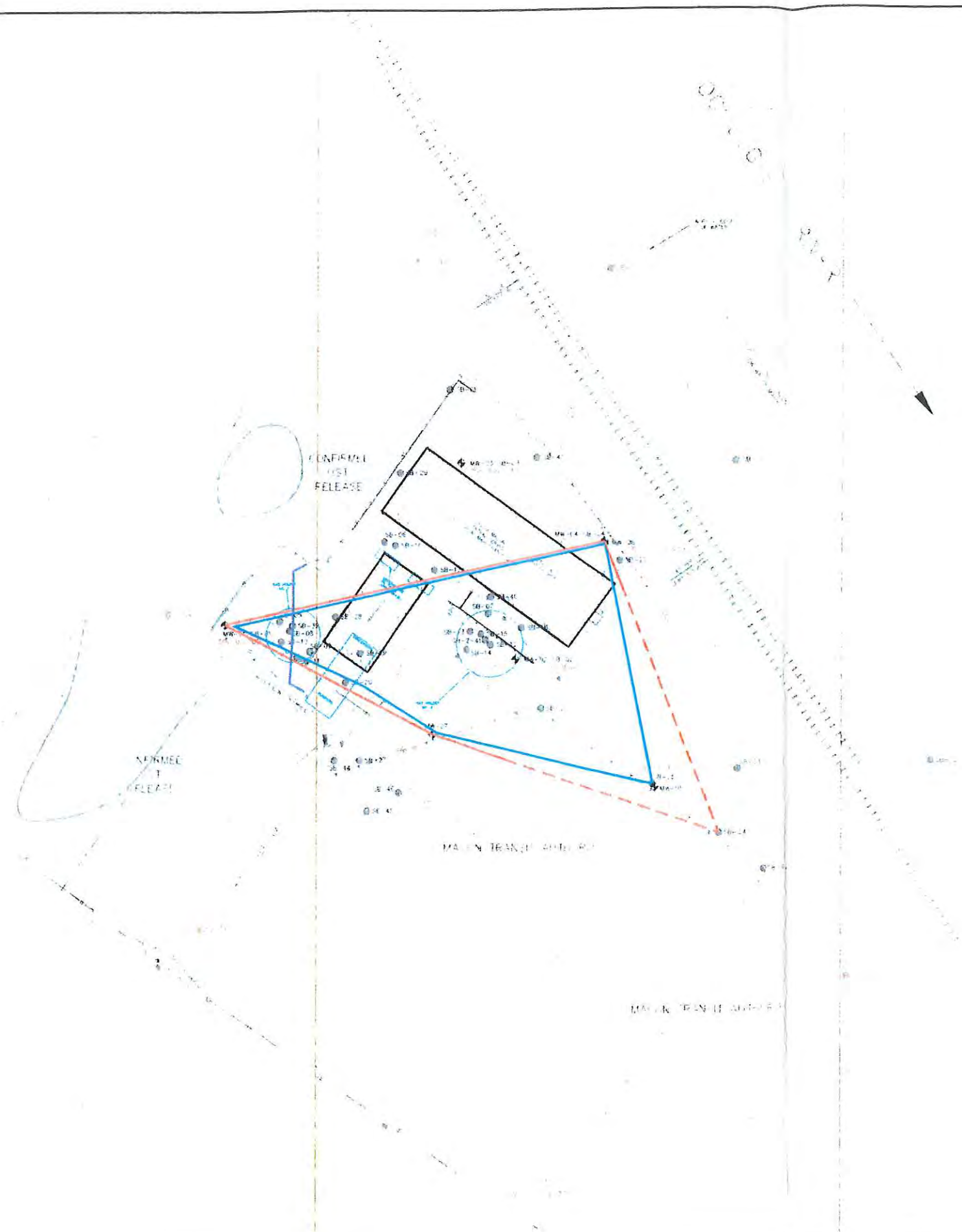
VISUAL INDICATION OF TLM AND OLM IN SOILS

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

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





# 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 INFERRED)
- 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

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



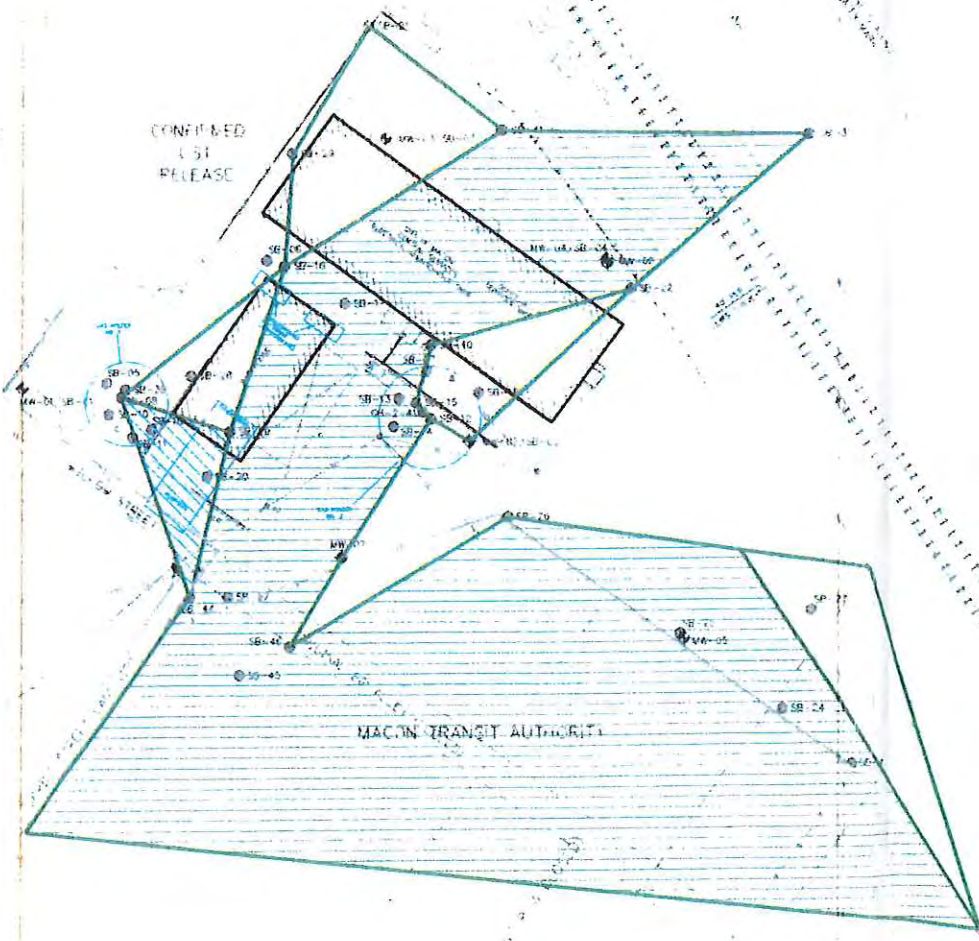




OCHULGEE RIVER

# 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)
- 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



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 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		5.4U	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 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	420U	420U	420U	420U	420U	420U	420U	DL	DL	DL	DL	DL	DL	DL	-
SB-14-0.5-2	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-14-16-20	U	Fill	2,200	400U	4,000	8,900	10,000	8,900	8,500	8,300	9,800	4,200	20,000	2,700	7,100	1,800	15,000	400U	15,000	130,000
SB-14-24-28	S	Fill	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	0
SB-15-4-8	U	Fill	380U	380U	380U	550	1,200	1,100	1,000	720	1,100	390	2,600	380U	870	380U	2,100	380U	2,300	15,000
SB-15-36-41	S	Fill	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	0
SB-16-0.5-2	U	Fill	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	0
SB-16-2-4	U	Fill	380U	380U	380U	570	770	630	380U	700	680	380U	1,500	380U	380U	380U	380U	380U	6,200	6,900
SB-16-19-24	U	Fill	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	0
SB-16-24-29	S	Fill	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	0
SB-16-29-34	S	Nat. Soil	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	0
SB-16-34-37	S	Nat. Soil	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	0
SB-17-0.5-2	U	Fill	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	0
SB-17-2-4	U	Fill	400U	400U	400U	530	5,000	4,500	3,900	3,900	5,100	2,300	11,000	1,300	4,700	400U	7,500	400U	7,400	67,000
SB-17-16-20	U	Fill	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0
SB-17-24-28	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-17-29-33	S	Fill	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	0
SB-17-44-49	S	Nat. Soil	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	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	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	0
SB-18-0.5-2	U	Fill	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	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	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	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	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	0
SB-18-56-60	S	Nat. Soil	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	0
SB-19-0.5-2	U	Fill	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	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	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	0	0
SB-19-8-11	U Nat. Soil		360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	0	0
SB-20-0-2	U Fill		420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	0	0
DUP031501B	U Fill		400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0	0
SB-20-2-4	U Fill		390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	0	0
SB-20-4-8	U Fill		360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	0	0
SB-20-9-13	U Nat. Soil		370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	0	0
SB-21-0-2	U Fill		400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0	0
DUP030601A	U Fill		410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	0	0
SB-21-2-4	U Fill		430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	0	0
SB-21-12-16	U Fill		390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	0	0
SB-21-16-20	U Fill		380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	0	0
SB-21-28-30	U Fill		400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0	0
SB-21-44-48	S Nat. Soil		430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	0	0
SB-21-60-64	S Nat. Soil		460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	0	0
SB-22-0-2	U Fill		400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0	0
SB-22-2-4	U Fill		360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	0	0
SB-22-19-24	U Fill		370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	21,000	21,000
SB-22-24-29	S Nat. Soil		390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	0	0
SB-22-59-62	S Nat. Soil		380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	0	0
SB-23-0-2	U Fill		440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	0	0
DUP032201B	U Fill		370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	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		360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	0	920
SB-23-24-29	S Fill		390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	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**  
**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	1
UBL - Nat. Soils			DL	DL	DL	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	DL	1
SB-24-0-2	U Fill		360U	370U	360U	2,500	2,900	3,200	730	2,100	2,500	370U	3,600	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	370U	30,000
SB-24-8-12	U Fill		440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	380U	410
SB-24-32-34	S		400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0
SB-24-40-42	S	Nat. Soil	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	0
SB-24-44-48	S	Nat. Soil	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	0
DUP030101A	S	Nat. Soil	370U	370U	370U	750	740	690	370U	780	770	370U	1,500	370U	370U	370U	1,100	370U	370U	0
SB-24-52-56	S	Nat. Soil	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	0
SB-25-0.5-2	U Fill		360U	360U	360U	8,300	11,000	12,000	2,500	12,000	9,100	650	17,000	970	2,600	370U	8,600	360U	1,100	7,400
SB-25-2-4	U Fill		380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	100,000
SB-25-16-20	U Fill		480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	480U	0
SB-25-28-32	S		440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	440U	0
SB-25-44-48	S	Nat. Soil	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	0
SB-25-56-60	S	Nat. Soil	470U	470U	470U	470U	470U	470U	470U	470U	470U	470U	470U	470U	470U	470U	470U	470U	470U	0
SB-25-60-61	S	Nat. Soil	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	370U	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	580	610	500	380	610	690	370U	1,400	370U	370	370U	1,200	370U	370U	0
SB-26-20-24	U Fill		390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	5,700
SB-26-32-36	S		400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0
SB-26-48-51	S	Nat. Soil	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	420U	0
SB-26-51-52	S	Nat. Soil	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0
SB-27-0.5-1.5	U Fill		370U	370U	370U	450	540	430	370U	500	460	370U	960	370U	370U	370U	370U	370U	370U	0
SB-27-2-4	U Fill		460U	460U	460U	490	1,100	1,000	460U	930	1,000	460U	2,000	460U	460U	460U	460U	460U	770	4,800
SB-27-8-12	U Fill		390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	11,000
SB-27-16-20	U Nat. Soil		390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	0

## SEMI-VOLATILE ORGANIC COMPOUNDS

[illegible]



**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-33-2-4	U Fill		370U	400U	370U	2,500	5,200	2,500	1,800	2,200	2,500	500	3,200	370U	400U	370U	300	370U	3,200	24,000
SB-33-8-10	U Fill		400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0
SB-33-10-14	U Nat. Soil		360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	0
SB-33B-2-4	U Fill		370U	370U	370U	490	690	540	690	430	540	370U	970	370U	580	370U	530	370U	850	6,310
SB-34-0.5-2	U Fill		350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	0
SB-34-2-4	U Fill		360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	610	360U	360U	360U	360U	360U	530	1,100
SB-34-4-8	U Fill		360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	360U	0
SB-34-8-10	U Nat. Soil		350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	0
SB-36-0.5-2	U Fill		350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	350U	0
SB-36-2-4	U Fill		380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	0
SB-36-4-6	U Nat. Soil		460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	460U	0
SB-38-0-2	U Fill		370U	370U	370U	470	450	590	540	370U	490	370U	1,000	370U	380	370U	480	370U	920	5,300
DUP041201B	U Fill		370U	370U	370U	370U	420	420	440	370U	370	370U	870	370U	370U	370U	670	370U	670	3,900
SB-38-2-4	U Fill		370U	370U	370U	560	590	610	370U	570	680	370U	1,200	370U	370U	370U	560	370U	900	5,700
SB-38-4-6.5	U Fill		400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	400U	0
SB-38-14-19	S Nat. Soil		430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	0
SB-38-34-38	S Nat. Soil		450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	0
SB-39-0.5-2	U Fill		430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	0
SB-39-4-8	U Fill		380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	380U	0
SB-39-8-12.5	U Fill		390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	0
SB-40-0.5-2	U Fill		410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	410U	0
SB-40-2-4	U Fill		390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	0
SB-40-16-20	U Fill		360U	360U	360U	540	550	380	360U	510	570	360U	1,300	360U	360U	360U	360U	360U	760	5,600
SB-40-24-28	S Fill		390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	390U	0
SB-40-40-44	S Nat. Soil		450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	450U	0
DUP032001A	S Nat. Soil		430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	0
SB-40-56-58	S Nat. Soil		430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	430U	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	530	380U	380U	2,300	2,200	2,200	630	1,700	2,100	380U	4,800	690	710	380U	4,100	380U	3,600	0
SB-41-24-29	S	Fill	550U	550U	550U	550U	550U	550U	550U	550U	550U	550U	550U	550U	550U	550U	550U	550U	550U	26,000
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	2,600	6,100	1,500	12,000	1,200	3,700	1,300	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	0
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	16,700	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	0.82	3.61U	23.6	62.6	1.11U
SB-18-28-32	S	Fill	5.96U	111	2.98U	2.98U	29.1	18.3	14.0	0.0988U	10.1	65.7	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	31.5	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	0.153	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	54.4	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**  
**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-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	958	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	0.26	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	5.93U	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		7.17	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**  
**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-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	2.71U	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**  
**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-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	11.8	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	27.3	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	21.2	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	3.86	25.3	55.7	1.09U

**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-43-20-24	U	Fill	4.19	89	1.79U	1.79U	17.80	11.1	37.9	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	5.93U	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	88.3	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**

---

**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	0.866	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**



## 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					REMARKS	SYMBOLIC LOG	SOIL DESCRIPTION/COMMENTS
	SAMPLE INTERVAL	TYPE AND NUMBER	TIME	REC. %	OVM PEAK/ AVG. (ppm)			NAME, GRADATION OR PLASTICITY, PARTICLE SIZE, DISTRIBUTION, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY, USCS GROUP SYMBOL
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
	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
	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
10	8.5-13.5	10-12	1010	95%				8.5-12' Gravelly clayey fine sand - moderate yellowish brown, slightly cohesive, minor amount of rounded river gravel (quartz)
15	13.5-18.5	15-17	1020	80%				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
20	18.5-23.5			25%				1.25' of Gravelly sand - dusky yellowish brown, gravel size rocks & brick, medium sand, glass, saturated (difficult to determine depth)
25								Boring Termination 23.5'


(Continued on next page if over 25 feet deep)



# BORING LOG

BORING NUMBER <u>MW-07</u> PAGE <u>1</u> OF <u>2</u>		PROJECT NUMBER <u>1100-2990</u>	
PROJECT <u>Macon 2 MGP</u>		DRILLING CONTRACTOR <u>Georgia Power Company</u>	
BORING LOCATION _____		GROUND ELEVATION _____	
DRILLING METHOD AND EQUIPMENT <u>HSA</u>		TOP OF CASING ELEVATION _____	
DATE <u>8/19/03</u>	START <u>1400</u>	FINISH <u>1630</u>	LOGGER <u>Mike Dillon</u>

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						Logged from Cuttings	FILL	Asphalt Clay - light brown, cohesive, plastic, dry Gravelly sand - moderate yellowish brown, dry, fine sand, medium size gravel
5								Same as above; slight cohesiveness, slightly moist
10								Gravelly clay - plastic, moderate brown, small gravel
15								Sandy clay - dark yellowish brown, stiff, medium sand, plastic, dry
20								Clayey fine sand - dusky yellowish brown, cohesive, dry
25								Gravelly sandy clay - dusky yellowish brown, gravel rock & brick fragments, glass, wet

(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																						
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. 1100-2990**  
**VALUES LISTED IN MICROGRAMS PER LITER (µg/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
Loading dock spicket	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**  
**MAGON 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	0.108	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.02U	0.01U	0.01U
RB030201A	Liner	0.02U	0.107	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.02U	0.01U	0.01U
RB030501A	Liner	0.02U	0.109	0.005U	0.01U	0.01U	0.01U	0.0005U	0.02U	0.02U	0.01U	0.01U
RB030601A	Liner	0.02U	0.109	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	0.0106	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	0.0196	0.01U	0.0252	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	0.0216	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**

---



## 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

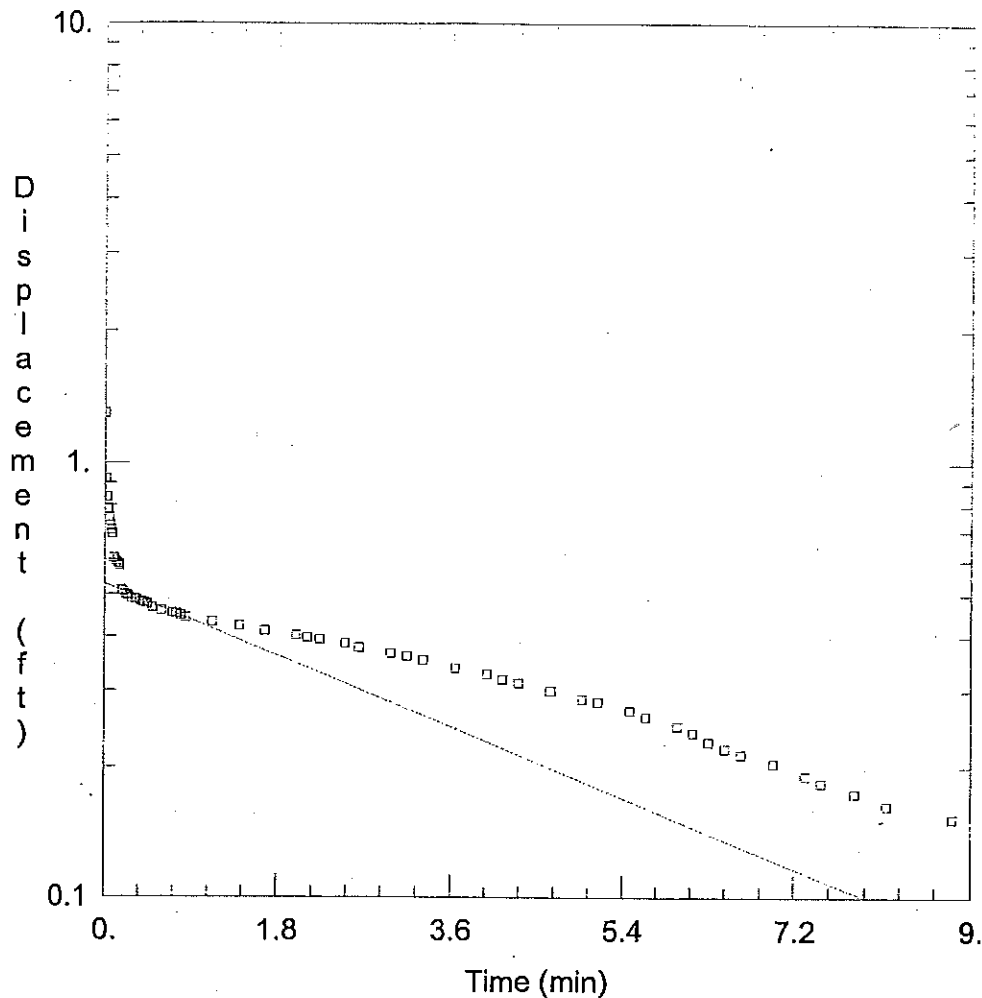
**Trip Blank Result Less Than Laboratory Reporting Limits:** N/A

**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

$K = 0.0007049 \text{ ft/min}$

$\alpha = 0.5284$

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

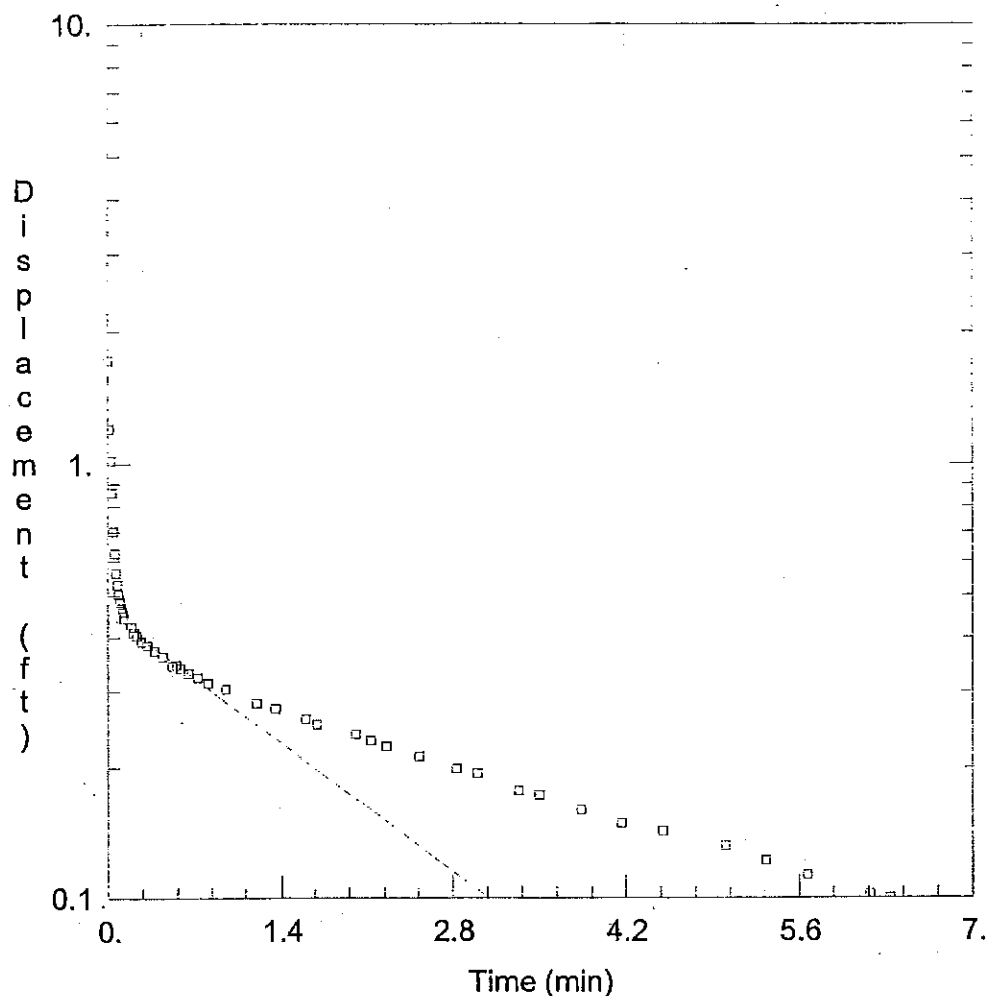
Aquifer Model: Unconfined  
 Solution Method: Bouwer-Rice

### 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

$K = 0.001612$  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		

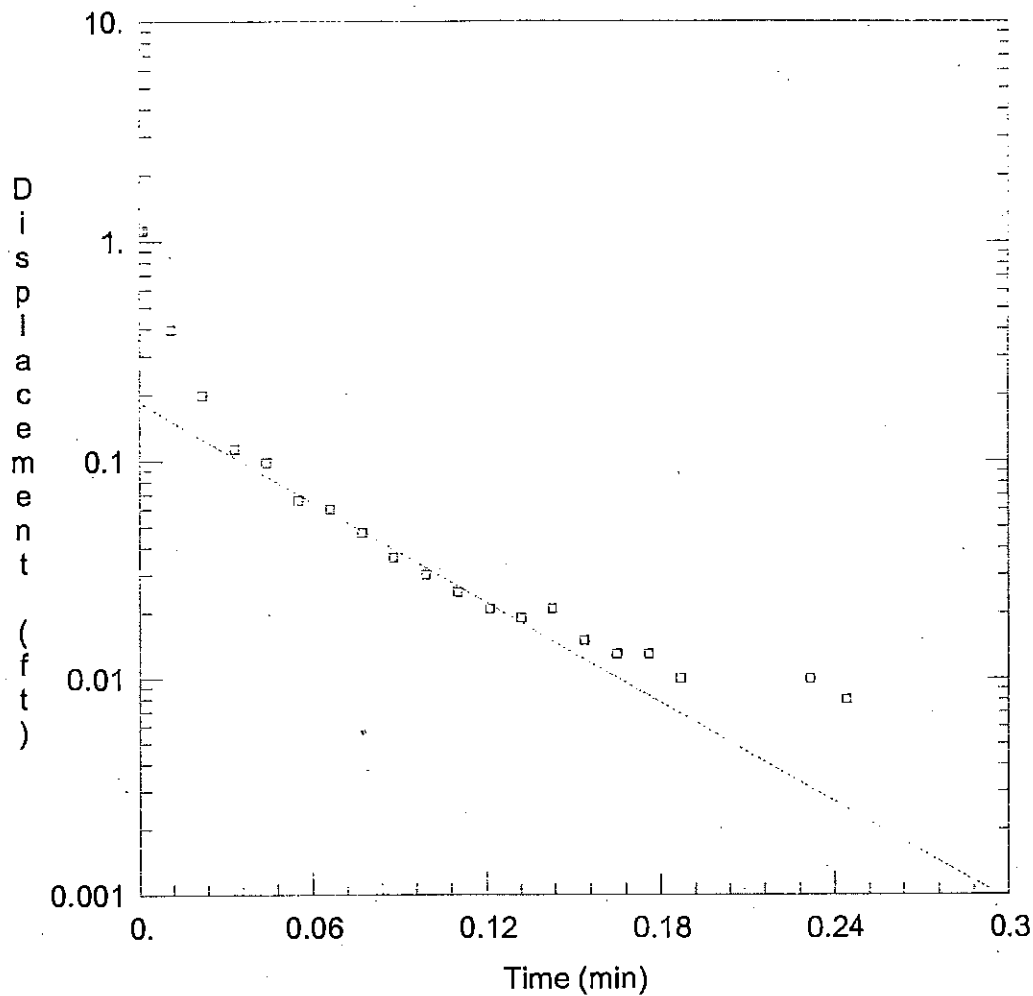
### SOLUTION

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		

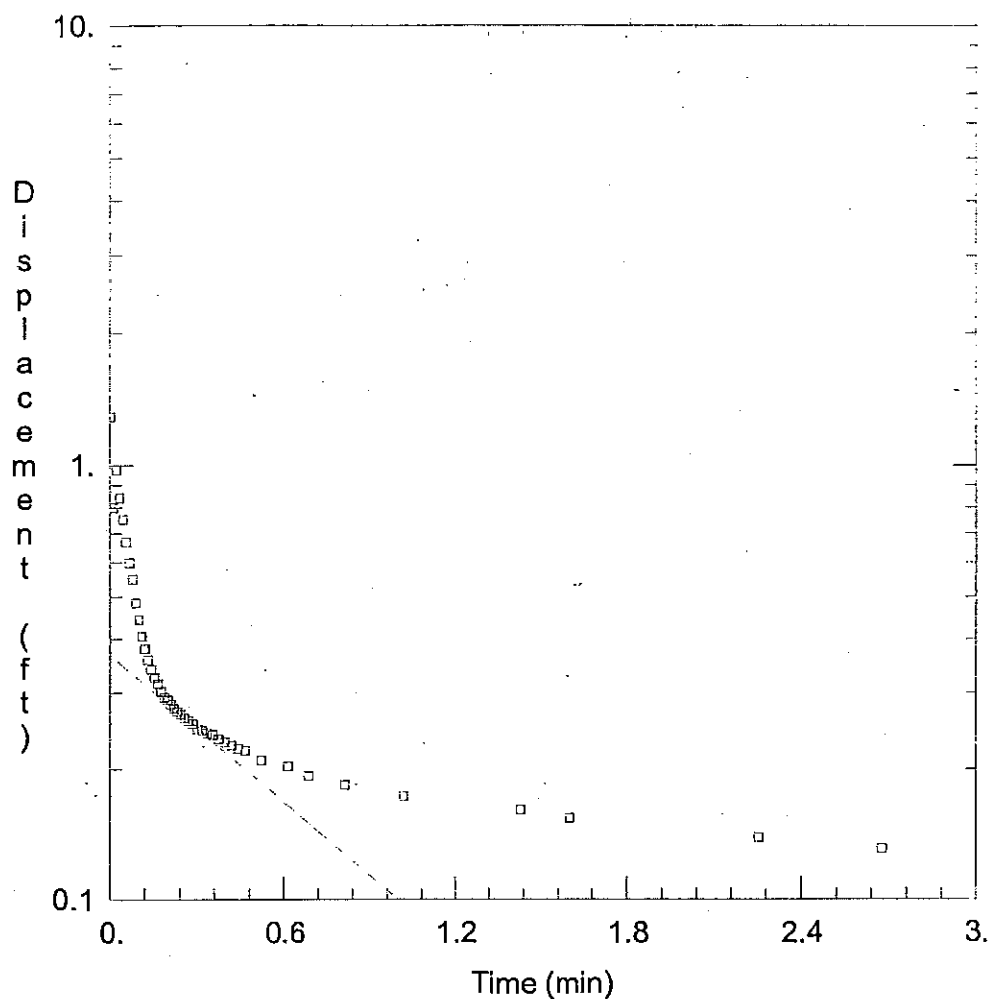
### SOLUTION

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		

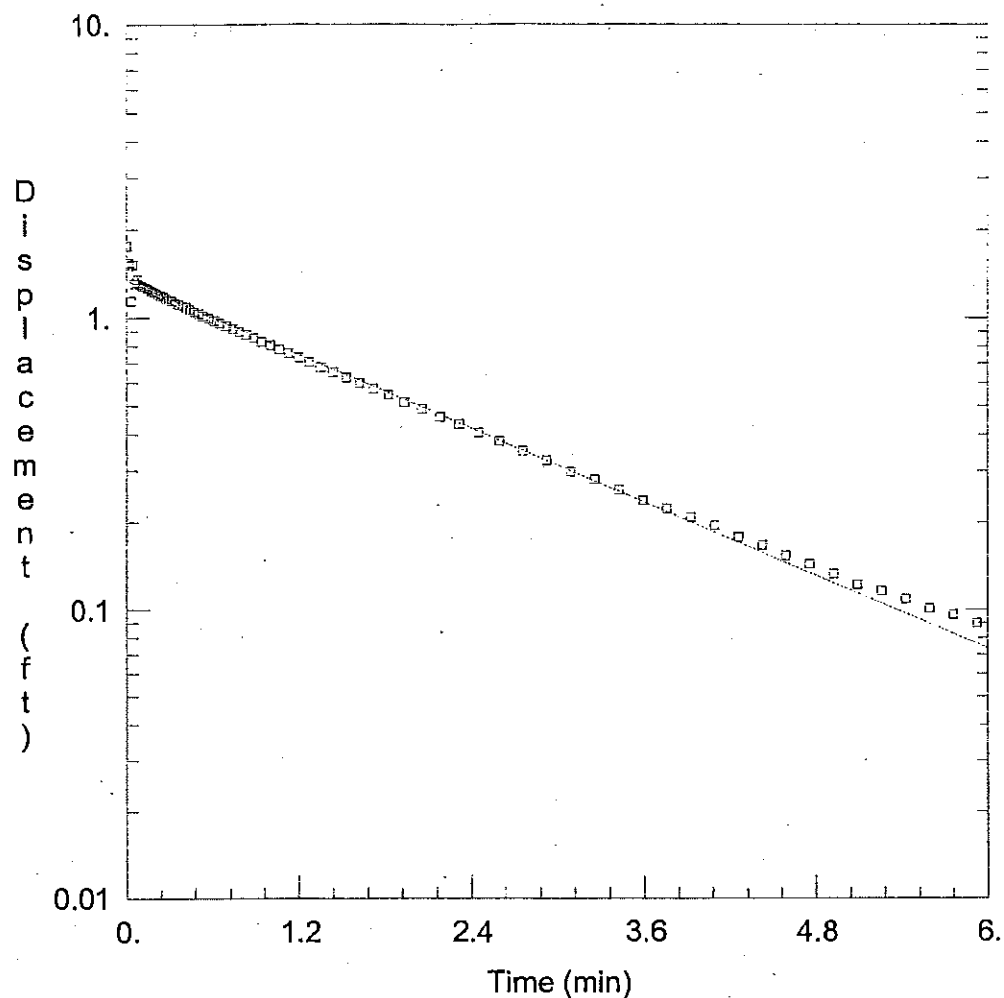
### SOLUTION

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 (Kz/Kr): 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

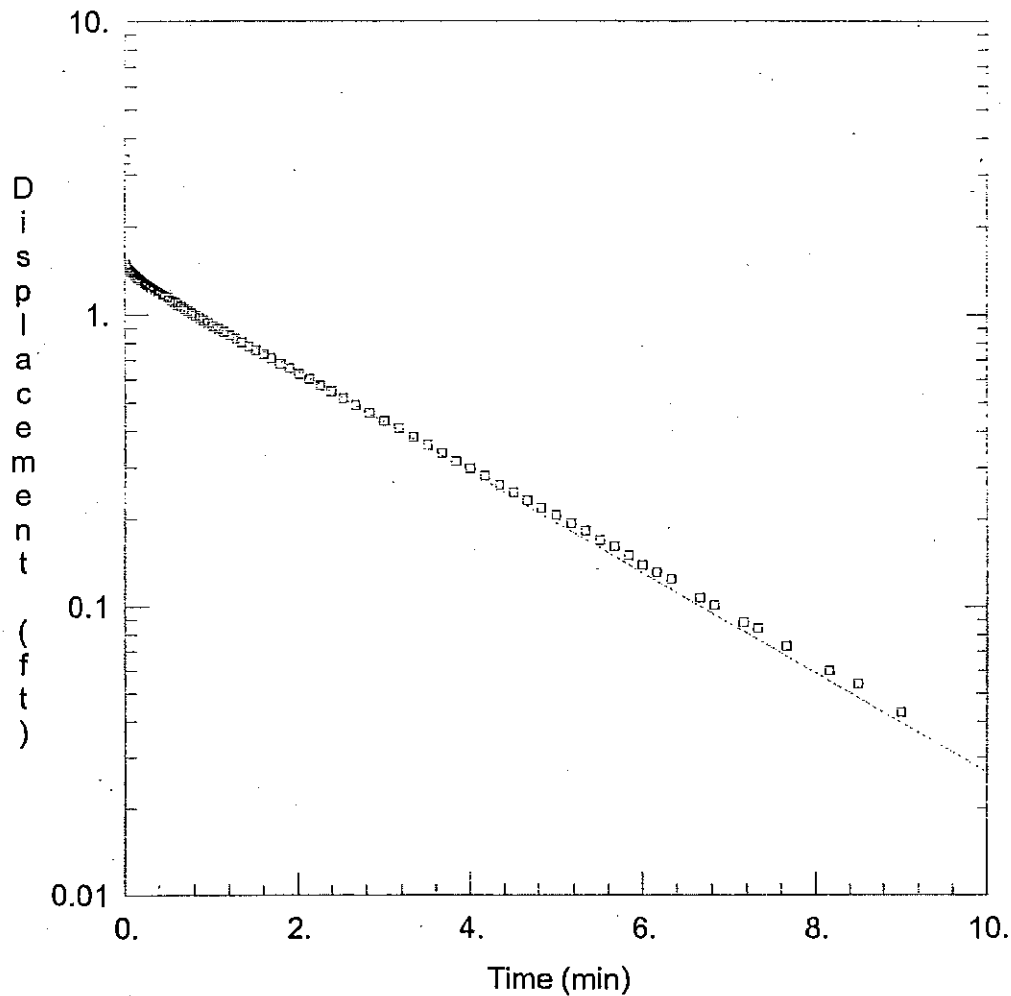
---

Solution Method: Bouwer-Rice

---

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: Bouwer-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

WELL NUMBER		FLUSH MOUNTED PROTECTIVE CASING LOCKING AIR/WATER SEALED CAP		TYPE OF SURFACE SEAL	
MW-07				Flush	
DRILLER	Georgia Power	RISER PIPE ID		2"	
DRILLING METHOD	HSA 8.25" OD	TYPE OF RISER PIPE		PVC	
DEVELOPMENT METHOD	Pump				
<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		DEPTH OF TOP OF SEAL		13.8'	
BUCKETS OF BENTONITE PELLETS	1	TYPE OF SEAL		Bentonite	
BAGS OF CEMENT		DEPTH OF TOP OF SAND PACK		15.8'	
BAGS OF CONCRETE MIX		DEPTH OF TOP OF SCREEN		17.5'	
HOLE COVERS		DEPTH OF TOP OF GROUNDWATER		approx. 22'	
OTHER		TYPE OF SCREEN		PVC 0.01 slot	
		LENGTH OF SCREEN		15'	
		DEPTH TO BOTTOM OF SCREEN		32.5'	
		DEPTH TO BOTTOM OF BORING		32.5'	

**DATE INSTALLED**  
08/19/2003

**PROJECT NO.**  
1100-2990

**WELL NO.**  
MW-07

**Williams Environmental Services, Inc.**  
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

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

# 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
			CN
Container Size and Type:	2@40ml	2@1liter	500ml
			500ml
Preservative:	HCL	ICE	HNO3
			NAOH

## REMARKS AND OBSERVATIONS

---




---



---



---

Site Location:	MACON, GA				
Date:	8/20/03	Project No.	11002990	Well I.D.	MW-2

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

# 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 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: 8/20/03 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

---



---



---



---

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

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



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

---



---



---



---

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

---

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) $^{-1}$

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

### 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 I 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

---

Centers for Disease Prevention and Control (CDC), 1985. Preventing Lead Poisoning in Children, U.S. Department of Health and Human Services, Atlanta, Georgia.

Georgia Department of Natural Resources, Environmental Protection Division (GEPD), 1998. Georgia Adult Lead Model. March 23, 1998.

Georgia Department of Natural Resources, Environmental Protection Division (GEPD), 2003. Rules of GEPD Chapter 391-3-19 Hazardous Site Response.

Health Effect Assessment Summary Tables, 1997. Office of Research and Development U.S. Environmental Protection Agency, Washington, D.C. FY-1995 Annual.

Integrated Risk Information System (IRIS), 2000. U.S. Environmental Protection Agency, Office of Health and Environmental Assessment, Cincinnati, Ohio.

U.S. Environmental Protection Agency (USEPA), 1991a. Risk Assessment Guidance for Superfund: Volume I - Human Health Evaluation Manual (Part B): Development of Risk-Based Preliminary Remediation Goals, Interim. Office of Emergency and Remedial Response, Washington, DC. OSWER Dir. 9285.7-01B. December 1991.

U.S. Environmental Protection Agency (USEPA), 1991b. Exposure Factors Handbook. Interim final. OSWER Directive No. 9285.6-03.

U.S. Environmental Protection Agency (USEPA), 1994a. Interim Guidance on Establishing Soil Lead Cleanup Levels at RCRA Facilities. OSWER Directive #9355.4-12.

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	1.80E-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	8.40E-05	13500	6.42E+05
Naphthalene	0.059	4.80E-04	1760	6.64E+04
Phenanthrene	0.0543	2.58E-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):	$(D_{el} \times E) / (E + (\rho_s \times ((1-E)/K_{as})))$
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):	$D_i \times E^{0.33}$
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):	$(H/K_d) \times 41$
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><u>VOCs</u></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><u>SVOCs</u></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	48,900	f
Pyrene	70	500	a	2,350	f
<b><u>Inorganics</u></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	64.04	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	1,584	NA	14,600	NA	1,584
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:

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

Carcinogens:

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

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
RD <sub>o</sub> = Oral Reference Dose	Chemical-specific
RD <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> )	2.16E-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><u>VOCs</u></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><u>SVOCs</u></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><u>Inorganics</u></b>								
Arsenic	31.5	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	2,600	2,600	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 (mg/kg) 0-2'			RRS (mg/kg) >2'
<b>VOCs</b>						
Benzene	119.4	14.25	14.25	220.7	1,324	220.7
Carbon Disulfide	1,143	NA	1,143	2,216	NA	2,218
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	11,738
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>SVOCs</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	18,562	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>Inorganics</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.

$$PbB = \frac{PbB_{fetal}}{R^*GSD^{1.645}}$$

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

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

**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><u>VOCs</u></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><u>SVOCs</u></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><u>Inorganics</u></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 (Carc) (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	0.007067	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	0.06222	0.0622
Methyl-tert-butyl-ether	1.767	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	0.0000597	NA	0.0000450	0.0000450
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	0.000597	NA	0.000450	0.000450
Chrysene	NA	0.0597	NA	0.0450	0.0450
Dibenzo(a,h)anthracene	NA	0.0000597	NA	0.0000450	0.0000450
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	0.000566	0.000566
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)	0.6
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	8.78	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	0.00918	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	0.03068	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	0.03068	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 callitaeia</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*

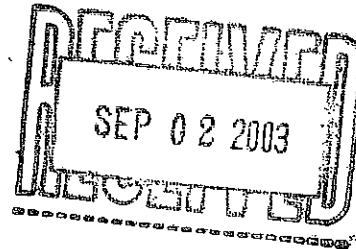




ANALYTICAL ENVIRONMENTAL SERVICES, INC.

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

**ANALYTICAL ENVIRONMENTAL SERVICES, INC.**  
 785 Presidential Pkwy  
 Atlanta, GA 30340-3704  
 TEL: (770) 457-8177 / TOLL FREE: (800) 972-4889 / FAX: (770) 457-8188

CHARGE OF CUSTODY

Work Order: 3662

Date: 8/20/03 Page 1 of 2

COMPANY: <b>WILLIAMS ENV. SERVICES</b> ADDRESS: <b>300 CROSS PARK, SE ATLANTA, GA 30329</b> PHONE: <b>203-759-8305</b> FAX: <b>524</b> SIGNATURE: <i>Mike Dillon</i>		ANALYSIS REQUESTED No # of Containers							
#	SAMPLE ID	SAMPLED		DATE	TIME	Grab	Composite	Matrix (See codes)	REMARKS
		DATE	TIME						
1	SB-44-0-2	8/20/03	0730	X				50	
2	SB-44-5-7		0740	X					
3	SB-44-10-13		0750	X					
4	SB-44-15-17		0800	X					
5	SB-44-20-21		0810	X					
6	SB-44-25-2		0820	X					
7	SB-44-30-7		0830	X					
8	SB-44-35-11		0840	X					
9	SB-44-40-17		0850	X					
10	SB-44-45-25		0900	X					
11	SB-44-50-2		0910	X					
12	SB-44-55-7		0920	X					
13	SB-44-60-12		0930	X					
14	SB-44-65-17		0940	X					
PROJECT INFORMATION PROJECT NAME: <b>MAISON T. MORGAN</b> PROJECT #: <b>1150 2770</b> FAC ID#: <b>GA</b> SITE ADDRESS: <b>SPRING ST NW, MAISON</b> PROJECT MANAGER: <b>MIKE DILLON</b> INVOICE TO: <b>(IF DIFFERENT FROM ABOVE)</b> SHIPMENT METHOD: <b>OUT</b> VIA: <b>1</b> IN: <b>1</b> CLIENT: <b>FedEx</b> UPS MAIL COURIER GREYHOUND OTHER:									
SPECIAL INSTRUCTIONS/COMMENTS:									
RECEIPT Total # of Containers Turnaround Time Request Standard 3-5 Business Days Same Day Rush (auth req) Next Business Day Rush 2 Business Day Rush Other:									
PROGRAM (see codes): DATA PACKAGE: I II III IV									

NOTE CONTRACT #:  
 ATRIX 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 ALUST TNUST MSUST NCUST SCUST GAUST FLCONV



**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>						Analyst: CDW
Lead	25.3	5.67		mg/Kg-dry	1	8/25/2003 1:02:00 AM
<b>PERCENT MOISTURE</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

Client Sample ID: SB-45-0-2

Lab Order: 0308662

Collection Date: 8/20/2003 8:36:00 AM

Project: Macon II MGP

Lab ID: 0308662-006

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>	<b>*</b>	Value exceeds Maximum Contaminant Level	<b>B</b>	Analyte detected in the associated Method Blank
	<b>BRL</b>	Below Reporting Limit	<b>E</b>	Value above quantitation range
	<b>H</b>	Holding times for preparation or analysis exceeded	<b>J</b>	Analyte detected below quantitation limits
	<b>N</b>	Analyte not NELAC certified	<b>P</b>	NELAC analyte certification pending
	<b>Rpt Limit</b>	Reporting Limit	<b>S</b>	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>	<b>*</b>	Value exceeds Maximum Contaminant Level	<b>B</b>	Analyte detected in the associated Method Blank
	<b>BRL</b>	Below Reporting Limit	<b>E</b>	Value above quantitation range
	<b>H</b>	Holding times for preparation or analysis exceeded	<b>J</b>	Analyte detected below quantitation limits
	<b>N</b>	Analyte not NELAC certified	<b>P</b>	NELAC analyte certification pending
	<b>Rpt Limit</b>	Reporting Limit	<b>S</b>	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: CDW
Lead	38.6	4.48		mg/Kg-dry	1	8/25/2003 1:49:00 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: DCC
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

**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:** 0308662-012

**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: CDW
Lead	70.6	3.82		mg/Kg-dry	1	8/25/2003 1:58:00 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: DCC
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

<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-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>		<b>SW6010B</b>				Analyst: <b>CDW</b>
Lead	20.0	3.78		mg/Kg-dry	1	8/25/2003 2:07:00 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: <b>DCC</b>
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>	<b>*</b>	Value exceeds Maximum Contaminant Level	<b>B</b>	Analyte detected in the associated Method Blank
	<b>BRL</b>	Below Reporting Limit	<b>E</b>	Value above quantitation range
	<b>H</b>	Holding times for preparation or analysis exceeded	<b>J</b>	Analyte detected below quantitation limits
	<b>N</b>	Analyte not NELAC certified	<b>P</b>	NELAC analyte certification pending
	<b>Rpt Limit</b>	Reporting Limit	<b>S</b>	Spike Recovery outside accepted recovery limits



Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Williams Env. Services

Work Order Number 0308662

Checklist completed by Nyame Ogburn 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

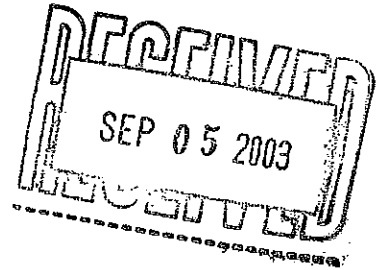
BRL Below Reporting Limit  
J Analyte detected below quantitation limits  
S Spike Recovery outside accepted recovery limits

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



# 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

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>TOTAL METALS BY ICP/MS</b>		<b>SW6020</b>		<b>Analyst: SSS</b>		
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>		<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	8/22/2003 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>		<b>Analyst: AD</b>		
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>		Analyst: SSS		
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>		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 1:03:00 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>		Analyst: AD		
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

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: 0308663-006

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>		Analyst: AD		
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>		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: 0308663-007

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

<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: 0308663-009

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

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: 0308663-010

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		
Benzene	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 Osano 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° Cooler #2 4.8° Cooler #3 5.5° 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		
---------	-------	-----	----	---	-----	------	-----	---	---	--	--

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: LCS-37280	SampleType: 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	Sample Type: 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									
---------	-----	-----	--	--	--	--	--	--	--	--	--

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	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

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	SampleType: 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

**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	
Surr: Nitrobenzene-d5	38.16	0	50	0	76.3	15	120	38.17	0	0	
Surr: Phenol-d5	63.7	0	100	0	63.7	18	113	60.84	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		

Page 6 of 13

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 quantization 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

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

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

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 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		

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	Samp Type: 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		
Surr: Dibromofluoromethane	47.82	0	50	0	95.6	80.3	123	0	0		
Surr: Toluene-d8	49.24	0	50	0	98.5	70.1	142	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	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-37356-1	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	SampleType: 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		

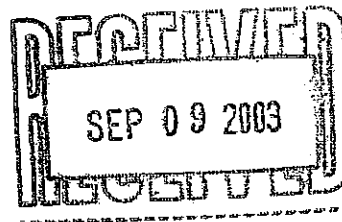
Sample ID: LCS-37356-1	Sample Type: LCS	TestCode: 8260B_W_CL	Units: µg/L	Prep Date: 8/23/2003	RunNo: 41894						
Client ID:	Batch ID: 37356	TestNo: SW8260B		Analysis Date: 8/25/2003	SeqNo: 762726						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	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		PHONE: 205-988-8305 FAX: 5249		ANALYSIS REQUESTED		REMARKS		No. of Containers	
SAMPLED BY: Mike Dillon		SIGNATURE: <i>Mike Dillon</i>		DATE: 8/20/03		TIME: 0730		PRESERVATION			
#	SAMPLE ID	DATE	TIME	SAMPLED	Grab	Composite	Matrix (See codes)				
1	SB-44-0-2	8/20/03	0730	X	X		50				
2	SB-44-5-7		0740	X	X						
3	SB-44-10-12		0750	X	X						
4	SB-44-15-17		0800	X	X						
5	SB-44-20-21		0810	X	X						
6	SB-45-0-2		0830	X	X						
7	SB-45-5-7		0840	X	X						
8	SB-45-10-12		0850	X	X						
9	SB-45-15-17		0900	X	X						
10	SB-45-18-20		0910	X	X						
11	SB-46-0-2		0950	X	X						
12	SB-46-5-7		1000	X	X						
13	SB-46-10-12		1010	X	X						
14	SB-46-15-17		1020	X	X						
RELINQUISHED BY: <i>Mike W. Dillon</i>		DATE/TIME RECEIVED BY: <i>MA</i>		DATE/TIME: 8/21/03 9:50							
PROJECT NAME: MALON II MGP		PROJECT #:		1100 2990							
SITE ADDRESS: SPINK ST W, MALON GA		FAC ID:									
PROJECT MANAGER: MIKE DILLON		INVOICE TO: (IF DIFFERENT FROM ABOVE)									
SHIPMENT METHOD: OUT VIA: IN VIA: (CLIENT FedEx) UPS MAIL COURIER GREYHOUND OTHER		SPECIAL INSTRUCTIONS COMMENTS:									
TOTAL # of Containers: 14		Turnaround Time Request: Standard 3-5 Business Days Same Day Rush (auth req.) Next Business Day Rush 2 Business Day Rush Other		000000							
PROGRAM (see codes):		DATA PACKAGE: I II III IV									

QUOTE CONTRACT #:  
 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 FLUX ALUSI ENUSI NUSI 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

Work Order: 0902662

Date: 8/20/03 Page 2 of 2

[illegible]

MATRIX CODES: A = Air CW = 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 AUUSI INUSI MSUSI NCUSI SCUSI GAUSI 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 Nyene 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	SampType: 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		

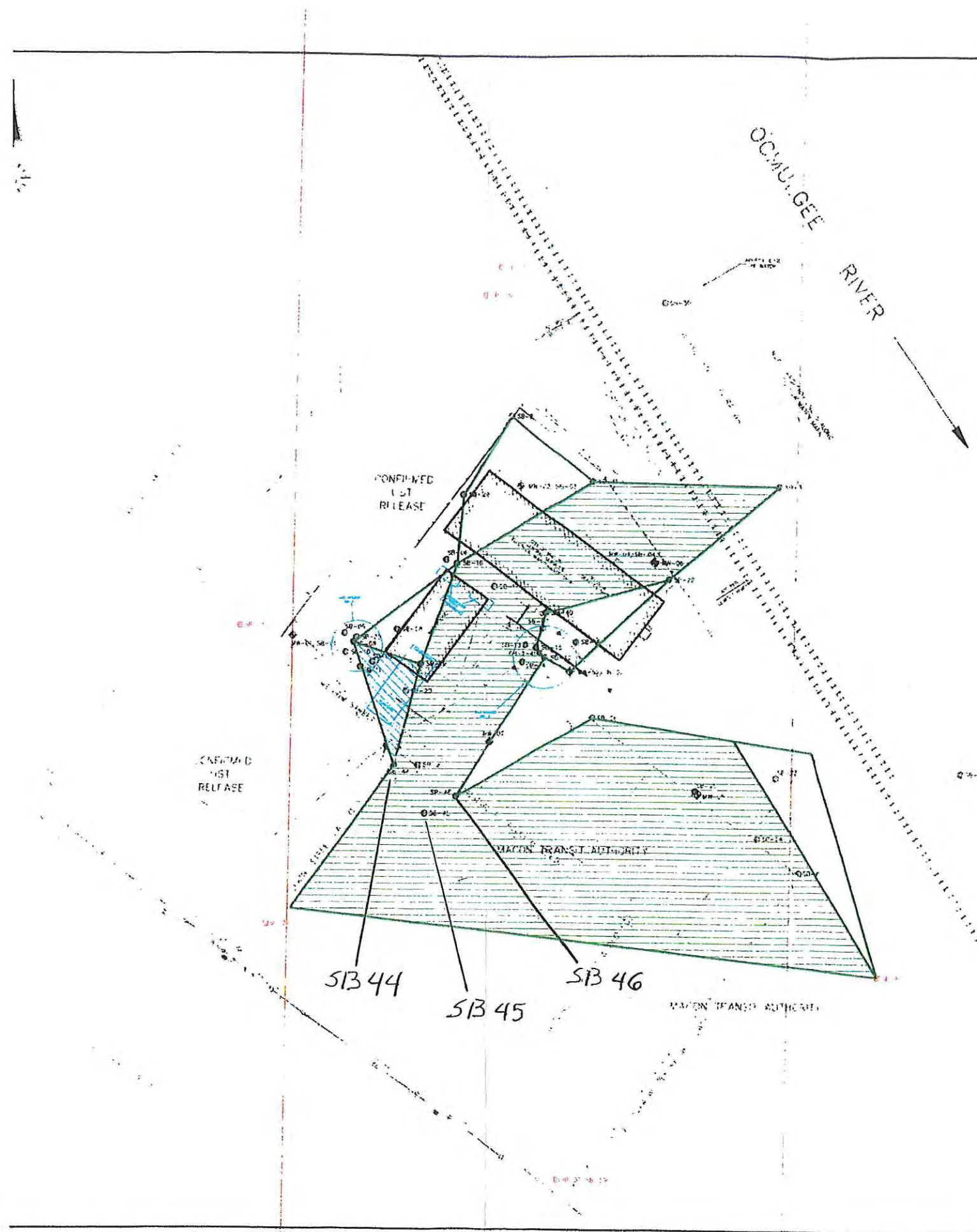
**Analytical Environmental Servs, Inc.**

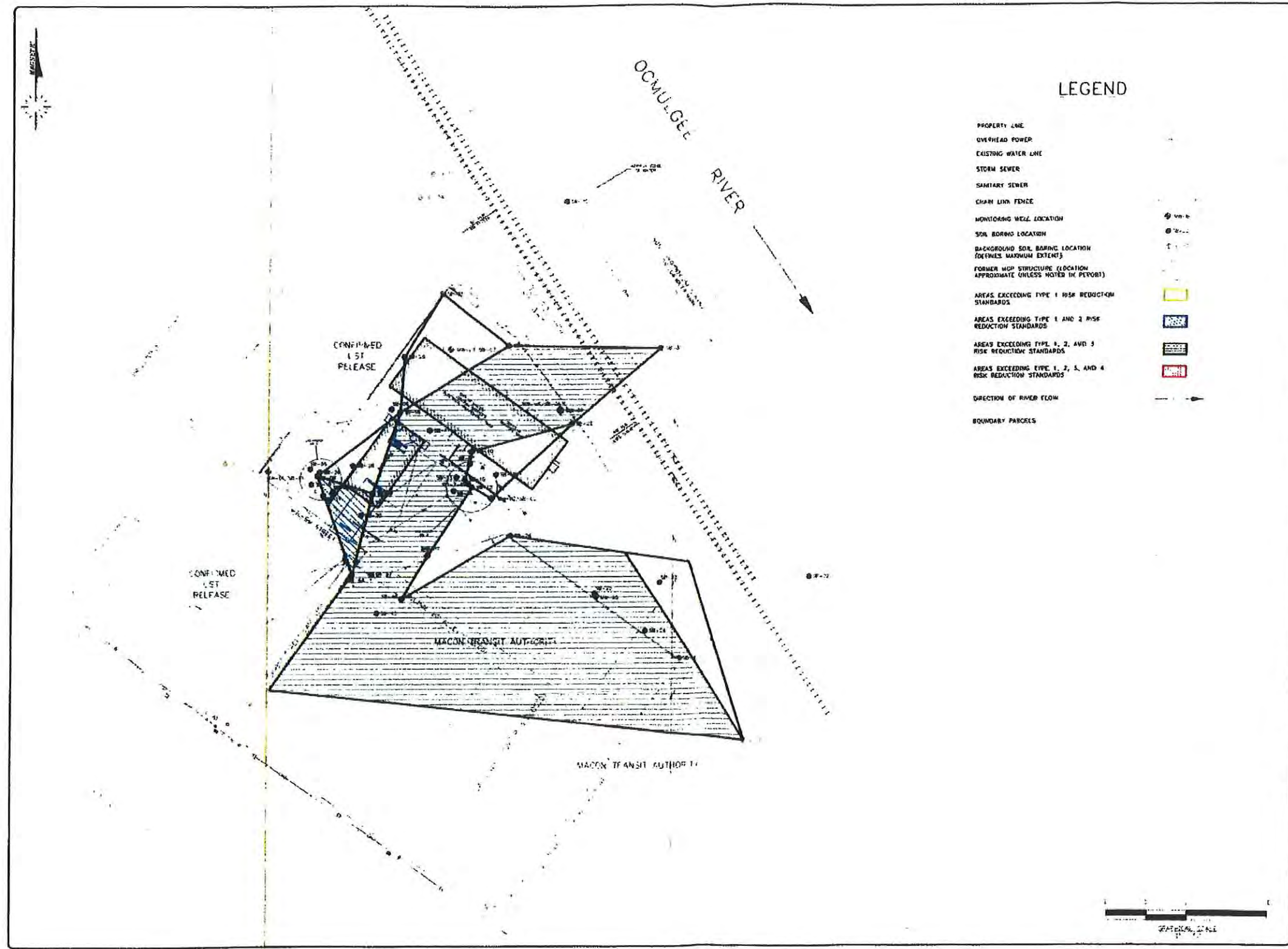
Date: 29-Aug-03

**CLIENT:** Williams Environmental Services, Inc  
**Project:** Macon II MGP  
**Lab Order:** 0308828

**CASE NARRATIVE**

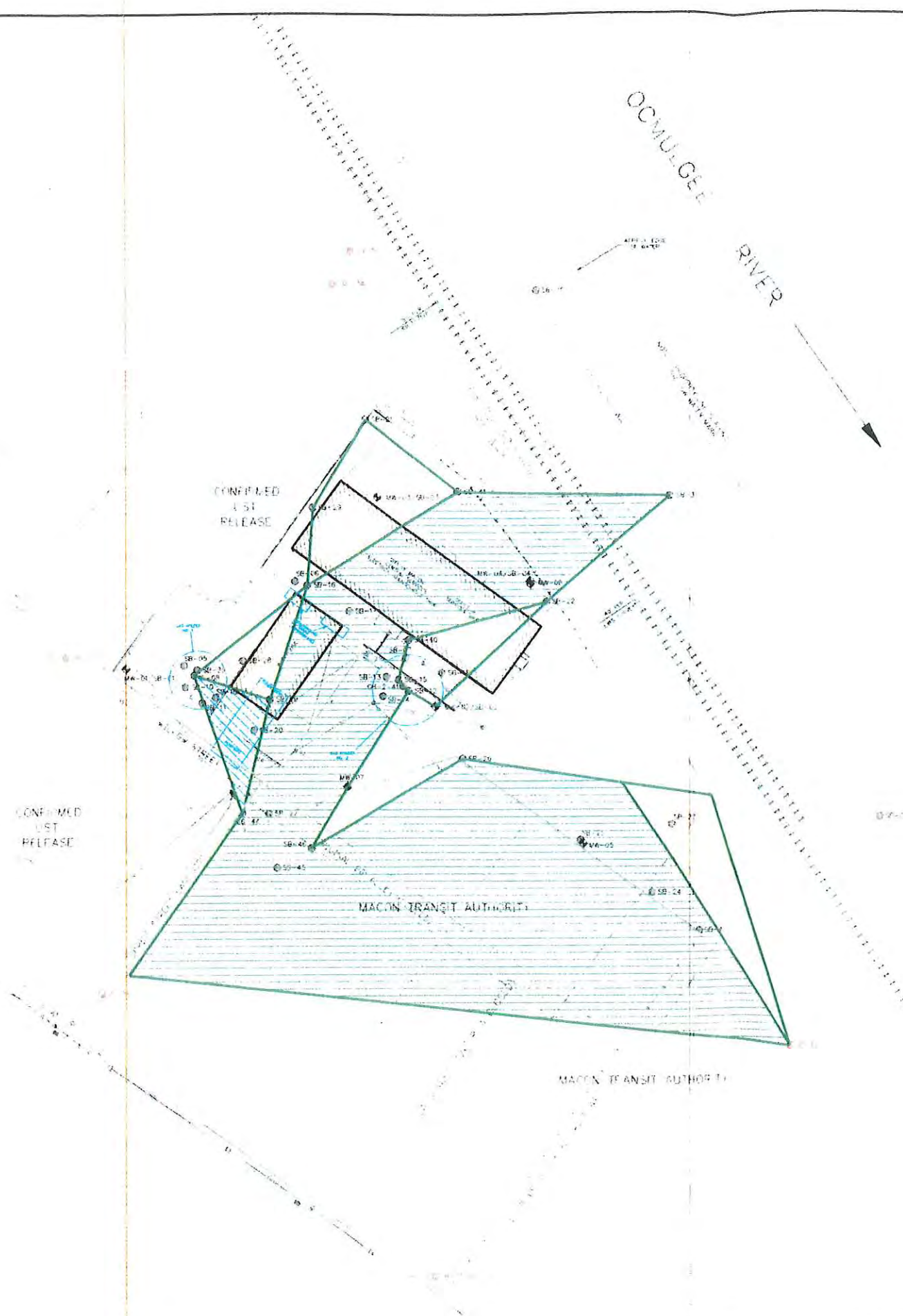
Matt Ebbert requested SPLP Pb analysis on sample "SB-45-15-17" as next day rush turnaround 8/27/03 2:00pm.





Prepared By: <b>Williams Environmental Services, Inc.</b> <small>A Subsidiary of Williams Group International, Inc.          2000 West 10th Street, Suite 100, Birmingham, Alabama 35204          205-988-5555 FAX 205-988-5556</small>	
AREAS EXCEEDING RISK REDUCTION STANDARDS IN SOIL	FORMER MACON 2 MGP FACILITY MACON, GEORGIA
20	





# 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

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 MACON 2 MGP FACILITY  
MACON, GEORGIA



- 
- | Age Group | Not at all | Somewhat | Very much |
|-----------|------------|----------|-----------|
| 10+       | 10%        | 15%      | 85%       |
| 50        | 5%         | 25%      | 70%       |
| 0         | 2%         | 35%      | 63%       |

1. Title	REVISED
2. Date	
3. Author	
4. Editor	
5. Reviewer	
6. Comments	
7. Status	
8. Remarks	
9. Date	
10. Date	
11. Date	
12. Date	
13. Date	
14. Date	
15. Date	
16. Date	
17. Date	
18. Date	
19. Date	
20. Date	
21. Date	
22. Date	
23. Date	
24. Date	
25. Date	
26. Date	
27. Date	
28. Date	
29. Date	
30. Date	
31. Date	
32. Date	
33. Date	
34. Date	
35. Date	
36. Date	
37. Date	
38. Date	
39. Date	
40. Date	
41. Date	
42. Date	
43. Date	
44. Date	
45. Date	
46. Date	
47. Date	
48. Date	
49. Date	
50. Date	
51. Date	
52. Date	
53. Date	
54. Date	
55. Date	
56. Date	
57. Date	
58. Date	
59. Date	
60. Date	
61. Date	
62. Date	
63. Date	
64. Date	
65. Date	
66. Date	
67. Date	
68. Date	
69. Date	
70. Date	
71. Date	
72. Date	
73. Date	
74. Date	
75. Date	
76. Date	
77. Date	
78. Date	
79. Date	
80. Date	
81. Date	
82. Date	
83. Date	
84. Date	
85. Date	
86. Date	
87. Date	
88. Date	
89. Date	
90. Date	
91. Date	
92. Date	
93. Date	
94. Date	
95. Date	
96. Date	
97. Date	
98. Date	
99. Date	
100. Date	

E

FORMER MACON 2 MGP FACILITY  
MACON, GEORGIA

ENGINEERING SERVICES

DESIGNED	
DRAWN	TCM
CHECKED	
DATE	09/05/2003
FILENAME	0163RF-001E0
PROJECT NUMBER	110 1990



## **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 1 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
-----------	-----------------	-----------------------------------	-----------------------	--------------------------	---------------------------------	------

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
------------------	-----------------	-----	-------------------------	--------------------	--------------------	----------------	------

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

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.*

1

2

3

4

5

6

7

8

9

10

11

12

# 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

# 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

---

### Job ID: 680-115409-1 (Continued)

---

#### 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.

1

2

3

4

5

6

7

8

9

10

11

12



# 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
Benzo[a]anthracene	1.0	J	3.7	0.31	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Benzo[a]pyrene	1.1	J	3.7	0.59	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Benzo[b]fluoranthene	1.6	J	3.7	0.43	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Benzo[g,h,i]perylene	0.68	J	3.7	0.25	mg/Kg	☼	08/10/15 14:33	08/11/15 15:23	10
Benzo[k]fluoranthene	0.77	J	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
Chrysene	1.7	J	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
Fluoranthene	3.1	J	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
Indeno[1,2,3-cd]pyrene	0.54	J	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

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) (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**

**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)

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**

**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) (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**

**Date Collected: 08/06/15 14:30**

**Date Received: 08/08/15 10:00**

**Lab Sample ID: 680-115409-8**

**Matrix: Solid**

**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**

**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) (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**

**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) (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**

**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) (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**

**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**

## 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
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.50</b>	<b>B</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
<b>Chrysene</b>	<b>0.029</b>	<b>J</b>	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
Fluoranthene	0.054	J	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
Phenanthrene	0.069	J	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
Pyrene	0.044	J	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
Arsenic	6.4		2.4	0.95	mg/Kg	☼	08/11/15 08:25	08/15/15 04:38	1
Barium	84		1.2	0.19	mg/Kg	☼	08/11/15 08:25	08/15/15 04:38	1
Beryllium	0.40	J	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
Chromium	19		1.2	0.25	mg/Kg	☼	08/11/15 08:25	08/15/15 04:38	1
Copper	190		3.0	0.20	mg/Kg	☼	08/11/15 08:25	08/15/15 04:38	1
Lead	100		1.2	0.40	mg/Kg	☼	08/11/15 08:25	08/15/15 04:38	1
Nickel	9.2		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
Fluoranthene	0.047	J	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
Pyrene	0.039	J	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
Arsenic	1.6	J	2.2	0.89	mg/Kg	☼	08/11/15 08:25	08/15/15 04:43	1
Barium	61		1.1	0.18	mg/Kg	☼	08/11/15 08:25	08/15/15 04:43	1
Beryllium	0.48		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
Chromium	9.5		1.1	0.23	mg/Kg	☼	08/11/15 08:25	08/15/15 04:43	1
Copper	20		2.8	0.19	mg/Kg	☼	08/11/15 08:25	08/15/15 04:43	1
Lead	16		1.1	0.38	mg/Kg	☼	08/11/15 08:25	08/15/15 04:43	1
Nickel	5.5		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
Benzo[a]anthracene	0.053	J	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
Benzo[b]fluoranthene	0.071	J	0.39	0.045	mg/Kg	☼	08/10/15 16:16	08/12/15 18:28	1
Benzo[g,h,i]perylene	0.037	J	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
Bis(2-ethylhexyl) phthalate	0.26	J 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
Chrysene	0.052	J	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

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: 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**

**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)

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
Benzo[g,h,i]perylene	0.040	J	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
Bis(2-ethylhexyl) phthalate	0.21	J 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

TestAmerica Savannah

# 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

TestAmerica Savannah

# 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	

TestAmerica Savannah

# 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

TestAmerica Savannah

# 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	

TestAmerica Savannah

# 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

TestAmerica Savannah



# 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	

TestAmerica Savannah



# 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	

TestAmerica Savannah

# 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

TestAmerica Savannah

## 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										

TestAmerica Savannah

# 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										

TestAmerica Savannah



# 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

TestAmerica Savannah

# 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 <input checked="" type="checkbox"/>	
CLIENT (SITE) PM <b>C. Holderfield</b>		CLIENT PHONE <b>202-872-8016</b>		CLIENT FAX		AQUEOUS (WATER)				DATE DUE <input checked="" type="checkbox"/>	
CLIENT NAME <b>GEC</b>		CLIENT E-MAIL <b>chohierfield@macom.com</b>				COMPOSITE (C) OR GRAB (G) INDICATE				EXPEDITED REPORT DELIVERY (SURCHARGE) <input type="checkbox"/>	
CLIENT ADDRESS <b>514 Hillcrest Blvd, Macom, GA</b>										DATE DUE <input type="checkbox"/>	
COMPANY CONTRACTING THIS WORK (if applicable)										NUMBER OF COOLERS SUBMITTED PER SHIPMENT:	
SAMPLE		SAMPLE IDENTIFICATION		REMARKS							
DATE	TIME										
8-1-15	1247	GB-14	3-5	X	X					* RQA 8 pbs	
1254		GB-14	8-10	X	X					Cu, Ni, Va, Zh	
1259		GB-14	13-15	X	X					+ Total Cyanides	
1130		GB-14	8-10	X	X					+ be (LmH 8-10-15)	
1045		GB-21	8-10	X	X						
1400		GB-28	2-4	X	X						
1420		GB-28	8-10	X	X						
1430		GB-28	13-5	X	X						
1525		GB-24	2-4 (SB-24)	X	X						
1532		GB-24	4-6 (SB-24)	X	X						
1538		GB-24	8-10 (SB-24)	X	X						
1550		GB-24	13-15 (SB-24)	X	X						
RELINQUISHED BY: (SIGNATURE) <b>L. Holderfield</b>		DATE <b>8/7/15</b>		TIME <b>0830</b>		RELINQUISHED BY: (SIGNATURE)		DATE <b>9/15</b>		TIME <b>9:15</b>	
RECEIVED BY: (SIGNATURE) <b>L. Holderfield</b>		DATE <b>8/7/15</b>		TIME <b>0830</b>		RECEIVED BY: (SIGNATURE)		DATE <b>9/15</b>		TIME <b>9:15</b>	
LABORATORY USE ONLY											
RECEIVED FOR LABORATORY BY: (SIGNATURE) <b>C. Holderfield</b>				DATE <b>8/8/15</b>		TIME <b>1000</b>		CUSTODY SEAL NO. <b>0</b>		CUSTODY INTACT <b>YES</b>	
LABORATORY REMARKS <b>3.6/3.2(x) 4.0/3.6 c</b>				SAVANNAH LOG NO. <b>180-115409</b>		LABORATORY REMARKS		DATE <b>9/15</b>		TIME <b>9:15</b>	

99571

## ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

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: \_\_\_\_\_

# TestAmerica

## THE LEADER IN ENVIRONMENTAL TESTING

PROJECT REFERENCE		PROJECT NO.		PROJECT LOCATION		MATRIX TYPE		REQUIRED ANALYSIS						PAGE		OF									
PROJECT MANAGER		P.O. NUMBER		(STATE)		CONTRACT NO.		COMPOSITE (C) OR GRAB (G) INDICATE		AQUEOUS (WATER)		SOLID OR SEMISOLID		NONAQUEOUS LIQUID (OIL, SOLVENT, ...)		STANDARD REPORT DELIVERY		DATE DUE		EXPEDITED REPORT DELIVERY (SURCHARGE)		DATE DUE		NUMBER OF COOLERS SUBMITTED PER SHIPMENT:	
Macon MGP #2		13059-241		GA																					
C. Holderfield				CONTRACT NO.		CLIENT FAX																			
GEC		CLIENT E-MAIL		cholefield@seconsohok.com																					
S14 Hillcrest Blvd, Macon, GA																									
COMPANY CONTRACTING THIS WORK (if applicable)																									
SAMPLE		SAMPLE IDENTIFICATION		RELINQUISHED BY: (SIGNATURE)		RECEIVED BY: (SIGNATURE)		DATE		TIME		DATE		TIME		DATE		TIME							
DATE	TIME																								
1002	2-4	SB-42		8/7/15		0830		8/7/15		0830		8/7/15		0830		8/7/15		0830							
1405	4-6	SB-42		8/7/15		0830		8/7/15		0830		8/7/15		0830		8/7/15		0830							
1410	8-10	SB-42		8/7/15		0830		8/7/15		0830		8/7/15		0830		8/7/15		0830							
1615	13-15	SB-42		8/7/15		0830		8/7/15		0830		8/7/15		0830		8/7/15		0830							
1329	2-4	GB-16		8/7/15		0830		8/7/15		0830		8/7/15		0830		8/7/15		0830							
1335	4-6	GB-16		8/7/15		0830		8/7/15		0830		8/7/15		0830		8/7/15		0830							
1505	2-4	GB-18		8/7/15		0830		8/7/15		0830		8/7/15		0830		8/7/15		0830							
1515	4-6	GB-18		8/7/15		0830		8/7/15		0830		8/7/15		0830		8/7/15		0830							

917

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
<i>[Signature]</i>	8/8/85	1:00	<input type="radio"/> YES <input type="radio"/> NO		180-115409	3.6/3.2(CF) 40/3.6c

TAL8240-680 (1008)



Serial Number 99574

## 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)	MATRIX TYPE	REQUIRED ANALYSIS						PAGE	OF	
TAL (LAB) PROJECT MANAGER		P.O. NUMBER	CONTRACT NO.	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)				STANDARD REPORT DELIVERY		
CLIENT (SITE) PM		CLIENT PHONE	CLIENT FAX								DATE DUE		
CLIENT NAME		CLIENT E-MAIL									EXPEDITED REPORT DELIVERY (SURCHARGE)		
CLIENT ADDRESS											DATE DUE		
COMPANY CONTRACTING THIS WORK (if applicable)													
SAMPLE		SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS SUBMITTED									REMARKS
DATE	TIME												
15-07-15	08:15	GB-7	9-10					X	X	X	X	24	
	10:00	GB-7	13-15									25	
	10:00	GB-7	10									26	
	15:15	GB-5	8-10									23	
	15:01	SE-20	0-2					X				29	
	15:04	SE-20	2-4									30	
	15:06	GB-5	8-10									21	
	15:12	GB-5	13-15									22	
	14:50	GB-17	8-10									27	
	14:54	GB-17	13-15									28	
Twp Blank 08/10/15													
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 FOR LABORATORY BY: (SIGNATURE)				CUSTODY SEAL NO.		CUSTODY INTACT YES NO		LABORATORY USE ONLY		LABORATORY REMARKS			
C. Bandin (6/8/10/15)				1080		0		SAVANNAH LOG NO. 115469		3.6/4.0 df -3.2°/3.6° df			

TAL8240-680 (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

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.*

1

2

3

4

5

6

7

8

9

10

11

12

## 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

---

### Job ID: 680-115544-1 (Continued)

---

#### 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

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) (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

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**

**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
<b>Benzo[a]anthracene</b>	<b>0.14</b>	<b>J</b>	0.37	0.030	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
<b>Benzo[a]pyrene</b>	<b>0.12</b>	<b>J</b>	0.37	0.058	mg/Kg	☼	08/14/15 10:57	08/17/15 19:00	1
<b>Benzo[b]fluoranthene</b>	<b>0.18</b>	<b>J</b>	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
<b>Benzo[k]fluoranthene</b>	<b>0.076</b>	<b>J</b>	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
<b>Bis(2-ethylhexyl) phthalate</b>	<b>0.12</b>	<b>J B</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
<b>Chrysene</b>	<b>0.12</b>	<b>J</b>	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
<b>Fluoranthene</b>	<b>0.25</b>	<b>J</b>	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
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.080</b>	<b>J</b>	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**

**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) (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**

**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) (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

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) (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

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
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

TestAmerica Savannah



# 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

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

1

2

3

4

5

6

7

8

9

10

11

12

# 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

TestAmerica Savannah

# 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	

TestAmerica Savannah

# 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

TestAmerica Savannah

# 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	

TestAmerica Savannah

# 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

TestAmerica Savannah



## 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										

TestAmerica Savannah

# 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										

TestAmerica Savannah

# 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								

TestAmerica Savannah

# 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

TestAmerica Savannah

# 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

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP #2

TestAmerica Job ID: 680-115544-1

**Client Sample ID: SB-25 0-2**

**Lab Sample ID: 680-115544-9**

**Date Collected: 08/10/15 10:56**

**Matrix: Solid**

**Date Received: 08/12/15 09:46**

**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**

**Lab Sample ID: 680-115544-10**

**Date Collected: 08/10/15 10:56**

**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: SB-25 2-4**

**Lab Sample ID: 680-115544-10**

**Date Collected: 08/10/15 10:56**

**Matrix: Solid**

**Date Received: 08/12/15 09:46**

**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**

**Lab Sample ID: 680-115544-11**

**Date Collected: 08/10/15 11:11**

**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

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 FAX			STANDARD REPORT DELIVERY			
David Fuller		7-065944				DATE DUE			
CLIENT (SITE) PM		CLIENT PHONE				EXPEDITED REPORT DELIVERY (SURCHARGE)			
C. Holderfield		210-872-8014				DATE DUE			
CLIENT NAME		CLIENT E-MAIL				NUMBER OF COOLERS SUBMITTED PER SHIPMENT:			
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								
8-10-15	0920	GB-41	4-6	SB-41	4-6	C	X	X	* Plus Be <sub>2</sub> O <sub>3</sub>
	0924	GB-41	8-10	SB-41	8-10	C	X	X	Ni, Va, Zn &
	0928	GB-41	13-15	SB-41	13-15	C	X	X	Total Cyanides
	0957	GB-9	8-10			C	X	X	Please see
	1004	GB-9	13-15			C	X	X	temp blank
	1031	GB-11	3-5			C	X	X	
	1034	GB-11	8-10			C	X	X	
	1034	GB-11	13-15			C	X	X	
	1056	SB-25	0-2			C	X	X	
	1056	SB-25	2-4			C	X	X	
	1111	SB-25	4-6			C	X	X	
	1117	SB-25	8-10			C	X	X	
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
C. Holderfield		8-10-15	1500				680-115544	4-6	480
RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
C. Holderfield		8-10-15	1500				680-115544	4-6	480



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	8/11/15	1005	YES NO			0.0°C JRG

TAL8240-680 (1008)

Serial Number 99576

## ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

# TestAmerica

TestAmerica Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404

Website: www.testamericainc.com  
Phone: (912) 354-7858  
Fax: (912) 352-0165

## THE LEADER IN ENVIRONMENTAL TESTING

Alternate Laboratory Name/Location

Phone:  
Fax:

PROJECT REFERENCE		PROJECT NO.	PROJECT LOCATION (STATE)	MATRIX TYPE	REQUIRED ANALYSIS		PAGE	OF
Macon Map #2		130659.241	GA				2	2
TAL (LAB) PROJECT MANAGER		P.O. NUMBER	CONTRACT NO.				STANDARD REPORT DELIVERY	
David Fuller		7-065924					DATE DUE	
CLIENT (SITE) PM		CLIENT PHONE	CLIENT FAX				EXPEDITED REPORT DELIVERY (SURCHARGE)	
A. Holderfield		210-872-8010					DATE DUE	
CLIENT NAME		CLIENT E-MAIL					NUMBER OF COOLERS SUBMITTED PER SHIPMENT:	
GEC		aholderfield@geconsultants.com					1	
CLIENT ADDRESS							REMARKS	
514 Hillcrest Blvd, Macon, GA							PRESERVATIVE	
COMPANY CONTRACTING THIS WORK (if applicable)								
SAMPLE		SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS SUBMITTED				
DATE	TIME							
8-10-15	1121	SB-25	13-15	X	X			* As Begu
	1139	GB-25	2-4					Ni, Val, Zn +
	1142	GB-25	4-6					total Cyanides
	1220	GB-26	2-4					Please scan
	1225	GB-26	4-6					trap blank.
	1233	GB-27	3-5					
	1245	GB-27	8-10					
	1248	GB-27	13-15					Added 08/12/10
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RELINQUISHED BY: (SIGNATURE)		DATE	TIME	
[Signature]		8-10-15	1500	[Signature]		8-12-15	0911	
RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME	
[Signature]				[Signature]		8-20-15	544	4.4 (4.482)

## LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY:		DATE	TIME	CUSTODY INTACT	SAVANNAH LOG NO.		LABORATORY REMARKS
[Signature]		8/11/15	1005	YES <input type="radio"/> NO <input type="radio"/>			

TALB240-680 (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	

## 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.*

# 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
Bis(2-ethylhexyl) phthalate	0.089	J	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**

**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) (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**

**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)

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

TestAmerica Savannah

# 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

TestAmerica Savannah



# 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

TestAmerica Savannah



# 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

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: 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

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 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

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 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

TestAmerica Savannah

# 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	

TestAmerica Savannah

# 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	

TestAmerica Savannah

## 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		MATRIX TYPE		REQUIRED ANALYSIS		PAGE		OF	
PROJECT NO.		P.O. NUMBER		CONTRACT NO.		CONTRACT NO.		STANDARD REPORT		DELIVERY		DATE DUE	
CLIENT (SITE) PM		CLIENT PHONE		CLIENT FAX		CLIENT FAX		EXPEDITED REPORT		DELIVERY		DATE DUE	
CLIENT NAME		CLIENT E-MAIL		CLIENT E-MAIL		CLIENT E-MAIL		EXPEDITED REPORT		DELIVERY		DATE DUE	
CLIENT ADDRESS		CLIENT ADDRESS		CLIENT ADDRESS		CLIENT ADDRESS		EXPEDITED REPORT		DELIVERY		DATE DUE	
COMPANY CONTRACTING THIS WORK (if applicable)		COMPANY CONTRACTING THIS WORK (if applicable)		COMPANY CONTRACTING THIS WORK (if applicable)		COMPANY CONTRACTING THIS WORK (if applicable)		EXPEDITED REPORT		DELIVERY		DATE DUE	
Macon MGP #2		130659.241		GA		GA		Carbon Disulfide		1		9	
John Reynolds		6-0590CH		CONTRACT NO.		CONTRACT NO.		Carbon Disulfide		1		9	
Carrie Holderfield		210-872-8016		CLIENT FAX		CLIENT FAX		Carbon Disulfide		1		9	
C EC		choberfield@gecons.com		CLIENT E-MAIL		CLIENT E-MAIL		Carbon Disulfide		1		9	
514 Hillcrest Blvd, Macon, GA		514 Hillcrest Blvd, Macon, GA		CLIENT ADDRESS		CLIENT ADDRESS		Carbon Disulfide		1		9	
COMPANY CONTRACTING THIS WORK (if applicable)		COMPANY CONTRACTING THIS WORK (if applicable)		COMPANY CONTRACTING THIS WORK (if applicable)		COMPANY CONTRACTING THIS WORK (if applicable)		Carbon Disulfide		1		9	
SAMPLE IDENTIFICATION		SAMPLE IDENTIFICATION		SAMPLE IDENTIFICATION		SAMPLE IDENTIFICATION		Carbon Disulfide		1		9	
DATE		DATE		DATE		DATE		Carbon Disulfide		1		9	
TIME		TIME		TIME		TIME		Carbon Disulfide		1		9	
8/24/15 1508		8/24/15 13-15		GB-S		GB-S		Carbon Disulfide		1		9	
1517		18		GB-S		GB-S		Carbon Disulfide		1		9	
8/25/15 1130		13-15		GB-19		GB-19		Carbon Disulfide		1		9	
8/25/15 1150		13-15		GB-21		GB-21		Carbon Disulfide		1		9	
Trap Blank		Trap Blank		Trap Blank		Trap Blank		Carbon Disulfide		1		9	
RELINQUISHED BY: (SIGNATURE)		RELINQUISHED BY: (SIGNATURE)		RELINQUISHED BY: (SIGNATURE)		RELINQUISHED BY: (SIGNATURE)		Carbon Disulfide		1		9	
DATE		DATE		DATE		DATE		Carbon Disulfide		1		9	
TIME		TIME		TIME		TIME		Carbon Disulfide		1		9	
8/24/15 1600		8/24/15 1600		8/24/15 1600		8/24/15 1600		Carbon Disulfide		1		9	
RECEIVED BY: (SIGNATURE)		RECEIVED BY: (SIGNATURE)		RECEIVED BY: (SIGNATURE)		RECEIVED BY: (SIGNATURE)		Carbon Disulfide		1		9	
DATE		DATE		DATE		DATE		Carbon Disulfide		1		9	
TIME		TIME		TIME		TIME		Carbon Disulfide		1		9	
8/27/15 09:45		8/27/15 09:45		8/27/15 09:45		8/27/15 09:45		Carbon Disulfide		1		9	
RECEIVED FOR LABORATORY BY: (SIGNATURE)		RECEIVED FOR LABORATORY BY: (SIGNATURE)		RECEIVED FOR LABORATORY BY: (SIGNATURE)		RECEIVED FOR LABORATORY BY: (SIGNATURE)		Carbon Disulfide		1		9	
DATE		DATE		DATE		DATE		Carbon Disulfide		1		9	
TIME		TIME		TIME		TIME		Carbon Disulfide		1		9	
8/27/15 09:45		8/27/15 09:45		8/27/15 09:45		8/27/15 09:45		Carbon Disulfide		1		9	
LABORATORY USE ONLY		LABORATORY USE ONLY		LABORATORY USE ONLY		LABORATORY USE ONLY		Carbon Disulfide		1		9	
CUSTODY SEAL NO.		CUSTODY SEAL NO.		CUSTODY SEAL NO.		CUSTODY SEAL NO.		Carbon Disulfide		1		9	
LOG NO.		LOG NO.		LOG NO.		LOG NO.		Carbon Disulfide		1		9	
SAVANNAH		SAVANNAH		SAVANNAH		SAVANNAH		Carbon Disulfide		1		9	
LABORATORY REMARKS		LABORATORY REMARKS		LABORATORY REMARKS		LABORATORY REMARKS		Carbon Disulfide		1		9	
RECEIVED FOR LABORATORY BY: (SIGNATURE)		RECEIVED FOR LABORATORY BY: (SIGNATURE)		RECEIVED FOR LABORATORY BY: (SIGNATURE)		RECEIVED FOR LABORATORY BY: (SIGNATURE)		Carbon Disulfide		1		9	
DATE		DATE		DATE		DATE		Carbon Disulfide		1		9	
TIME		TIME		TIME		TIME		Carbon Disulfide		1		9	
8/27/15 09:45		8/27/15 09:45		8/27/15 09:45		8/27/15 09:45		Carbon Disulfide		1		9	

## 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	

## 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

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.*



## 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
1,1,2,2-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

TestAmerica Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404

Website: www.testamericainc.com  
Phone: (912) 354-7858  
Fax: (912) 352-0165

Alternate Laboratory Name/Location

☒ **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)											
SAMPLE		SAMPLE IDENTIFICATION		COMPOSITE (C) OR TAB (G) INDICATE		AQUEOUS (WATER)		SOLID OR SEMISOLID		NONAQUEOUS LIQUID (OIL SOLVENT, ...)	
DATE	TIME	VS-1	10-11	GB-7							
8/13/15	0931	VS-1	10-11	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									
		D/D 8-17-15									
		BOX FAX# 774277319210 CO									
		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								

## LABORATORY USE ONLY

LABORATORY REMARKS

SAVANNAH LOG NO. 115715

CUSTODY SEAL NO.

CUSTODY INTACT YES NO

DATE

8-17-15

TIME

11:45

RECEIVED FOR LABORATORY BY: (SIGNATURE)

*[Signature]*

## Login Sample Receipt Checklist

Client: Geotechnical & Environmental Consultants

Job Number: 680-115715-1

Login Number: 115715

List Number: 1

Creator: Barnett, Eddie T

List Source: TestAmerica Savannah

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	



# 

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 $\leq$ 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.	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 $<6\text{mm}$ (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				
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	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
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			
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
		Csq (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

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
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
		Csg (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',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
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**

$$Cia_{target} = \min(Cia_c; Cia_{nc})$$

$$Cia_c (ug/m^3) = TCR \times ATc \times (365 \text{ days/yr}) \times (24 \text{ hrs/day}) / (ED \times EF \times ET \times IUR)$$

$$Cia_{nc} (ug/m^3) = THQ \times ATnc \times (365 \text{ days/yr}) \times (24 \text{ hrs/day}) \times RFC \times (1000 \text{ ug/mg}) / (ED \times EF \times ET)$$

 (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
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 (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		--	--	--
71-43-2	Benzene	1.2E-01	3.60E-03	1.0E-08	1.2E-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	1.2E+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',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:

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

Note: This section applies to trichloroethylene and other mutagenic chemicals, but not to vinyl chloride.

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		i
(ug/m <sup>3</sup> ) <sup>-1</sup>		(mg/m <sup>3</sup> )		

## 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 (ug/m <sup>3</sup> )	Cia (ug/m <sup>3</sup> )	CR	HQ
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 (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 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',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**

$$Cia_{target} = \min(Cia_c; Cia_{nc})$$

$$Cia_c (ug/m^3) = TCR \times ATc \times (365 \text{ days/yr}) \times (24 \text{ hrs/day}) / (ED \times EF \times ET \times IUR)$$

$$Cia_{nc} (ug/m^3) = THQ \times ATnc \times (365 \text{ days/yr}) \times (24 \text{ hrs/day}) \times RFC / (ED \times EF \times ET)$$

 (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		i
(ug/m <sup>3</sup> ) <sup>-1</sup>		(mg/m <sup>3</sup> )		

## 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												
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					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												
73	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												
80	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												
87	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												
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					4.478	95% KM (% Bootstrap) UCL					4.516
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	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												
100	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.											





	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



October 24, 2016

**VIA EMAIL AND REGULAR MAIL**

Macon-Bibb County  
c/o The Honorable Mayor Robert Reichert  
700 Poplar Street  
P.O. Box 247  
Macon, Georgia 31202-0247

Re: Voluntary Remediation Program First Semiannual Progress Report, March 10, 2016  
Macon Former Manufactured Gas Plant 2, HSI Site No. 10692  
Intersection of Willow Street and Spring Street Lane, Macon-Bibb County  
Parcels R071-0316 (OC98-5J), R073-0033 (OC99-4A), and R073-0398 (OC99-4AB)  
Portions of Right-of-Way of Willow Street and Spring Street Lane

Dear Mayor Reichert:

The Georgia Environmental Protection Division (EPD) is in receipt of the August 1, 2016 Voluntary Remediation Program (VRP) First Semiannual Progress Report (Report) submitted by Geotechnical & Environmental Consultants, Inc. (GEC) for Macon-Bibb County (MBC) pursuant to the Georgia Voluntary Remediation Program Act (the Act). The Report provides further details for the implementation of the May 22, 2015 Voluntary Investigation Remediation Plan (VIRP), which was approved by EPD in a letter dated June 22, 2015. According to the Report, MBC is changing future use of the previously certified Type 4 onsite area from nonresidential to residential per the approved May 22, 2015 VIRP. The Report includes additional soil characterization of the extent of contamination in the top 15-feet of the Residential Use Target Zone (RUTZ) along with recommendations for further actions including excavation, development of a Soil Management Plan (SMP), enacting a uniform environmental covenant (UEC), and corrective action plan (CAP) for soil greater than 15-feet in the RUTZ area. After completing a review of the Report, EPD offers the following comments:

1. As stated above, the Report proposes excavation and proper disposal of metals and polychlorinated hydrocarbon (PAH) contaminated soil detected at concentrations that exceed residential Type 1 and Type 2 risk reduction standards (RRS) in the top 5-feet of soil at the above referenced property and the use of a SMP, CAP, revised Consent Order, and UEC to address contamination located greater than 5-feet below ground surface (bgs). EPD and MBC representatives discussed the actions proposed in the Report in telephone conversations held on October 7, 18, and 19, 2016. Based on these discussions, it was established that MBC will not implement the area averaging approach detailed in the Report at the property. MBC representatives also cited the potential of excavation and disposal of impacted soil in the top 15-feet of soil at the property pending MBC's approval, which will be discussed in a

County Commissioners meeting to be held in the 4<sup>th</sup> Quarter of 2016. Therefore, EPD will not comment on the area averaging approach that was provided in the Report at this time. Please submit a revised remediation plan that reflects the referenced modifications in the next semiannual progress report. Based on a review of the Report and the noted communications with MBC, EPD has concluded that the area averaging approach is not required to meet remedial goals in the ground surface to 5-feet bgs horizon, as soil remaining in place after the excavation activities will be eligible for certification to residential RRS.

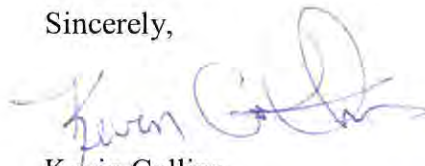
2. Section 8.0 of the Report provides conclusions and recommendations for the path forward at the property. EPD approves the request for use of previously approved Type 2 soil RRS in the RUTZ but requests that the RRS that are presented in the COC Decision Matrix be reviewed for accuracy. EPD also agrees with MBC's request to submit a draft UEC to be used in conjunction with a SMP, CAP and revised Consent Order to enforce restrictions for soils located greater than 15-feet bgs in the RUTZ. Please submit the SMP, CAP, and a draft UEC as part of the next semiannual progress report. The next report should also include a Soil Excavation Plan that provides essential details about the soil excavation activities (i.e. grid spacing, a verification sampling strategy, soil sampling procedures, etc.).
3. According to the Report, the soil impacts at the property have been delineated horizontally and vertically. Please provide a figure in the next semiannual progress report that illustrates delineation to the approved Type 1 RRS, and please note that a final figure that demonstrates overall soil compliance should be submitted in the final Compliance Status Report (CSR).
4. Section 3.0 of the Report states that groundwater was certified to be in compliance with Type 1 RRS in the Williams Environmental Services, Inc. 2003 CSR; however, it did not discuss the potential for leaching of contamination from soil to groundwater in those areas where contaminated soil may be left in place. Please provide a statement with regard to leaching in the next progress report.
5. Section 5.0 of the Report provides the results of a vapor intrusion investigation in the vicinity of the Former Gas Holder No. 1 and Former Gas Holder No. 2. EPD agrees with the conclusion that based on the calculations, all COCs were detected below the target risk for carcinogens and/ or the target hazard quotient for non-carcinogens.
6. Additional soil samples have been collected since EPD's approval of the 2003 CSR; therefore, please provide revised cross sections in the next progress report to illustrate the site's surface and subsurface setting (Unified Soil Classification System subsurface soil descriptions and any interconnecting lithologic characteristics) to support the graphic three dimensional conceptual site model as required by Item #5 of the VRP Checklist.
7. A discussion of the property's conceptual site model (CSM) including exposure pathways was not included in the Report. Additionally, the Report did not include a schedule of VIRP activities, including the submittal of semiannual progress reports and a final CSR. Please ensure that an updated CSM and VIRP schedule of activities are included in all future progress reports.



8. While the Report was stamped by a Professional Engineer, it did not include the signed and sealed professional certification and supporting documentation (i.e. monthly summary of hours invoiced with a description of services provided), as required by Item #6 of the VRP Checklist. Please ensure that the information is provided in all future reports.

The comments listed above should be addressed prior to commencement of soil excavation activities, in future progress reports or the final CSR, as appropriate. The next semiannual report should be submitted by December 22, 2016. If you have any questions regarding this matter, please contact Ms. Antonia Beavers of the Response and Remediation Program at (404) 657-0487.

Sincerely,



Kevin Collins  
Unit Coordinator  
Response and Remediation Program

- c: GEC, Tom Driver, P.E. (via email)  
GEC, Carrie Holderfield, P.G. (via email)  
Smith, Welch, Webb & White, LLC, Andy Welch (via email)

File: HSI# 10692

S:\RDRIVE\ANTONIA\Macon Former MGP2\VRP\1stVRPSAPR\_24October2016.doc



December 7, 2016

Mr. Kevin Collins  
Georgia Department of Natural Resources  
Environmental Protection Division  
Hazardous Sites Response Program  
2 Martin Luther King, Jr. Drive, SE  
Atlanta, Georgia 30334

Re: Voluntary Remediation Program First Semiannual Progress Report, March 10, 2016 Macon  
Former Manufactured Gas Plant 2, HSI Site No. 10692  
Intersection of Willow Street and Spring Street Lane, Macon-Bibb County  
Parcels R07 1-03 1 6 (OC98-5J), R073-0033 (OC99-4A), and R073-0398 (OC99-4AB)  
Portions of Right-of-Way of Willow Street and Spring Street Lane GEC Job No. 130659.241

Dear Mr. Collins:

Geotechnical and Environmental Consultants, Inc. (GEC) submitted the Voluntary Remediation Program (VRP) First Semiannual Progress Report (Report), dated August 1, 2016, for Macon-Bibb County (MBC) pursuant to the Georgia Voluntary Remediation Program Act (the Act). The Report provided further details for the implementation of the May 22, 2015, Voluntary Investigation Remediation Plan (VIRP), which was approved by EPD in a letter dated June 22, 2015. Per the Report, MBC is changing future use of the previously certified Type 4 on-site area from nonresidential to residential, per the approved VIRP, dated May 22, 2015. The Report included additional soil characterization of the extent of contamination in the top 15-feet of the Residential Use Target Zone (RUTZ), along with recommendations for further actions including excavation, development of a Soil Management Plan (SMP), enacting a uniform environmental covenant (UEC), and corrective action plan (CAP) for soil greater than 15-feet in the RUTZ area. After completing a review of the Report, EPD offered comments in correspondence dated October 24, 2016. Responses to the EPD comments are provided (*italicized*) following each comment:

1. As stated above, the Report proposes excavation and proper disposal of metals and polychlorinated hydrocarbon (PAH) contaminated soil detected at concentrations that exceed residential Type 1 and Type 2 risk reduction standards (RRS) in the top 5-feet of soil at the above referenced property, and the use of a SMP, CAP, revised Consent Order, and UEC to address contamination located greater than 5-feet below ground surface (bgs). EPD and MBC representatives discussed the actions proposed in the Report in telephone conversations held on October 7, 18, and 19, 2016.

Based on these discussions, it was established that MBC will not implement the area averaging approach detailed in the Report at the property. MBC representatives also cited the potential of excavation and disposal of impacted soil in the top 15-feet of soil at the property pending MBC's approval, which will be discussed in a County Commissioners meeting to be held in the 4th Quarter of 2016. Therefore, EPD will not comment on the area averaging approach that was provided in the Report at this time. Please submit a revised remediation plan that reflects the referenced modifications in the next semiannual progress report. Based on a review of the Report and the noted communications with MBC, EPD has concluded that the area averaging approach is not required to meet remedial goals in the ground surface to 5-foot bgs horizon, as soil remaining in place after the excavation activities will be eligible for certification to residential RRS.

*GEC Response: Per EPD approval, area averaging will not be utilized to meet remedial goals. As discussed and agreed upon during the telephone conversations, soils located within the surface to 15-foot interval (various intervals) are proposed to be excavated approximately 5-feet in each direction, from the original location of 11 soil borings (GB-11, GB-14, GB-27, GB-28, SB-17, SB-20, SB-24, SB-25, SB-27, SB-42, and SB-45). GEC and MBC appreciate EPD's approval of the modified remediation scope of work.*

2. Section 8.0 of the Report provides conclusions and recommendations for the path forward at the property. EPD approves the request for use of previously approved Type 2 soil RRS in the RUTZ but requests that the RRS that are presented in the COC Decision Matrix be reviewed for accuracy.

*Per EPD concurrence, RRS provided in the Compliance Status Investigation Report, prepared by Williams Environmental Services, Inc. will continue to be the applicable RRS for this site. Therefore, GEC reviewed the RRS provided in Table 9.2 (Page 43) of the report to compare for accuracy. Based upon the review, GEC revised the Type 2 arsenic RRS from 6.06 to 6.08 mg/kg. Additionally, GEC revised the benzo(a)anthracene Type 1 and Type 2 RRS from 1.25 and 1.65 mg/kg, to 5 and 12.5 mg/kg, respectively. The COC Decision Matrix has been updated accordingly.*

EPD also agrees with MBC's request to submit a draft UEC to be used in conjunction with a SMP, CAP and revised Consent Order to enforce restrictions for soils located greater than 15-feet bgs in the RUTZ. Please submit the SMP, CAP, and a draft UEC as part of the next semiannual progress report.

*GEC respectfully requests that submission of the draft UEC, SMP, CAP and revised Consent Order be proposed for the third Report to be submitted in June 2017.*

The next report should also include a Soil Excavation Plan that provides essential details about the soil excavation activities (i.e. grid spacing, a verification sampling strategy, soil sampling procedures, etc.).

*A detailed Soil Excavation Plan will be provided in the Report to be submitted by December 22, 2016.*

3. According to the Report, the soil impacts at the property have been delineated horizontally and vertically. Please provide a figure in the next semiannual progress report that illustrates delineation to the approved Type 1 RRS, and please note that a final figure that demonstrates overall soil compliance should be submitted in the final Compliance Status Report (CSR).

*A figure illustrating compliance with Type 1 or 2 RRS, as previously approved in Compliance Status Investigation Report, prepared by Williams Environmental Services, Inc., will be provided in the next Report and in the CSR.*

4. Section 3.0 of the Report states that groundwater was certified to be in compliance with Type 1 RRS in the Williams Environmental Services, Inc. 2003 CSR; however, it did not discuss the potential for leaching of contamination from soil to groundwater in those areas where contaminated soil may be left in place. Please provide a statement with regard to leaching in the next progress report.

*Per conversations with the prior EPD team, information provided in Section 9.5.1.2 Leaching Potential Study (page 44) has been approved as appropriate for the site. Therefore, no further studies will be conducted with respect to leachability at the site.*

5. Section 5.0 of the Report provides the results of a vapor intrusion investigation in the vicinity of the Former Gas Holder No. 1 and Fonner Gas Holder No. 2. EPD agrees with the conclusion that based on the calculations, all COCs were detected below the target risk for carcinogens and/ or the target hazard quotient for non-carcinogens.

*No Comment*

6. Additional soil samples have been collected since EPD's approval of the 2003 CSR; therefore, please provide revised cross sections in the next progress report to illustrate the site's surface and subsurface setting (Unified Soil Classification System subsurface soil descriptions and any interconnecting lithologic characteristics) to support the graphic three-dimensional conceptual site model as required by Item #5 of the VRP Checklist.

*Cross sections depicting the site's surface and subsurface setting were provided in the Williams Environmental Services, Inc., report and VIRP (Figures 7, 8 and 9) submitted by GEC (dated January 9, 2015). No further cross sections are proposed for completion, as the previous submittals were accepted by the prior EPD project team.*

7. A discussion of the property's conceptual site model (CSM) including exposure pathways was not included in the Report.

*The property's CSM, including an Exposure Assessment (Section 3.3) was provided in the VIRP completed by GEC (dated January 9, 2015), and was previously accepted by the prior EPD team. Therefore, no further discussion of the CSM appears to be warranted.*

Additionally, the Report did not include a schedule of VIRP activities, including the submittal of semiannual progress reports and a final CSR. Please ensure that an updated CSM and VIRP schedule of activities are included in all future progress reports.

*A schedule of VIRP activities, including the submittal of semiannual progress reports and a final CSR will be included in all future progress reports.*

8. While the Report was stamped by a Professional Engineer, it did not include the signed and hours invoiced with a description of services provided), as required by Item #6 of the VRP Checklist. Please ensure that the information is provided in all future reports.

*Supporting documentation including hours invoiced with a description of services provided will be included in all future progress reports.*

Additionally, GEC respectfully requests a 45-day extension for submittal of the next semiannual progress report.

If you have any questions or need any additional information, please do not hesitate to call (478-757-1606) or email ([cholderfield@geconsultants.com](mailto:cholderfield@geconsultants.com)).

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

Attachments: COC Decision Matrix  
Soil Management Map – Proposed Excavation

**GEC**



# **APPENDIX IX**

## **VRP Second Semi-Annual Progress Report and EPD Comments and Correspondence**

**VOLUNTARY REMEDIATION PROGRAM  
SECOND 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, BIBB COUNTY, GEORGIA  
HSI #10692**

**SUBMITTED TO**

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

**PREPARED BY**

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

**APRIL 18, 2017**

# GEC

GEOTECHNICAL  
&  
ENVIRONMENTAL  
CONSULTANTS, INC

**April 18, 2017**

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

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

**Dear Ms. Beavers:**

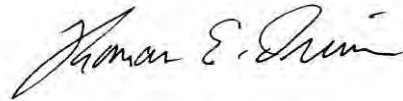
In accordance with the Voluntary Investigation and Remediation Program (VIRP) for the Former Macon 2 MGP Facility site in Macon, Georgia, Geotechnical & Environmental Consultants, Inc. (GEC) is submitting this Semi-annual Progress Report. This report provides an update on revisions to the proposed depths of excavation, a Soil Excavation Plan, and a schedule for the proposed soil excavation 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**

### **SECOND 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 GROUNDWATER AND LEACHABILITY</b>	<b>5</b>
<b>6.0 SOIL EXCAVATION PLAN</b>	<b>5</b>
<b>7.0 CONCLUSIONS AND RECOMMENDATIONS</b>	<b>6</b>
<b>8.0 SCHEDULE OF VIRP ACTIVITIES</b>	<b>7</b>
<b>9.0 SERVICES PROVIDED AND INVOICED HOURS</b>	<b>7</b>

## **APPENDICES**

<b>APPENDIX A:</b>	<b>Figures</b>
<b>APPENDIX B:</b>	<b>Correspondence</b>
<b>APPENDIX C:</b>	<b>Tables</b>
<b>APPENDIX D:</b>	<b>Invoices</b>

## **1.0 INTRODUCTION**

This Voluntary Remediation Program (VRP) Second 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. This report provides an update on revisions to the proposed depths of excavation, a Soil Excavation Plan, and a schedule for the proposed soil excavation activities, which will assist in moving the site to closure.

New potential receptors and/or potential environmental issues have not been discovered since the First Semi-Annual Progress report was submitted by Geotechnical and Environmental Consultants, Inc. (GEC) in March 2016.

## **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-feet 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, was provided in the First Semi-Annual Progress report.

**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.

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.



**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.

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. 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).

Additionally, 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 and the former Gas Holder No. 2. 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 between 5 and 10-feet below ground surface.

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 results of the additional assessment activities were provided in the First Annual Progress Report, which was submitted in March 2016. After completing a review of the Report, EPD offered comments in correspondence dated October 24, 2016. Responses to the EPD comments were provided in GEC correspondence dated December 7, 2016. A copy of the GEC correspondence is provided in Appendix B.

## **5.0 GROUNDWATER AND LEACHABILITY**

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

Additionally, per prior EPD approval, information provided in the Williams CSR, Section 9.5.1.2 Leaching Potential Study were approved as appropriate for the site. Therefore, no further studies will be conducted with respect to leachability at the site.

## **6.0 SOIL EXCAVATION PLAN**

Per EPD approval, Type 2 soil RRS are being utilized to address soil contamination within the RUTZ, which will allow for redevelopment under residential use standards. The EPD has also approved revision to the proposed depths of excavation. The revised excavation activities will address soil contamination to a depth of 15-feet below ground surface (bgs), rather than 5-feet bgs. A Soil Management Map, which identifies the areas proposed for excavation is provided as Figure 3 in Appendix A. Additionally, a revised COC Decision Matrix table, which provides the rationale for addressing known soil contamination within the RUTZ is provided in Appendix C.

### **Soil Excavation**

Corrective action for soils will include excavation and off-site disposal at an authorized landfill. Initial excavation will extend 5-feet laterally in each direction from the original soil sample location, and vertically to the depth identified in the COC Decision Matrix table.

Following any excavation of impacted soils, confirmatory sampling as described below will be performed to confirm that the base and sidewalls of the excavations do not exhibit impacts over the applicable standard. If confirmation sampling shows impacts remaining above the appropriate standard, additional localized excavation would be conducted both vertically and horizontally, as needed, to remove the soils above the applicable standards. GEC will measure and verify the excavation depth of each area during the removal of the contaminated soil.

The excavated material will be stockpiled on-site pending confirmatory and characterization sample results. The stockpiled material will be placed on, and covered by, polyethylene sheeting while on-site. Additionally, appropriate best management practices will be placed around the stockpile(s) and excavation(s) to prevent erosion or runoff from the stockpile(s) or excavation(s). Following receipt of confirmatory sample results indicating that all media impacted above the appropriate RRS have been removed, the stockpiled material will be transported in an appropriate container, to an approved disposal facility. Depending upon client requirements, the on-site excavations may then be backfilled with clean material obtained from off-site or other areas within the RUTZ. In the event that backfill material is obtained from an off-site source; the materials will be sampled to verify that contaminants are not present.

GEC anticipates that approximately 53.47 tons of contaminated soil will be generated during the remediation activities. A Proposed Excavation Summary table is presented as Table 2 in Appendix C.

Confirmatory soil sampling will be performed on any excavation completed for corrective action purposes at the property. Confirmatory soil samples will be collected and analyzed for appropriate constituents of concern, at the following intervals:

- One sample tested for every 20 linear feet of excavation sidewall
- The sampling interval in the base of an excavation is proposed for one sample between 500 and 1,000 sf.

Any remediation/excavation will be performed in compliance with applicable OSHA regulations, and in accordance with a project specific Health, Safety, and Emergency Plan. Any soil and/or source material generated during corrective action would be managed in such a way to (i) prevent contamination of the surrounding environment (soil, water, and air); (ii) comply with federal, state, and local laws; and (iii) protect personnel.

### **Sample Handling**

All sampling will be conducted in accordance with protocols intended to obviate the potential for cross-contamination; sampling equipment will be thoroughly decontaminated prior to use, and the appropriate documentation will be maintained. Samples will be packaged in laboratory-provided containers with preservative appropriate to the analytical methods to be used, and shipped overnight via priority carrier, along with the appropriate Chain-of-Custody documentation.

## **7.0 CONCLUSIONS AND RECOMMENDATIONS**

As noted previously, GEC is recommending excavation and disposal of soils at 11 locations where elevated arsenic, lead, and PAH concentrations were detected in the upper 15-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 concentrations are removed.

GEC requests the issuance of a Uniform Environmental Covenant (UEC) and revision of the current Consent Order, to include restrictions for soils located greater than 15-feet. GEC also requests approval to submit 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, as a component of the Third Semi-Annual Progress Report. The intent of the corrective action plan will be insuring the protection of construction workers.

## **8.0 SCHEDULE OF VIRP ACTIVITIES**

The site remediation activities will be initiated within 3-weeks of approval of this report. Excavation activities are anticipated to take no longer than two (2) weeks, weather permitting. Following completion of remediation efforts, the UEC will be updated and resubmitted for final approval. GEC proposes submission of the Third Semi-Annual Progress Report in July 2017, and submission of the Compliance Status Report by September 2017.

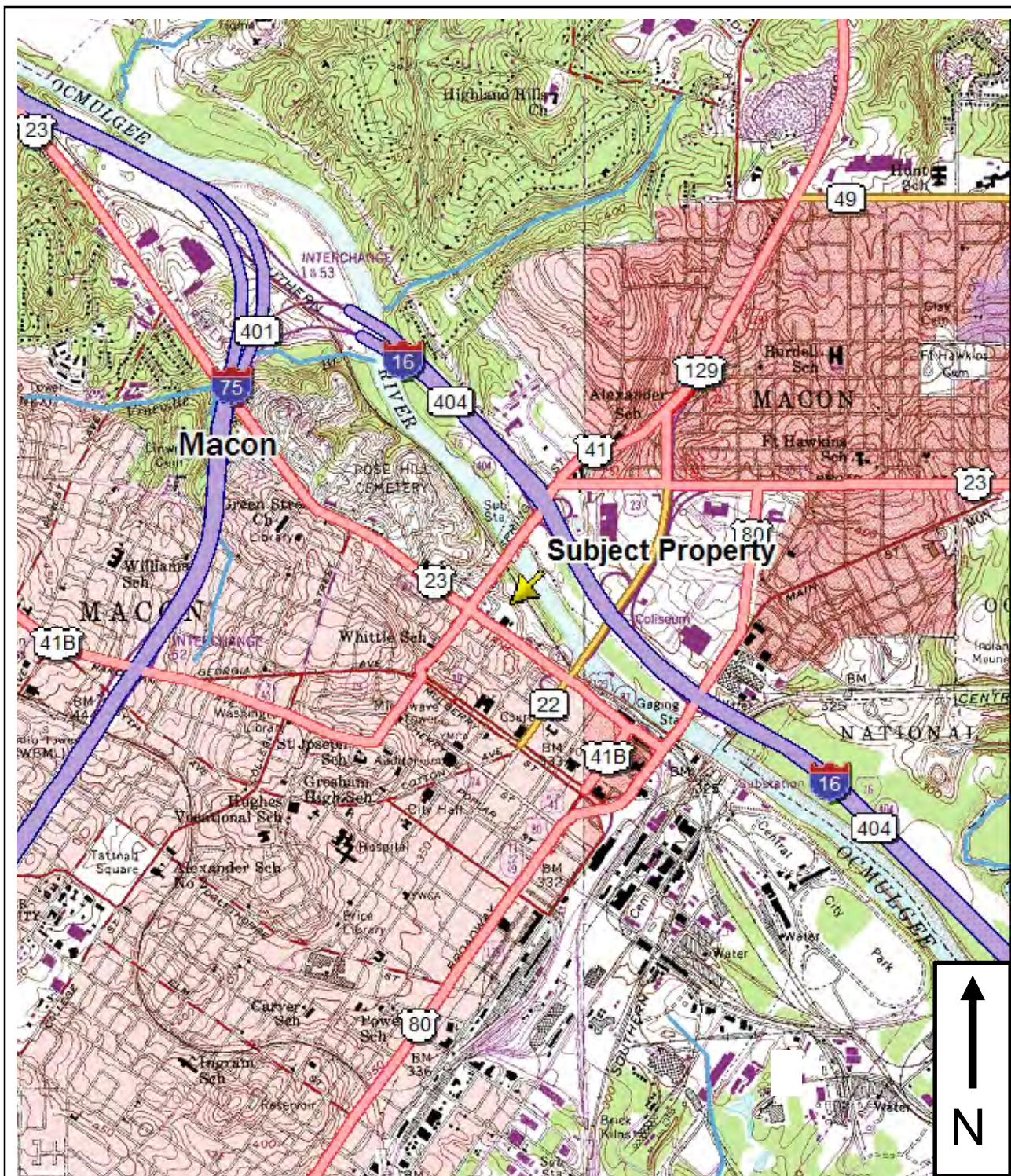
## **9.0 SERVICES PROVIDED AND INVOICED HOURS**

As required by Item #6 of the VRP Checklist, the two most recent invoices (dated December 9, 2016 and January 16, 2017) for services provided for this project are provided in Appendix D.

## **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)**

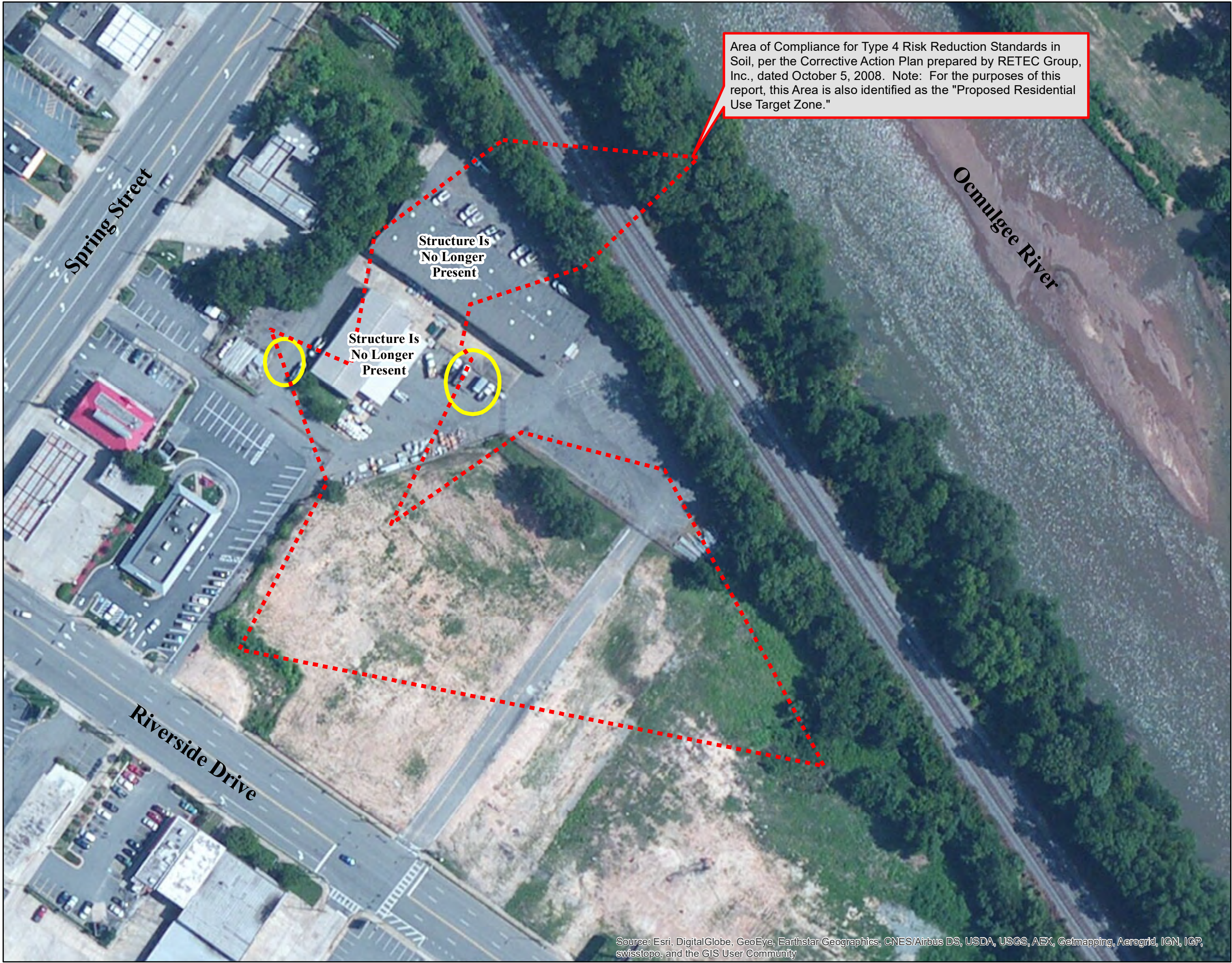
**GEC**

**GEOTECHNICAL  
&  
ENVIRONMENTAL  
CONSULTANTS, INC.**

514 Hillcrest Industrial Boulevard, Macon, GA 31204 • Phone: (478) 757-1606 • Fax: (478) 757-1608

5031 Milgen Court, Columbus, GA 31907 • Phone: (706) 569-0008 • Fax: (706) 569-0940





**Figure 2. Site Map**

Former Macon 2 MGP Facility  
Macon, Bibb County, Georgia

GEC Project No. 130659.241

**Prepared For:**





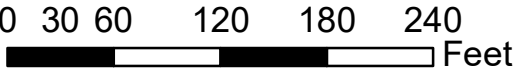
Macon-Bibb County Georgia

**Prepared By:**

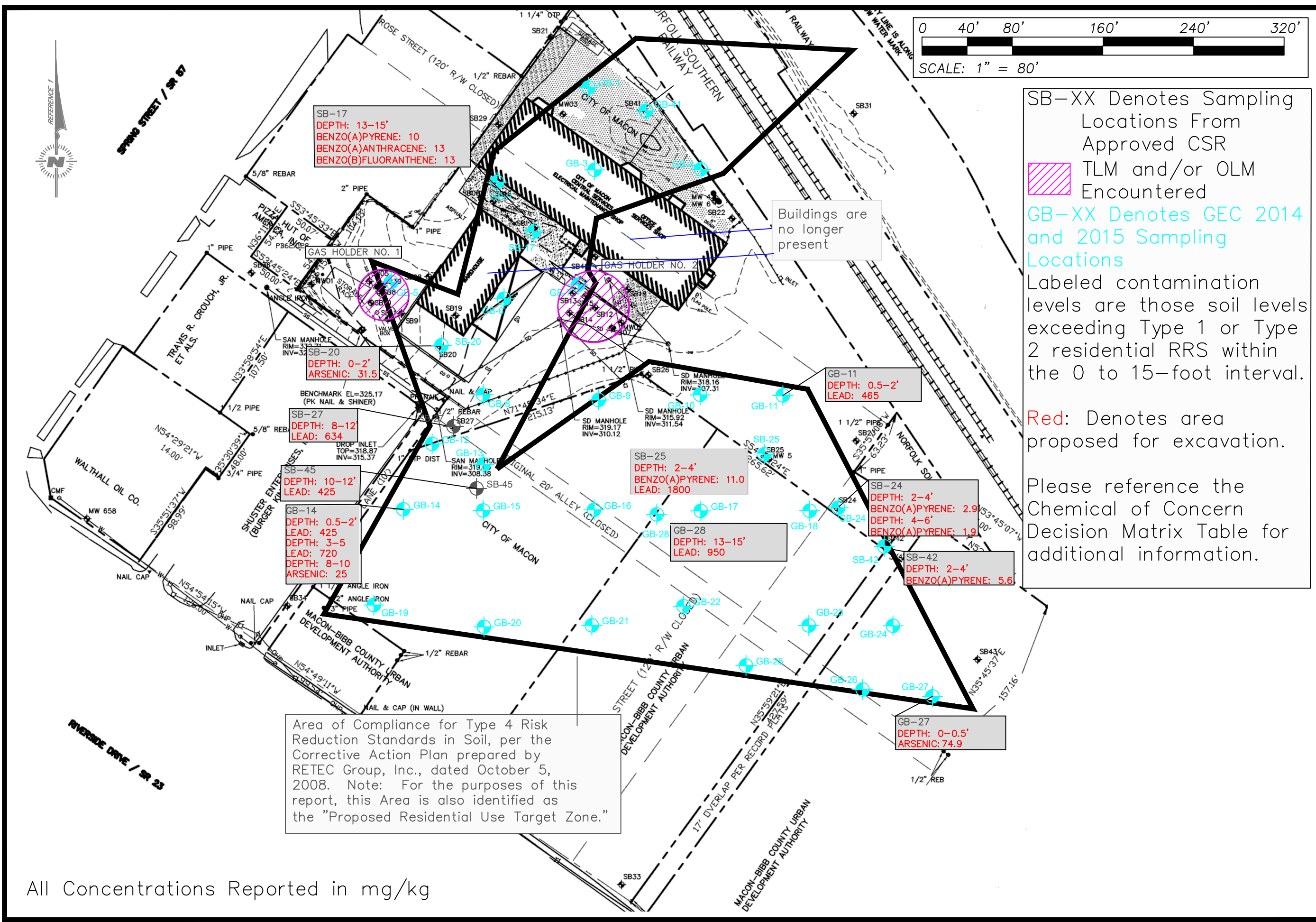


Geotechnical and Environmental  
Consultants, Inc.  
514 Hillcrest Industrial Blvd  
Macon, Ga

- Legend**
-  Proposed Residential Use Target Zone
  -  Former Gas Holders







All Concentrations Reported in mg/kg

FIGURE 3: SOIL MANAGEMENT MAP  
0 TO 15-FOOT INTERVAL  
FORMER MACON 2 MPG SITE  
MACON, GEORGIA  
GEC PROJECT NO. 130659.241

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

514 HILLCREST INDUSTRIAL BLVD.  
MACON, GEORGIA 31204  
478-757-1606 (Fax) 478-757-1608  
WWW.GECONSULTANTS.COM

**APPENDIX B**  
**Correspondence**



# GEC

GEOTECHNICAL  
&  
ENVIRONMENTAL  
CONSULTANTS, INC

December 7, 2016

Mr. Kevin Collins  
Georgia Department of Natural Resources  
Environmental Protection Division  
Hazardous Sites Response Program  
2 Martin Luther King, Jr. Drive, SE  
Atlanta, Georgia 30334

Re: Voluntary Remediation Program First Semiannual Progress Report, March 10, 2016 Macon  
Former Manufactured Gas Plant 2, HSI Site No. 10692  
Intersection of Willow Street and Spring Street Lane, Macon-Bibb County  
Parcels R07 I-03 I 6 (OC98-5J), R073-0033 (OC99-4A), and R073-0398 (OC99-4AB)  
Portions of Right-of-Way of Willow Street and Spring Street Lane GEC Job No. 130659.241

Dear Mr. Collins:

Geotechnical and Environmental Consultants, Inc. (GEC) submitted the Voluntary Remediation Program (VRP) First Semiannual Progress Report (Report), dated August 1, 2016, for Macon-Bibb County (MBC) pursuant to the Georgia Voluntary Remediation Program Act (the Act). The Report provided further details for the implementation of the May 22, 2015, Voluntary Investigation Remediation Plan (VIRP), which was approved by EPD in a letter dated June 22, 2015. Per the Report, MBC is changing future use of the previously certified Type 4 on-site area from nonresidential to residential, per the approved VIRP, dated May 22, 2015. The Report included additional soil characterization of the extent of contamination in the top 15-feet of the Residential Use Target Zone (RUTZ), along with recommendations for further actions including excavation, development of a Soil Management Plan (SMP), enacting a uniform environmental covenant (UEC), and corrective action plan (CAP) for soil greater than 15-feet in the RUTZ area. After completing a review of the Report, EPD offered comments in correspondence dated October 24, 2016. Responses to the EPD comments are provided (*italicized*) following each comment:

1. As stated above, the Report proposes excavation and proper disposal of metals and polychlorinated hydrocarbon (PAH) contaminated soil detected at concentrations that exceed residential Type 1 and Type 2 risk reduction standards (RRS) in the top 5-feet of soil at the above referenced property, and the use of a SMP, CAP, revised Consent Order, and UEC to address contamination located greater than 5-feet below ground surface (bgs). EPD and MBC representatives discussed the actions proposed in the Report in telephone conversations held on October 7, 18, and 19, 2016.



Based on these discussions, it was established that MBC will not implement the area averaging approach detailed in the Report at the property. MBC representatives also cited the potential of excavation and disposal of impacted soil in the top 15-feet of soil at the property pending MBC's approval, which will be discussed in a County Commissioners meeting to be held in the 4th Quarter of 2016. Therefore, EPD will not comment on the area averaging approach that was provided in the Report at this time. Please submit a revised remediation plan that reflects the referenced modifications in the next semiannual progress report. Based on a review of the Report and the noted communications with MBC, EPD has concluded that the area averaging approach is not required to meet remedial goals in the ground surface to 5-feet bgs horizon, as soil remaining in place after the excavation activities will be eligible for certification to residential RRS.

*GEC Response: Per EPD approval, area averaging will not be utilized to meet remedial goals. As discussed and agreed upon during the telephone conversations, soils located within the surface to 15-foot interval (various intervals) are proposed to be excavated approximately 5-feet in each direction, from the original location of 11 soil borings (GB-11, GB-14, GB-27, GB-28, SB-17, SB-20, SB-24, SB-25, SB-27, SB-42, and SB-45). GEC and MBC appreciate EPD's approval of the modified remediation scope of work.*

2. Section 8.0 of the Report provides conclusions and recommendations for the path forward at the property. EPD approves the request for use of previously approved Type 2 soil RRS in the RUTZ but requests that the RRS that are presented in the COC Decision Matrix be reviewed for accuracy.

*Per EPD concurrence, RRS provided in the Compliance Status Investigation Report, prepared by Williams Environmental Services, Inc. will continue to be the applicable RRS for this site. Therefore, GEC reviewed the RRS provided in Table 9.2 (Page 43) of the report to compare for accuracy. Based upon the review, GEC revised the Type 2 arsenic RRS from 6.06 to 6.08 mg/kg. Additionally, GEC revised the benzo(a)anthracene Type 1 and Type 2 RRS from 1.25 and 1.65 mg/kg, to 5 and 12.5 mg/kg, respectively. The COC Decision Matrix has been updated accordingly.*

EPD also agrees with MBC's request to submit a draft UEC to be used in conjunction with a SMP, CAP and revised Consent Order to enforce restrictions for soils located greater than 15-feet bgs in the RUTZ. Please submit the SMP, CAP, and a draft UEC as part of the next semiannual progress report.

*GEC respectfully requests that submission of the draft UEC, SMP, CAP and revised Consent Order be proposed for the third Report to be submitted in June 2017.*

The next report should also include a Soil Excavation Plan that provides essential details about the soil excavation activities (i.e. grid spacing, a verification sampling strategy, soil sampling procedures, etc.).

*A detailed Soil Excavation Plan will be provided in the Report to be submitted by December 22, 2016.*



3. According to the Report, the soil impacts at the property have been delineated horizontally and vertically. Please provide a figure in the next semiannual progress report that illustrates delineation to the approved Type 1 RRS, and please note that a final figure that demonstrates overall soil compliance should be submitted in the final Compliance Status Report (CSR).

*A figure illustrating compliance with Type 1 or 2 RRS, as previously approved in Compliance Status Investigation Report, prepared by Williams Environmental Services, Inc., will be provided in the next Report and in the CSR.*

4. Section 3.0 of the Report states that groundwater was certified to be in compliance with Type 1 RRS in the Williams Environmental Services, Inc. 2003 CSR; however, it did not discuss the potential for leaching of contamination from soil to groundwater in those areas where contaminated soil may be left in place. Please provide a statement with regard to leaching in the next progress report.

*Per conversations with the prior EPD team, information provided in Section 9.5.1.2 Leaching Potential Study (page 44) has been approved as appropriate for the site. Therefore, no further studies will be conducted with respect to leachability at the site.*

5. Section 5.0 of the Report provides the results of a vapor intrusion investigation in the vicinity of the Former Gas Holder No. 1 and Fonner Gas Holder No. 2. EPD agrees with the conclusion that based on the calculations, all COCs were detected below the target risk for carcinogens and/ or the target hazard quotient for non-carcinogens.

*No Comment*

6. Additional soil samples have been collected since EPD's approval of the 2003 CSR; therefore, please provide revised cross sections in the next progress report to illustrate the site's surface and subsurface setting (Unified Soil Classification System subsurface soil descriptions and any interconnecting lithologic characteristics) to support the graphic three-dimensional conceptual site model as required by Item #5 of the VRP Checklist.

*Cross sections depicting the site's surface and subsurface setting were provided in the Williams Environmental Services, Inc., report and VIRP (Figures 7, 8 and 9) submitted by GEC (dated January 9, 2015). No further cross sections are proposed for completion, as the previous submittals were accepted by the prior EPD project team.*

7. A discussion of the property's conceptual site model (CSM) including exposure pathways was not included in the Report.

*The property's CSM, including an Exposure Assessment (Section 3.3) was provided in the VIRP completed by GEC (dated January 9, 2015), and was previously accepted by the prior EPD team. Therefore, no further discussion of the CSM appears to be warranted.*

Additionally, the Report did not include a schedule of VIRP activities, including the submittal of semiannual progress reports and a final CSR. Please ensure that an updated CSM and VIRP schedule of activities are included in all future progress reports.



*A schedule of VIRP activities, including the submittal of semiannual progress reports and a final CSR will be included in all future progress reports.*

8. While the Report was stamped by a Professional Engineer, it did not include the signed and hours invoiced with a description of services provided), as required by Item #6 of the VRP Checklist. Please ensure that the information is provided in all future reports.

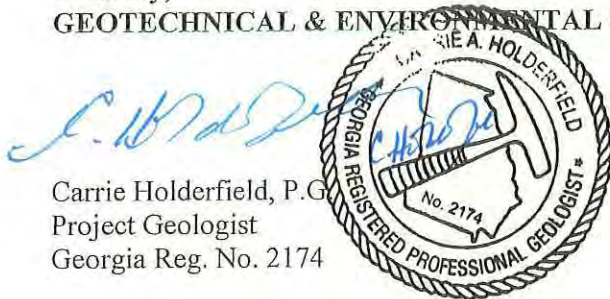
*Supporting documentation including hours invoiced with a description of services provided will be included in all future progress reports.*

Additionally, GEC respectfully requests a 45-day extension for submittal of the next semiannual progress report.

If you have any questions or need any additional information, please do not hesitate to call (478-757-1606) or email ([cholderfield@geconsultants.com](mailto:cholderfield@geconsultants.com)).

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

Attachments: COC Decision Matrix  
Soil Management Map – Proposed Excavation

## **APPENDIX C**

### **Tables**



Table 1. 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	EPC < Critical PCL?	Proposed Action
Arsenic	GB-27	0-0.5	74.9	20.0	C	6.08	D	Yes	Recommend excavation of soil from the surface to 0.5-feet in this area
	GB-14	8-10	25	20.0	C	6.08	D	Yes	Recommend excavation of soil from 8 to 10-feet in this area
	SB-20	0-2	31.5	20.0	C	6.08	D	Yes	Recommend excavation of soil from the surface to 2-feet in this area
Lead	GB-14	0.5-2	425	75/204	C	400	**	Yes	Recommend excavation of soil 0.5 to 2-feet in this area
	GB-11	0.5-2	465	75/204	C	400	**	Yes	Recommend excavation of soil 0.5 to 2-feet in this area
	GB-14	3-5	720	75/204	C	400	**	Yes	Recommend excavation of soil from 3 to 5-feet in this area
	SB-25	2-4	1800	75/204	C	400	**	Yes	Recommend excavation of soil from 2 to 4-feet in this area
	SB-45	10-12	425	75/204	C	400	**	Yes	Recommend excavation of soil from 10 to 12-feet in this area
	SB-45	15-17	1070	75/204	C	400	**	Not Applicable	NFA - Soils greater than 15-ft. Recommend preparation of a Soil Management Plan and construction worker oversight/air monitoring if soils in this area will be disturbed during construction.
	SB-27	8-12	634	75/204	C	400	**	Yes	Recommend excavation of soil from 8 to 12-feet in this area
	GB-28	13-15	950	75/204	C	400	**	Yes	Recommend excavation of soil from 13 to 15-feet in this area
	SB-41	24-29	484	75/204	C	400	**	Not Applicable	NFA - Soils greater than 15-ft. Recommend preparation of a Soil Management Plan and construction worker oversight/air monitoring if soils in this area will be disturbed during construction.

Table 1. 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	EPC < Critical PCL?	Proposed Action
Benzo(a)anthracene	SB-17	13-15	13	5.00	A	12.5	D	Yes	Recommend excavation of soil from 13 to 15-feet in this area
Benzo(a)pyrene	SB-17	13-15	10	1.64	A	1.25	D	Yes	Recommend excavation of soil from 13 to 15-feet in this area
	SB-17	16-20	5.0	1.64	A	1.25	D	Not Applicable	NFA - Soils greater than 15-ft. 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	19-24	2.2	1.64	A	1.25	D	Not Applicable	NFA - Soils greater than 15-ft. Recommend preparation of a Soil Management Plan and construction worker oversight/air monitoring if soils in this area will be disturbed during construction.
	SB-14	16-20	6.8	1.64	A	1.25	D	Not Applicable	NFA - Soils greater than 15-ft. Recommend preparation of a Soil Management Plan and construction worker oversight/air monitoring if soils in this area will be disturbed during construction.
	SB-14	24-28	10.0	1.64	A	1.25	D	Not Applicable	NFA - Soils greater than 15-ft. Recommend preparation of a Soil Management Plan and construction worker oversight/air monitoring if soils in this area will be disturbed during construction.
	SB-24	2-4	2.9	1.64	A	1.25	D	Yes	Recommend excavation of soil from 2 to 4-feet in this area
	SB-24	4-6	1.9	1.64	A	1.25	D	Yes	Recommend excavation of soil from 4 to 6-feet in this area
	SB-25	2-4	11.0	1.64	A	1.25	D	Yes	Recommend excavation of soil from 2 to 4-feet in this area
	SB-42	2-4	5.6	1.64	A	1.25	D	Yes	Recommend excavation of soil from 2 to 4-feet in this area

Table 1. 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	EPC < Critical PCL?	Proposed Action
Benzo(b)fluoranthene	SB-17	13-15	13	5	A	12.5	D	Yes	Recommend excavation of soil from 13 to 15-feet in this area
Dibenzo(a,h)anthracene	SB-17	16-20	2.3	2	D	1.25	D	Not Applicable	NFA - Soils greater than 15-ft. Recommend preparation of a Soil Management Plan and construction worker oversight/air monitoring if soils in this area will be disturbed during construction.
	SB-14	16-20	3.5	2	D	1.25	D	Not Applicable	NFA - Soils greater than 15-ft. Recommend preparation of a Soil Management Plan and construction worker oversight/air monitoring if soils in this area will be disturbed during construction.
	SB-14	24-28	4.2	2	D	1.25	D	Not Applicable	NFA - Soils greater than 15-ft. Recommend preparation of a Soil Management Plan and construction worker oversight/air monitoring if soils in this area will be disturbed during construction.

Notes:

EPC: Exposure Point Concentration

PCL: Protective Concentration Level

NFA: No Further Action

RRS: Risk Reduction Standards

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

A: Appendix 1 Notification Requirement

C: Appendix III Table 2

D: Upperbound excess cancer risk

Table 2. Proposed Excavation Summary  
MGP #2, Macon, Georgia

COI	Boring ID	Analytical Result (mg/kg)	Depth of Excavation (feet)	Approximate Excavation Dimensions (feet)	Total Volume of Excavated Soils (ft <sup>3</sup> )
Lead	GB-11	465	0.5-2	5 x 5 x 1.5	37.5
Lead	GB-14	425	0.5-2	5 x 5 x 1.5	37.5
Lead	GB-14	720	3-5	5 x 5 x 2	50
Arsenic	GB-14	25	8-10	5 x 5 x 2	50
Arsenic	GB-27	74.9	0-0.5	5 x 5 x 0.5	12.5
Lead	GB-28	950	13-15	5 x 5 x 2	50
Benzo(a)anthracene	SB-17	13	13-15	5 x 5 x 2	50
Benzo(a)pyrene	SB-17	10	13-15		
Benzo(b)fluoranthene	SB-17	13	13-15		
Arsenic	SB-20	31.5	0-2	5 x 5 x 2	50
Benzo(a)pyrene	SB-24	2.9	2-4	5 x 5 x 2	50
Benzo(a)pyrene	SB-24	1.9	4-6	5 x 5 x 2	50
Lead	SB-25	1800	2-4	5 x 5 x 2	50
Benzo(a)pyrene	SB-25	11.0	2-4		
Lead	SB-27	634	8-12	5 x 5 x 4	100
Benzo(a)pyrene	SB-42	5.6	2-4	5 x 5 x 2	50
Lead	SB-45	425	10-12	5 x 5 x 2	50
<b>Total Volume of Soil (ft<sup>3</sup>)</b>					<b>687.50</b>
<b>Total Volume of Soil (yd<sup>3</sup>)</b>					<b>25.46</b>
<b>Total Volume of Soil with Soil Expansion (yd<sup>3</sup>)</b>					<b>35.65</b>
<b>Total Estimated Volume of Soil with Expansion (tons)</b>					<b>53.47</b>

**Notes:**

Highlighted cells indicate additional excavation areas.

## **APPENDIX D**

### **Invoices**

**Invoice**



**GEOTECHNICAL  
&  
ENVIRONMENTAL  
CONSULTANTS, INC.**

514 Hillcrest Industrial Blvd

Macon, GA 31204

Phone 478-757-1606 Fax: 478-757-1608

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

Mr. Judd Drake  
Macon-Bibb County Attorney's Office  
700 Poplar Street, Room 309  
PO Box 247  
Macon, GA 31201

December 9, 2016

Invoice No: 000031533

Project 130659.240

Former Gas Plant - Macon

**Professional Services**

**Fee**

Total Fee 1,800.00

Percent Complete

100.00 Total Earned

1,800.00

Previous Fee Billing

0.00

Current Fee Billing

1,800.00

Total Fee

1,800.00

Total this Invoice \$1,800.00

**Invoice**

**GEOTECHNICAL  
&  
ENVIRONMENTAL  
CONSULTANTS, INC**

514 Hillcrest Industrial Blvd

Macon, GA 31204

Phone 478-757-1606 Fax: 478-757-1608

www.geconsultants.com

January 16, 2017

Invoice No: 000032006

Mr. Judd Drake  
Macon-Bibb County Attorney's Office  
700 Poplar Street, Room 309  
PO Box 247  
Macon, GA 31201

Project 130659.240 Former Gas Plant - Macon

**Professional Services**

**Project Correspondence**

**Professional Personnel**

		Hours	Rate	Amount
Staff Geologist				
Holderfield, Carrie	12/22/2016	.25	100.00	25.00
EPD correspondence and deadline extension request				
<b>Total Labor</b>				<b>25.00</b>

**Project Meeting**

**Professional Personnel**

		Hours	Rate	Amount
Staff Geologist				
Holderfield, Carrie	12/6/2016	1.75	100.00	175.00
map prep; chipping meeting; final EPD response				
Holderfield, Carrie	12/7/2016	.25	100.00	25.00
letters out				
<b>Total Labor</b>				<b>200.00</b>

**Report Preparation**

**Professional Personnel**

		Hours	Rate	Amount
Staff Geologist				
Holderfield, Carrie	12/1/2016	.50	100.00	50.00
correspondence				
Holderfield, Carrie	12/2/2016	.50	100.00	50.00
epd response				
Holderfield, Carrie	12/21/2016	1.00	100.00	100.00
soil management plan				
Holderfield, Carrie	12/22/2016	.75	100.00	75.00
soil management plan				
<b>Total Labor</b>				<b>275.00</b>

Total this Invoice \$500.00





# GEORGIA

DEPARTMENT OF NATURAL RESOURCES

## ENVIRONMENTAL PROTECTION DIVISION

**Richard E. Dunn, Director**

**Land Protection Branch**  
2 Martin Luther King, Jr. Drive  
Suite 1054, East Tower  
Atlanta, Georgia 30334  
404-657-8600

June 23, 2017

### VIA EMAIL AND REGULAR MAIL

Macon-Bibb County  
c/o The Honorable Mayor Robert Reichert  
700 Poplar Street  
P.O. Box 247  
Macon, Georgia 31202-0247

Re: Second Semiannual VIRP Progress Report, April 18, 2017  
Response to EPD's October 24, 2016 Comments, December 7, 2016  
Macon Former Manufactured Gas Plant 2, HSI Site No. 10692  
Intersection of Willow Street and Spring Street Lane, Macon-Bibb County  
Parcels R071-0316 (OC98-5J), R073-0033 (OC99-4A), and R073-0398 (OC99-4AB)  
Portions of Right-of-Way of Willow Street and Spring Street Lane

Dear Mayor Reichert:

The Georgia Environmental Protection Division (EPD) has received the above referenced October 24, 2016 Response to EPD Comments and Second Voluntary Remediation Program (VRP) Semiannual Progress Report (2<sup>nd</sup> Progress Report) submitted by Geotechnical & Environmental Consultants, Inc. (GEC) for Macon-Bibb County (MBC) pursuant to the Georgia Voluntary Remediation Program Act (the Act). After completing a review of the above referenced documents, EPD offers the following comments:

1. Section 4.0 of the 2<sup>nd</sup> Progress Report discusses a summary of previous investigation results; however, it does not include a complete list of the eleven (11) sample locations that require corrective action. Please ensure that all sample locations with regulated substances detected above applicable VRP cleanup criteria are discussed within the text of future reports, as stated in the response to EPD Comment #1 of the October 24, 2016 response letter.
2. Section 6.0 of the Progress Report describes the Soil Excavation Plan (SEP). Please note the following comments:
  - a. Approved Type 1 and Type 2 soil risk reduction standards (RRS) are applicable for further remediation of the Residential Use Target Zone (RUTZ) area.
  - b. The SEP proposes the use of backfill material from offsite sources and from within the RUTZ. Please provide new analytical data or reference existing data to demonstrate that all fill material complies with Type 1 and/ or Type 2 RRS.
  - c. According to the SEP any remediation/excavation activities will be performed in accordance with OSHA regulations and a site specific health and safety plan. It also

states that all samples will be collected and handled per appropriate protocols. Please note that all remediation/excavation, sampling and handling activities should be conducted in accordance with EPD Region 4 Field Branches Quality System and Technical Procedures (FBQSTP), which should be referenced in future reports.

3. EPD concurs with the proposed confirmatory sampling plan, which proposes one sample tested for every 20-linear feet of sidewall and one sample per every 500 to 1000 square-feet of the excavation base. Please note that EPD requires the following guidelines for confirmatory soil sampling. No fewer than five (5) verification samples will be required for each excavation sidewall: one sample per sidewall (total of 4 samples) and one sample per floor area. For each 20-linear feet sidewall sample area, one sample should be collected for every five (5) feet of depth within the zone of contamination.
4. EPD agrees with the October 24, 2016 response to EPD's Comment #2, which proposes to submit the requested draft uniform environmental covenant (UEC), revised consent order, soil management plan (SMP) and a corrective action plan (CAP) that details the requirements necessary for the disturbance of soil below 15-feet in the RUZT in the 3<sup>rd</sup> VRP Progress Report. As soil will be excavated to depths of approximately 15-feet below ground surface (bgs) during the soil excavation activities, the SMP *must be submitted prior to the initiation of excavation activities*, even if additional time is required for submittal of the next progress report. EPD recommends submittal and finalization of the revised consent order and draft UEC well in advance of the final CSR to prevent any undue delays in getting them executed and/ or filed as applicable.
5. Section 8.0 of the 2<sup>nd</sup> Progress Report provides a proposed schedule of VRP Activities. Prior to initiation of the proposed soil excavation activities, please submit a revised milestone schedule of VRP corrective action activities (Gantt style format preferred) to include detailed remediation activities from start-up to completion, submittal of semiannual progress reports, and the remaining generic milestones found in Section 5a through 5d of the VRP Application Form and Checklist. EPD noted the proposed expedited submittal of the final CSR by September 2017, but please note that June 22, 2020 remains effective as approved in EPD's June 22, 2015 VRP approval letter.
6. Please note that the final CSR should include separate figures that demonstrate compliance with Type 1 and/ or Type 2 soil RRS at existing impacted depth intervals from the surface to 15-feet bgs (i.e. 0-2 feet, 2-5 feet, etc.) for metals and PAHs.
7. While the Report included a monthly summary of hours invoiced with a description of services as required by Item #6 of the VRP Checklist, it did not include the signed and sealed professional certification. Please ensure that the certification is provided in all future reports.

Response to EPD's August 24, 2016 Response Letter

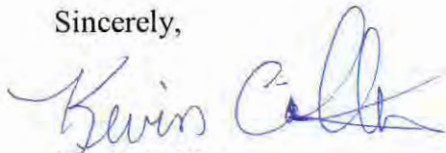
8. Comment #3. A figure that depicts horizontal extent of soil impacts to the Type 1 or Type 2 RRS was not included in the 2<sup>nd</sup> Progress Report. Please ensure that the figure is included in all future progress reports and the final CSR.



9. Comment #6. The cross sections provided in the approved Williams Environmental, Inc. 2003 Compliance Status Report are not acceptable, as they depict property conditions (primarily groundwater) at the time that the CSR was finalized in 2003. Since soil conditions have been the focus subsequent investigations leading to the submittal of the current VRP Application and planned remediation, please provide revised cross sections as previously requested. The revised cross sections should include existing soil conditions (i.e. the 11 sample location that require remediation, Type 1/ Type 2 soil delineation sample locations, groundwater table elevation(s) if encountered, etc.).
10. Comment #7. Although an initial conceptual site model (CSM) with an assessment of the exposure pathways was presented in the approved January 9, 2015 GEC VIRP, Section 5 of the VRP Application Form and Checklist requires that the CSM be updated as investigation and remediation of the property progress, and it requires the inclusion of an up-to-date CSM in each progress status report. Therefore, please ensure that the CSM is updated and clearly states the status of all exposure pathways in future reports, rather than referencing previous reports and/ or correspondence per Section 5 of the VRP Application Form and Checklist.

The comments listed above should be addressed prior to commencement of soil excavation activities, or as deemed applicable within future progress reports and the final CSR. Please note that the next semiannual report is scheduled to be submitted by July 31, 2017. If you have any questions regarding this matter, please contact Ms. Antonia Beavers of the Response and Remediation Program at (404) 657-0487.

Sincerely,



Kevin Collins  
Unit Coordinator  
Response and Remediation Program

- c: GEC, Tom Driver, P.E. (via email)  
GEC, Carrie Holderfield, P.G. (via email)  
Smith, Welch, Webb & White, LLC, Andy Welch (via email)

File: HSI# 10692, ID# 259-0104

S:\RDRIVE\ANTONIA\Macon Former MGP2\VRP\2ndVRPSAPR\_23June2017.doc

# GEC

GEOTECHNICAL  
&  
ENVIRONMENTAL  
CONSULTANTS, INC

September 5, 2017

Ms. Antonia Beavers  
Georgia Department of Natural Resources  
Environmental Protection Division  
Hazardous Sites Response Program  
2 Martin Luther King, Jr. Drive, SE  
Atlanta, Georgia 30334

Re: Second Semiannual VIRP Progress Report, April 18, 2017  
Macon Former Manufactured Gas Plant 2, HSI Site No. 10692  
Intersection of Willow Street and Spring Street Lane, Macon-Bibb County  
Parcels R071-0316 (OC98-5J), R073-0033 (OC99-4A), and R073-0398 (OC99-4AB)  
Portions of Right-of-Way of Willow Street and Spring Street Lane GEC Job No. 130659.241

Dear Ms. Beavers:

Geotechnical and Environmental Consultants, Inc. (GEC) submitted the Second Semiannual Voluntary Remediation Program (VIRP) Progress Report (2<sup>nd</sup> Progress Report), dated April 18, 2017, for Macon-Bibb County (MBC), pursuant to the Georgia Voluntary Remediation Program Act (the Act). The Report provided update on revisions to the proposed depths of excavation, a Soil Excavation Plan, and a schedule for the proposed soil excavation activities, which will assist in moving the site to closure. After completing a review of the Report, EPD offered comments in correspondence dated June 23, 2017. Responses to the EPD comments are provided (italicized) following each comment:

1. Section 4.0 of the 2nd Progress Report discusses a summary of previous investigation results; however, it does not include a complete list of the eleven (11) sample locations that require corrective action. Please ensure that all sample locations with regulated substances detected above applicable VRP cleanup criteria are discussed within the text of future reports, as stated in the response to EPD Comment #1 of the October 24, 2016 response letter.

*The eleven (11) sample locations were identified in both Tables #1 and #2, included in Appendix A, of the 2<sup>nd</sup> Progress Report. All future Progress Reports, will include a complete list/discussion of the eleven (11) sample locations that require corrective action, within the text of future reports.*

2. Section 6.0 of the Progress Report describes the Soil Excavation Plan (SEP). Please note the following comments:

- a. Approved Type 1 and Type 2 soil risk reduction standards (RRS) are applicable for further remediation of the Residential Use Target Zone (RUTZ) area.

*Concur. No Response.*

- b. The SEP proposes the use of backfill material from offsite sources and from within the RUTZ. Please provide new analytical data or reference existing data to demonstrate that all fill material complies with Type I and/ or Type 2 RRS.

*Paragraph 3, located on Page 5, of the Soil Management Plan (SMP), dated August 31, 2017, provides guidance to ensure that backfill materials are tested to verify compliance with Type I and/ or Type 2 RRS.*

- c. According to the SEP, any remediation/excavation activities will be performed in accordance with OSHA regulations and a site-specific health and safety plan. It also states that all samples will be collected and handled per appropriate protocols. Please note that all remediation/excavation, sampling and handling activities should be conducted in accordance with EPD Region 4 Field Branches Quality System and Technical Procedures (FBQSTP), which should be referenced in future reports.

*Paragraph 2, located on Page 6, of the SMP, dated August 31, 2017, provides guidance to ensure that sampling and handling activities will be conducted in accordance with EPD Region 4 FBQSTP.*

3. EPD concurs with the proposed confirmatory sampling plan, which proposes one sample tested for every 20-linear foot of sidewall and one sample per every 500 to 1000 square-feet of the excavation base. Please note that EPD requires the following guidelines for confirmatory soil sampling. No fewer than five (5) verification samples will be required for each excavation sidewall: one sample per sidewall (total of 4 samples) and one sample per floor area. For each 20-linear foot sidewall sample area, one sample should be collected for every five (5) feet of depth within the zone of contamination.

*Paragraph 1, located on Page 5, of the SMP, dated August 31, 2017, provides guidance to ensure that confirmatory soil sampling is conducted in accordance with the guidelines noted above.*

4. EPD agrees with the October 24, 2016, response to EPD's Comment #2, which proposes to submit the requested draft uniform environmental covenant (UEC), revised consent order, soil management plan (SMP) and a corrective action plan (CAP) that details the requirements necessary for the disturbance of soil below 15-feet in the RUTZ in the 3rd VRP Progress Report. As soil will be excavated to depths of approximately 15-feet below ground surface (bgs) during the soil excavation activities, the SMP *must be submitted prior to the initiation of excavation activities*, even if additional time is required for submittal of

the next progress report. EPD recommends submittal and finalization of the revised consent order and draft UEC well in advance of the final CSR to prevent any undue delays in getting them executed and/or filed as applicable.

*The SMP, dated August 31, 2017, has been submitted to the EPD for approval as a stand-alone document. Additionally, submittal and finalization of the revised consent order and draft UEC will be completed well in advance of the final CSR to prevent any undue delays in getting them executed and/or filed as applicable.*

5. Section 8.0 of the 2nd Progress Report provides a proposed & schedule of VRP Activities. Prior to initiation of the proposed soil excavation activities, please submit a revised milestone schedule of VRP corrective action activities (Gantt style format preferred) to include detailed remediation activities from start-up to completion, submittal of semiannual progress reports, and the remaining generic milestones found in Section 5a through 5d of the VRP Application Form and Checklist. EPD noted the proposed expedited submittal of the final CSR by September 2017, but please note that June 22, 2020 remains effective as approved in EPD's June 22, 2015 VRP approval letter.

*A revised milestone schedule of VRP corrective action activities has been submitted with the 3rd Progress Report.*

6. Please note that the final CSR should include separate figures that demonstrate compliance with Type 1 and/or Type 2 soil RRS at existing impacted depth intervals from the surface to 15-feet bgs (i.e. 0-2 feet, 2-5 feet, etc.) for metals and PAHs.

*The figures noted above will be included in the final CSR.*

7. While the Report included a monthly summary of hours invoiced with a description of services as required by Item #6 of the VRP Checklist, it did not include the signed and sealed professional certification. Please ensure that the certification is provided in all future reports.

*The signed and sealed professional certification has been included in the 3rd Progress Report, and will be included in all future reports.*

#### **Response to EPD's August 24, 2016 Response Letter**

8. Comment #3. A figure that depicts horizontal extent of soil impacts to the Type 1 or Type 2 RRS was not included in the 2nd Progress Report. Please ensure that the figure is included in all future progress reports and the final CSR.

*The figure noted above will be included in any future progress reports (if needed) and the final CSR.*

9. Comment #6. The cross sections provided in the approved Williams Environmental, Inc. 2003 Compliance Status Report are not acceptable, as they depict property conditions (primarily groundwater) at the time that the CSR was finalized in 2003. Since soil conditions have been the focus subsequent investigations leading to the submittal of the current VRP Application and planned remediation, please provide revised cross sections

as previously requested. The revised cross sections should include existing soil conditions (i.e. the 11-sample location that require remediation, Type 1/ Type 2 soil delineation sample locations, groundwater table elevation(s) if encountered, etc.).

*Updated cross sections will be provided in the final CSR.*

10. Comment #7. Although an initial conceptual site model (CSM) with an assessment of the exposure pathways was presented in the approved January 9, 2015 GEC VIRP. Section 5 of the VRP Application Form and Checklist requires that the CSM be updated as investigation and remediation of the property progress, and it requires the inclusion of an up-to-date CSM in each progress status report. Therefore, please ensure that the CSM is updated and clearly states the status of all exposure pathways in future reports, rather than referencing previous reports and/ or correspondence per Section 5 of the VRP Application Form and Checklist.

*An up-to-date CSM will be included in the final CSR.*

Additionally, GEC respectfully requests a 45-day extension for submittal of the next semiannual progress report.

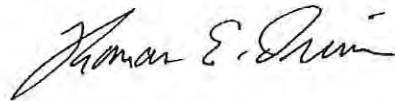
If you have any questions or need any additional information, please do not hesitate to call (478-757-1606) or email ([cholderfield@geconsultants.com](mailto:cholderfield@geconsultants.com)).

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



# **APPENDIX X**

## **VRP Third Semi-Annual Progress Report and EPD Comments and Correspondence**

# GEC

GEOTECHNICAL  
&  
ENVIRONMENTAL  
CONSULTANTS, INC

September 20, 2017

Ms. Antonia Beavers  
Georgia Environmental Protection Division  
Response and Remediation Program  
Suite 1462 East Tower  
2 Martin Luther King, Jr. Drive S.E.  
Atlanta, GA 30334

**SUBJECT: Third VIRP Semi-Annual Summary/Statement Progress Report  
Former Macon 2 MGP Facility  
HSI #10692  
Macon, Bibb County, Georgia  
GEC Job No. 130659.241**

**Dear Ms. Beavers:**

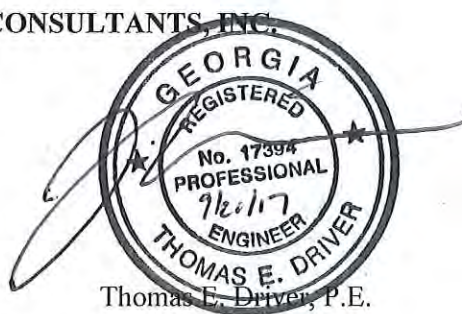
In accordance with the Voluntary Investigation and Remediation Program (VIRP) for the Former Macon 2 MGP Facility site in Macon, Georgia, Geotechnical & Environmental Consultants, Inc. (GEC) is submitting this Third Semi-Annual Progress Report. Per EPD approval, this abbreviated report is being submitted in lieu of a full update report, as no substantial changes or revisions have occurred since submission of the Second Semi-annual Voluntary Remediation Program (VIRP) Progress Report (2nd Progress Report), dated April 18, 2017.

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

## **1.0 INTRODUCTION**

This Third Semi-annual Voluntary Remediation Program (VIRP) Progress Report (3rd 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. This abbreviated report provides a response to the June 23, 2017 EPD comments and a revised milestone schedule. The response to the June 2017 EPD comments is provided as an attachment to this report.

New assessment and/or remediation activities, changes in the site, potential receptors, and/or potential environmental issues have not been conducted or discovered since submission of the 2nd Semi-Annual Progress report by Geotechnical and Environmental Consultants, Inc. (GEC) in April 2017.

## **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 provided as an attachment to this report.

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 public utilities, 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 on the Site Map, provided as an attachment to this report.

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 SOIL EXCAVATION PLAN

Per EPD approval, Type 1 or Type 2 soil RRS are being utilized to address soil contamination within the RUTZ, which will allow for redevelopment under residential-use standards. In order to comply with Type 1 or Type 2 RRS, excavation of varying soil intervals will be conducted where arsenic, lead, and/or PAH concentrations were detected above Type 1 and/or Type 2 RRS, in the upper 15-foot interval. Specifically, excavation and disposal of soils are proposed at 11 locations (SB-17, SB-20, SB-24, SB-25, SB-27, SB-28, SB-42, SB-45, GB-11, GB-14, and GB-27), within the RUTZ. Details regarding the location (Boring ID), proposed excavation depths, and contaminant of interest (COI) are provided in the table below:

Table 1.

COI	Boring ID	Maximum Depth (feet)	Analytical Result	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Proposed Action
Arsenic	GB-27	0-0.5	74.9	20.0	6.08	excavation of soil from surface to 0.5-feet
	GB-14	8-10	25	20.0	6.08	excavation of soil from 8 to 10-feet
	SB-20	0-2	31.5	20.0	6.08	excavation of soil from the surface to 2-feet
Lead	GB-14	0.5-2	425	75/204	400	excavation of soil 0.5 to 2-feet
	GB-11	0.5-2	465	75/204	400	excavation of soil 0.5 to 2-feet

COI	Boring ID	Maximum Depth (feet)	Analytical Result	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)	Proposed Action
	GB-14	3-5	720	75/204	400	excavation of soil from 3 to 5-feet
	SB-25	2-4	1800	75/204	400	excavation of soil from 2 to 4-feet
	SB-45	10-12	425	75/204	400	excavation of soil from 10 to 12-feet
	SB-27	8-12	634	75/204	400	excavation of soil from 8 to 12-feet
	GB-28	13-15	950	75/204	400	excavation of soil from 13 to 15-feet
Benzo(a)anthracene	SB-17	13-15	13	5.00	12.5	excavation of soil from 13 to 15-feet
Benzo(a)pyrene	SB-17	13-15	10	1.64	1.25	excavation of soil from 13 to 15-feet
	SB-24	2-4	2.9	1.64	1.25	excavation of soil from 2 to 4-feet
	SB-24	4-6	1.9	1.64	1.25	excavation of soil from 4 to 6-feet
	SB-25	2-4	11.0	1.64	1.25	excavation of soil from 2 to 4-feet
	SB-42	2-4	5.6	1.64	1.25	excavation of soil from 2 to 4-feet
Benzo(b)fluoranthene	SB-17	13-15	13	5	12.5	excavation of soil from 13 to 15-feet

Notes: PCL: Protective Concentration Level; RRS: Risk Reduction Standards

A Soil Management Map, which identifies the areas proposed for excavation is provided as an attachment to this report.

Additionally, soil concentrations exceeded applicable RRS levels, at depths greater than 15-feet bgs, in four locations (SB-14, SB-17, SB-41, and SB-45). Excavation and disposal activities will not be completed in these areas, as proposed construction activities will not disturb soils at depths greater than 15-feet bgs. Per EPD approval, excavation of soils in these areas is not required, due to the depth of the soils (no exposure pathway) and prior leachability studies, which confirm they do not represent a threat to health or the environment. Details regarding the location (Boring ID), depths of contamination, and COI are provided in the table below:

Table 2.

COI	Boring ID	Maximum Depth (feet)	Analytical Result	Type 1 RRS (mg/kg)	Type 2 RRS (mg/kg)
Lead	SB-45	15-17	1070	75/204	400
	SB-41	24-29	484	75/204	400
Benzo(a)pyrene	SB-17	16-20	5.0	1.64	1.25
	SB-41	19-24	2.2	1.64	1.25
	SB-14	16-20	6.8	1.64	1.25
	SB-14	24-28	10.0	1.64	1.25
Benzo(b)fluoranthene	SB-17	16-20	2.3	2	1.25
Dibenzo(a,h)anthracene	SB-14	16-20	3.5	2	1.25
	SB-14	24-28	4.2	2	1.25

Notes: PCL: Protective Concentration Level; RRS: Risk Reduction Standards

Details regarding procedures for the effective handling of soils during site excavation, confirmation sampling, and backfilling activities were provided in the Soil Management Plan (dated August 31, 2017), which was previously submitted to the EPD under separate cover.

#### **4.0 MILESTONE SCHEDULE**

A revised milestone schedule is provided as an attachment to this report.

#### **5.0 SERVICES PROVIDED AND INVOICED HOURS**

As required by Item #6 of the VRP Checklist, the invoice (dated July 17, 2017) for services provided for this project is provided as an attachment to this report.

#### **6.0 CERTIFICATION STATEMENT**

I certify that the testing performed by GEC and all attachments in this report, with the exception of those reports and sampling performed by others, were prepared under my direction in accordance with a system designed to assure that qualified personnel properly evaluated the information submitted. The information is, to the best of my knowledge and belief, true, accurate, and complete.



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



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

Attachments: Letter Response to the June 2017 2<sup>nd</sup> Progress Report Comments  
Site Location Map  
Site Map  
Soil Management Map  
Milestone Schedule  
Invoice #33727 for Services Provided



October 31, 2017

**VIA EMAIL AND REGULAR MAIL**

Macon-Bibb County  
c/o The Honorable Mayor Robert Reichert  
700 Poplar Street  
P.O. Box 247  
Macon, Georgia 31202-0247

Re: Third VRP Semi-annual Progress Report, September 20, 2017  
Soil Management Plan, August 31, 2017  
Macon Former Manufactured Gas Plant 2, HSI Site No. 10692  
Intersection of Willow Street and Spring Street Lane, Macon-Bibb County  
Parcels R071-0316 (OC98-5J), R073-0033 (OC99-4A), and R073-0398 (OC99-4AB)  
Portions of Right-of-Way of Willow Street and Spring Street Lane

Dear Mayor Reichert:

The Georgia Environmental Protection Division (EPD) has received the above referenced Geotechnical & Environmental Consultants, Inc. (GEC) Soil Management Plan (SMP) dated August 31, 2017 and the Third Semiannual Progress Report (Progress Report) dated September 20, 2017, which were submitted for Macon-Bibb County (MBC) pursuant to the Georgia Voluntary Remediation Program Act (the Act). After completing a review of the above referenced documents, EPD offers the following comments:

**Third VIRP Semiannual Progress Report and Soil Management Plan**

1. EPD does not agree with the statements in Section 4.0 *Soil Excavation Plan* of the Progress Report and throughout the SMP that (1) excavation of impacted soil located beyond 15-feet below ground surface (bgs) is not required due to the depth of the impacts, and (2) the soils are not a threat to human health or the environment. The final paragraph on page 2 of the SMP states that "excavation of soils in these areas is not required, due to depth of the soils (no exposure pathway) and prior leachability studies, which confirm they do not represent a threat to human health or the environment". Please revise the SMP to indicate that a revised corrective action plan (CAP) will be developed, and a uniform environmental covenant (UEC) and revised consent order (CO) will be executed to address contamination below 15-feet bgs.
2. The certification statement provided in Section 6.0 of the Progress Report is signed and sealed by a professional engineer and professional geologist, but it is incomplete, and the document certification was omitted from the SMP. Please ensure that future certification



statements are presented as follows pursuant to Item 6.0 of the VIRP Application Form and Checklist:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision 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.”

3. Sample location GB-28 should be listed for removal in Section 4.0 of the SMP rather than sample SB-28.
4. Section 4.0 of the SMP suggests the use of construction worker oversight/ air monitoring for the disturbance of soil below 15-feet bgs. Please note that appropriate precautions should be taken for all surface and subsurface excavation activities, and perimeter air monitoring and sampling should be conducted to demonstrate that the Property is not producing significant off-site impacts to air quality (i.e. airborne particulates and contaminants) and the surrounding population. Please ensure that a perimeter air monitoring and sampling program is initiated prior to and executed during excavation activities in accordance with applicable EPA and OSHA regulations.
5. EPD understands that GEC has estimated approximately 53 tons of contaminated soil will be removed at the 11 impacted soil locations. However, EPD recommends that GEC calculate the total volume of excavated material based on the entire soil column and incorporate this information into the SMP. Details along with supporting data should be provided regarding how the non-contaminated overburden will be managed. The table provided in the *Soil Excavation* section of the SMP should be revised accordingly.
6. The results of the soil removal action can be included in the final compliance status report (CSR) with a revised compliance certification rather than a Remedial Action Report as indicated in Section 9.0 of the SMP.

#### Response to EPD's June 23, 2017 Comments

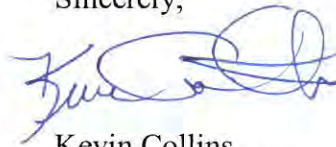
Please note that Macon-Bibb County's responses to EPD Comments #1, 3, 5, 6, 8, and 9 have been satisfied in accordance with the Act. The following comments should be addressed in future progress reports and/ or the final CSR as appropriate:

7. Comment #2.b – Please identify the specific areas within the RUTZ that will be the source of the fill material and provide existing data or collect additional samples to demonstrate that areas of the RUTZ are adequately characterized and acceptable for use as fill material.

8. Comment #4 – Please note that a revised CAP is still required to address impacted soil material that is located greater than 15-feet bgs in addition to the revised CO and draft UEC, as discussed above in Comment #1.
9. Comment #7 – The signed/sealed certification is not complete. Please see Comment #2 of the subject letter above.
10. Comment #10 – The conceptual site model (CSM) should be revised and updated in the progress reports as previously requested to prevent delays in the approval of the final CSR.

As next semiannual progress report is not due until December 22, 2017, EPD does not approve an extension for submittal of the next semiannual progress report at this time. If you have any questions regarding this matter, please contact Ms. Antonia Beavers of the Response and Remediation Program at (404) 657-0487.

Sincerely,



Kevin Collins  
Unit Coordinator  
Response and Remediation Program

- c: GEC, Tom Driver, P.E. (via email)  
GEC, Carrie Holderfield, P.G. (via email)  
Smith, Welch, Webb & White, LLC, Andy Welch (via email)

File: HSI# 10692, ID# 259-0104

S:\RDRIVE\ANTONIA\Macon Former MGP2\VRP\Soil Mangement Plan\_3rdVRProgressRpt.doc



November 3, 2017

Ms. Antonia Beavers  
Georgia Department of Natural Resources  
Environmental Protection Division  
Hazardous Sites Response Program  
2 Martin Luther King, Jr. Drive, SE  
Atlanta, Georgia 30334

Re: Third Semiannual VIRP Progress Report, September 20, 2017  
Soil Management Plan, August 2017  
Macon Former Manufactured Gas Plant 2, HSI Site No. 10692  
Intersection of Willow Street and Spring Street Lane, Macon-Bibb County  
Parcels R07 1-03 1 6 (OC98-5J), R073-0033 (OC99-4A), and R073-0398 (OC99-4AB) Portions of  
Right-of-Way of Willow Street and Spring Street Lane GEC Job No. 130659.241

Dear Ms. Beavers:

Geotechnical and Environmental Consultants, Inc. (GEC) submitted the Third Semiannual Voluntary Remediation Program (VIRP) Progress Report (3rd Progress Report), dated September 20, 2017, for Macon-Bibb County (MBC), pursuant to the Georgia Voluntary Remediation Program Act (the Act). Per EPD approval, this abbreviated report is being submitted in lieu of a full update report, as no substantial changes or revisions have occurred since submission of the Second Semi-annual Voluntary Remediation Program (VIRP) Progress Report (2nd Progress Report), dated April 18, 2017. After completing a review of the Report, EPD offered comments in correspondence dated October 31, 2017. Responses to the EPD comments are provided (*italicized*) following each comment:

Third VIRP Semiannual Progress Report and Soil Management Plan

1. EPD does not agree with the statements in Section 4.0 *Soil Excavation Plan* of the Progress Report and throughout the SMP that (1) excavation of impacted soil located beyond 15-feet below ground surface (bgs) is not required due to the depth of the impacts, and (2) the soils are not a threat to human health or the environment. The final paragraph on page 2 of the SMP states that "excavation of soils in these areas is not required, due to depth of the soils (no exposure pathway) and prior leachability studies, which confirm they do not represent a threat to human health or the environment". Please revise the SMP to indicate that a revised corrective action plan (CAP) will be developed, and a uniform environmental covenant (UEC) and revised consent order (CO) will be executed to address contamination below 15- feet bgs.

*We respectfully request clarification of why the EPD disagrees with the statements that “excavation of soils in these areas is not required, due to depth of the soils (no exposure pathway) and prior leachability studies, which confirm they do not represent a threat to human health or the environment.” We request this clarification because, based upon the results and site conditions presented in the Compliance Status Investigation Report, prepared by Williams Environmental Services, Inc., which have not changed, EPD granted approval for these soils to remain in place, and the site was subsequently delisted from the HSI.*

2. The certification statement provided in Section 6.0 of the Progress Report is signed and sealed by a professional engineer and professional geologist, but it is incomplete, and the document certification was omitted from the SMP. Please ensure that future certification statements are presented as follows pursuant to Item 6.0 of the VIRP Application Form and Checklist:

*"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision 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."*

*All future submittals will include statements as presented above.*

3. Sample location GB-28 should be listed for removal in Section 4.0 of the SMP rather than sample SB-28.

*Section 4.0 will be revised as follows:*

*Soil: Excavation and disposal of soils are proposed at 11 locations (SB-17, SB-20, SB-24, SB-25, SB-27, GB-28, SB-42, SB-45, GB-11, GB-14, and GB-27), within the RUTZ.*

4. Section 4.0 of the SMP suggests the use of construction worker oversight/air monitoring for the disturbance of soil below 15-feet bgs. Please note that appropriate precautions should be taken for all surface and subsurface excavation activities, and perimeter air monitoring and sampling should be conducted to demonstrate that the Property is not producing significant off-site impacts to air quality (i.e. airborne particulates and contaminants) and the surrounding population. Please ensure that a perimeter air monitoring and sampling program is initiated prior to and executed during excavation activities in accordance with applicable EPA and OSHA regulations.

*Section 4.0 will be revised as follows:*

*The proposed excavation activities will be conducted in general accordance with applicable EPA and OSHA regulations. Monitoring for protection of personnel completing the excavation activities will be the responsibility of the subcontracted excavation company.*

*The field supervisor will monitor the site during excavation activities and direct the equipment operators to take measures, as necessary (i.e. the application of water or a change in operations) to reduce the potential for generation of dust or dust leaving the Site.*

*Note: Based upon the scope of this remedial activity, there do not appear to be any OSHA or EPA requirements for perimeter air monitoring and sampling prior to, or during, the excavation activities. Therefore, this sampling is not proposed for completion at this time.*

5. EPD understands that GEC has estimated approximately 53 tons of contaminated soil will be removed at the 11 impacted soil locations. However, EPD recommends that GEC calculate the total volume of excavated material based on the entire soil column and incorporate this information into the SMP. Details along with supporting data should be provided regarding how the non-contaminated overburden will be managed. The table provided in the Soil Excavation section of the SMP should be revised accordingly.

*Section 7.0 will be revised as follows:*

*GEC anticipates that approximately 105 tons of non-contaminated soil will be generated during the remediation activities, as presented in the following table:*

Chemical of Concern	Boring ID	Analytical Result (mg/kg)	Depth of (feet)	Approximate Excavation Dimensions (feet)	Total Volume of Excavated Soils (ft <sup>3</sup> )
Lead	GB-11	465	0-0.5	0.5 x 5 x 5	12.5
Lead	GB-14	425	0.5-2	0.5 x 5 x 5	12.5
Lead	GB-14	720	3-5	Previously Accounted For	0
Arsenic	GB-14	25	8-10	5 x 5 x 3	75
Arsenic	GB-27	74.9	0-0.5	Not Applicable	0.0
Lead	GB-28	950	13-15	5 x 5 x 13	325
Benzo(a)anthracene	SB-17	13	13-15	5 x 5 x 13	325
Benzo(a)pyrene	SB-17	10	13-15		
Benzo(b)fluoranthene	SB-17	13	13-15		
Arsenic	SB-20	31.5	0-2	Not Applicable	0.0
Benzo(a)pyrene	SB-24	2.9	2-4	5 x 5 x 2	50
Benzo(a)pyrene	SB-24	1.9	4-6	Previously Accounted For	0
Lead	SB-25	1800	2-4	5 x 5 x 2	50
Benzo(a)pyrene	SB-25	11.0	2-4		
Lead	SB-27	634	8-12	5 x 5 x 8	200
Benzo(a)pyrene	SB-42	5.6	2-4	5 x 5 x 2	50
Lead	SB-45	425	10-12	5 x 5 x 10	250
<b>Total Volume of Soil (ft<sup>3</sup>)</b>					<b>1350.00</b>
<b>Total Volume of Soil (yd<sup>3</sup>)</b>					<b>50.00</b>
<b>Total Volume of Soil with Soil Expansion (yd<sup>3</sup>)</b>					<b>70.00</b>
<b>Total Estimated Volume of Soil with Expansion (tons)</b>					<b>105.00</b>

*During excavation activities, the non-contaminated excavated materials will be stockpiled separately from contaminated soils. Additionally, appropriate best management practices will be placed around the stockpile(s) and excavation(s) to prevent erosion or runoff from the stockpile(s) or excavation(s).*



6. The results of the soil removal action can be included in the final compliance status report (CSR) with a revised compliance certification rather than a Remedial Action Report as indicated in Section 9.0 of the SMP.

*Concur. The results of the soil removal action will be included in the final CSR.*

Response to EPD's June 23, 2017 Comments

Please note that Macon-Bibb County's responses to EPD Comments #1, 3, 5, 6, 8, and 9 have been satisfied in accordance with the Act. The following comments should be addressed in future progress reports and/ or the final CSR as appropriate:

7. Comment #2. b - Please identify the specific areas within the RUTZ that will be the source of the fill material and provide existing data or collect additional samples to demonstrate that areas of the RUTZ are adequately characterized and acceptable for use as fill material.

*We wish to revise this section to state that only clean fill obtained from an off-site source or non-contaminated soil excavated during the remedial activities will be utilized to backfill the excavations.*

8. Comment #4 - Please note that a revised CAP is still required to address impacted soil material that is located greater than 15-feet bgs in addition to the revised CO and draft UEC, as discussed above in Comment #1.

*An Amended CAP will be submitted to address impacted soil material that is located greater than 15-feet bgs. The amendment will be submitted as a supplemental document to the previously approved CAP.*

9. Comment #7 - The signed/sealed certification is not complete. Please see Comment #2 of the subject letter above.

*All future submittals will include statements as presented in comment #2.*

10. Comment #10 - The conceptual site model (CSM) should be revised and updated in the progress reports as previously requested to prevent delays in the approval of the final CSR.

*Per EPD approval, this abbreviated report was submitted without the CSM. The fourth progress report will include in update to the CSM submitted in the VIRP, dated May 22, 2015 (also attached), and approved by the EPD in correspondence dated June 22, 2015.*

Additionally, GEC will submit the next semiannual progress report by December 22, 2017.

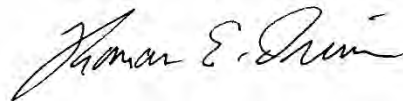
If you have any questions or need any additional information, please do not hesitate to call (478-757-1606) or email ([cholderfield@geconsultants.com](mailto:cholderfield@geconsultants.com)).

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

**GEC**

**From:** Metzger, Jason  
**To:** [Carrie Holderfield](#)  
**Cc:** [April Pair](#); [Andrew J. "Andy" Welch, III \(awelch@smithwelchlaw.com\)](#); [Beavers, Antonia](#); [Tom Driver](#); [Collins, Kevin](#)  
**Subject:** Re: Macon Former MGP2, HSI# 10692  
**Date:** Thursday, November 09, 2017 9:59:27 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)

---

Hello Carrie,

Our apologies if the language in EPD's response letter or the email below was confusing. Your understanding is correct; following completion of the proposed remedial activities, the RUTZ will be eligible for certification to residential RRS (surface to 15-feet bgs), soils greater than 15' will be controlled by the UEC and SMP, and the property will be appropriate for residential redevelopment. Please let Antonia, Kevin or me know if you have any further questions or concerns.

Jason Metzger  
Program Manager  
Georgia Environmental Protection Division  
Land Protection Branch - Response and Remediation Program  
(404) 657-8606  
[jmetzger@gaepd.org](mailto:jmetzger@gaepd.org)

---

**From:** Carrie Holderfield <[cholderfield@geconsultants.com](mailto:cholderfield@geconsultants.com)>  
**Sent:** Thursday, November 9, 2017 3:05 PM  
**To:** Collins, Kevin  
**Cc:** April Pair; Andrew J. "Andy" Welch, III ([awelch@smithwelchlaw.com](mailto:awelch@smithwelchlaw.com)); Beavers, Antonia; Metzger, Jason; Tom Driver  
**Subject:** RE: Macon Former MGP2, HSI# 10692

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Kevin,

Thank you for the quick response to the Third Progress Report and Soil Management Plan Response Letter (Response Letter). We sincerely appreciate EPD's responding so quickly.

With respect to comment #1, of EPD's October 31, 2017 letter, we would like to request confirmation that soils located within the surface to 15-foot interval within the RUTZ will be eligible for certification to residential RRS, and that the site will be approved for development under unrestricted residential use standards. It is our understanding that soils located greater than 15-feet, which are not anticipated to be disturbed during future development activities,



will be governed by the UEC and SMP.

Prior conference calls and the attached EPD comments letter to the Voluntary Remediation Program First Semiannual Progress Report (dated March 10, 2016), have provided confirmation that the Type 2 RRS will be approved. However, we would like to ensure that our understanding that, following completion of the proposed remedial activities, the RUTZ will be eligible for certification to residential RRS (surface to 15-feet bgs), and will be approved for residential redevelopment.

Thank you again,  
Carrie

Carrie Holderfield, P.G., PMP  
Project Manager  
Geotechnical & Environmental Consultants, Inc.  
514 Hillcrest Industrial Boulevard  
Macon, Georgia 31204  
Office 478-757-1606  
Fax 478-757-1608  
Cell 210-872-8016  
[cholderfield@geconsultants.com](mailto:cholderfield@geconsultants.com)  
[www.geconsultants.com](http://www.geconsultants.com)



---

**From:** Collins, Kevin [mailto:Kevin.Collins@dnr.ga.gov]  
**Sent:** Thursday, November 09, 2017 1:26 PM  
**To:** Carrie Holderfield <[cholderfield@geconsultants.com](mailto:cholderfield@geconsultants.com)>  
**Cc:** April Pair <[apair@smithwelchlaw.com](mailto:apair@smithwelchlaw.com)>; Andrew J. "Andy" Welch, III  
<[awelch@smithwelchlaw.com](mailto:awelch@smithwelchlaw.com)>; Beavers, Antonia  
<[Antonia.Beavers@dnr.ga.gov](mailto:Antonia.Beavers@dnr.ga.gov)>; Metzger, Jason <[Jason.Metzger@dnr.ga.gov](mailto:Jason.Metzger@dnr.ga.gov)>  
**Subject:** RE: Macon Former MGP2, HSI# 10692

Carrie,  
The Georgia Environmental Protection Division (EPD) has received the subject property's Third Progress Report and Soil Management Plan Response Letter (Response Letter) dated

November 3, 2017, which was submitted by Geotechnical & Environmental Consultants, Inc. (GEC) for Macon-Bibb County (MBC) pursuant to the Georgia Voluntary Remediation Program Act (the Act). EPD accepts the responses provided within the November 3<sup>rd</sup> letter and recommends that MBC proceed with implementing the approved revised Voluntary Investigation and Remediation Plan.

In response to GEC's request for clarification regarding Comment #1 of EPD's October 31, 2017 letter, it is EPD's understanding that following the removal of the site from the Hazardous Site Inventory on May 19, 2011, an approved corrective action plan (CAP) to maintain compliance with the Type 4 risk reduction standards (RRS), which is currently supported by Consent Order No. EPD-HSR-548, was established for the Residential Use Target Zone (RUTZ). Based on the current VRP corrective action plan for the property, soils at the property located greater than 15-feet below ground surface (bgs) in the RUTZ, which do not meet the proposed residential RRS, will remain in place at the property and be managed through an institutional control (IC) and associated soil management plan (SMP). EPD understands and agrees that these deep soils do not need to be removed at this time. Because they represent conditions that technically do not meet the proposed residential RRS in soil, you have proposed corrective action in the form of an IC and SMP until such time that the subject property can certify that all soils onsite comply with residential RRS. This course of action meets the requirements of the VRP.

If you have any questions or need any additional information regarding this matter, please do not hesitate to contact me at (404)657-8610 or Antonia Beavers at (404) 657-0487.

Thank you,

**Kevin Collins**

Unit Coordinator

Response & Remediation Program

GA Environmental Protection Division

2 Martin Luther King Jr. Drive, SE, Suite 1054

Atlanta, Georgia 30334

[kevin.collins@dnr.ga.gov](mailto:kevin.collins@dnr.ga.gov)

404-657-8610



---

**From:** Carrie Holderfield [<mailto:cholderfield@geconsultants.com>]

**Sent:** Monday, November 06, 2017 5:09 PM

**To:** Collins, Kevin; Beavers, Antonia

**Cc:** April Pair

**Subject:** RE: Macon Former MGP2, HSI# 10692

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Antonia,

Per our conversation late last week, please find the attached response letter for the EPD Macon MGP, HSI #10692 comments to the SMP and Progress Report.

Also per our conversation, we would like to request that the EPD approves the changes noted on the attached letter, with later incorporation into the formal SMP document.

Thank you again for your time last week.

Have a good afternoon.

Carrie

Carrie Holderfield, P.G., PMP  
Project Manager  
Geotechnical & Environmental Consultants, Inc.  
514 Hillcrest Industrial Boulevard  
Macon, Georgia 31204  
Office 478-757-1606  
Fax 478-757-1608  
Cell 210-872-8016  
[cholderfield@geconsultants.com](mailto:cholderfield@geconsultants.com)  
[www.geconsultants.com](http://www.geconsultants.com)



**From:** Carrie Holderfield



**Sent:** Thursday, November 02, 2017 5:28 PM

**To:** 'Collins, Kevin' <[Kevin.Collins@dnr.ga.gov](mailto:Kevin.Collins@dnr.ga.gov)>; Beavers, Antonia  
<[Antonia.Beavers@dnr.ga.gov](mailto:Antonia.Beavers@dnr.ga.gov)>

**Cc:** April Pair <[apair@smithwelchlaw.com](mailto:apair@smithwelchlaw.com)>; Andrew J. "Andy" Welch, III  
<[awelch@smithwelchlaw.com](mailto:awelch@smithwelchlaw.com)>; Tom Driver <[tdriver@geconsultants.com](mailto:tdriver@geconsultants.com)>

**Subject:** RE: Macon Former MGP2, HSI# 10692

Kevin and Antonia,

Thank you for your time to discuss the comments to the SMP and Progress Report for the MGP2 site this morning.

I have submitted the responses to your comments to the City Attorney, Mr. Welch, for his review.

Have a good afternoon.

Carrie

Carrie Holderfield, P.G., PMP  
Project Manager  
Geotechnical & Environmental Consultants, Inc.  
514 Hillcrest Industrial Boulevard  
Macon, Georgia 31204  
Office 478-757-1606  
Fax 478-757-1608  
Cell 210-872-8016  
[cholderfield@geconsultants.com](mailto:cholderfield@geconsultants.com)  
[www.geconsultants.com](http://www.geconsultants.com)

**GEC**

GEOTECHNICAL  
&  
ENVIRONMENTAL  
CONSULTANTS, INC

**From:** Collins, Kevin [<mailto:Kevin.Collins@dnr.ga.gov>]

**Sent:** Thursday, November 02, 2017 10:04 AM

**To:** Carrie Holderfield <[cholderfield@geconsultants.com](mailto:cholderfield@geconsultants.com)>; Beavers, Antonia  
<[Antonia.Beavers@dnr.ga.gov](mailto:Antonia.Beavers@dnr.ga.gov)>

**Cc:** April Pair <[apair@smithwelchlaw.com](mailto:apair@smithwelchlaw.com)>; Andrew J. "Andy" Welch, III

<[awelch@smithwelchlaw.com](mailto:awelch@smithwelchlaw.com)>

**Subject:** RE: Macon Former MGP2, HSI# 10692

Carrie,

I have a temporary conference line set up:

[\(515\) 739-1276](tel:(515)739-1276)

Conference ID#: 259466

I will plan on calling in at 10:30.

**Kevin Collins**

Unit Coordinator

Response & Remediation Program

GA Environmental Protection Division

2 Martin Luther King Jr. Drive, SE, Suite 1054

Atlanta, Georgia 30334

[kevin.collins@dnr.ga.gov](mailto:kevin.collins@dnr.ga.gov)

404-657-8610



---

**From:** Carrie Holderfield [<mailto:cholderfield@geconsultants.com>]

**Sent:** Thursday, November 02, 2017 9:56 AM

**To:** Collins, Kevin; Beavers, Antonia

**Cc:** April Pair; Andrew J. "Andy" Welch, III

**Subject:** RE: Macon Former MGP2, HSI# 10692

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Kevin,

Moving the call to 10:30 is fine for me.

I'm not sure about Andy's availability though. April?

Carrie

Carrie Holderfield, P.G., PMP

Project Manager

Geotechnical & Environmental Consultants, Inc.  
514 Hillcrest Industrial Boulevard  
Macon, Georgia 31204  
Office 478-757-1606  
Fax 478-757-1608  
Cell 210-872-8016  
[cholderfield@geconsultants.com](mailto:cholderfield@geconsultants.com)  
[www.geconsultants.com](http://www.geconsultants.com)



**From:** Collins, Kevin [<mailto:Kevin.Collins@dnr.ga.gov>]  
**Sent:** Thursday, November 02, 2017 9:47 AM  
**To:** Carrie Holderfield <[cholderfield@geconsultants.com](mailto:cholderfield@geconsultants.com)>; Beavers, Antonia <[Antonia.Beavers@dnr.ga.gov](mailto:Antonia.Beavers@dnr.ga.gov)>  
**Cc:** April Pair <[apair@smithwelchlaw.com](mailto:apair@smithwelchlaw.com)>; Andrew J. "Andy" Welch, III <[awelch@smithwelchlaw.com](mailto:awelch@smithwelchlaw.com)>  
**Subject:** RE: Macon Former MGP2, HSI# 10692

Carrie,  
I do not have a conference call line readily available. I will try to track one down. Would it be possible to push the call back to 10:30?

**Kevin Collins**

Unit Coordinator  
Response & Remediation Program  
GA Environmental Protection Division  
2 Martin Luther King Jr. Drive, SE, Suite 1054  
Atlanta, Georgia 30334  
[kevin.collins@dnr.ga.gov](mailto:kevin.collins@dnr.ga.gov)  
404-657-8610



---

**From:** Carrie Holderfield [<mailto:cholderfield@geconsultants.com>]



**Sent:** Thursday, November 02, 2017 8:55 AM  
**To:** Beavers, Antonia  
**Cc:** Collins, Kevin; April Pair; Andrew J. "Andy" Welch, III  
**Subject:** RE: Macon Former MGP2, HSI# 10692

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Morning,

Andy is going to try and be available for the conference call at 10 am.

Do you have a conference call number for us to connect to?

Carrie

Carrie Holderfield, P.G., PMP  
Project Manager  
Geotechnical & Environmental Consultants, Inc.  
514 Hillcrest Industrial Boulevard  
Macon, Georgia 31204  
Office 478-757-1606  
Fax 478-757-1608  
Cell 210-872-8016  
[cholderfield@geconsultants.com](mailto:cholderfield@geconsultants.com)  
[www.geconsultants.com](http://www.geconsultants.com)



**From:** Beavers, Antonia [<mailto:Antonia.Beavers@dnr.ga.gov>]  
**Sent:** Wednesday, November 01, 2017 1:10 PM  
**To:** Carrie Holderfield <[cholderfield@geconsultants.com](mailto:cholderfield@geconsultants.com)>  
**Cc:** Collins, Kevin <[Kevin.Collins@dnr.ga.gov](mailto:Kevin.Collins@dnr.ga.gov)>  
**Subject:** Macon Former MGP2, HSI# 10692

Hi Carrie,

I received your voicemail message. Kevin and I will return your call tomorrow morning. We'd



like to call at approximately 10 a.m., but please reply with an alternate time if you will not be available. Thank you.

*Antonia S. Beavers*

Environmental Engineer

GAEPD-Response and Remediation Program

2 Martin Luther King, Jr. Drive, SE

Suite 1054 East

Atlanta, Georgia 30334

Phone: 404-657-0487 Fax: 404-657-0807



# **APPENDIX XI**

## **Project Update and EPD Approval Correspondence**



May 4, 2018

Ms. Susan Kibler  
Georgia Department of Natural Resources  
Environmental Protection Division  
Hazardous Sites Response Program  
2 Martin Luther King, Jr. Drive, SE  
Atlanta, Georgia 30334

Subject: **Project Update and Timeline**  
Former Macon 2 MGP Facility  
HSI #10692  
Macon, Bibb County, Georgia  
GEC Job No. 130659.241

Ms. Kibler:

Geotechnical and Environmental Consultants, Inc. (GEC) is in the process of preparing the Voluntary Investigation and Remediation Program (VIRP) Compliance Status Report (CSR) for the former Macon 2 MGP Facility in Macon, Georgia. Please let this correspondence serve as notice that we will be submitting the CSR in lieu of the final Progress Report. We anticipate that the CSR will be finalized by June 1, 2018.

If you have any questions or need any additional information, please do not hesitate to call (478-757-1606) or email ([cholderfield@geconsultants.com](mailto:cholderfield@geconsultants.com)).

Sincerely,

A handwritten signature in blue ink, appearing to read "C. Holderfield", is written over a light blue circular stamp.

Carrie Holderfield, P.G.  
Professional Geologist  
Georgia Reg. #2174

May 17, 2018

Macon-Bibb County  
c/o The Honorable Robert Reichert, Mayor  
700 Poplar Street  
P.O. Box 247  
Macon, Georgia 31202-0247

Re: Project Update and Timeline  
Macon Former Manufactured Gas Plant 2, former HSI Site No. 10692  
Intersection of Willow Street and Spring Street Lane, Macon-Bibb County  
Parcels R071-0316 (OC98-5J), R073-0033 (OC99-4A), and R073-0398 (OC99-4AB)  
Portions of Right-of-Way of Willow Street and Spring Street Lane

Dear Mayor Reichert:

The Georgia Environmental Protection Division (EPD) has reviewed the Project Update and Timeline dated May 4, 2018 for the referenced site. EPD understands that a Compliance Status Report will be submitted in lieu of the next progress report, which is due by June 22, 2018. If you have any questions, please contact Susan Kibler at 404-657-7126.

Sincerely,



David Hayes  
Unit Coordinator  
Response and Remediation Program

c: Tom Driver (via email: [tdriver@geconsultants.com](mailto:tdriver@geconsultants.com))  
Carrie Holderfield (via email: [cholderfield@geconsultants.com](mailto:cholderfield@geconsultants.com))  
Andy Welch (via email: [awelch@smithwelchlaw.com](mailto:awelch@smithwelchlaw.com))

File: HSI# 10692, ID# 259-0104

S:\RDRIVE\skibler\VRP\1425418228\_Macon Former MGP Plant 2\Macon Former MGP2\VRP\2018.5.11\_letter update response.doc

# **APPENDIX XII**

## **Sanborn Maps**



# GEORGIA

# Sanborn Map Publishing Co.

117 BROADWAY, NEW YORK

Scale 50 Ft. to an inch

1889

Copyright 1889, by the Sanborn Map & Publishing Co. Limited

# INDEX

			INDEX				INDEX				INDEX
E			Poplar,	302-474	23	African Baptist Church,	17	E. T. V. & G. R. R. Round House,	23	Mount Olive	
	245-441	25	"	501-665	213	" Meth. Episc. Church,	17	" " " Shops & Yard,	25	Moxley, W.	
	301-507	10	"	502-670	12	Alexander Free School,	12	Edeerton Hotel,	8	Mulberry St	
	520-535	27	"	701-817	16	Appleton & Collins, Planing Mill,	4	English, I. B., & Co., Cotton Compress,	22		
	201-268	25	"	702-820	17	" Church Home,	23	Eureka Op.'s Potash Mfg'g,	25	National H.	
	352-421	19				Armory Knitting Mill,	23			Nelson Hotel	
	101-148	17						F		North Maco	
			Rose,	335-438	27			Findlay, O. D., Iron Works,	10		
			"	439-520	28			First Baptist Church,	26		
M						Berd, A., Harness Factory,	7	" Congreg. "	18	Parl. Hotel,	
	155-198	24				" G.,	7	" Method. "	18	Payne & W.	
Iacon,		21	S	101-274	14	" " " Cotton Mill, No. 1,	21	Flanders Bros., Cotton Warehouse,	7	Presbyterian	
	101-265	25	Second,	301-474	13	" " " " 2,	23			Pride, W. T.	
	102-270	24	"	501-670	12	Board of Trade Building,	7	C			
	301-471	26	"	701-872	11	Bone & Chappell, Oracker Factory,	7	Georgia Academy for the Blind,	28		
	302-472	27	"	1410-1507	27	Brown's Hotel,	8	" " " (Colorado),	27	Raynolds,	
	501-675	24	"	101-275	25	Buckingham, Tho.,	3	" State Agric. Soc. Fair Grounds,	29 & 30	Rivley, W.,	
	502-676	23	Seventh,	301-365	24	Bunkley, T. P., & Coal Yard,	25	Gray's Chapel,	9	Rogers & W.	
	701-875	25	"	501-605	23	Burke, J. W., & Co., Printing, & Co.,	13	Green St. Public School,	27	" O. 1	
	702-872	26	"	101-276	5	" T. O., Lime Warehouse,	7	Gresham High School,	23		
			Sixth,	301-466	4	Butts, A., Coal Yard,	4	Guernsey, T., & Son, Wood Works,	4		
			"	501-668	3					St. Barnaba	
	1-65	22	"					H		" Phil's B.	
N	101-270	15	Spring	2-66	12	Campbell & Jones, Cotton W. H.,	12				

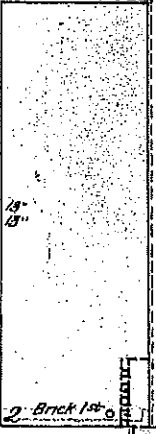
**42**  
MACON, GA.

No Exposure.

①

MACON & INDIAN SPRING ELECTRIC RLY CO'S  
CAR. HO.

Entrance To ROSE HILL CEMETERY



4" W. Pipe

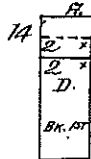
20'

Ocmulgee

ST.

100'

100'

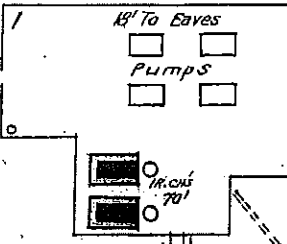


Ocmulgee River

MACON GAS LIGHT AND WATER CO.  
RIVER PUMPING STATION

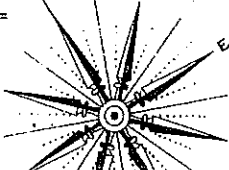
4 WORTHINGTON STEAM FORCE PUMPS: TWO HIGH PRESSURE PUMPS CAPAC: 1,000,000 GALLS PER 24 HOURS, ONE LOW PRESSURE PUMP CAPAC: 1,000,000 GALLS PER 24 HOURS & ONE LOW PRESSURE PUMP CAPAC: 7500 GALLS

POWER, STEAM, FUEL, COAL.  
LIGHTS, ELECTRIC.



1 1/4 Miles N. of City Hall.

SPRING



Fire Al Box

D.H. 110'

619

13

653

653

663

671

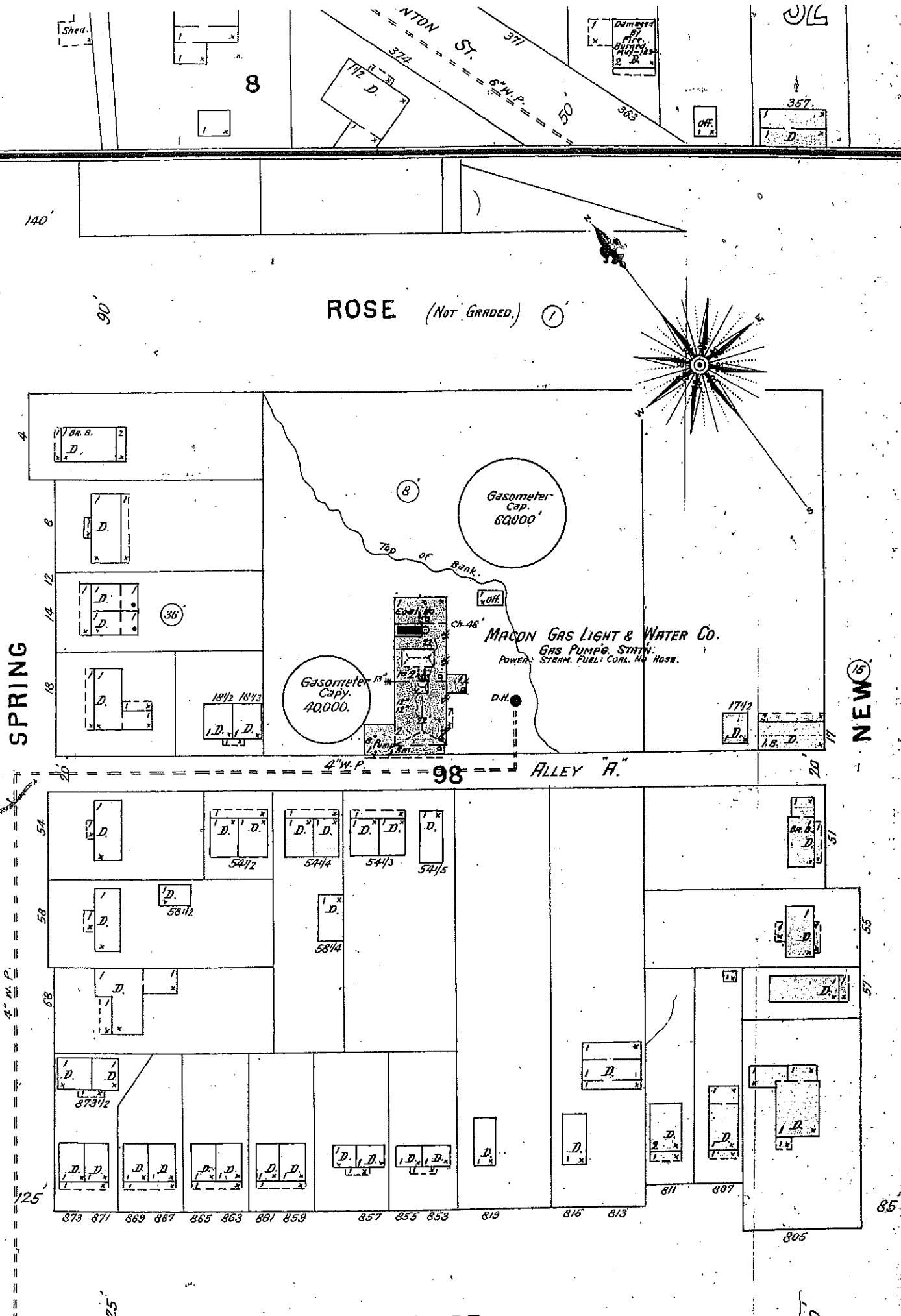
D.H.

671

671

671





ROSE (NOT GRADED.) (1)

SPRING

MACON GAS LIGHT & WATER CO.  
GAS PUMP STATION  
POWER: STEAM. FUEL: COAL. NO. ROSE.

NEW (15)

ALLEY "A."

OCMULGEE



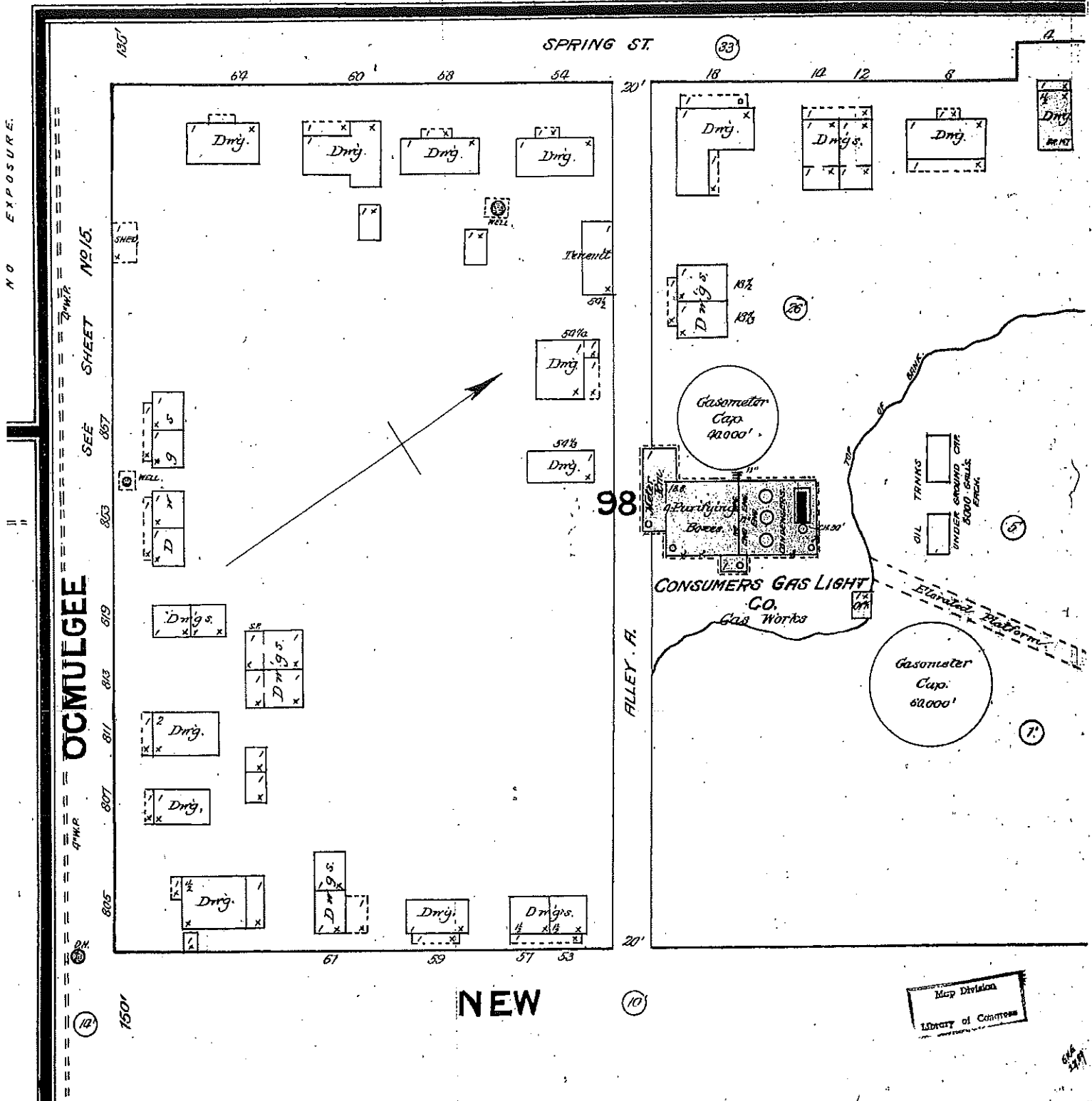
# COMPRESS.

POWER: STEAM. FUEL: COAL. HEAT: 1 STOVE IN OFF. LIGHTS: KERO  
LIGHT OIL IN SAFETY REFLECTING LANTERNS. 1-INSIDE & 2  
OUTSIDE WIRES WITH 100' OF 1" HOSE ATT. TO EACH. 1-MO. 3  
KNOWLES STEAM PUMP CONND. WITH ALL WIRES & CITY WATER  
MAIN. BY 2" W.A. BRICK CUT OFF WALL UNDER FLOORS. PLANKED  
FLOORS FROM 2' TO 3" REV. GROUND. BR. FLOORS IN FURNACE  
ROOMS. ALL DOORS & SHUTTERS TIN CL. 2 WATER CASKS IN NO. 1  
& 1 WATER CASK IN EACH OF THE OTHER W.HDS. FULL SUPPLY  
OF IRON FIRE PILLS. 20 HANDS EMPLOYED

Cap. of Press 120 Bales  
Per Hour:  
140, 1500 BILES  
CAP. OF W.Hds. 12 PRESS RPS.  
15, 700 BILES  
19, 700

NO EXPOSURE.

NO EXPOSURE.



53

6" W. PIPE

**MACON GAS LIGHT & WATER CO.**  
Formerly CONSUMERS GAS LIGHT CO.

ABANDONED AND DISAPPORTED

**NEW**

Diagram illustrating the layout of a tenement house and its surrounding plots. The central plot is labeled "Tenement" and contains a building labeled "D". To the left is a plot labeled "D". To the right are three plots labeled "D", "D", and "D" respectively. The plots are numbered 62, 58, 54, and 52 from left to right. The building "D" is shown with its internal structure and surrounding walls.

1924 Sanborn map.

1  
1-53

ROSE ST.

30

WRIGHTS LANE

SPRING

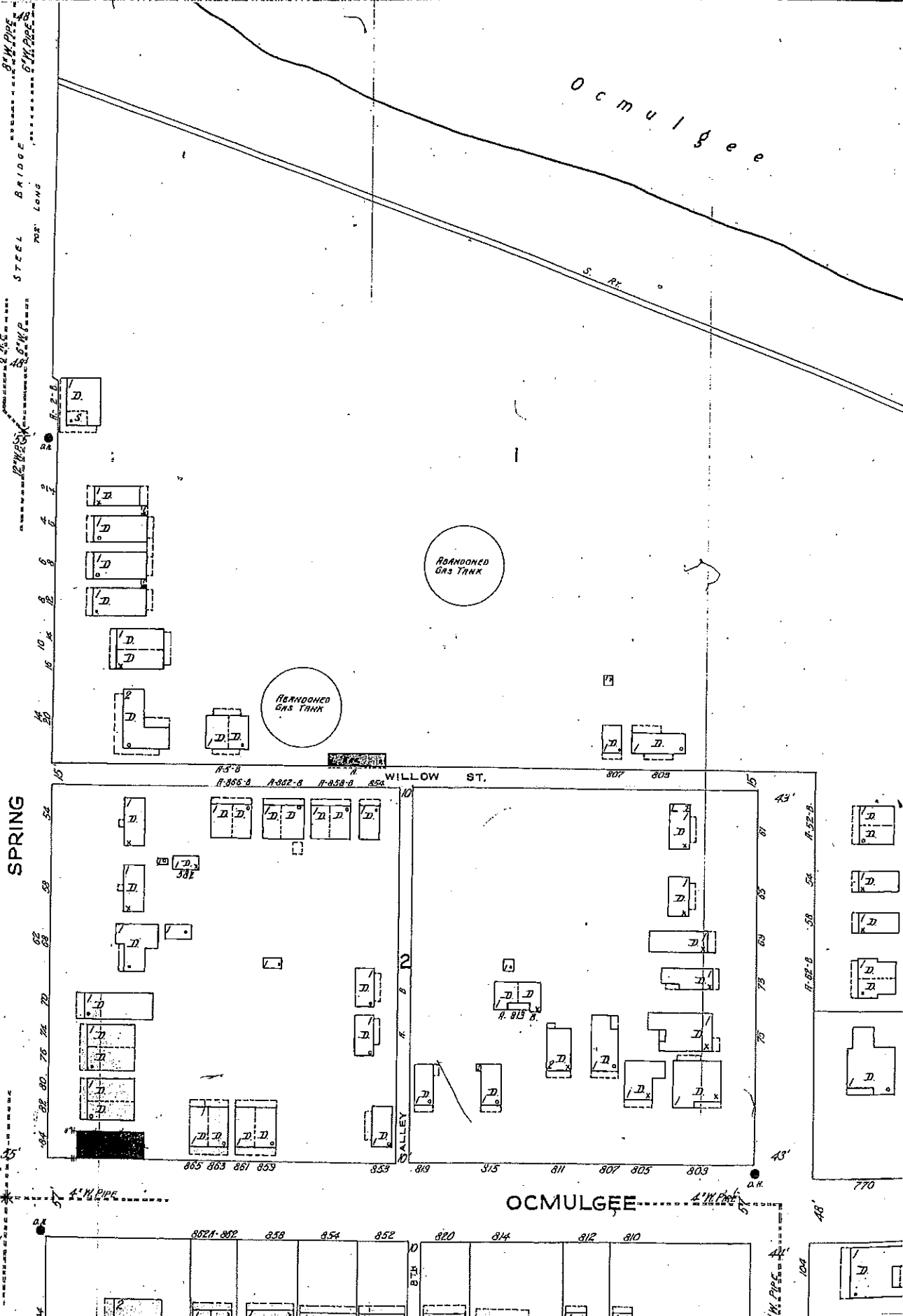
WILLOW ST.

OCMULGEE

Ocmulgee

ABANDONED GAS TANK

ABANDONED GAS TANK



419  
MHCOR. GR. VOL. 1  
1  
(1-53)

ROSE ST.

30

WRIGHTS LANE

SPRING

WILLOW ST.

Ocmulgee

River

ABANDONED  
GAS TANK

ABANDONED  
GAS TANK

3

2

Creek

# **APPENDIX XIII**

## **Disposal Documentation**



Table 4. Manifest Summary  
 Former Macon 2 MGP  
 Macon, Bibb County, Georgia  
 Project #130659.241

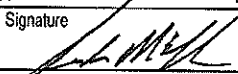
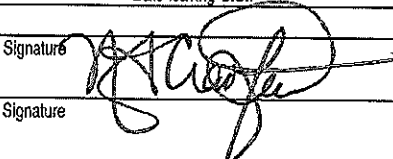
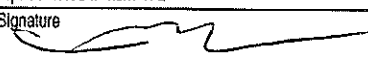
<b>Ticket #</b>	<b>Transport</b>	<b>Disposal</b>	<b>Tonnage</b>
00001	1/26/2018	1/30/2018	28.13
00002	1/26/2018	1/30/2018	29.06
00003	1/26/2018	1/30/2018	18.42
00004	1/29/2018	1/30/2018	23.32
00005	1/26/2018	1/30/2018	16.89
<b>Total Tonnage</b>			<b>115.82</b>

GENERATOR

INTL

TRANSPORTER

DESIGNATED FACILITY

Generator ID Number <b>GACESQG</b>		2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>800-255-3924</b>	4. Waste Tracking Number <b>00004</b>	
Generator Name and Mailing Address <b>MACON-BIBB COUNTY 315 RIVERSIDE DRIVE MACON, GA 31201</b>		Generator's Site Address (if different than mailing address)			
Generator's Phone:					
5. Transporter 1 Company Name <b>A&amp;D ENVIRONMENTAL SERVICES (SC), LLC</b>			U.S. EPA ID Number <b>SCD987598331</b>		
6. Transporter 2 Company Name			U.S. EPA ID Number		
8. Designated Facility Name and Site Address <b>A&amp;D ENVIRONMENTAL SERVICES (GA), LLC 100 WASTE RESEARCH DRIVE MACON, GA 31203 478-788-8899</b>			U.S. EPA ID Number <b>GAR000007484</b>		
Facility's Phone:					
9. Waste Shipping Name and Description	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	
	No.	Type			
	1	<b>NON-REGULATED MATERIAL, SOLID (CONTAMINATED SOIL) APPROVAL #GA20188889</b>	<b>001</b>	<b>Cm</b>	<b>23.32 T</b>
	2				
	3				
13. Special Handling Instructions and Additional Information  <b>RB32739</b>					
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.					
Generator's/Offor's Printed/Typed Name <b>In Behalf of GEC Robert McElendon</b>		Signature 		Month Day Year <b>01 29 18</b>	
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: Date leaving U.S.:			
16. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name <b>NORRIS CRAWFORD</b>		Signature 		Month Day Year <b>01 29 18</b>	
Transporter 2 Printed/Typed Name		Signature		Month Day Year	
17. Discrepancy					
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
Manifest Reference Number:					
17b. Alternate Facility (or Generator)		U.S. EPA ID Number			
Facility's Phone:					
17c. Signature of Alternate Facility (or Generator)		Signature		Month Day Year	
18. Designated Facility Owner or Operator. Certification of receipt of materials covered by the manifest except as noted in Item 17a					
Printed/Typed Name <b>Mr. R. K. R. L.</b>		Signature 		Month Day Year <b>01 20 18</b>	

DIXIE PRINTING CO. INC. • 678-245-3000

058334

**A.C. White Transfer & Storage Co., Inc**

670 Guy Paine Rd.

Macon, GA 31206

(478) 788-1436

19510

Customer's Name A & D

Address \_\_\_\_\_

Commodity \_\_\_\_\_

Carrier \_\_\_\_\_

Date 1/29/18

Tractor No. D217 Trailer No. 1001

37400 lb Gross

100 lb Tare

37400 lb Net

40,760

46,640 ÷ 2000

Remarks \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Cash \_\_\_\_\_ Charge ✓

Shipper \_\_\_\_\_

Weigher C. S. W. L.

GENERATOR

INITIAL

TRANSPORTER

DESIGNATED FACILITY

NON-HAZARDOUS  
WASTE MANIFEST1. Generator ID Number  
GACESQG2. Page 1 of  
13. Emergency Response Phone  
800-255-39244. Waste Tracking Number  
00001

5. Generator's Name and Mailing Address

MACON-BIBB COUNTY  
815 RIVERSIDE DRIVE  
MACON, GA 31201

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name

A&amp;D ENVIRONMENTAL SERVICES (SC), LLC

U.S. EPA ID Number

SCD987598331

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

A&D ENVIRONMENTAL SERVICES (GA), LLC  
189 WASTE RESEARCH DRIVE  
MACON, GA 31206

U.S. EPA ID Number

GAR000007484

Facility's Phone: 478-788-8699

9. Waste Shipping Name and Description

10. Containers

No.

Type

11. Total  
Quantity12. Unit  
Wt/Vol.1. NON-REGULATED MATERIAL, SOLID (CONTAMINATED SOIL)  
APPROVAL #GA20180009

001

CM

8000 LBS

28.13 T

2.

3.

4.

13. Special Handling Instructions and Additional Information

Box 123 76779 R+

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Officer's Printed/Typed Name

Signature

Month Day Year

on Behalf of CEC Robert McLaughlin

LH M/L

1 26 18

15. International Shipments

☐ Import to U.S.☐ Export from U.S.

Port of entry/exit:

Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Signature

Month Day Year

Francisco Martinez

Francisco M

01 26 18

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

☐ Quantity☐ Type☐ Residue☐ Partial Rejection☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (for Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (for Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name

Signature

Month Day Year

M. L. H. H. H.

M. L. H. H. H.

01 26 18

058334

**A.C. White Transfer & Storage Co., Inc**  
670 Guy Paine Rd.  
Macon, GA 31206  
(478) 788-1436

19501

Customer's Name A + D

Address \_\_\_\_\_

Commodity \_\_\_\_\_

Carrier \_\_\_\_\_

Date 11/26/18

Tractor No. 137 Trailer No. CB367A1ET

49480 lb Gross  
2015 Tare  
47465 lb Net

33,220

56,260

Remarks \_\_\_\_\_

Cash \_\_\_\_\_ Charge ☒

Shipper C. Sneed  
Weigher \_\_\_\_\_

**NON-HAZARDOUS  
WASTE MANIFEST**

1. Generator ID Number  
**GACESQG**

2. Page 1 of  
**1**

3. Emergency Response Phone  
**800-255-3924**

4. Waste Tracking Number  
**00005**

5. Generator's Name and Mailing Address

**MACON-BIBB COUNTY  
815 RIVERSIDE DRIVE  
MACON, GA 31201**

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name

**A&D ENVIRONMENTAL SERVICES (SC), LLC**

U.S. EPA ID Number

**SCD987598331**

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

**A&D ENVIRONMENTAL SERVICES (GA), LLC  
100 WASTE RESEARCH DRIVE  
MACON, GA 31206**

U.S. EPA ID Number

**GAR000007484**

Facility's Phone:

**478-788-8899**

9. Waste Shipping Name and Description

**NON-REGULATED MATERIAL, SOLID (CONTAMINATED SOIL)  
APPROVAL #GA29189899**

10. Containers

No. Type

**001 CM**

11. Total Quantity

**16.89 T**

12. Unit Wt./Vol.

**T**

13. Special Handling Instructions and Additional Information

**D.x# RB40693**

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Officer's Printed/Typed Name

Signature

Month Day Year

**On Behalf GEC**

*Richard Miller*

*Richard Miller*

**1 26 18**

15. International Shipments

☐ Import to U.S.

☐ Export from U.S.

Port of entry/exit:

Date leaving U.S.:

Transporter Signature (for exports only):

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Signature

Month Day Year

**Francisco V. Lopez**

*Francisco V. Lopez*

**01 26 18**

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

☐ Quantity

☐ Type

☐ Residue

☐ Partial Rejection

☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name

Signature

Month Day Year

**Marc Ruiz**

*Marc Ruiz*

**01 30 18**

CC Labels • Printed in the USA

1-800-937-6966

DESIGNATED FACILITY TO GENERATOR

Reorder Part# MANIFEST-C6NHC  
913-897-6966

DIXIE PRINTING CO. INC. • 678-545-8000

058334

**A.C. White Transfer & Storage Co., Inc**  
670 Guy Paine Rd.  
Macon, GA 31206  
(478) 788-1436

19502

Customer's Name A + D  
Address \_\_\_\_\_  
Commodity \_\_\_\_\_  
Carrier \_\_\_\_\_  
Date 11/26/18  
Tractor No. 137 Trailer No. RB40693

67000 10 Gross  
00 15 Tare  
67000 15 Net

33,220

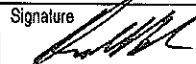
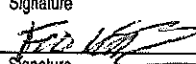
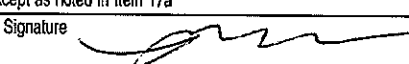
33,280

Remarks \_\_\_\_\_

Cash \_\_\_\_\_ Charge ☒

Shipper \_\_\_\_\_  
Weigher A. Sneed



<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>GAGESGC</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>800-255-3024</b>	4. Waste Tracking Number <b>00002</b>
5. Generator's Name and Mailing Address <b>MACON-BIBB COUNTY 815 RIVERSIDE DRIVE MACON, GA 31201</b>					
Generator's Phone: <b>478-788-8899</b>					
6. Transporter 1 Company Name <b>A&amp;D ENVIRONMENTAL SERVICES (SC), LLC</b>				U.S. EPA ID Number <b>SCD987598331</b>	
7. Transporter 2 Company Name				U.S. EPA ID Number	
8. Designated Facility Name and Site Address <b>A&amp;D ENVIRONMENTAL SERVICES (GA), LLC 100 WASTE RESEARCH DRIVE MACON, GA 31203</b>				U.S. EPA ID Number <b>GAR000007484</b>	
Facility's Phone: <b>478-788-8899</b>					
9. Waste Shipping Name and Description		10. Containers		11. Total Quantity	12. Unit Wt./Vol.
		No.	Type		
1. <b>NON-REGULATED MATERIAL, SOLID (CONTAMINATED SOIL) APPROVAL #GA20180009</b>		<b>001</b>	<b>CU</b>	<b>29.06</b>	<b>T</b>
2.					
3.					
4.					
13. Special Handling Instructions and Additional Information  <b>Box # 31208 RT</b>					
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.					
Generator's/Offor's Printed/Typed Name <b>On Behalf of GEC Robert McClach</b>		Signature 		Month Day Year <b>1 26 18</b>	
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____					
16. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name <b>Francisco W. Martinez</b>		Signature 		Month Day Year <b>01 26 18</b>	
Transporter 2 Printed/Typed Name		Signature		Month Day Year	
17. Discrepancy					
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
Manifest Reference Number: _____					
17b. Alternate Facility (or Generator)				U.S. EPA ID Number	
Facility's Phone: _____					
17c. Signature of Alternate Facility (or Generator)				Month Day Year	
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a					
Printed/Typed Name <b>Mark R. Norris</b>		Signature 		Month Day Year <b>01 30 18</b>	

DIXIE PRINTING CO., INC. • 678-945-0600

058334

**A.C. White Transfer & Storage Co., Inc**  
670 Guy Paine Rd.  
Macon, GA 31206  
(478) 788-1436

19499

Customer's Name AD  
Address \_\_\_\_\_  
Commodity \_\_\_\_\_  
Carrier \_\_\_\_\_  
Date 01.20.17  
Tractor No. 137 Trailer No. RB31208  
RT

11340 lb Gross  
00 lb Tare  
91340 lb Net

33,210

58,120 = 2000

Remarks \_\_\_\_\_

Cash \_\_\_\_\_

Charge ✓

Shipper \_\_\_\_\_

Weigher \_\_\_\_\_

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number  
GACESQ6

2. Page 1 of 1

3. Emergency Response Phone  
800-255-9924

4. Waste Tracking Number  
88883

5. Generator's Name and Mailing Address  
MACON-BIBB COUNTY  
815 RIVERSIDE DRIVE  
MACON, GA 31201

Generator's Site Address (if different than mailing address)

Generator's Phone:  
6. Transporter 1 Company Name  
A&D ENVIRONMENTAL SERVICES (SC), LLC

U.S. EPA ID Number  
SCD987598331

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address  
A&D ENVIRONMENTAL SERVICES (GA), LLC  
100 WASTE RESEARCH DRIVE  
MACON, GA 31206

U.S. EPA ID Number  
GAR000007484

Facility's Phone: 478-788-8899

9. Waste Shipping Name and Description  
1. NON-REGULATED MATERIAL, SOLID (CONTAMINATED SOIL)  
APPROVAL #GA20180009

10. Containers  
No. Type  
001 CM

11. Total Quantity  
18.42

12. Unit Wt/Vol.  
T

13. Special Handling Instructions and Additional Information  
U-X # RB 37094

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name  
On Behalf of GEC Robert McLeod

Signature  
[Signature]

Month Day Year  
1 26 18

15. International Shipments  
☐ Import to U.S. ☐ Export from U.S.

Port of entry/exit:  
Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name  
Francisco Martinez

Signature  
[Signature]

Month Day Year  
01 26 18

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space  
☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name  
Mark R. Rusk

Signature  
[Signature]

Month Day Year  
01 30 18

GC Labels • Printed in the USA  
1-800-997-8866

DESIGNATED FACILITY TO GENERATOR

Reorder Part# MANIFEST-C6NHWC  
913-897-6966

DIXIE PRINTING CO., INC. • 878-945-0500

058334

**A.C. White Transfer & Storage Co., Inc**

670 Guy Paine Rd.  
Macon, GA 31206  
(478) 788-1436

19504

Customer's Name A & D

Address \_\_\_\_\_

Commodity \_\_\_\_\_

Carrier \_\_\_\_\_

Date 11/26/18

Tractor No. 137 Trailer No. 803709487

70050 1b Gross

00 15 Tare

70062 15 Net

33,220

36840 ÷ 2000 =

Remarks \_\_\_\_\_

Cash \_\_\_\_\_ Charge ☒

Shipper \_\_\_\_\_  
Weigher A. Sneed

**SPECIAL WASTE PROFILE**

Page 1 of 2

Requested Disposal Facility: 3708 Pine Ridge LF GA

Waste Profile #

Saveable fill-in form. Restricted printing until all required (yellow) fields are completed.

**I. Generator Information**

Sales Rep #:

Generator Name: GEC			
Generator Site Address: Rlverside Drive			
City: Macon	County: Bibb	State: Georgia	Zip: 31204
State ID/Reg No:	State Approval/Waste Code: (if applicable)		NAICS #:
Generator Mailing Address (if different): <input checked="" type="checkbox"/> 514 Hillcrest Industrial Blvd			
City: Macon	County: Bibb	State: Georgia	Zip: 31201
Generator Contact Name: Carrie Holderfield GEC		Email: cholderfield@geoconsultants.com	
Phone Number: (478) 845-8581	Ext:	Fax Number:	

**II. Billing Information**

Bill To: A & D Environmental Services		Contact Name: RObert McClendon	
Billing Address: 100 Waste Research Drive		Email: rmccclendon@adenviro.com	
City: Macon	State: GA	Zip: 31216	Phone: (478) 788-8899

**III. Waste Stream Information**

Name of Waste: Contaminated Spil	
Process Generating Waste: Remediation of contaminated soil from Riverside Drive MPG project.	
Type of Waste:	<input type="checkbox"/> INDUSTRIAL PROCESS WASTE <input checked="" type="checkbox"/> POLLUTION CONTROL WASTE
Physical State:	<input checked="" type="checkbox"/> SOLID <input type="checkbox"/> SEMI-SOLID <input type="checkbox"/> POWDER <input type="checkbox"/> LIQUID
Method of Shipment:	<input checked="" type="checkbox"/> BULK <input type="checkbox"/> DRUM <input type="checkbox"/> BAGGED <input type="checkbox"/> OTHER: Roll Offs
Estimated Annual Volume:	35 Cubic Yards
Frequency:	<input checked="" type="checkbox"/> ONE TIME <input type="checkbox"/> ONGOING
Disposal Consideration:	<input checked="" type="checkbox"/> LANDFILL <input type="checkbox"/> SOLIDIFICATION <input type="checkbox"/> BIOREMEDIATION

**IV. Representative Sample Certification**☐ NO SAMPLE TAKEN

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent rules?	<input checked="" type="checkbox"/> YES or <input type="checkbox"/> NO
Type of Sample: <input checked="" type="checkbox"/> COMPOSITE SAMPLE <input type="checkbox"/> GRAB SAMPLE	
Sample Date: 12/23/2017	
Sample ID Numbers: 680-147127-1	



Waste Profile #

**V. Physical Characteristics of Waste**

Characteristic Components		% by Weight (range)			
1.					
2.					
3.					
4.					
5.					
Color	Odor (describe)	Does Waste Contain Free Liquids?	% Solids	pH:	Flash Point
Varies	None	<input type="checkbox"/> YES or <input checked="" type="checkbox"/> NO	100	5-9	>200 °F
<b>Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) Including Chain of Custody and Required Parameters Provided for this Profile</b>					
Does this waste or generating process contain regulated concentrations of the following Pesticides and/or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm)[reference 40 CFR 261.23(a)(5)]?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCDD), or any other dioxin as defined in 40 CFR 261.31?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this waste a reactive or heat generating waste?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Does the waste contain sulfur or sulfur by-products?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this waste generated at a Federal Superfund Clean Up Site?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No
Is this waste from a TSD facility, TSD-like facility or consolidator?					<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No

**VI. Certification**

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services Inc.

Carrie Holder Field

GEC

Authorized Representative Name And Title (Type or Print)

Company Name

1/12/2017

Authorized Representative Signature

Date

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

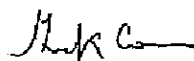
## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404  
Tel: (912)354-7858

TestAmerica Job ID: 680-147127-2  
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:  
1/9/2018 1:42:58 PM

Keaton Conner, Project Manager I  
(813)885-7427  
keaton.conner@testamericainc.com

### LINKS

Review your project  
results through

**Total Access**

Have a Question?

**Ask  
The  
Expert**

Visit us at:

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

*The test results in this report meet all 2003 NELAP 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.*



## Definitions/Glossary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-2

### Qualifiers

#### GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	ISTD response or retention time outside acceptable limits
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery is outside acceptance limits.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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

TestAmerica Job ID: 680-147127-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-147127-9	IDW-1	Solid	12/19/17 12:35	12/21/17 10:45
680-147127-10	IDW-2	Solid	12/19/17 12:53	12/21/17 10:45
680-147127-11	IDW-3	Solid	12/19/17 14:20	12/21/17 10:45
680-147127-12	IDW-4	Solid	12/19/17 15:23	12/21/17 10:45

## Case Narrative

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-2

**Job ID: 680-147127-2**

**Laboratory: TestAmerica Savannah**

Narrative

### CASE NARRATIVE

**Client: Geotechnical & Environmental Consultants**

**Project: Macon MGP**

**Report Number: 680-147127-1**

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 12/21/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 1.0° C.

#### SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) - LOW LEVEL

Sample SB-17W2 13-15 (680-147127-1) was analyzed for Semivolatile Organic Compounds (GC/MS) - Low level in accordance with EPA SW846 Method 8270D. The samples were prepared on 12/23/2017 and analyzed on 12/26/2017.

Surrogate recovery for the following sample was outside the upper control limit: IDW-4 (680-147127-12). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Internal standard (ISTD) response for the following sample was outside control limits: IDW-4 (680-147127-12). The sample(s) was re-analyzed with concurring results, and the original set of data has been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### METALS (ICP)

Samples GB-11W2 0-2 (680-147127-2), GB-14E2 0-5 (680-147127-3), GB-14E2D 8-10 (680-147127-4), GB-14S2D 8-10 (680-147127-5), GB-28W2 13-15 (680-147127-6), GB-28E2 13-15 (680-147127-7) and GB-27W2 0-2 (680-147127-8) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 12/22/2017 and analyzed on 12/26/2017.

MS and/or MSD Recovery is outside acceptance limits for several analytes. Refer to QC report for details.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### PERCENT SOLIDS/MOISTURE

Samples SB-17W2 13-15 (680-147127-1), GB-11W2 0-2 (680-147127-2), GB-14E2 0-5 (680-147127-3), GB-14E2D 8-10 (680-147127-4), GB-14S2D 8-10 (680-147127-5), GB-28W2 13-15 (680-147127-6), GB-28E2 13-15 (680-147127-7) and GB-27W2 0-2 (680-147127-8) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 12/22/2017.

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

TestAmerica Job ID: 680-147127-2

Client Sample ID: IDW-1

Lab Sample ID: 680-147127-9

Date Collected: 12/19/17 12:35

Matrix: Solid

Date Received: 12/21/17 10:45

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.0082	J	0.050	0.0028	mg/L		12/26/17 14:40	12/30/17 12:29	1
Benzo[a]pyrene	0.0065	J	0.050	0.0036	mg/L		12/26/17 14:40	12/30/17 12:29	1
Benzo[b]fluoranthene	0.013	U	0.050	0.013	mg/L		12/26/17 14:40	12/30/17 12:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	71		38 - 130				12/26/17 14:40	12/30/17 12:29	1
Terphenyl-d14 (Surr)	36		10 - 143				12/26/17 14:40	12/30/17 12:29	1
Nitrobenzene-d5 (Surr)	73		39 - 130				12/26/17 14:40	12/30/17 12:29	1

## Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.10	U	0.10	0.10	mg/L		12/26/17 15:46	12/27/17 13:10	1
Arsenic	0.20	U	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 13:10	1
Barium	1.0	U F1	1.0	1.0	mg/L		12/26/17 15:46	12/27/17 13:10	1
Beryllium	0.040	U	0.040	0.040	mg/L		12/26/17 15:46	12/27/17 13:10	1
Cadmium	0.10	U	0.10	0.10	mg/L		12/26/17 15:46	12/27/17 13:10	1
Chromium	0.20	U	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 13:10	1
Copper	0.20	U	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 13:10	1
Nickel	0.40	U	0.40	0.40	mg/L		12/26/17 15:46	12/27/17 13:10	1
Lead	0.62	F1	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 13:10	1
Selenium	0.50	U	0.50	0.50	mg/L		12/26/17 15:46	12/27/17 13:10	1
Vanadium	0.10	U	0.10	0.10	mg/L		12/26/17 15:46	12/27/17 13:10	1
Zinc	0.82		0.20	0.20	mg/L		12/26/17 15:46	12/27/17 13:10	1

TestAmerica Savannah

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-2

**Client Sample ID: IDW-2**

**Lab Sample ID: 680-147127-10**

**Date Collected: 12/19/17 12:53**

**Matrix: Solid**

**Date Received: 12/21/17 10:45**

### Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.0028	U	0.050	0.0028	mg/L		12/26/17 14:40	12/30/17 12:53	1
Benzo[a]pyrene	0.0036	U	0.050	0.0036	mg/L		12/26/17 14:40	12/30/17 12:53	1
Benzo[b]fluoranthene	0.013	U	0.050	0.013	mg/L		12/26/17 14:40	12/30/17 12:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	77		38 - 130				12/26/17 14:40	12/30/17 12:53	1
Terphenyl-d14 (Surr)	78		10 - 143				12/26/17 14:40	12/30/17 12:53	1
Nitrobenzene-d5 (Surr)	78		39 - 130				12/26/17 14:40	12/30/17 12:53	1

### Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.10	U	0.10	0.10	mg/L		12/26/17 15:46	12/27/17 13:31	1
Arsenic	0.20	U	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 13:31	1
Barium	1.0	U	1.0	1.0	mg/L		12/26/17 15:46	12/27/17 13:31	1
Beryllium	0.040	U	0.040	0.040	mg/L		12/26/17 15:46	12/27/17 13:31	1
Cadmium	0.10	U	0.10	0.10	mg/L		12/26/17 15:46	12/27/17 13:31	1
Chromium	0.20	U	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 13:31	1
Copper	0.50		0.20	0.20	mg/L		12/26/17 15:46	12/27/17 13:31	1
Nickel	0.40	U	0.40	0.40	mg/L		12/26/17 15:46	12/27/17 13:31	1
Lead	0.39		0.20	0.20	mg/L		12/26/17 15:46	12/27/17 13:31	1
Selenium	0.50	U	0.50	0.50	mg/L		12/26/17 15:46	12/27/17 13:31	1
Vanadium	0.10	U	0.10	0.10	mg/L		12/26/17 15:46	12/27/17 13:31	1
Zinc	1.8		0.20	0.20	mg/L		12/26/17 15:46	12/27/17 13:31	1

TestAmerica Savannah

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-2

**Client Sample ID: IDW-3**

**Lab Sample ID: 680-147127-11**

**Date Collected: 12/19/17 14:20**

**Matrix: Solid**

**Date Received: 12/21/17 10:45**

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.0028	U	0.050	0.0028	mg/L		12/26/17 14:40	12/30/17 13:18	1
Benzo[a]pyrene	0.0036	U	0.050	0.0036	mg/L		12/26/17 14:40	12/30/17 13:18	1
Benzo[b]fluoranthene	0.013	U	0.050	0.013	mg/L		12/26/17 14:40	12/30/17 13:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	68		38 - 130				12/26/17 14:40	12/30/17 13:18	1
Terphenyl-d14 (Surr)	75		10 - 143				12/26/17 14:40	12/30/17 13:18	1
Nitrobenzene-d5 (Surr)	73		39 - 130				12/26/17 14:40	12/30/17 13:18	1

Method: 6010C - Metals (ICP) - TCLP									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.10	U	0.10	0.10	mg/L		12/26/17 15:46	12/27/17 13:35	1
Arsenic	0.20	U	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 13:35	1
Barium	1.0	U	1.0	1.0	mg/L		12/26/17 15:46	12/27/17 13:35	1
Beryllium	0.040	U	0.040	0.040	mg/L		12/26/17 15:46	12/27/17 13:35	1
Cadmium	0.10	U	0.10	0.10	mg/L		12/26/17 15:46	12/27/17 13:35	1
Chromium	0.20	U	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 13:35	1
Copper	0.20	U	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 13:35	1
Nickel	0.40	U	0.40	0.40	mg/L		12/26/17 15:46	12/27/17 13:35	1
Lead	0.20		0.20	0.20	mg/L		12/26/17 15:46	12/27/17 13:35	1
Selenium	0.50	U	0.50	0.50	mg/L		12/26/17 15:46	12/27/17 13:35	1
Vanadium	0.10	U	0.10	0.10	mg/L		12/26/17 15:46	12/27/17 13:35	1
Zinc	0.71		0.20	0.20	mg/L		12/26/17 15:46	12/27/17 13:35	1

5

TestAmerica Savannah

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-2

**Client Sample ID: IDW-4**

**Lab Sample ID: 680-147127-12**

**Date Collected: 12/19/17 15:23**

**Matrix: Solid**

**Date Received: 12/21/17 10:45**

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.0028	U *	0.050	0.0028	mg/L		12/26/17 14:40	12/30/17 13:42	1
Benzo[a]pyrene	0.0036	U *	0.050	0.0036	mg/L		12/26/17 14:40	12/30/17 13:42	1
Benzo[b]fluoranthene	0.013	U *	0.050	0.013	mg/L		12/26/17 14:40	12/30/17 13:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	147	*X	38 - 130				12/26/17 14:40	12/30/17 13:42	1
Terphenyl-d14 (Surr)	148	*X	10 - 143				12/26/17 14:40	12/30/17 13:42	1
Nitrobenzene-d5 (Surr)	149	*X	39 - 130				12/26/17 14:40	12/30/17 13:42	1

Method: 6010C - Metals (ICP) - TCLP									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.10	U	0.10	0.10	mg/L		12/26/17 15:46	12/27/17 13:40	1
Arsenic	0.20	U	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 13:40	1
Barium	1.0		1.0	1.0	mg/L		12/26/17 15:46	12/27/17 13:40	1
Beryllium	0.040	U	0.040	0.040	mg/L		12/26/17 15:46	12/27/17 13:40	1
Cadmium	0.10	U	0.10	0.10	mg/L		12/26/17 15:46	12/27/17 13:40	1
Chromium	0.20	U	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 13:40	1
Copper	0.20	U	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 13:40	1
Nickel	0.40	U	0.40	0.40	mg/L		12/26/17 15:46	12/27/17 13:40	1
Lead	2.3		0.20	0.20	mg/L		12/26/17 15:46	12/27/17 13:40	1
Selenium	0.50	U	0.50	0.50	mg/L		12/26/17 15:46	12/27/17 13:40	1
Vanadium	0.10	U	0.10	0.10	mg/L		12/26/17 15:46	12/27/17 13:40	1
Zinc	2.5		0.20	0.20	mg/L		12/26/17 15:46	12/27/17 13:40	1

TestAmerica Savannah



# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-2

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-507673/12-A  
Matrix: Solid  
Analysis Batch: 508235

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 507673

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.00056	U	0.010	0.00056	mg/L		12/26/17 14:40	12/30/17 10:27	1
Benzo[a]pyrene	0.00072	U	0.010	0.00072	mg/L		12/26/17 14:40	12/30/17 10:27	1
Benzo[b]fluoranthene	0.0026	U	0.010	0.0026	mg/L		12/26/17 14:40	12/30/17 10:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	77		38 - 130	12/26/17 14:40	12/30/17 10:27	1
Terphenyl-d14 (Surr)	80		10 - 143	12/26/17 14:40	12/30/17 10:27	1
Nitrobenzene-d5 (Surr)	80		39 - 130	12/26/17 14:40	12/30/17 10:27	1

Lab Sample ID: LCS 680-507673/13-A  
Matrix: Solid  
Analysis Batch: 508235

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 507673  
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzo[a]anthracene	0.100	0.0897		mg/L		90	44 - 130
Benzo[a]pyrene	0.100	0.0849		mg/L		85	44 - 130
Benzo[b]fluoranthene	0.100	0.0903		mg/L		90	43 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	70		38 - 130
Terphenyl-d14 (Surr)	74		10 - 143
Nitrobenzene-d5 (Surr)	74		39 - 130

Lab Sample ID: LB 680-507488/1-B  
Matrix: Solid  
Analysis Batch: 508235

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 507673

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.0028	U	0.049	0.0028	mg/L		12/26/17 14:40	12/30/17 10:51	1
Benzo[a]pyrene	0.0036	U	0.049	0.0036	mg/L		12/26/17 14:40	12/30/17 10:51	1
Benzo[b]fluoranthene	0.013	U	0.049	0.013	mg/L		12/26/17 14:40	12/30/17 10:51	1

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	73		38 - 130	12/26/17 14:40	12/30/17 10:51	1
Terphenyl-d14 (Surr)	79		10 - 143	12/26/17 14:40	12/30/17 10:51	1
Nitrobenzene-d5 (Surr)	73		39 - 130	12/26/17 14:40	12/30/17 10:51	1

Lab Sample ID: 680-147127-9 MS  
Matrix: Solid  
Analysis Batch: 508235

Client Sample ID: IDW-1  
Prep Type: TCLP  
Prep Batch: 507673  
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Benzo[a]anthracene	0.0082	J	0.499	0.426		mg/L		84	44 - 130
Benzo[a]pyrene	0.0065	J	0.499	0.413		mg/L		81	44 - 130
Benzo[b]fluoranthene	0.013	U	0.499	0.433		mg/L		87	43 - 130

TestAmerica Savannah

## QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-2

### Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-147127-9 MS

Matrix: Solid

Analysis Batch: 508235

Client Sample ID: IDW-1

Prep Type: TCLP

Prep Batch: 507673

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl (Surr)	64		38 - 130
Terphenyl-d14 (Surr)	39		10 - 143
Nitrobenzene-d5 (Surr)	73		39 - 130

Lab Sample ID: 680-147127-9 MSD

Matrix: Solid

Analysis Batch: 508235

Client Sample ID: IDW-1

Prep Type: TCLP

Prep Batch: 507673

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[a]anthracene	0.0082	J	0.500	0.426		mg/L		84	44 - 130	0	50
Benzo[a]pyrene	0.0065	J	0.500	0.392		mg/L		77	44 - 130	5	50
Benzo[b]fluoranthene	0.013	U	0.500	0.406		mg/L		81	43 - 130	6	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	71		38 - 130
Terphenyl-d14 (Surr)	37		10 - 143
Nitrobenzene-d5 (Surr)	77		39 - 130

### Method: 6010C - Metals (ICP)

Lab Sample ID: LB 680-507714/3-A

Matrix: Solid

Analysis Batch: 507868

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 507714

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.10	U	0.10	0.10	mg/L		12/26/17 15:46	12/27/17 12:57	1
Arsenic	0.20	U	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 12:57	1
Barium	1.0	U	1.0	1.0	mg/L		12/26/17 15:46	12/27/17 12:57	1
Beryllium	0.040	U	0.040	0.040	mg/L		12/26/17 15:46	12/27/17 12:57	1
Cadmium	0.10	U	0.10	0.10	mg/L		12/26/17 15:46	12/27/17 12:57	1
Chromium	0.20	U	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 12:57	1
Copper	0.20	U	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 12:57	1
Nickel	0.40	U	0.40	0.40	mg/L		12/26/17 15:46	12/27/17 12:57	1
Lead	0.20	U	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 12:57	1
Selenium	0.50	U	0.50	0.50	mg/L		12/26/17 15:46	12/27/17 12:57	1
Vanadium	0.10	U	0.10	0.10	mg/L		12/26/17 15:46	12/27/17 12:57	1
Zinc	0.20	U	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 12:57	1

Lab Sample ID: LB2 680-507714/16-A

Matrix: Solid

Analysis Batch: 507868

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 507714

Analyte	LB2 Result	LB2 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.10	U	0.10	0.10	mg/L		12/26/17 15:46	12/27/17 14:14	1
Arsenic	0.20	U	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 14:14	1
Barium	1.0	U	1.0	1.0	mg/L		12/26/17 15:46	12/27/17 14:14	1
Beryllium	0.040	U	0.040	0.040	mg/L		12/26/17 15:46	12/27/17 14:14	1
Cadmium	0.10	U	0.10	0.10	mg/L		12/26/17 15:46	12/27/17 14:14	1

TestAmerica Savannah

## QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-2

### Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LB2 680-507714/16-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 507868						Prep Batch: 507714			
Analyte	LB2 Result	LB2 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.20	U	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 14:14	1
Copper	0.20	U	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 14:14	1
Nickel	0.40	U	0.40	0.40	mg/L		12/26/17 15:46	12/27/17 14:14	1
Lead	0.20	U	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 14:14	1
Selenium	0.50	U	0.50	0.50	mg/L		12/26/17 15:46	12/27/17 14:14	1
Vanadium	0.10	U	0.10	0.10	mg/L		12/26/17 15:46	12/27/17 14:14	1
Zinc	0.20	U	0.20	0.20	mg/L		12/26/17 15:46	12/27/17 14:14	1

Lab Sample ID: MB 680-507714/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 507868						Prep Batch: 507714			
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.010	U	0.010	0.010	mg/L		12/26/17 15:46	12/27/17 12:49	1
Arsenic	0.020	U	0.020	0.020	mg/L		12/26/17 15:46	12/27/17 12:49	1
Barium	0.10	U	0.10	0.10	mg/L		12/26/17 15:46	12/27/17 12:49	1
Beryllium	0.0040	U	0.0040	0.0040	mg/L		12/26/17 15:46	12/27/17 12:49	1
Cadmium	0.010	U	0.010	0.010	mg/L		12/26/17 15:46	12/27/17 12:49	1
Chromium	0.020	U	0.020	0.020	mg/L		12/26/17 15:46	12/27/17 12:49	1
Copper	0.020	U	0.020	0.020	mg/L		12/26/17 15:46	12/27/17 12:49	1
Nickel	0.040	U	0.040	0.040	mg/L		12/26/17 15:46	12/27/17 12:49	1
Lead	0.020	U	0.020	0.020	mg/L		12/26/17 15:46	12/27/17 12:49	1
Selenium	0.050	U	0.050	0.050	mg/L		12/26/17 15:46	12/27/17 12:49	1
Vanadium	0.010	U	0.010	0.010	mg/L		12/26/17 15:46	12/27/17 12:49	1
Zinc	0.020	U	0.020	0.020	mg/L		12/26/17 15:46	12/27/17 12:49	1

Lab Sample ID: LCS 680-507714/2-A						Client Sample ID: Lab Control Sample			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 507868						Prep Batch: 507714			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Silver	1.00	1.07		mg/L		107	80 - 120		
Arsenic	2.00	2.03		mg/L		101	80 - 120		
Barium	2.00	2.03		mg/L		102	80 - 120		
Beryllium	1.00	1.07		mg/L		107	80 - 120		
Cadmium	1.00	1.05		mg/L		105	80 - 120		
Chromium	2.00	2.11		mg/L		106	80 - 120		
Copper	2.00	2.11		mg/L		106	80 - 120		
Nickel	2.00	2.11		mg/L		105	80 - 120		
Lead	10.0	10.3		mg/L		103	80 - 120		
Selenium	2.00	2.09		mg/L		105	80 - 120		
Vanadium	2.00	2.06		mg/L		103	80 - 120		
Zinc	2.00	2.14		mg/L		107	80 - 120		

TestAmerica Savannah

## QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-2

### Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 680-147127-9 MS

Matrix: Solid

Analysis Batch: 507868

Client Sample ID: IDW-1

Prep Type: TCLP

Prep Batch: 507714

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Silver	0.10	U	1.60	1.25		mg/L		78	75 - 125
Arsenic	0.20	U	1.60	1.43		mg/L		90	75 - 125
Barium	1.0	U F1	1.60	1.99		mg/L		124	75 - 125
Beryllium	0.040	U	1.60	1.53		mg/L		96	75 - 125
Cadmium	0.10	U	1.60	1.50		mg/L		94	75 - 125
Chromium	0.20	U	1.60	1.53		mg/L		96	75 - 125
Copper	0.20	U	1.60	1.56		mg/L		98	75 - 125
Nickel	0.40	U	1.60	1.56		mg/L		98	75 - 125
Lead	0.62	F1	1.60	1.77	F1	mg/L		72	75 - 125
Selenium	0.50	U	1.60	1.56		mg/L		97	75 - 125
Vanadium	0.10	U	1.60	1.54		mg/L		96	75 - 125
Zinc	0.82		1.60	2.04		mg/L		77	75 - 125

Lab Sample ID: 680-147127-9 MSD

Matrix: Solid

Analysis Batch: 507868

Client Sample ID: IDW-1

Prep Type: TCLP

Prep Batch: 507714

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Silver	0.10	U	1.60	1.23		mg/L		77	75 - 125	1	20
Arsenic	0.20	U	1.60	1.45		mg/L		91	75 - 125	1	20
Barium	1.0	U F1	1.60	2.01	F1	mg/L		126	75 - 125	1	20
Beryllium	0.040	U	1.60	1.55		mg/L		97	75 - 125	2	20
Cadmium	0.10	U	1.60	1.52		mg/L		95	75 - 125	1	20
Chromium	0.20	U	1.60	1.55		mg/L		97	75 - 125	1	20
Copper	0.20	U	1.60	1.59		mg/L		99	75 - 125	2	20
Nickel	0.40	U	1.60	1.58		mg/L		99	75 - 125	1	20
Lead	0.62	F1	1.60	1.81		mg/L		75	75 - 125	3	20
Selenium	0.50	U	1.60	1.51		mg/L		94	75 - 125	3	20
Vanadium	0.10	U	1.60	1.56		mg/L		98	75 - 125	1	20
Zinc	0.82		1.60	2.06		mg/L		78	75 - 125	1	20

TestAmerica Savannah

## QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-2

### GC/MS Semi VOA

#### Leach Batch: 507488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147127-9	IDW-1	TCLP	Solid	1311	
680-147127-10	IDW-2	TCLP	Solid	1311	
680-147127-11	IDW-3	TCLP	Solid	1311	
680-147127-12	IDW-4	TCLP	Solid	1311	
LB 680-507488/1-B	Method Blank	TCLP	Solid	1311	
680-147127-9 MS	IDW-1	TCLP	Solid	1311	
680-147127-9 MSD	IDW-1	TCLP	Solid	1311	

#### Prep Batch: 507673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147127-9	IDW-1	TCLP	Solid	3520C	507488
680-147127-10	IDW-2	TCLP	Solid	3520C	507488
680-147127-11	IDW-3	TCLP	Solid	3520C	507488
680-147127-12	IDW-4	TCLP	Solid	3520C	507488
LB 680-507488/1-B	Method Blank	TCLP	Solid	3520C	507488
MB 680-507673/12-A	Method Blank	Total/NA	Solid	3520C	
LCS 680-507673/13-A	Lab Control Sample	Total/NA	Solid	3520C	
680-147127-9 MS	IDW-1	TCLP	Solid	3520C	507488
680-147127-9 MSD	IDW-1	TCLP	Solid	3520C	507488

#### Analysis Batch: 508235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147127-9	IDW-1	TCLP	Solid	8270D	507673
680-147127-10	IDW-2	TCLP	Solid	8270D	507673
680-147127-11	IDW-3	TCLP	Solid	8270D	507673
680-147127-12	IDW-4	TCLP	Solid	8270D	507673
LB 680-507488/1-B	Method Blank	TCLP	Solid	8270D	507673
MB 680-507673/12-A	Method Blank	Total/NA	Solid	8270D	507673
LCS 680-507673/13-A	Lab Control Sample	Total/NA	Solid	8270D	507673
680-147127-9 MS	IDW-1	TCLP	Solid	8270D	507673
680-147127-9 MSD	IDW-1	TCLP	Solid	8270D	507673

### Metals

#### Leach Batch: 507488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147127-9	IDW-1	TCLP	Solid	1311	
680-147127-10	IDW-2	TCLP	Solid	1311	
680-147127-11	IDW-3	TCLP	Solid	1311	
680-147127-12	IDW-4	TCLP	Solid	1311	
680-147127-9 MS	IDW-1	TCLP	Solid	1311	
680-147127-9 MSD	IDW-1	TCLP	Solid	1311	

#### Prep Batch: 507714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147127-9	IDW-1	TCLP	Solid	3010A	507488
680-147127-10	IDW-2	TCLP	Solid	3010A	507488
680-147127-11	IDW-3	TCLP	Solid	3010A	507488
680-147127-12	IDW-4	TCLP	Solid	3010A	507488
LB 680-507714/3-A	Method Blank	Total/NA	Solid	3010A	

TestAmerica Savannah

## QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-2

### Metals (Continued)

#### Prep Batch: 507714 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB2 680-507714/16-A	Method Blank	Total/NA	Solid	3010A	
MB 680-507714/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 680-507714/2-A	Lab Control Sample	Total/NA	Solid	3010A	
680-147127-9 MS	IDW-1	TCLP	Solid	3010A	507488
680-147127-9 MSD	IDW-1	TCLP	Solid	3010A	507488

#### Analysis Batch: 507868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147127-9	IDW-1	TCLP	Solid	6010C	507714
680-147127-10	IDW-2	TCLP	Solid	6010C	507714
680-147127-11	IDW-3	TCLP	Solid	6010C	507714
680-147127-12	IDW-4	TCLP	Solid	6010C	507714
LB 680-507714/3-A	Method Blank	Total/NA	Solid	6010C	507714
LB2 680-507714/16-A	Method Blank	Total/NA	Solid	6010C	507714
MB 680-507714/1-A	Method Blank	Total/NA	Solid	6010C	507714
LCS 680-507714/2-A	Lab Control Sample	Total/NA	Solid	6010C	507714
680-147127-9 MS	IDW-1	TCLP	Solid	6010C	507714
680-147127-9 MSD	IDW-1	TCLP	Solid	6010C	507714

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-2

**Client Sample ID: IDW-1**

**Date Collected: 12/19/17 12:35**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-9**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			100.09 g	2000 mL	507488	12/22/17 17:20	EAB	TAL SAV
TCLP	Prep	3520C			200.3 mL	1 mL	507673	12/26/17 14:40	CEW	TAL SAV
TCLP	Analysis	8270D		1			508235	12/30/17 12:29	KNW	TAL SAV
		Instrument ID: CMSE								
TCLP	Leach	1311			100.09 g	2000 mL	507488	12/22/17 17:20	EAB	TAL SAV
TCLP	Prep	3010A			5 mL	50 mL	507714	12/26/17 15:46	AJR	TAL SAV
TCLP	Analysis	6010C		1			507868	12/27/17 13:10	BCB	TAL SAV
		Instrument ID: ICPE								

**Client Sample ID: IDW-2**

**Date Collected: 12/19/17 12:53**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-10**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			100.09 g	2000 mL	507488	12/22/17 17:20	EAB	TAL SAV
TCLP	Prep	3520C			200.7 mL	1 mL	507673	12/26/17 14:40	CEW	TAL SAV
TCLP	Analysis	8270D		1			508235	12/30/17 12:53	KNW	TAL SAV
		Instrument ID: CMSE								
TCLP	Leach	1311			100.09 g	2000 mL	507488	12/22/17 17:20	EAB	TAL SAV
TCLP	Prep	3010A			5 mL	50 mL	507714	12/26/17 15:46	AJR	TAL SAV
TCLP	Analysis	6010C		1			507868	12/27/17 13:31	BCB	TAL SAV
		Instrument ID: ICPE								

**Client Sample ID: IDW-3**

**Date Collected: 12/19/17 14:20**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-11**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			100.06 g	2000 mL	507488	12/22/17 17:20	EAB	TAL SAV
TCLP	Prep	3520C			200.6 mL	1 mL	507673	12/26/17 14:40	CEW	TAL SAV
TCLP	Analysis	8270D		1			508235	12/30/17 13:18	KNW	TAL SAV
		Instrument ID: CMSE								
TCLP	Leach	1311			100.06 g	2000 mL	507488	12/22/17 17:20	EAB	TAL SAV
TCLP	Prep	3010A			5 mL	50 mL	507714	12/26/17 15:46	AJR	TAL SAV
TCLP	Analysis	6010C		1			507868	12/27/17 13:35	BCB	TAL SAV
		Instrument ID: ICPE								

**Client Sample ID: IDW-4**

**Date Collected: 12/19/17 15:23**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-12**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			100.15 g	2000 mL	507488	12/22/17 17:20	EAB	TAL SAV
TCLP	Prep	3520C			200.4 mL	1 mL	507673	12/26/17 14:40	CEW	TAL SAV

TestAmerica Savannah



## Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-2

**Client Sample ID: IDW-4**

**Date Collected: 12/19/17 15:23**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-12**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Analysis	8270D		1			508235	12/30/17 13:42	KNW	TAL SAV
	Instrument ID: CMSE									
TCLP	Leach	1311			100.15 g	2000 mL	507488	12/22/17 17:20	EAB	TAL SAV
TCLP	Prep	3010A			5 mL	50 mL	507714	12/26/17 15:46	AJR	TAL SAV
TCLP	Analysis	6010C		1			507868	12/27/17 13:40	BCB	TAL SAV
	Instrument ID: ICPE									

### Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

## Accreditation/Certification Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-2

### Laboratory: TestAmerica Savannah

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
	AFCEE		SAVLAB	
Alabama	State Program	4	41450	06-30-18
Alaska	State Program	10		06-30-18
Alaska (UST)	State Program	10	UST-104	09-22-19
Arizona	State Program	9	AZ808	12-14-18
Arkansas DEQ	State Program	6	88-0692	02-01-19
California	State Program	9	2939	06-30-18
Colorado	State Program	8	N/A	12-31-18
Connecticut	State Program	1	PH-0161	03-31-19
Florida	NELAP	4	E87052	06-30-18
GA Dept. of Agriculture	State Program	4	N/A	06-12-18
Georgia	State Program	4	803	06-30-18
Guam	State Program	9	15-005r	04-16-18
Hawaii	State Program	9	N/A	06-30-18
Illinois	NELAP	5	200022	11-30-18
Indiana	State Program	5	N/A	06-30-18
Iowa	State Program	7	353	06-30-19
Kentucky (DW)	State Program	4	90084	12-31-18
Kentucky (UST)	State Program	4	18	06-30-18
Kentucky (WW)	State Program	4	90084	12-31-18 *
L-A-B	DoD ELAP		L2463	09-22-19
L-A-B	ISO/IEC 17025		L2463.01	09-22-19
Louisiana	NELAP	6	30690	06-30-18
Louisiana (DW)	NELAP	6	LA160019	12-31-18
Maine	State Program	1	GA00006	09-24-18
Maryland	State Program	3	250	12-31-18
Massachusetts	State Program	1	M-GA006	06-30-18
Michigan	State Program	5	9925	06-30-18
Mississippi	State Program	4	N/A	06-30-18
Nebraska	State Program	7	TestAmerica-Savannah	06-30-18
New Jersey	NELAP	2	GA769	06-30-18
New Mexico	State Program	6	N/A	06-30-18
New York	NELAP	2	10842	03-31-18
North Carolina (DW)	State Program	4	13701	07-31-18
North Carolina (WW/SW)	State Program	4	269	12-31-18
Oklahoma	State Program	6	9984	08-31-18
Pennsylvania	NELAP	3	68-00474	06-30-18
Puerto Rico	State Program	2	GA00006	12-31-18
South Carolina	State Program	4	98001	06-30-18
Tennessee	State Program	4	TN02961	06-30-18
Texas	NELAP	6	T104704185-16-9	11-30-18
Texas	State Program	6	T104704185	06-30-18
US Fish & Wildlife	Federal		LE058448-0	07-31-18
USDA	Federal		SAV 3-04	06-14-20 *
Virginia	NELAP	3	460161	06-14-18
Washington	State Program	10	C805	06-10-18
West Virginia (DW)	State Program	3	9950C	12-31-17
West Virginia DEP	State Program	3	094	06-30-18
Wisconsin	State Program	5	999819810	08-31-18
Wyoming	State Program	8	8TMS-L	06-30-16 *

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Savannah

## Method Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-2

Method	Method Description	Protocol	Laboratory
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
6010C	Metals (ICP)	SW846	TAL SAV

### Protocol References:

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 011422

## ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

**TestAmerica**

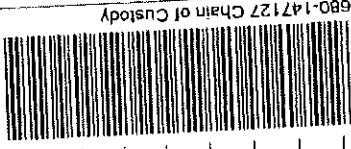
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404Website: 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	OF
TAL (LAB) PROJECT MANAGER		P.O. NUMBER	CONTRACT NO.				STANDARD REPORT DELIVERY	
CLIENT NAME		CLIENT PHONE	CLIENT FAX				DATE DUE	
CLIENT ADDRESS		CLIENT E-MAIL					EXTENDED REPORT DELIVERY (SURCHARGE)	
COMPANY CONTRACTING THIS WORK (if applicable)							DATE DUE	
SAMPLE		SAMPLE IDENTIFICATION					NUMBER OF COOLERS SUBMITTED PER SHIPMENT	
DATE	TIME							
12-10-12	1337	SB-17WZ	13-15	C	X	X	X	3 Day TAT
1420		GB-11WZ	0-2	S				3 Day TAT
1534		GB-14EZ	0-5					
1544		GB-14EZ	8-10					
1555		GB-14S2D	8-10					
1453		GB-28WZ	13-15					
1507		GB-28EZ	13-15					
1618		GB-27WZ	0-2					
1235		1DW-1						
1253		1DW-2						
1420		1DW-3						
1523		1DW-4						
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME		
12/10/12		12/20/12	1200					
RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME		

  
680-147127 Chain of Custody

LABORATORY USE ONLY			
RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	CUSTODY SEAL NO.	SAVANNAH LOG NO.
J. Holderfield	12/20/12	0	0.622-0.0110

## Login Sample Receipt Checklist

Client: Geotechnical & Environmental Consultants

Job Number: 680-147127-2

Login Number: 147127

List Source: TestAmerica Savannah

List Number: 1

Creator: Edwards, Jessica R

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.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	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	

# **APPENDIX XIV**

## **Sample Identification Guide and Analytical Laboratory Reports**

Sample Identification Guide  
Former Macon 2 MGP Site  
Macon, Bibb County, Georgia  
Project #130689.241

Report ID	Laboratory Report Date	Critical Samples	Page Number	Notes
479331	2/21/2014	GB-27	Page 138	
680-146662-1	12/15/2017	GB-27 W 0-2	Page 19	
680-115544-1	8/25/2015	SB-25 2-4	Page 26	
479331	2/21/2014	GB-11 0.5-2	Page 183	
680-146662-1	12/15/2017	GB-11 W 0.5-2	Page 28	
680-147127-1	12/27/2017	GB-11 W2 0.5-2	Page 6	
Williams CSR	9/5/2003	SB-20 0-2	page 12 of Appendix B-2	
Williams CSR	9/5/2003	SB-27 8-12	page 13 of Appendix B-2	
308662	8/24/2003	SB-45 10-12	page 8	on page 207 of Williams CSR
479331	2/21/2014	GB-14 0.5-2	Page 53	
680-115409-1	8/21/2015	GB-14 3-5	Page 8	
680-146766-1	12/19/2017	GB-14 W 0-5	Page 29	
680-147127-1	12/27/2017	GB-14 W2 0-5*	Page 7	*Inadvertently labeled GB-14 E2 0-5 in the analytical report
680-115409-1	8/21/2015	GB-14 8-10	Page 10	
680-146766-1	12/19/2017	GB-14 E 8-10	Page 32	
680-147127-1	12/27/2017	GB-14 E2D 8-10	Page 8	
680-115409-1	8/21/2015	GB-28 13-15	Page 22	
680-146766-1	12/19/2017	GB-28 W 13-15	Page 14	
680-147127-1	12/27/2017	GB-28 W2 13-15	Page 10	
Williams CSR	9/5/2003	SB-24 2-4	Page 7 of Appendix B-2	
680-115409-1	8/21/2015	SB-24 4-6	Page 25	
Williams CSR	9/5/2003	SB-42 2-4	Page 10 of Appendix B-2	
Williams CSR	9/5/2003	SB-25 2-4	Page 7 of Appendix B-2	
680-115409-1	8/21/2015	SB-17 13-15	Page 65	
680-146766-1	12/19/2017	SB-17 W 13-15	Page 9	
680-147127-1	12/27/2017	SB-17 W2 13-15	Page 5	
680-115409-1	8/21/2015	SB-17 13-15	Page 65	
680-146766-1	12/19/2017	SB-17 W 13-15	Page 9	
680-147127-1	12/27/2017	SB-17 W2 13-15	Page 5	
680-146766-1	12/19/2017	SB-17 N 13-15	Page 6	
680-115409-1	8/21/2015	SB-17 13-15	Page 65	
680-146766-1	12/19/2017	SB-17 W 13-15	Page 9	
680-147127-1	12/27/2017	SB-17 W2 13-15	Page 5	



# 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: 680-147222-1

Client Project/Site: Macon MGP

For:

Geotechnical & Environmental Consultants

514 Hillcrest Industrial Blvd.

Macon, Georgia 31204

Attn: Carrie Holderfield



Authorized for release by:

1/4/2018 2:22:32 PM

Eddie Barnett, Project Manager I

(912)354-7858

[eddie.barnett@testamericainc.com](mailto:eddie.barnett@testamericainc.com)

Designee for

Keaton Conner, Project Manager I

(813)885-7427

[keaton.conner@testamericainc.com](mailto:keaton.conner@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.*

1

2

3

4

5

6

7

8

9

10

11

12

## Definitions/Glossary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147222-1

### Qualifiers

#### GC/MS Semi VOA

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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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

TestAmerica Job ID: 680-147222-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-147222-1	SB-17N2 13-15	Solid	12/22/17 11:00	12/23/17 10:40

1

2

3

4

5

6

7

8

9

10

11

12

## Case Narrative

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147222-1

**Job ID: 680-147222-1**

**Laboratory: TestAmerica Savannah**

### Narrative

#### CASE NARRATIVE

**Client: Geotechnical & Environmental Consultants  
Project: Macon MGP**

**Report Number: 680-147222-1**

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 sample was received on 12/23/2017; the sample arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 2.4° C.

#### SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) - LOW LEVEL

Sample SB-17N2 13-15 (680-147222-1) was analyzed for Semivolatile Organic Compounds (GC/MS) - Low level in accordance with EPA SW846 Method 8270D. The sample was prepared on 12/27/2017 and analyzed on 01/03/2018.

Surrogate Nitrobenzene-d5 is outside upper control limit for the continuing calibration verification (CCV). All associated sample and QC surrogates recovered within control limits; therefore, the data has been reported. (CCVIS 680-508451/2)

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### PERCENT SOLIDS/MOISTURE

Sample SB-17N2 13-15 (680-147222-1) was analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The sample was analyzed on 12/27/2017.

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

TestAmerica Job ID: 680-147222-1

**Client Sample ID: SB-17N2 13-15**

**Date Collected: 12/22/17 11:00**

**Date Received: 12/23/17 10:40**

**Lab Sample ID: 680-147222-1**

**Matrix: Solid**

**Percent Solids: 86.4**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.021		0.0077	0.0014	mg/Kg	☼	12/27/17 11:50	01/03/18 14:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	76		11 - 130				12/27/17 11:50	01/03/18 14:49	1
Nitrobenzene-d5 (Surr)	86		18 - 130				12/27/17 11:50	01/03/18 14:49	1
Terphenyl-d14 (Surr)	78		27 - 130				12/27/17 11:50	01/03/18 14:49	1

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147222-1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 680-507769/20-A

Matrix: Solid

Analysis Batch: 508451

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 507769

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0012	U	0.0066	0.0012	mg/Kg	-	12/27/17 11:50	01/03/18 13:36	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	62		11 - 130				12/27/17 11:50	01/03/18 13:36	1
Nitrobenzene-d5 (Surr)	71		18 - 130				12/27/17 11:50	01/03/18 13:36	1
Terphenyl-d14 (Surr)	65		27 - 130				12/27/17 11:50	01/03/18 13:36	1

Lab Sample ID: LCS 680-507769/21-A

Matrix: Solid

Analysis Batch: 508451

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507769

Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	
Benzo[a]pyrene		0.333	0.249		mg/Kg	-	75	18 - 139	
Surrogate	%Recovery	LCS Qualifier	Limits						
2-Fluorobiphenyl (Surr)	70		11 - 130						
Nitrobenzene-d5 (Surr)	77		18 - 130						
Terphenyl-d14 (Surr)	78		27 - 130						

Lab Sample ID: LCSD 680-507769/22-A

Matrix: Solid

Analysis Batch: 508451

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 507769

Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Benzo[a]pyrene		0.327	0.257		mg/Kg	-	79	18 - 139	3	50
Surrogate	%Recovery	LCSD Qualifier	Limits							
2-Fluorobiphenyl (Surr)	67		11 - 130							
Nitrobenzene-d5 (Surr)	69		18 - 130							
Terphenyl-d14 (Surr)	75		27 - 130							

TestAmerica Savannah

## QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147222-1

### GC/MS Semi VOA

#### Prep Batch: 507769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147222-1	SB-17N2 13-15	Total/NA	Solid	3546	
MB 680-507769/20-A	Method Blank	Total/NA	Solid	3546	
LCS 680-507769/21-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 680-507769/22-A	Lab Control Sample Dup	Total/NA	Solid	3546	

#### Analysis Batch: 508451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147222-1	SB-17N2 13-15	Total/NA	Solid	8270D LL	507769
MB 680-507769/20-A	Method Blank	Total/NA	Solid	8270D LL	507769
LCS 680-507769/21-A	Lab Control Sample	Total/NA	Solid	8270D LL	507769
LCSD 680-507769/22-A	Lab Control Sample Dup	Total/NA	Solid	8270D LL	507769

### General Chemistry

#### Analysis Batch: 507757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147222-1	SB-17N2 13-15	Total/NA	Solid	Moisture	



# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147222-1

**Client Sample ID: SB-17N2 13-15**

**Date Collected: 12/22/17 11:00**

**Date Received: 12/23/17 10:40**

**Lab Sample ID: 680-147222-1**

**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			507757	12/27/17 09:10	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-17N2 13-15**

**Date Collected: 12/22/17 11:00**

**Date Received: 12/23/17 10:40**

**Lab Sample ID: 680-147222-1**

**Matrix: Solid**

**Percent Solids: 86.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.36 g	1 mL	507769	12/27/17 11:50	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			508451	01/03/18 14:49	OK	TAL SAV
Instrument ID: CMSAE										

## Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

# Accreditation/Certification Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147222-1

## Laboratory: TestAmerica Savannah

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
	AFCEE		SAVLAB	
Alabama	State Program	4	41450	06-30-18
Alaska	State Program	10		06-30-18
Alaska (UST)	State Program	10	UST-104	11-05-17 *
Arizona	State Program	9	AZ808	12-14-18
Arkansas DEQ	State Program	6	88-0692	02-01-19
California	State Program	9	2939	06-30-18
Colorado	State Program	8	N/A	12-31-18
Connecticut	State Program	1	PH-0161	03-31-19
Florida	NELAP	4	E87052	06-30-18
GA Dept. of Agriculture	State Program	4	N/A	06-12-18
Georgia	State Program	4	803	06-30-18
Guam	State Program	9	15-005r	04-16-18
Hawaii	State Program	9	N/A	06-30-18
Illinois	NELAP	5	200022	11-30-18
Indiana	State Program	5	N/A	06-30-18
Iowa	State Program	7	353	06-30-19
Kentucky (DW)	State Program	4	90084	12-31-18
Kentucky (UST)	State Program	4	18	06-30-18
Kentucky (WW)	State Program	4	90084	12-31-18 *
L-A-B	DoD ELAP		L2463	09-22-19
L-A-B	ISO/IEC 17025		L2463.01	09-22-19
Louisiana	NELAP	6	30690	06-30-18
Louisiana (DW)	NELAP	6	LA160019	12-31-18
Maine	State Program	1	GA00006	09-24-18
Maryland	State Program	3	250	12-31-18
Massachusetts	State Program	1	M-GA006	06-30-18
Michigan	State Program	5	9925	06-30-18
Mississippi	State Program	4	N/A	06-30-18
Nebraska	State Program	7	TestAmerica-Savannah	06-30-18
New Jersey	NELAP	2	GA769	06-30-18
New Mexico	State Program	6	N/A	06-30-18
New York	NELAP	2	10842	03-31-18
North Carolina (DW)	State Program	4	13701	07-31-18
North Carolina (WW/SW)	State Program	4	269	12-31-18
Oklahoma	State Program	6	9984	08-31-18
Pennsylvania	NELAP	3	68-00474	06-30-18
Puerto Rico	State Program	2	GA00006	12-31-18
South Carolina	State Program	4	98001	06-30-18
Tennessee	State Program	4	TN02961	06-30-18
Texas	NELAP	6	T104704185-16-9	11-30-18
Texas	State Program	6	T104704185	06-30-18
US Fish & Wildlife	Federal		LE058448-0	07-31-18
USDA	Federal		SAV 3-04	06-14-20 *
Virginia	NELAP	3	460161	06-14-18
Washington	State Program	10	C805	06-10-18
West Virginia DEP	State Program	3	094	06-30-18
Wisconsin	State Program	5	999819810	08-31-18
Wyoming	State Program	8	8TMS-L	06-30-16 *

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Savannah

## Method Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147222-1

Method	Method Description	Protocol	Laboratory
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	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

## Chain of Custody Record

<b>Client Information</b> Client Contact: Carrie Holderfield Company: Geotechnical & Environmental Consultants Address: 514 Hillcrest Industrial Blvd. City: Macon State, Zip: GA, 31204 Phone: 478-757-1606 Email: cholderfield@geconsultants.com Project Name: Macon MGP Site: Macon, Ga		Sampler: Carrie Holderfield Phone: 478-757-1606 Lab PM: Conner, Keaton E-Mail: keaton.conner@testamericainc.com Carrier Tracking No(s): COC No: 680-66582-28550 9 Page: Page 1 of 1 Job #:
<b>Due Date Requested:</b> TAT Requested (days): 3 day TAT PO #: 130659.241 WO #: Project #: 130659 SSOW#:		<b>Analysis Requested</b> Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)
<b>Sample Identification</b> Sample Date: 12/22/17 Sample Time: 1100 Sample Type (C=comp, G=grab): C Matrix (W=water, S=solid, O=soil, BT=Tissue, A=Air): Solid		Total Number of containers: 1 Special Instructions/Note:
<b>Possible Hazard Identification</b> <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:
Empty Kit Relinquished by: <i>Carrie Holderfield</i> Relinquished by: <i>Carrie Holderfield</i> Relinquished by: <i>Carrie Holderfield</i> Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Method of Shipment: Date/Time: 12-22-17 1500 Date/Time: Date/Time: Date/Time: 12-23-17 1040 Cooler Temperature(s) °C and Other Remarks: 2.8°C (cc) 2.4°C Company: Company: Company: TASAV Ver: 08/04/2016

## Login Sample Receipt Checklist

Client: Geotechnical & Environmental Consultants

Job Number: 680-147222-1

Login Number: 147222

List Source: TestAmerica Savannah

List Number: 1

Creator: Anderson, Jordan K

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?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	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	



## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Tel: (912)354-7858

TestAmerica Job ID: 680-146662-1

Client Project/Site: Macon MGP

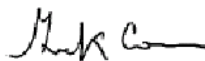
For:

Geotechnical & Environmental Consultants

514 Hillcrest Industrial Blvd.

Macon, Georgia 31204

Attn: Carrie Holderfield



Authorized for release by:

12/15/2017 9:29:20 AM

Keaton Conner, Project Manager I

(813)885-7427

[keaton.conner@testamericainc.com](mailto:keaton.conner@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.*

## Definitions/Glossary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

### Qualifiers

#### GC/MS Semi VOA

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.
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.

#### Metals

Qualifier	Qualifier Description
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.

### 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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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

TestAmerica Job ID: 680-146662-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-146662-1	SB-24 N 2-6	Solid	12/11/17 11:00	12/12/17 08:35
680-146662-2	SB-24 E 2-6	Solid	12/11/17 11:10	12/12/17 08:35
680-146662-3	SB-24 S 2-6	Solid	12/11/17 11:15	12/12/17 08:35
680-146662-4	SB-24 W 2-6	Solid	12/11/17 11:06	12/12/17 08:35
680-146662-5	SB-24 B 6	Solid	12/11/17 11:12	12/12/17 08:35
680-146662-6	SB-42 N 2-4	Solid	12/11/17 11:46	12/12/17 08:35
680-146662-7	SB-42 S 2-4	Solid	12/11/17 11:41	12/12/17 08:35
680-146662-8	SB-42 E 2-4	Solid	12/11/17 11:36	12/12/17 08:35
680-146662-9	SB-42 W 2-4	Solid	12/11/17 11:49	12/12/17 08:35
680-146662-10	SB-42 B 4	Solid	12/11/17 11:50	12/12/17 08:35
680-146662-11	GB-27 N 0-2	Solid	12/11/17 12:55	12/12/17 08:35
680-146662-12	GB-27 S 0-2	Solid	12/11/17 13:02	12/12/17 08:35
680-146662-13	GB-27 E 0-2	Solid	12/11/17 13:00	12/12/17 08:35
680-146662-14	GB-27 W 0-2	Solid	12/11/17 12:49	12/12/17 08:35
680-146662-15	GB-27 B 2	Solid	12/11/17 12:44	12/12/17 08:35
680-146662-16	SB-25 N 2-4	Solid	12/11/17 14:40	12/12/17 08:35
680-146662-17	SB-25 E 2-4	Solid	12/11/17 14:39	12/12/17 08:35
680-146662-18	SB-25 S 2-4	Solid	12/11/17 14:34	12/12/17 08:35
680-146662-19	SB-25 W 2-4	Solid	12/11/17 14:42	12/12/17 08:35
680-146662-20	SB-25 B 4	Solid	12/11/17 14:35	12/12/17 08:35
680-146662-21	GB-11 B 2	Solid	12/11/17 15:11	12/12/17 08:35
680-146662-22	GB-11 E 0.5-2	Solid	12/11/17 15:06	12/12/17 08:35
680-146662-23	GB-11 W 0.5-2	Solid	12/11/17 15:10	12/12/17 08:35
680-146662-24	GB-11 S 0.5-2	Solid	12/11/17 15:08	12/12/17 08:35
680-146662-25	GB-11 N 0.5-2	Solid	12/11/17 15:03	12/12/17 08:35
680-146662-26	SB-20 N 0-2	Solid	12/11/17 15:43	12/12/17 08:35
680-146662-27	SB-20 E 0-2	Solid	12/11/17 15:50	12/12/17 08:35
680-146662-28	SB-20 S 0-2	Solid	12/11/17 15:45	12/12/17 08:35
680-146662-29	SB-20 W 0-2	Solid	12/11/17 16:00	12/12/17 08:35
680-146662-30	SB-20 B 2	Solid	12/11/17 15:55	12/12/17 08:35

TestAmerica Savannah

# Case Narrative

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Job ID: 680-146662-1**

**Laboratory: TestAmerica Savannah**

## Narrative

### CASE NARRATIVE

**Client: Geotechnical & Environmental Consultants**  
**Project: Macon MGP**  
**Report Number: 680-146662-1**

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 12/12/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.4 C.

#### SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) - LOW LEVEL

Samples SB-24 N 2-6 (680-146662-1), SB-24 E 2-6 (680-146662-2), SB-24 S 2-6 (680-146662-3), SB-24 W 2-6 (680-146662-4), SB-24 B 6 (680-146662-5), SB-42 N 2-4 (680-146662-6), SB-42 S 2-4 (680-146662-7), SB-42 E 2-4 (680-146662-8), SB-42 W 2-4 (680-146662-9), SB-42 B 4 (680-146662-10), SB-25 N 2-4 (680-146662-16), SB-25 E 2-4 (680-146662-17), SB-25 S 2-4 (680-146662-18), SB-25 W 2-4 (680-146662-19) and SB-25 B 4 (680-146662-20) were analyzed for Semivolatile Organic Compounds (GC/MS) - Low level in accordance with EPA SW846 Method 8270D. The samples were prepared on 12/12/2017 and analyzed on 12/14/2017.

Samples SB-24 S 2-6 (680-146662-3)[10X], SB-24 W 2-6 (680-146662-4)[10X], SB-24 B 6 (680-146662-5)[10X] and SB-42 N 2-4 (680-146662-6)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

2-Fluorobiphenyl (Surr), Nitrobenzene-d5 (Surr) and Terphenyl-d14 (Surr) recovered low for SB-24 S 2-6 (680-146662-3).  
2-Fluorobiphenyl (Surr), Nitrobenzene-d5 (Surr) and Terphenyl-d14 (Surr) recovered low for SB-24 W 2-6 (680-146662-4).  
2-Fluorobiphenyl (Surr), Nitrobenzene-d5 (Surr) and Terphenyl-d14 (Surr) recovered low for SB-24 B 6 (680-146662-5). 2-Fluorobiphenyl (Surr), Nitrobenzene-d5 (Surr) and Terphenyl-d14 (Surr) recovered low for SB-42 N 2-4 (680-146662-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### METALS (ICP)

Samples GB-27 N 0-2 (680-146662-11), GB-27 S 0-2 (680-146662-12), GB-27 E 0-2 (680-146662-13), GB-27 W 0-2 (680-146662-14), GB-27 B 2 (680-146662-15), SB-25 N 2-4 (680-146662-16), SB-25 E 2-4 (680-146662-17), SB-25 S 2-4 (680-146662-18), SB-25 W 2-4 (680-146662-19), SB-25 B 4 (680-146662-20), GB-11 B 2 (680-146662-21), GB-11 E 0.5-2 (680-146662-22), GB-11 W 0.5-2 (680-146662-23), GB-11 S 0.5-2 (680-146662-24), GB-11 N 0.5-2 (680-146662-25), SB-20 N 0-2 (680-146662-26), SB-20 E 0-2 (680-146662-27), SB-20 S 0-2 (680-146662-28), SB-20 W 0-2 (680-146662-29) and SB-20 B 2 (680-146662-30) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 12/12/2017 and analyzed on 12/13/2017 and 12/14/2017.

Lead failed the recovery criteria high for the MS and MSD of sample GB-27 N 0-2(680-146662-11) in batch 680-506361.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### PERCENT SOLIDS/MOISTURE

Samples SB-24 N 2-6 (680-146662-1), SB-24 E 2-6 (680-146662-2), SB-24 S 2-6 (680-146662-3), SB-24 W 2-6 (680-146662-4), SB-24 B 6 (680-146662-5), SB-42 N 2-4 (680-146662-6), SB-42 S 2-4 (680-146662-7), SB-42 E 2-4 (680-146662-8), SB-42 W 2-4 (680-146662-9), SB-42 B 4 (680-146662-10), GB-27 N 0-2 (680-146662-11), GB-27 S 0-2 (680-146662-12), GB-27 E 0-2 (680-146662-13), GB-27 W 0-2 (680-146662-14), GB-27 B 2 (680-146662-15), SB-25 N 2-4 (680-146662-16), SB-25 E 2-4 (680-146662-17), SB-25 S 2-4 (680-146662-18), SB-25 W 2-4 (680-146662-19), SB-25 B 4 (680-146662-20), GB-11 B 2 (680-146662-21), GB-11 E 0.5-2 (680-146662-22), GB-11 W 0.5-2 (680-146662-23), GB-11 S 0.5-2 (680-146662-24), GB-11 N 0.5-2 (680-146662-25), SB-20 N 0-2

## Case Narrative

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

---

### Job ID: 680-146662-1 (Continued)

---

#### Laboratory: TestAmerica Savannah (Continued)

(680-146662-26), SB-20 E 0-2 (680-146662-27), SB-20 S 0-2 (680-146662-28), SB-20 W 0-2 (680-146662-29) and SB-20 B 2 (680-146662-30) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 12/13/2017.

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

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-24 N 2-6**

**Date Collected: 12/11/17 11:00**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-1**

**Matrix: Solid**

**Percent Solids: 91.6**

**Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.032		0.0072	0.0013	mg/Kg	☼	12/12/17 15:38	12/14/17 16:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	76		11 - 130	12/12/17 15:38	12/14/17 16:54	1
Nitrobenzene-d5 (Surr)	86		18 - 130	12/12/17 15:38	12/14/17 16:54	1
Terphenyl-d14 (Surr)	74		27 - 130	12/12/17 15:38	12/14/17 16:54	1

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-24 E 2-6**

**Date Collected: 12/11/17 11:10**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-2**

**Matrix: Solid**

**Percent Solids: 92.1**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.39		0.0072	0.0013	mg/Kg	☼	12/12/17 15:38	12/14/17 17:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	72		11 - 130				12/12/17 15:38	12/14/17 17:18	1
Nitrobenzene-d5 (Surr)	81		18 - 130				12/12/17 15:38	12/14/17 17:18	1
Terphenyl-d14 (Surr)	70		27 - 130				12/12/17 15:38	12/14/17 17:18	1

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-24 S 2-6**

**Date Collected: 12/11/17 11:15**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-3**

**Matrix: Solid**

**Percent Solids: 82.9**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.29		0.081	0.014	mg/Kg	☼	12/12/17 15:38	12/14/17 17:43	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	0	D	11 - 130				12/12/17 15:38	12/14/17 17:43	10
Nitrobenzene-d5 (Surr)	0	D	18 - 130				12/12/17 15:38	12/14/17 17:43	10
Terphenyl-d14 (Surr)	0	D	27 - 130				12/12/17 15:38	12/14/17 17:43	10

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-24 W 2-6**

**Date Collected: 12/11/17 11:06**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-4**

**Matrix: Solid**

**Percent Solids: 89.5**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.51		0.073	0.013	mg/Kg	☼	12/12/17 15:38	12/14/17 18:07	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	0	D	11 - 130				12/12/17 15:38	12/14/17 18:07	10
Nitrobenzene-d5 (Surr)	0	D	18 - 130				12/12/17 15:38	12/14/17 18:07	10
Terphenyl-d14 (Surr)	0	D	27 - 130				12/12/17 15:38	12/14/17 18:07	10



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-24 B 6**

**Date Collected: 12/11/17 11:12**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-5**

**Matrix: Solid**

**Percent Solids: 86.4**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.44		0.075	0.013	mg/Kg	☼	12/12/17 15:38	12/14/17 18:32	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	0	D	11 - 130				12/12/17 15:38	12/14/17 18:32	10
Nitrobenzene-d5 (Surr)	0	D	18 - 130				12/12/17 15:38	12/14/17 18:32	10
Terphenyl-d14 (Surr)	0	D	27 - 130				12/12/17 15:38	12/14/17 18:32	10

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-42 N 2-4**

**Date Collected: 12/11/17 11:46**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-6**

**Matrix: Solid**

**Percent Solids: 93.4**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.23		0.071	0.013	mg/Kg	☼	12/12/17 15:38	12/14/17 18:57	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	0	D	11 - 130				12/12/17 15:38	12/14/17 18:57	10
Nitrobenzene-d5 (Surr)	0	D	18 - 130				12/12/17 15:38	12/14/17 18:57	10
Terphenyl-d14 (Surr)	0	D	27 - 130				12/12/17 15:38	12/14/17 18:57	10

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-42 S 2-4**

**Date Collected: 12/11/17 11:41**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-7**

**Matrix: Solid**

**Percent Solids: 93.2**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.11		0.0071	0.0013	mg/Kg	☼	12/12/17 15:38	12/14/17 19:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	70		11 - 130				12/12/17 15:38	12/14/17 19:22	1
Nitrobenzene-d5 (Surr)	87		18 - 130				12/12/17 15:38	12/14/17 19:22	1
Terphenyl-d14 (Surr)	67		27 - 130				12/12/17 15:38	12/14/17 19:22	1

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-42 E 2-4**

**Date Collected: 12/11/17 11:36**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-8**

**Matrix: Solid**

**Percent Solids: 93.4**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.085		0.0072	0.0013	mg/Kg	☼	12/12/17 15:38	12/14/17 19:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	58		11 - 130				12/12/17 15:38	12/14/17 19:46	1
Nitrobenzene-d5 (Surr)	70		18 - 130				12/12/17 15:38	12/14/17 19:46	1
Terphenyl-d14 (Surr)	55		27 - 130				12/12/17 15:38	12/14/17 19:46	1

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-42 W 2-4**

**Date Collected: 12/11/17 11:49**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-9**

**Matrix: Solid**

**Percent Solids: 85.5**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.14		0.0078	0.0014	mg/Kg	☼	12/12/17 15:38	12/14/17 20:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	70		11 - 130				12/12/17 15:38	12/14/17 20:10	1
Nitrobenzene-d5 (Surr)	88		18 - 130				12/12/17 15:38	12/14/17 20:10	1
Terphenyl-d14 (Surr)	73		27 - 130				12/12/17 15:38	12/14/17 20:10	1

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-42 B 4**

**Lab Sample ID: 680-146662-10**

**Date Collected: 12/11/17 11:50**

**Matrix: Solid**

**Date Received: 12/12/17 08:35**

**Percent Solids: 93.3**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.14		0.0071	0.0013	mg/Kg	☼	12/12/17 15:38	12/14/17 20:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	70		11 - 130				12/12/17 15:38	12/14/17 20:35	1
Nitrobenzene-d5 (Surr)	85		18 - 130				12/12/17 15:38	12/14/17 20:35	1
Terphenyl-d14 (Surr)	71		27 - 130				12/12/17 15:38	12/14/17 20:35	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: GB-27 N 0-2**

**Lab Sample ID: 680-146662-11**

**Date Collected: 12/11/17 12:55**

**Matrix: Solid**

**Date Received: 12/12/17 08:35**

**Percent Solids: 89.5**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.8		1.9	0.77	mg/Kg	☼	12/12/17 10:53	12/13/17 23:15	1



## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: GB-27 S 0-2**

**Lab Sample ID: 680-146662-12**

**Date Collected: 12/11/17 13:02**

**Matrix: Solid**

**Date Received: 12/12/17 08:35**

**Percent Solids: 88.8**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.7		2.0	0.78	mg/Kg	☼	12/12/17 10:53	12/13/17 23:51	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: GB-27 E 0-2**

**Lab Sample ID: 680-146662-13**

**Date Collected: 12/11/17 13:00**

**Matrix: Solid**

**Date Received: 12/12/17 08:35**

**Percent Solids: 88.7**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.2		1.9	0.77	mg/Kg	☼	12/12/17 10:53	12/13/17 23:56	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: GB-27 W 0-2**

**Lab Sample ID: 680-146662-14**

**Date Collected: 12/11/17 12:49**

**Matrix: Solid**

**Date Received: 12/12/17 08:35**

**Percent Solids: 83.8**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	39		2.1	0.84	mg/Kg	☼	12/12/17 10:53	12/14/17 00:01	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: GB-27 B 2**

**Date Collected: 12/11/17 12:44**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-15**

**Matrix: Solid**

**Percent Solids: 88.9**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.7		1.9	0.78	mg/Kg	☼	12/12/17 10:53	12/14/17 00:07	1

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-25 N 2-4**

**Date Collected: 12/11/17 14:40**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-16**

**Matrix: Solid**

**Percent Solids: 84.6**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0067	J	0.0078	0.0014	mg/Kg	☼	12/12/17 15:38	12/14/17 20:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	57		11 - 130				12/12/17 15:38	12/14/17 20:59	1
Nitrobenzene-d5 (Surr)	67		18 - 130				12/12/17 15:38	12/14/17 20:59	1
Terphenyl-d14 (Surr)	59		27 - 130				12/12/17 15:38	12/14/17 20:59	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4.0		1.0	0.35	mg/Kg	☼	12/12/17 10:53	12/14/17 00:12	1

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-25 E 2-4**

**Date Collected: 12/11/17 14:39**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-17**

**Matrix: Solid**

**Percent Solids: 86.3**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0024	J	0.0077	0.0014	mg/Kg	☼	12/12/17 15:38	12/14/17 21:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	76		11 - 130				12/12/17 15:38	12/14/17 21:24	1
Nitrobenzene-d5 (Surr)	81		18 - 130				12/12/17 15:38	12/14/17 21:24	1
Terphenyl-d14 (Surr)	68		27 - 130				12/12/17 15:38	12/14/17 21:24	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	7.6		1.1	0.36	mg/Kg	☼	12/12/17 10:53	12/14/17 00:18	1

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-25 S 2-4**

**Date Collected: 12/11/17 14:34**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-18**

**Matrix: Solid**

**Percent Solids: 84.0**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0014	U	0.0078	0.0014	mg/Kg	☼	12/12/17 15:38	12/14/17 21:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	66		11 - 130				12/12/17 15:38	12/14/17 21:49	1
Nitrobenzene-d5 (Surr)	83		18 - 130				12/12/17 15:38	12/14/17 21:49	1
Terphenyl-d14 (Surr)	66		27 - 130				12/12/17 15:38	12/14/17 21:49	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	7.1		1.0	0.34	mg/Kg	☼	12/12/17 10:53	12/14/17 00:35	1



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-25 W 2-4**

**Lab Sample ID: 680-146662-19**

**Date Collected: 12/11/17 14:42**

**Matrix: Solid**

**Date Received: 12/12/17 08:35**

**Percent Solids: 83.4**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.030		0.0079	0.0014	mg/Kg	☼	12/12/17 15:38	12/14/17 22:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	64		11 - 130				12/12/17 15:38	12/14/17 22:13	1
Nitrobenzene-d5 (Surr)	79		18 - 130				12/12/17 15:38	12/14/17 22:13	1
Terphenyl-d14 (Surr)	64		27 - 130				12/12/17 15:38	12/14/17 22:13	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1.6		1.0	0.34	mg/Kg	☼	12/12/17 10:53	12/14/17 00:40	1

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-25 B 4**

**Date Collected: 12/11/17 14:35**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-20**

**Matrix: Solid**

**Percent Solids: 83.7**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0014	U	0.0079	0.0014	mg/Kg	☼	12/12/17 15:38	12/14/17 22:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	68		11 - 130				12/12/17 15:38	12/14/17 22:37	1
Nitrobenzene-d5 (Surr)	84		18 - 130				12/12/17 15:38	12/14/17 22:37	1
Terphenyl-d14 (Surr)	72		27 - 130				12/12/17 15:38	12/14/17 22:37	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	2.9		1.0	0.36	mg/Kg	☼	12/12/17 10:53	12/14/17 00:46	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: GB-11 B 2**

**Date Collected: 12/11/17 15:11**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-21**

**Matrix: Solid**

**Percent Solids: 90.3**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	11		0.95	0.32	mg/Kg	☼	12/12/17 10:53	12/14/17 00:51	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: GB-11 E 0.5-2**

**Lab Sample ID: 680-146662-22**

**Date Collected: 12/11/17 15:06**

**Matrix: Solid**

**Date Received: 12/12/17 08:35**

**Percent Solids: 91.2**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	150		0.92	0.31	mg/Kg	☼	12/12/17 10:53	12/14/17 00:57	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: GB-11 W 0.5-2**

**Lab Sample ID: 680-146662-23**

**Date Collected: 12/11/17 15:10**

**Matrix: Solid**

**Date Received: 12/12/17 08:35**

**Percent Solids: 85.7**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	570		0.99	0.34	mg/Kg	☼	12/12/17 10:53	12/14/17 01:02	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: GB-11 S 0.5-2**

**Lab Sample ID: 680-146662-24**

**Date Collected: 12/11/17 15:08**

**Matrix: Solid**

**Date Received: 12/12/17 08:35**

**Percent Solids: 88.3**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	140		0.98	0.33	mg/Kg	☼	12/12/17 10:53	12/14/17 01:08	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: GB-11 N 0.5-2**

**Lab Sample ID: 680-146662-25**

**Date Collected: 12/11/17 15:03**

**Matrix: Solid**

**Date Received: 12/12/17 08:35**

**Percent Solids: 91.4**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	8.6		0.93	0.32	mg/Kg	☼	12/12/17 10:53	12/14/17 01:13	1



## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-20 N 0-2**

**Lab Sample ID: 680-146662-26**

**Date Collected: 12/11/17 15:43**

**Matrix: Solid**

**Date Received: 12/12/17 08:35**

**Percent Solids: 78.9**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.8		2.1	0.85	mg/Kg	☼	12/12/17 10:53	12/14/17 01:19	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-20 E 0-2**

**Lab Sample ID: 680-146662-27**

**Date Collected: 12/11/17 15:50**

**Matrix: Solid**

**Date Received: 12/12/17 08:35**

**Percent Solids: 81.2**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.6	J	2.1	0.86	mg/Kg	☼	12/12/17 10:53	12/14/17 01:24	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-20 S 0-2**

**Lab Sample ID: 680-146662-28**

**Date Collected: 12/11/17 15:45**

**Matrix: Solid**

**Date Received: 12/12/17 08:35**

**Percent Solids: 81.4**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.4		2.1	0.83	mg/Kg	☼	12/12/17 10:53	12/14/17 01:41	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-20 W 0-2**

**Lab Sample ID: 680-146662-29**

**Date Collected: 12/11/17 16:00**

**Matrix: Solid**

**Date Received: 12/12/17 08:35**

**Percent Solids: 80.9**

**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	☼	12/12/17 10:53	12/14/17 01:47	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-20 B 2**

**Date Collected: 12/11/17 15:55**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-30**

**Matrix: Solid**

**Percent Solids: 80.4**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.7	J	2.2	0.86	mg/Kg	☼	12/12/17 10:53	12/14/17 01:52	1

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 680-506085/16-A

Matrix: Solid

Analysis Batch: 506194

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 506085

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.0012	U	0.0065	0.0012	mg/Kg	-	12/12/17 15:38	12/14/17 15:16	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	67		11 - 130				12/12/17 15:38	12/14/17 15:16	1
Nitrobenzene-d5 (Surr)	84		18 - 130				12/12/17 15:38	12/14/17 15:16	1
Terphenyl-d14 (Surr)	73		27 - 130				12/12/17 15:38	12/14/17 15:16	1

Lab Sample ID: LCS 680-506085/17-A

Matrix: Solid

Analysis Batch: 506194

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 506085

Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	
Benzo[a]pyrene		0.332	0.195		mg/Kg	-	59	18 - 139	
Surrogate	%Recovery	LCS Qualifier	Limits						
2-Fluorobiphenyl (Surr)	61		11 - 130						
Nitrobenzene-d5 (Surr)	73		18 - 130						
Terphenyl-d14 (Surr)	63		27 - 130						

Lab Sample ID: 680-146662-20 MS

Matrix: Solid

Analysis Batch: 506194

Client Sample ID: SB-25 B 4

Prep Type: Total/NA

Prep Batch: 506085

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Benzo[a]pyrene	0.0014	U	0.390	0.284		mg/Kg	☼	73	18 - 139
Surrogate	%Recovery	MS Qualifier	Limits						
2-Fluorobiphenyl (Surr)	74		11 - 130						
Nitrobenzene-d5 (Surr)	89		18 - 130						
Terphenyl-d14 (Surr)	77		27 - 130						

Lab Sample ID: 680-146662-20 MSD

Matrix: Solid

Analysis Batch: 506194

Client Sample ID: SB-25 B 4

Prep Type: Total/NA

Prep Batch: 506085

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzo[a]pyrene	0.0014	U	0.394	0.291		mg/Kg	☼	74	18 - 139	3	50
Surrogate	%Recovery	MSD Qualifier	Limits								
2-Fluorobiphenyl (Surr)	72		11 - 130								
Nitrobenzene-d5 (Surr)	85		18 - 130								
Terphenyl-d14 (Surr)	74		27 - 130								

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

## Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-506051/1-A

Matrix: Solid

Analysis Batch: 506361

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 506051

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.77	U	1.9	0.77	mg/Kg		12/12/17 10:53	12/13/17 23:04	1
Lead	0.33	U	0.96	0.33	mg/Kg		12/12/17 10:53	12/13/17 23:04	1

Lab Sample ID: LCS 680-506051/2-A

Matrix: Solid

Analysis Batch: 506361

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 506051

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	9.80	9.50		mg/Kg		97	80 - 120
Lead	49.0	49.6		mg/Kg		101	80 - 120

Lab Sample ID: 680-146662-11 MS

Matrix: Solid

Analysis Batch: 506361

Client Sample ID: GB-27 N 0-2

Prep Type: Total/NA

Prep Batch: 506051

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	2.8		9.63	10.8		mg/Kg	☼	83	75 - 125
Lead	100	F1	48.1	171	F1	mg/Kg	☼	139	75 - 125

Lab Sample ID: 680-146662-11 MSD

Matrix: Solid

Analysis Batch: 506361

Client Sample ID: GB-27 N 0-2

Prep Type: Total/NA

Prep Batch: 506051

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	2.8		9.47	10.6		mg/Kg	☼	82	75 - 125	2	20
Lead	100	F1	47.3	168	F1	mg/Kg	☼	135	75 - 125	2	20

TestAmerica Savannah



# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

## GC/MS Semi VOA

### Prep Batch: 506085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-146662-1	SB-24 N 2-6	Total/NA	Solid	3546	
680-146662-2	SB-24 E 2-6	Total/NA	Solid	3546	
680-146662-3	SB-24 S 2-6	Total/NA	Solid	3546	
680-146662-4	SB-24 W 2-6	Total/NA	Solid	3546	
680-146662-5	SB-24 B 6	Total/NA	Solid	3546	
680-146662-6	SB-42 N 2-4	Total/NA	Solid	3546	
680-146662-7	SB-42 S 2-4	Total/NA	Solid	3546	
680-146662-8	SB-42 E 2-4	Total/NA	Solid	3546	
680-146662-9	SB-42 W 2-4	Total/NA	Solid	3546	
680-146662-10	SB-42 B 4	Total/NA	Solid	3546	
680-146662-16	SB-25 N 2-4	Total/NA	Solid	3546	
680-146662-17	SB-25 E 2-4	Total/NA	Solid	3546	
680-146662-18	SB-25 S 2-4	Total/NA	Solid	3546	
680-146662-19	SB-25 W 2-4	Total/NA	Solid	3546	
680-146662-20	SB-25 B 4	Total/NA	Solid	3546	
MB 680-506085/16-A	Method Blank	Total/NA	Solid	3546	
LCS 680-506085/17-A	Lab Control Sample	Total/NA	Solid	3546	
680-146662-20 MS	SB-25 B 4	Total/NA	Solid	3546	
680-146662-20 MSD	SB-25 B 4	Total/NA	Solid	3546	

### Analysis Batch: 506194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-146662-1	SB-24 N 2-6	Total/NA	Solid	8270D LL	506085
680-146662-2	SB-24 E 2-6	Total/NA	Solid	8270D LL	506085
680-146662-3	SB-24 S 2-6	Total/NA	Solid	8270D LL	506085
680-146662-4	SB-24 W 2-6	Total/NA	Solid	8270D LL	506085
680-146662-5	SB-24 B 6	Total/NA	Solid	8270D LL	506085
680-146662-6	SB-42 N 2-4	Total/NA	Solid	8270D LL	506085
680-146662-7	SB-42 S 2-4	Total/NA	Solid	8270D LL	506085
680-146662-8	SB-42 E 2-4	Total/NA	Solid	8270D LL	506085
680-146662-9	SB-42 W 2-4	Total/NA	Solid	8270D LL	506085
680-146662-10	SB-42 B 4	Total/NA	Solid	8270D LL	506085
680-146662-16	SB-25 N 2-4	Total/NA	Solid	8270D LL	506085
680-146662-17	SB-25 E 2-4	Total/NA	Solid	8270D LL	506085
680-146662-18	SB-25 S 2-4	Total/NA	Solid	8270D LL	506085
680-146662-19	SB-25 W 2-4	Total/NA	Solid	8270D LL	506085
680-146662-20	SB-25 B 4	Total/NA	Solid	8270D LL	506085
MB 680-506085/16-A	Method Blank	Total/NA	Solid	8270D LL	506085
LCS 680-506085/17-A	Lab Control Sample	Total/NA	Solid	8270D LL	506085
680-146662-20 MS	SB-25 B 4	Total/NA	Solid	8270D LL	506085
680-146662-20 MSD	SB-25 B 4	Total/NA	Solid	8270D LL	506085

## Metals

### Prep Batch: 506051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-146662-11	GB-27 N 0-2	Total/NA	Solid	3050B	
680-146662-12	GB-27 S 0-2	Total/NA	Solid	3050B	
680-146662-13	GB-27 E 0-2	Total/NA	Solid	3050B	
680-146662-14	GB-27 W 0-2	Total/NA	Solid	3050B	

TestAmerica Savannah

# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

## Metals (Continued)

### Prep Batch: 506051 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-146662-15	GB-27 B 2	Total/NA	Solid	3050B	
680-146662-16	SB-25 N 2-4	Total/NA	Solid	3050B	
680-146662-17	SB-25 E 2-4	Total/NA	Solid	3050B	
680-146662-18	SB-25 S 2-4	Total/NA	Solid	3050B	
680-146662-19	SB-25 W 2-4	Total/NA	Solid	3050B	
680-146662-20	SB-25 B 4	Total/NA	Solid	3050B	
680-146662-21	GB-11 B 2	Total/NA	Solid	3050B	
680-146662-22	GB-11 E 0.5-2	Total/NA	Solid	3050B	
680-146662-23	GB-11 W 0.5-2	Total/NA	Solid	3050B	
680-146662-24	GB-11 S 0.5-2	Total/NA	Solid	3050B	
680-146662-25	GB-11 N 0.5-2	Total/NA	Solid	3050B	
680-146662-26	SB-20 N 0-2	Total/NA	Solid	3050B	
680-146662-27	SB-20 E 0-2	Total/NA	Solid	3050B	
680-146662-28	SB-20 S 0-2	Total/NA	Solid	3050B	
680-146662-29	SB-20 W 0-2	Total/NA	Solid	3050B	
680-146662-30	SB-20 B 2	Total/NA	Solid	3050B	
MB 680-506051/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 680-506051/2-A	Lab Control Sample	Total/NA	Solid	3050B	
680-146662-11 MS	GB-27 N 0-2	Total/NA	Solid	3050B	
680-146662-11 MSD	GB-27 N 0-2	Total/NA	Solid	3050B	

### Analysis Batch: 506361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-146662-11	GB-27 N 0-2	Total/NA	Solid	6010C	506051
680-146662-12	GB-27 S 0-2	Total/NA	Solid	6010C	506051
680-146662-13	GB-27 E 0-2	Total/NA	Solid	6010C	506051
680-146662-14	GB-27 W 0-2	Total/NA	Solid	6010C	506051
680-146662-15	GB-27 B 2	Total/NA	Solid	6010C	506051
680-146662-16	SB-25 N 2-4	Total/NA	Solid	6010C	506051
680-146662-17	SB-25 E 2-4	Total/NA	Solid	6010C	506051
680-146662-18	SB-25 S 2-4	Total/NA	Solid	6010C	506051
680-146662-19	SB-25 W 2-4	Total/NA	Solid	6010C	506051
680-146662-20	SB-25 B 4	Total/NA	Solid	6010C	506051
680-146662-21	GB-11 B 2	Total/NA	Solid	6010C	506051
680-146662-22	GB-11 E 0.5-2	Total/NA	Solid	6010C	506051
680-146662-23	GB-11 W 0.5-2	Total/NA	Solid	6010C	506051
680-146662-24	GB-11 S 0.5-2	Total/NA	Solid	6010C	506051
680-146662-25	GB-11 N 0.5-2	Total/NA	Solid	6010C	506051
680-146662-26	SB-20 N 0-2	Total/NA	Solid	6010C	506051
680-146662-27	SB-20 E 0-2	Total/NA	Solid	6010C	506051
680-146662-28	SB-20 S 0-2	Total/NA	Solid	6010C	506051
680-146662-29	SB-20 W 0-2	Total/NA	Solid	6010C	506051
680-146662-30	SB-20 B 2	Total/NA	Solid	6010C	506051
MB 680-506051/1-A	Method Blank	Total/NA	Solid	6010C	506051
LCS 680-506051/2-A	Lab Control Sample	Total/NA	Solid	6010C	506051
680-146662-11 MS	GB-27 N 0-2	Total/NA	Solid	6010C	506051
680-146662-11 MSD	GB-27 N 0-2	Total/NA	Solid	6010C	506051

TestAmerica Savannah

# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

## General Chemistry

### Analysis Batch: 506212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-146662-1	SB-24 N 2-6	Total/NA	Solid	Moisture	
680-146662-2	SB-24 E 2-6	Total/NA	Solid	Moisture	
680-146662-3	SB-24 S 2-6	Total/NA	Solid	Moisture	
680-146662-4	SB-24 W 2-6	Total/NA	Solid	Moisture	
680-146662-5	SB-24 B 6	Total/NA	Solid	Moisture	
680-146662-6	SB-42 N 2-4	Total/NA	Solid	Moisture	
680-146662-7	SB-42 S 2-4	Total/NA	Solid	Moisture	
680-146662-8	SB-42 E 2-4	Total/NA	Solid	Moisture	
680-146662-9	SB-42 W 2-4	Total/NA	Solid	Moisture	
680-146662-10	SB-42 B 4	Total/NA	Solid	Moisture	
680-146662-11	GB-27 N 0-2	Total/NA	Solid	Moisture	
680-146662-12	GB-27 S 0-2	Total/NA	Solid	Moisture	
680-146662-13	GB-27 E 0-2	Total/NA	Solid	Moisture	
680-146662-14	GB-27 W 0-2	Total/NA	Solid	Moisture	
680-146662-15	GB-27 B 2	Total/NA	Solid	Moisture	
680-146662-16	SB-25 N 2-4	Total/NA	Solid	Moisture	
680-146662-17	SB-25 E 2-4	Total/NA	Solid	Moisture	
680-146662-18	SB-25 S 2-4	Total/NA	Solid	Moisture	
680-146662-19	SB-25 W 2-4	Total/NA	Solid	Moisture	
680-146662-20	SB-25 B 4	Total/NA	Solid	Moisture	
680-146662-21	GB-11 B 2	Total/NA	Solid	Moisture	
680-146662-22	GB-11 E 0.5-2	Total/NA	Solid	Moisture	
680-146662-23	GB-11 W 0.5-2	Total/NA	Solid	Moisture	
680-146662-24	GB-11 S 0.5-2	Total/NA	Solid	Moisture	
680-146662-25	GB-11 N 0.5-2	Total/NA	Solid	Moisture	
680-146662-26	SB-20 N 0-2	Total/NA	Solid	Moisture	
680-146662-27	SB-20 E 0-2	Total/NA	Solid	Moisture	
680-146662-28	SB-20 S 0-2	Total/NA	Solid	Moisture	
680-146662-29	SB-20 W 0-2	Total/NA	Solid	Moisture	
680-146662-30	SB-20 B 2	Total/NA	Solid	Moisture	

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-24 N 2-6**

**Date Collected: 12/11/17 11:00**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-1**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-24 N 2-6**

**Date Collected: 12/11/17 11:00**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-1**

**Matrix: Solid**

**Percent Solids: 91.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.55 g	1 mL	506085	12/12/17 15:38	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			506194	12/14/17 16:54	UI	TAL SAV
Instrument ID: CMSAE										

**Client Sample ID: SB-24 E 2-6**

**Date Collected: 12/11/17 11:10**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-2**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-24 E 2-6**

**Date Collected: 12/11/17 11:10**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-2**

**Matrix: Solid**

**Percent Solids: 92.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.33 g	1 mL	506085	12/12/17 15:38	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			506194	12/14/17 17:18	UI	TAL SAV
Instrument ID: CMSAE										

**Client Sample ID: SB-24 S 2-6**

**Date Collected: 12/11/17 11:15**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-3**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-24 S 2-6**

**Date Collected: 12/11/17 11:15**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-3**

**Matrix: Solid**

**Percent Solids: 82.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.08 g	1 mL	506085	12/12/17 15:38	JAM	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-24 S 2-6**

**Date Collected: 12/11/17 11:15**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-3**

**Matrix: Solid**

**Percent Solids: 82.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D LL		10			506194	12/14/17 17:43	UI	TAL SAV
Instrument ID: CMSAE										

**Client Sample ID: SB-24 W 2-6**

**Date Collected: 12/11/17 11:06**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-4**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-24 W 2-6**

**Date Collected: 12/11/17 11:06**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-4**

**Matrix: Solid**

**Percent Solids: 89.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.65 g	1 mL	506085	12/12/17 15:38	JAM	TAL SAV
Total/NA	Analysis	8270D LL		10			506194	12/14/17 18:07	UI	TAL SAV
Instrument ID: CMSAE										

**Client Sample ID: SB-24 B 6**

**Date Collected: 12/11/17 11:12**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-5**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-24 B 6**

**Date Collected: 12/11/17 11:12**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-5**

**Matrix: Solid**

**Percent Solids: 86.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.97 g	1 mL	506085	12/12/17 15:38	JAM	TAL SAV
Total/NA	Analysis	8270D LL		10			506194	12/14/17 18:32	UI	TAL SAV
Instrument ID: CMSAE										

**Client Sample ID: SB-42 N 2-4**

**Date Collected: 12/11/17 11:46**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-6**

**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			506212	12/13/17 11:16	EAB	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-42 N 2-4**

**Date Collected: 12/11/17 11:46**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-6**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-42 N 2-4**

**Date Collected: 12/11/17 11:46**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-6**

**Matrix: Solid**

**Percent Solids: 93.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.16 g	1 mL	506085	12/12/17 15:38	JAM	TAL SAV
Total/NA	Analysis	8270D LL		10			506194	12/14/17 18:57	UI	TAL SAV
Instrument ID: CMSAE										

**Client Sample ID: SB-42 S 2-4**

**Date Collected: 12/11/17 11:41**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-7**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-42 S 2-4**

**Date Collected: 12/11/17 11:41**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-7**

**Matrix: Solid**

**Percent Solids: 93.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.50 g	1 mL	506085	12/12/17 15:38	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			506194	12/14/17 19:22	UI	TAL SAV
Instrument ID: CMSAE										

**Client Sample ID: SB-42 E 2-4**

**Date Collected: 12/11/17 11:36**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-8**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-42 E 2-4**

**Date Collected: 12/11/17 11:36**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-8**

**Matrix: Solid**

**Percent Solids: 93.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.06 g	1 mL	506085	12/12/17 15:38	JAM	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-42 E 2-4**

**Date Collected: 12/11/17 11:36**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-8**

**Matrix: Solid**

**Percent Solids: 93.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D LL		1			506194	12/14/17 19:46	UI	TAL SAV
Instrument ID: CMSAE										

**Client Sample ID: SB-42 W 2-4**

**Date Collected: 12/11/17 11:49**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-9**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-42 W 2-4**

**Date Collected: 12/11/17 11:49**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-9**

**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			30.24 g	1 mL	506085	12/12/17 15:38	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			506194	12/14/17 20:10	UI	TAL SAV
Instrument ID: CMSAE										

**Client Sample ID: SB-42 B 4**

**Date Collected: 12/11/17 11:50**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-10**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-42 B 4**

**Date Collected: 12/11/17 11:50**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-10**

**Matrix: Solid**

**Percent Solids: 93.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.37 g	1 mL	506085	12/12/17 15:38	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			506194	12/14/17 20:35	UI	TAL SAV
Instrument ID: CMSAE										

**Client Sample ID: GB-27 N 0-2**

**Date Collected: 12/11/17 12:55**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-11**

**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			506212	12/13/17 11:16	EAB	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: GB-27 N 0-2**

**Date Collected: 12/11/17 12:55**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-11**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-27 N 0-2**

**Date Collected: 12/11/17 12:55**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-11**

**Matrix: Solid**

**Percent Solids: 89.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.16 g	100 mL	506051	12/12/17 10:53	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506361	12/13/17 23:15	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-27 S 0-2**

**Date Collected: 12/11/17 13:02**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-12**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-27 S 0-2**

**Date Collected: 12/11/17 13:02**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-12**

**Matrix: Solid**

**Percent Solids: 88.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.15 g	100 mL	506051	12/12/17 10:53	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506361	12/13/17 23:51	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-27 E 0-2**

**Date Collected: 12/11/17 13:00**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-13**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-27 E 0-2**

**Date Collected: 12/11/17 13:00**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-13**

**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	3050B			1.17 g	100 mL	506051	12/12/17 10:53	CDD	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: GB-27 E 0-2**

**Date Collected: 12/11/17 13:00**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-13**

**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	Analysis	6010C		1			506361	12/13/17 23:56	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-27 W 0-2**

**Date Collected: 12/11/17 12:49**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-14**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-27 W 0-2**

**Date Collected: 12/11/17 12:49**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-14**

**Matrix: Solid**

**Percent Solids: 83.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.14 g	100 mL	506051	12/12/17 10:53	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506361	12/14/17 00:01	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-27 B 2**

**Date Collected: 12/11/17 12:44**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-15**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-27 B 2**

**Date Collected: 12/11/17 12:44**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-15**

**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	3050B			1.16 g	100 mL	506051	12/12/17 10:53	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506361	12/14/17 00:07	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: SB-25 N 2-4**

**Date Collected: 12/11/17 14:40**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-16**

**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			506212	12/13/17 11:16	EAB	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-25 N 2-4**

**Date Collected: 12/11/17 14:40**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-16**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-25 N 2-4**

**Date Collected: 12/11/17 14:40**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-16**

**Matrix: Solid**

**Percent Solids: 84.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.53 g	1 mL	506085	12/12/17 15:38	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			506194	12/14/17 20:59	UI	TAL SAV
Instrument ID: CMSAE										
Total/NA	Prep	3050B			1.14 g	100 mL	506051	12/12/17 10:53	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506361	12/14/17 00:12	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: SB-25 E 2-4**

**Date Collected: 12/11/17 14:39**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-17**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-25 E 2-4**

**Date Collected: 12/11/17 14:39**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-17**

**Matrix: Solid**

**Percent Solids: 86.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.24 g	1 mL	506085	12/12/17 15:38	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			506194	12/14/17 21:24	UI	TAL SAV
Instrument ID: CMSAE										
Total/NA	Prep	3050B			1.10 g	100 mL	506051	12/12/17 10:53	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506361	12/14/17 00:18	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: SB-25 S 2-4**

**Date Collected: 12/11/17 14:34**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-18**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-25 S 2-4**

**Date Collected: 12/11/17 14:34**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-18**

**Matrix: Solid**

**Percent Solids: 84.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.58 g	1 mL	506085	12/12/17 15:38	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			506194	12/14/17 21:49	UI	TAL SAV
		Instrument ID: CMSAE								
Total/NA	Prep	3050B			1.19 g	100 mL	506051	12/12/17 10:53	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506361	12/14/17 00:35	BWR	TAL SAV
		Instrument ID: ICPE								

**Client Sample ID: SB-25 W 2-4**

**Date Collected: 12/11/17 14:42**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-19**

**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			506212	12/13/17 11:16	EAB	TAL SAV
		Instrument ID: NOEQUIP								

**Client Sample ID: SB-25 W 2-4**

**Date Collected: 12/11/17 14:42**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-19**

**Matrix: Solid**

**Percent Solids: 83.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.37 g	1 mL	506085	12/12/17 15:38	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			506194	12/14/17 22:13	UI	TAL SAV
		Instrument ID: CMSAE								
Total/NA	Prep	3050B			1.19 g	100 mL	506051	12/12/17 10:53	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506361	12/14/17 00:40	BWR	TAL SAV
		Instrument ID: ICPE								

**Client Sample ID: SB-25 B 4**

**Date Collected: 12/11/17 14:35**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-20**

**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			506212	12/13/17 11:16	EAB	TAL SAV
		Instrument ID: NOEQUIP								

**Client Sample ID: SB-25 B 4**

**Date Collected: 12/11/17 14:35**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-20**

**Matrix: Solid**

**Percent Solids: 83.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.26 g	1 mL	506085	12/12/17 15:38	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			506194	12/14/17 22:37	UI	TAL SAV
		Instrument ID: CMSAE								

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-25 B 4**

**Date Collected: 12/11/17 14:35**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-20**

**Matrix: Solid**

**Percent Solids: 83.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.14 g	100 mL	506051	12/12/17 10:53	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506361	12/14/17 00:46	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-11 B 2**

**Date Collected: 12/11/17 15:11**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-21**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-11 B 2**

**Date Collected: 12/11/17 15:11**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-21**

**Matrix: Solid**

**Percent Solids: 90.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.16 g	100 mL	506051	12/12/17 10:53	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506361	12/14/17 00:51	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-11 E 0.5-2**

**Date Collected: 12/11/17 15:06**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-22**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-11 E 0.5-2**

**Date Collected: 12/11/17 15:06**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-22**

**Matrix: Solid**

**Percent Solids: 91.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.19 g	100 mL	506051	12/12/17 10:53	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506361	12/14/17 00:57	BWR	TAL SAV
Instrument ID: ICPE										

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: GB-11 W 0.5-2**

**Lab Sample ID: 680-146662-23**

**Date Collected: 12/11/17 15:10**

**Matrix: Solid**

**Date Received: 12/12/17 08:35**

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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-11 W 0.5-2**

**Lab Sample ID: 680-146662-23**

**Date Collected: 12/11/17 15:10**

**Matrix: Solid**

**Date Received: 12/12/17 08:35**

**Percent Solids: 85.7**

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	506051	12/12/17 10:53	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506361	12/14/17 01:02	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-11 S 0.5-2**

**Lab Sample ID: 680-146662-24**

**Date Collected: 12/11/17 15:08**

**Matrix: Solid**

**Date Received: 12/12/17 08:35**

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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-11 S 0.5-2**

**Lab Sample ID: 680-146662-24**

**Date Collected: 12/11/17 15:08**

**Matrix: Solid**

**Date Received: 12/12/17 08:35**

**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	3050B			1.15 g	100 mL	506051	12/12/17 10:53	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506361	12/14/17 01:08	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-11 N 0.5-2**

**Lab Sample ID: 680-146662-25**

**Date Collected: 12/11/17 15:03**

**Matrix: Solid**

**Date Received: 12/12/17 08:35**

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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-11 N 0.5-2**

**Lab Sample ID: 680-146662-25**

**Date Collected: 12/11/17 15:03**

**Matrix: Solid**

**Date Received: 12/12/17 08:35**

**Percent Solids: 91.4**

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	506051	12/12/17 10:53	CDD	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: GB-11 N 0.5-2**

**Date Collected: 12/11/17 15:03**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-25**

**Matrix: Solid**

**Percent Solids: 91.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		1			506361	12/14/17 01:13	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: SB-20 N 0-2**

**Date Collected: 12/11/17 15:43**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-26**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-20 N 0-2**

**Date Collected: 12/11/17 15:43**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-26**

**Matrix: Solid**

**Percent Solids: 78.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.19 g	100 mL	506051	12/12/17 10:53	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506361	12/14/17 01:19	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: SB-20 E 0-2**

**Date Collected: 12/11/17 15:50**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-27**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-20 E 0-2**

**Date Collected: 12/11/17 15:50**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-27**

**Matrix: Solid**

**Percent Solids: 81.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.15 g	100 mL	506051	12/12/17 10:53	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506361	12/14/17 01:24	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: SB-20 S 0-2**

**Date Collected: 12/11/17 15:45**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-28**

**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			506212	12/13/17 11:16	EAB	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-20 S 0-2**

**Date Collected: 12/11/17 15:45**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-28**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-20 S 0-2**

**Date Collected: 12/11/17 15:45**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-28**

**Matrix: Solid**

**Percent Solids: 81.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.19 g	100 mL	506051	12/12/17 10:53	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506361	12/14/17 01:41	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: SB-20 W 0-2**

**Date Collected: 12/11/17 16:00**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-29**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-20 W 0-2**

**Date Collected: 12/11/17 16:00**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-29**

**Matrix: Solid**

**Percent Solids: 80.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.14 g	100 mL	506051	12/12/17 10:53	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506361	12/14/17 01:47	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: SB-20 B 2**

**Date Collected: 12/11/17 15:55**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-30**

**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			506212	12/13/17 11:16	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-20 B 2**

**Date Collected: 12/11/17 15:55**

**Date Received: 12/12/17 08:35**

**Lab Sample ID: 680-146662-30**

**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	Prep	3050B			1.15 g	100 mL	506051	12/12/17 10:53	CDD	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

**Client Sample ID: SB-20 B 2**

**Lab Sample ID: 680-146662-30**

**Date Collected: 12/11/17 15:55**

**Matrix: Solid**

**Date Received: 12/12/17 08:35**

**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	6010C		1			506361	12/14/17 01:52	BWR	TAL SAV
Instrument ID: ICPE										

## Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

# Accreditation/Certification Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

## Laboratory: TestAmerica Savannah

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
	AFCEE		SAVLAB	
Alabama	State Program	4	41450	06-30-18
Alaska	State Program	10		06-30-18
Alaska (UST)	State Program	10	UST-104	11-05-17 *
Arizona	State Program	9	AZ808	12-14-17 *
Arkansas DEQ	State Program	6	88-0692	02-01-18
California	State Program	9	2939	06-30-18
Colorado	State Program	8	N/A	12-31-17
Connecticut	State Program	1	PH-0161	03-31-19
Florida	NELAP	4	E87052	06-30-18
GA Dept. of Agriculture	State Program	4	N/A	06-12-18
Georgia	State Program	4	803	06-30-18
Guam	State Program	9	15-005r	04-16-18
Hawaii	State Program	9	N/A	06-30-18
Illinois	NELAP	5	200022	11-30-18
Indiana	State Program	5	N/A	06-30-18
Iowa	State Program	7	353	06-30-19
Kentucky (DW)	State Program	4	90084	12-31-17
Kentucky (UST)	State Program	4	18	06-30-18
Kentucky (WW)	State Program	4	90084	12-31-18 *
L-A-B	DoD ELAP		L2463	09-22-19
L-A-B	ISO/IEC 17025		L2463.01	09-22-19
Louisiana	NELAP	6	30690	06-30-18
Louisiana (DW)	NELAP	6	LA160019	12-31-18
Maine	State Program	1	GA00006	09-24-18
Maryland	State Program	3	250	12-31-17
Massachusetts	State Program	1	M-GA006	06-30-18
Michigan	State Program	5	9925	06-30-18
Mississippi	State Program	4	N/A	06-30-18
Nebraska	State Program	7	TestAmerica-Savannah	06-30-18
New Jersey	NELAP	2	GA769	06-30-18
New Mexico	State Program	6	N/A	06-30-18
New York	NELAP	2	10842	03-31-18
North Carolina (DW)	State Program	4	13701	07-31-18
North Carolina (WW/SW)	State Program	4	269	12-31-17
Oklahoma	State Program	6	9984	08-31-18
Pennsylvania	NELAP	3	68-00474	06-30-18
Puerto Rico	State Program	2	GA00006	12-31-17
South Carolina	State Program	4	98001	06-30-18
Tennessee	State Program	4	TN02961	06-30-18
Texas	NELAP	6	T104704185-16-9	11-30-18
Texas	State Program	6	T104704185	06-30-18
US Fish & Wildlife	Federal		LE058448-0	07-31-18
USDA	Federal		SAV 3-04	06-14-20 *
Virginia	NELAP	3	460161	06-14-18
Washington	State Program	10	C805	06-10-18
West Virginia (DW)	State Program	3	9950C	12-31-17
West Virginia DEP	State Program	3	094	06-30-18
Wisconsin	State Program	5	999819810	08-31-18
Wyoming	State Program	8	8TMS-L	06-30-16 *

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Savannah

## Method Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146662-1

Method	Method Description	Protocol	Laboratory
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL SAV
6010C	Metals (ICP)	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 011409

## ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

TestAmerica Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404

Website: www.testamericainc.com  
Phone: (912) 354-7858  
Fax: (912) 352-0165

## THE LEADER IN ENVIRONMENTAL TESTING

PROJECT REFERENCE 130659-240 MGP		PROJECT NO. 130659		PROJECT LOCATION (STATE) GA		MATRIX TYPE		REQUIRED ANALYSIS		PAGE 1 OF 3	
TAL (LAB) PROJECT MANAGER		P.O. NUMBER		CONTRACT NO.						STANDARD REPORT DELIVERY	
CLIENT (SITE) PM C. Holderfield		CLIENT PHONE 478-257-1606		CLIENT FAX 478-757-1636						DATE DUE	
CLIENT NAME GEC		CLIENT E-MAIL cholderfield@geconsultants.com								EXPEDITED REPORT DELIVERY (SURCHARGE)	
CLIENT ADDRESS 514 Hickrest Ind Blvd, Macon, GA										DATE DUE 3-day	
COMPANY CONTRACTING THIS WORK (if applicable) GEC										NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1	
SAMPLE		SAMPLE IDENTIFICATION								REMARKS	
DATE	TIME										
12-11-17	1100	SB-24 N 2-6		C		COMPOSITE (C) OR GRAB (G) INDICATE		Arsenic			
1110		SB-24 E 2-6		S		AQUEOUS (WATER)		Lead			
1115		SB-24 S 2-6		S		SOLID OR SEMISOLID		Benzocadpyrene			
1106		SB-24 W 2-6		S		AIR		10-10-10 PRESERVATIVE			
1112		SB-24 B 6		S							
1146		SB-42 N 2-4		S							
1141		SB-42 S 2-4		S							
1136		SB-42 E 2-4		S							
1149		SB-42 W 2-4		S							
1150		SB-42 B 4		S							
1255		GB-27 N 0-2		S						Arsenic Only	
1255		GB-27 S 0-2		S						Arsenic Only	
RELINQUISHED BY: (SIGNATURE)		DATE		TIME		RELINQUISHED BY: (SIGNATURE)		DATE		TIME	
12/11/17		1800									
RECEIVED BY: (SIGNATURE)		DATE		TIME		RECEIVED BY: (SIGNATURE)		DATE		TIME	
12/11/17		0730									



Serial Number 011411

6800-146662

## 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
TAL (LAB) PROJECT MANAGER		P.O. NUMBER									
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX									
CLIENT NAME	CLIENT E-MAIL										
CLIENT ADDRESS											
COMPANY CONTRACTING THIS WORK (if applicable)											
MGP		130659-240	GA							2	3
C. Holderfield		478-357-1606	478-757-1606								
GEC		cholderfield@geconsultants.com									
514 Hillcrest Ind Blvd, Macon, GA											
DATE			SAMPLE IDENTIFICATION								
TIME											
12/11/17			1300 GB-27 E 0-2								
1249 GB-27 W 0-2											
1244 GB-27 B 2											
1440 SB-25 N 2-4											
1439 SB-25 E 2-4											
1434 SB-25 S 2-4											
1442 SB-25 W 2-4											
1435 SB-25 B 4											
1511 GB-11 B 2											
1506 GB-11 E 0.5-2											
1510 GB-11 W 0.5-2											
1508 GB-11 S 0.5-2											
RELINQUISHED BY: (SIGNATURE)			DATE		TIME		RELINQUISHED BY: (SIGNATURE)		DATE		TIME
12/11/17			12/11/17		1800						
RECEIVED BY: (SIGNATURE)			DATE		TIME		RECEIVED BY: (SIGNATURE)		DATE		TIME
12/11/17											

RECEIVED FOR LABORATORY BY:		DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
(SIGNATURE)				YES	NO		
		12/12/17	0730	YES	NO		3.5 (CF-0.5) 3.1

680-196662

Serial Number 011413

## 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 MGP		PROJECT NO. 130059.240	PROJECT LOCATION (STATE) GA	MATRIX TYPE	REQUIRED ANALYSIS	PAGE 3 OF 3
TAL (LAB) PROJECT MANAGER		P.O. NUMBER	CONTRACT NO.	COMPOSITE (C) OR GRAB (G) INDICATE	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	STANDARD REPORT DELIVERY
CLIENT (SITE) PM C. Holderfield	CLIENT PHONE 478-757-1000	CLIENT FAX 478-757-1000	CLIENT E-MAIL cholderfield@gecorbatt.com	AQUEOUS (WATER)	AIR	DATE DUE
CLIENT NAME GEC				SOLID OR SEMISOLID		EXPEDITED REPORT DELIVERY (SURCHARGE)
CLIENT ADDRESS 514 Hillcrest Ind. Blvd, Macon, GA						DATE DUE 3 day
COMPANY CONTRACTING THIS WORK (if applicable) GEC						NUMBER OF COOLERS SUBMITTED PER SHIPMENT
SAMPLE IDENTIFICATION				REMARKS		
DATE	SAMPLE	TIME				
12-11-17	1503		GB-11 N 0.5-2	0	1	
	1543		SB-20 N 0-2	1	1	
	1550		SB-20 E 0-2	1	1	
	1545		SB-20 S 0-2	1	1	
	1600		SB-20 W 0-2	1	1	
	1555		SB-20 B 2	1	1	
NA	NA		Temp Blank	X		
RELINQUISHED BY: (SIGNATURE) J. Holderfield				DATE 12-11-17	TIME 1800	RELINQUISHED BY: (SIGNATURE)
RECEIVED BY: (SIGNATURE)				DATE	TIME	RECEIVED BY: (SIGNATURE)
RECEIVED FOR LABORATORY BY: (SIGNATURE) J. Holderfield				DATE 12-11-17	TIME 0730	RECEIVED BY: (SIGNATURE)
LABORATORY USE ONLY				LABORATORY REMARKS		
CUSTODY SEAL NO.				SAVANNAH LOG NO.		
CUSTODY INTACT YES NO				3.5CCF-0.5)3.4		



## Login Sample Receipt Checklist

Client: Geotechnical & Environmental Consultants

Job Number: 680-146662-1

Login Number: 146662

List Source: TestAmerica Savannah

List Number: 1

Creator: Conner, Keaton

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.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	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.	True	
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: 680-146766-1

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:

12/19/2017 4:41:30 PM

Keaton Conner, Project Manager I

(813)885-7427

[keaton.conner@testamericainc.com](mailto:keaton.conner@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.*

1

2

3

4

5

6

7

8

9

10

11

12

# Definitions/Glossary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
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.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
E	Result exceeded calibration range.
U	Indicates the analyte was analyzed for but not detected.

### Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance 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.
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.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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

TestAmerica Job ID: 680-146766-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-146766-1	SB-17 N 13-15	Solid	12/12/17 09:38	12/13/17 09:35
680-146766-2	SB-17 E 13-15	Solid	12/12/17 09:44	12/13/17 09:35
680-146766-3	SB-17 S 13-15	Solid	12/12/17 09:45	12/13/17 09:35
680-146766-4	SB-17 W 13-15	Solid	12/12/17 09:40	12/13/17 09:35
680-146766-5	SB-17 B 15'	Solid	12/12/17 09:35	12/13/17 09:35
680-146766-6	GB-28 N 13-15	Solid	12/12/17 12:34	12/13/17 09:35
680-146766-7	GB-28 S 13-15	Solid	12/12/17 12:29	12/13/17 09:35
680-146766-8	GB-28 E 13-15	Solid	12/12/17 12:31	12/13/17 09:35
680-146766-9	GB-28 W 13-15	Solid	12/12/17 12:32	12/13/17 09:35
680-146766-10	GB-28 B 15'	Solid	12/12/17 12:27	12/13/17 09:35
680-146766-11	SB-27 N 8-12	Solid	12/12/17 10:44	12/13/17 09:35
680-146766-12	SB-27 E 8-12	Solid	12/12/17 10:35	12/13/17 09:35
680-146766-13	SB-27 S 8-12	Solid	12/12/17 10:41	12/13/17 09:35
680-146766-14	SB-27 W 8-12	Solid	12/12/17 10:38	12/13/17 09:35
680-146766-15	SB-27 B 12	Solid	12/12/17 11:04	12/13/17 09:35
680-146766-16	SB-45 N 10-12	Solid	12/12/17 11:09	12/13/17 09:35
680-146766-17	SB-45 E 10-12	Solid	12/12/17 11:05	12/13/17 09:35
680-146766-18	SB-45 S 10-12	Solid	12/12/17 11:06	12/13/17 09:35
680-146766-19	SB-45 W 10-12	Solid	12/12/17 11:08	12/13/17 09:35
680-146766-20	SB-45 B 12	Solid	12/12/17 11:03	12/13/17 09:35
680-146766-21	GB-14 N 0-5	Solid	12/12/17 11:46	12/13/17 09:35
680-146766-22	GB-14 E 0-5	Solid	12/12/17 11:42	12/13/17 09:35
680-146766-23	GB-14 S 0-5	Solid	12/12/17 11:44	12/13/17 09:35
680-146766-24	GB-14 W 0-5	Solid	12/12/17 11:43	12/13/17 09:35
680-146766-25	GB-14 B 5	Solid	12/12/17 11:41	12/13/17 09:35
680-146766-26	GB-14 N 8-10	Solid	12/12/17 11:59	12/13/17 09:35
680-146766-27	GB-14 E 8-10	Solid	12/12/17 11:55	12/13/17 09:35
680-146766-28	GB-14 S 8-10	Solid	12/12/17 11:57	12/13/17 09:35
680-146766-29	GB-14 W 8-10	Solid	12/12/17 11:58	12/13/17 09:35
680-146766-30	GB-14 B 10'	Solid	12/12/17 11:53	12/13/17 09:35

TestAmerica Savannah

# Case Narrative

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Job ID: 680-146766-1**

**Laboratory: TestAmerica Savannah**

## Narrative

### CASE NARRATIVE

**Client: Geotechnical & Environmental Consultants**

**Project: Macon MGP**

**Report Number: 680-146766-1**

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.

This report is a revision to include updated data for sample ID SB-17 N 13-15 reported at a higher dilution and with higher RLS. The following sample was diluted due to the nature of the sample matrix and the abundance of target analytes: SB-17 N 13-15 (680-146766-1). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

#### **RECEIPT**

The samples were received on 12/13/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.5 C.

#### **SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) - LOW LEVEL**

Samples SB-17 N 13-15 (680-146766-1), SB-17 E 13-15 (680-146766-2), SB-17 S 13-15 (680-146766-3), SB-17 W 13-15 (680-146766-4) and SB-17 B 15' (680-146766-5) were analyzed for Semivolatile Organic Compounds (GC/MS) - Low level in accordance with EPA SW846 Method 8270D. The samples were prepared on 12/14/2017 and analyzed on 12/16/2017.

Samples SB-17 N 13-15 (680-146766-1)[10X] and SB-17 W 13-15 (680-146766-4)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

2-Fluorobiphenyl (Surr), Nitrobenzene-d5 (Surr) and Terphenyl-d14 (Surr) recovered low for SB-17 N 13-15 (680-146766-1).  
2-Fluorobiphenyl (Surr), Nitrobenzene-d5 (Surr) and Terphenyl-d14 (Surr) recovered low for SB-17 W 13-15 (680-146766-4).

Benzo[a]anthracene, Benzo[a]pyrene and Benzo[b]fluoranthene recovered high for the MS of sample SB-17 B 15'MS (680-146766-5) in batch 680-506658.

Benzo[a]anthracene, Benzo[a]pyrene and Benzo[b]fluoranthene exceeded the RPD limit for the MSD of sample SB-17 B 15'MSD (680-146766-5) in batch 680-506658.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **METALS (ICP)**

Samples GB-28 N 13-15 (680-146766-6), GB-28 S 13-15 (680-146766-7), GB-28 E 13-15 (680-146766-8), GB-28 W 13-15 (680-146766-9), GB-28 B 15' (680-146766-10), SB-27 N 8-12 (680-146766-11), SB-27 E 8-12 (680-146766-12), SB-27 S 8-12 (680-146766-13), SB-27 W 8-12 (680-146766-14), SB-27 B 12 (680-146766-15), SB-45 N 10-12 (680-146766-16), SB-45 E 10-12 (680-146766-17), SB-45 S 10-12 (680-146766-18), SB-45 W 10-12 (680-146766-19), SB-45 B 12 (680-146766-20), GB-14 N 0-5 (680-146766-21), GB-14 E 0-5 (680-146766-22), GB-14 S 0-5 (680-146766-23), GB-14 W 0-5 (680-146766-24), GB-14 B 5 (680-146766-25), GB-14 N 8-10 (680-146766-26), GB-14 E 8-10 (680-146766-27), GB-14 S 8-10 (680-146766-28), GB-14 W 8-10 (680-146766-29) and GB-14 B 10' (680-146766-30) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 12/14/2017 and analyzed on 12/14/2017 and 12/16/2017.

## Case Narrative

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

### Job ID: 680-146766-1 (Continued)

#### Laboratory: TestAmerica Savannah (Continued)

Lead recovered low for the MS and MSD of sample SB-45 W 10-12 (680-146766-19) in batch 680-506685.

Lead recovered high for the MS and MSD of sample GB-14 W 0-5 (680-146766-24) in batch 680-506572.

The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **PERCENT SOLIDS/MOISTURE**

Samples SB-17 N 13-15 (680-146766-1), SB-17 E 13-15 (680-146766-2), SB-17 S 13-15 (680-146766-3), SB-17 W 13-15 (680-146766-4), SB-17 B 15' (680-146766-5), GB-28 N 13-15 (680-146766-6), GB-28 S 13-15 (680-146766-7), GB-28 E 13-15 (680-146766-8), GB-28 W 13-15 (680-146766-9), GB-28 B 15' (680-146766-10), SB-27 N 8-12 (680-146766-11), SB-27 E 8-12 (680-146766-12), SB-27 S 8-12 (680-146766-13), SB-27 W 8-12 (680-146766-14), SB-27 B 12 (680-146766-15), SB-45 N 10-12 (680-146766-16), SB-45 E 10-12 (680-146766-17), SB-45 S 10-12 (680-146766-18), SB-45 W 10-12 (680-146766-19), SB-45 B 12 (680-146766-20), GB-14 N 0-5 (680-146766-21), GB-14 E 0-5 (680-146766-22), GB-14 S 0-5 (680-146766-23), GB-14 W 0-5 (680-146766-24), GB-14 B 5 (680-146766-25), GB-14 N 8-10 (680-146766-26), GB-14 E 8-10 (680-146766-27), GB-14 S 8-10 (680-146766-28), GB-14 W 8-10 (680-146766-29) and GB-14 B 10' (680-146766-30) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 12/14/2017.

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

TestAmerica Job ID: 680-146766-1

**Client Sample ID: SB-17 N 13-15**

**Date Collected: 12/12/17 09:38**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-1**

**Matrix: Solid**

**Percent Solids: 84.1**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	3200		160	78	ug/Kg	☼	12/14/17 10:03	12/19/17 13:14	20
Benzo[a]pyrene	2900		160	28	ug/Kg	☼	12/14/17 10:03	12/19/17 13:14	20
Benzo[b]fluoranthene	3800		160	78	ug/Kg	☼	12/14/17 10:03	12/19/17 13:14	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	0	D	11 - 130				12/14/17 10:03	12/19/17 13:14	20
Nitrobenzene-d5 (Surr)	0	D	18 - 130				12/14/17 10:03	12/19/17 13:14	20
Terphenyl-d14 (Surr)	0	D	27 - 130				12/14/17 10:03	12/19/17 13:14	20

TestAmerica Savannah



# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: SB-17 E 13-15**

**Date Collected: 12/12/17 09:44**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-2**

**Matrix: Solid**

**Percent Solids: 89.3**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	24		7.4	3.6	ug/Kg	☼	12/14/17 10:03	12/16/17 01:36	1
Benzo[a]pyrene	21		7.4	1.3	ug/Kg	☼	12/14/17 10:03	12/16/17 01:36	1
Benzo[b]fluoranthene	29		7.4	3.6	ug/Kg	☼	12/14/17 10:03	12/16/17 01:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	67		11 - 130				12/14/17 10:03	12/16/17 01:36	1
Nitrobenzene-d5 (Surr)	65		18 - 130				12/14/17 10:03	12/16/17 01:36	1
Terphenyl-d14 (Surr)	73		27 - 130				12/14/17 10:03	12/16/17 01:36	1

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: SB-17 S 13-15**

**Date Collected: 12/12/17 09:45**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-3**

**Matrix: Solid**

**Percent Solids: 85.8**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	120		7.7	3.8	ug/Kg	☼	12/14/17 10:03	12/16/17 01:59	1
Benzo[a]pyrene	98		7.7	1.4	ug/Kg	☼	12/14/17 10:03	12/16/17 01:59	1
Benzo[b]fluoranthene	130		7.7	3.8	ug/Kg	☼	12/14/17 10:03	12/16/17 01:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	64		11 - 130				12/14/17 10:03	12/16/17 01:59	1
Nitrobenzene-d5 (Surr)	70		18 - 130				12/14/17 10:03	12/16/17 01:59	1
Terphenyl-d14 (Surr)	80		27 - 130				12/14/17 10:03	12/16/17 01:59	1

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: SB-17 W 13-15**

**Date Collected: 12/12/17 09:40**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-4**

**Matrix: Solid**

**Percent Solids: 89.4**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	52000		740	360	ug/Kg	☼	12/14/17 10:03	12/16/17 02:21	100
Benzo[a]pyrene	41000		740	130	ug/Kg	☼	12/14/17 10:03	12/16/17 02:21	100
Benzo[b]fluoranthene	52000		740	360	ug/Kg	☼	12/14/17 10:03	12/16/17 02:21	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	0	D	11 - 130				12/14/17 10:03	12/16/17 02:21	100
Nitrobenzene-d5 (Surr)	0	D	18 - 130				12/14/17 10:03	12/16/17 02:21	100
Terphenyl-d14 (Surr)	0	D	27 - 130				12/14/17 10:03	12/16/17 02:21	100

TestAmerica Savannah

# Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: SB-17 B 15'**

**Date Collected: 12/12/17 09:35**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-5**

**Matrix: Solid**

**Percent Solids: 90.9**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	160	F1 F2	7.2	3.6	ug/Kg	☼	12/14/17 10:03	12/16/17 02:44	1
Benzo[a]pyrene	140	F1 F2	7.2	1.3	ug/Kg	☼	12/14/17 10:03	12/16/17 02:44	1
Benzo[b]fluoranthene	180	F1 F2	7.2	3.6	ug/Kg	☼	12/14/17 10:03	12/16/17 02:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	64		11 - 130				12/14/17 10:03	12/16/17 02:44	1
Nitrobenzene-d5 (Surr)	63		18 - 130				12/14/17 10:03	12/16/17 02:44	1
Terphenyl-d14 (Surr)	67		27 - 130				12/14/17 10:03	12/16/17 02:44	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: GB-28 N 13-15**

**Date Collected: 12/12/17 12:34**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-6**

**Matrix: Solid**

**Percent Solids: 87.5**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	16		0.99	0.34	mg/Kg	☼	12/14/17 07:31	12/16/17 04:33	1

1

2

3

4

5

6

7

8

9

10

11

12

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: GB-28 S 13-15**

**Date Collected: 12/12/17 12:29**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-7**

**Matrix: Solid**

**Percent Solids: 84.7**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	34		1.0	0.35	mg/Kg	☼	12/14/17 07:39	12/14/17 21:01	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: GB-28 E 13-15**

**Date Collected: 12/12/17 12:31**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-8**

**Matrix: Solid**

**Percent Solids: 84.2**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	300		1.0	0.35	mg/Kg	☼	12/14/17 07:31	12/16/17 06:07	1



## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: GB-28 W 13-15**

**Lab Sample ID: 680-146766-9**

**Date Collected: 12/12/17 12:32**

**Matrix: Solid**

**Date Received: 12/13/17 09:35**

**Percent Solids: 87.9**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	450		0.96	0.33	mg/Kg	☼	12/14/17 07:31	12/16/17 04:22	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: GB-28 B 15'**

**Date Collected: 12/12/17 12:27**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-10**

**Matrix: Solid**

**Percent Solids: 88.3**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	33		0.94	0.32	mg/Kg	☼	12/14/17 07:39	12/14/17 20:55	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: SB-27 N 8-12**

**Lab Sample ID: 680-146766-11**

**Date Collected: 12/12/17 10:44**

**Matrix: Solid**

**Date Received: 12/13/17 09:35**

**Percent Solids: 87.4**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4.0		0.98	0.33	mg/Kg	☼	12/14/17 07:31	12/16/17 06:13	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: SB-27 E 8-12**

**Lab Sample ID: 680-146766-12**

**Date Collected: 12/12/17 10:35**

**Matrix: Solid**

**Date Received: 12/13/17 09:35**

**Percent Solids: 87.3**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	2.4		1.0	0.34	mg/Kg	☼	12/14/17 07:31	12/16/17 05:23	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: SB-27 S 8-12**

**Date Collected: 12/12/17 10:41**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-13**

**Matrix: Solid**

**Percent Solids: 80.4**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	5.5		1.0	0.36	mg/Kg	☼	12/14/17 07:31	12/16/17 05:34	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: SB-27 W 8-12**

**Lab Sample ID: 680-146766-14**

**Date Collected: 12/12/17 10:38**

**Matrix: Solid**

**Date Received: 12/13/17 09:35**

**Percent Solids: 87.8**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	32		1.0	0.35	mg/Kg	☼	12/14/17 07:31	12/16/17 05:56	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: SB-27 B 12**

**Date Collected: 12/12/17 11:04**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-15**

**Matrix: Solid**

**Percent Solids: 86.8**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	28		0.98	0.33	mg/Kg	☼	12/14/17 07:31	12/16/17 04:50	1



## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: SB-45 N 10-12**

**Lab Sample ID: 680-146766-16**

**Date Collected: 12/12/17 11:09**

**Matrix: Solid**

**Date Received: 12/13/17 09:35**

**Percent Solids: 84.9**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	140		0.99	0.34	mg/Kg	☼	12/14/17 07:31	12/16/17 04:16	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: SB-45 E 10-12**

**Lab Sample ID: 680-146766-17**

**Date Collected: 12/12/17 11:05**

**Matrix: Solid**

**Date Received: 12/13/17 09:35**

**Percent Solids: 85.8**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	6.4		1.1	0.36	mg/Kg	☼	12/14/17 07:31	12/16/17 04:28	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: SB-45 S 10-12**

**Lab Sample ID: 680-146766-18**

**Date Collected: 12/12/17 11:06**

**Matrix: Solid**

**Date Received: 12/13/17 09:35**

**Percent Solids: 84.9**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	16		1.0	0.35	mg/Kg	☼	12/14/17 07:31	12/16/17 04:11	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: SB-45 W 10-12**

**Lab Sample ID: 680-146766-19**

**Date Collected: 12/12/17 11:08**

**Matrix: Solid**

**Date Received: 12/13/17 09:35**

**Percent Solids: 88.6**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	94	F1	0.96	0.33	mg/Kg	☼	12/14/17 07:31	12/16/17 03:43	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: SB-45 B 12**

**Lab Sample ID: 680-146766-20**

**Date Collected: 12/12/17 11:03**

**Matrix: Solid**

**Date Received: 12/13/17 09:35**

**Percent Solids: 86.3**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	10		0.97	0.33	mg/Kg	☼	12/14/17 07:39	12/14/17 20:50	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: GB-14 N 0-5**

**Lab Sample ID: 680-146766-21**

**Date Collected: 12/12/17 11:46**

**Matrix: Solid**

**Date Received: 12/13/17 09:35**

**Percent Solids: 90.4**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	34		0.95	0.32	mg/Kg	☼	12/14/17 07:31	12/16/17 05:40	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: GB-14 E 0-5**

**Lab Sample ID: 680-146766-22**

**Date Collected: 12/12/17 11:42**

**Matrix: Solid**

**Date Received: 12/13/17 09:35**

**Percent Solids: 90.4**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	240		0.94	0.32	mg/Kg	☼	12/14/17 07:31	12/16/17 06:02	1



## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: GB-14 S 0-5**

**Lab Sample ID: 680-146766-23**

**Date Collected: 12/12/17 11:44**

**Matrix: Solid**

**Date Received: 12/13/17 09:35**

**Percent Solids: 87.7**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	19		0.97	0.33	mg/Kg	☼	12/14/17 07:31	12/16/17 05:17	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: GB-14 W 0-5**

**Lab Sample ID: 680-146766-24**

**Date Collected: 12/12/17 11:43**

**Matrix: Solid**

**Date Received: 12/13/17 09:35**

**Percent Solids: 86.5**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	430		0.99	0.34	mg/Kg	☼	12/14/17 07:39	12/14/17 20:06	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: GB-14 B 5**

**Date Collected: 12/12/17 11:41**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-25**

**Matrix: Solid**

**Percent Solids: 87.0**

**Method: 6010C - Metals (ICP)**

Analyte

Result

Qualifier

RL

MDL

Unit

D

Prepared

Analyzed

Dil Fac

Lead

59

0.99

0.34

mg/Kg

☼

12/14/17 07:39

12/14/17 20:33

1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: GB-14 N 8-10**

**Lab Sample ID: 680-146766-26**

**Date Collected: 12/12/17 11:59**

**Matrix: Solid**

**Date Received: 12/13/17 09:35**

**Percent Solids: 77.3**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.96	J	2.3	0.92	mg/Kg	☼	12/14/17 07:31	12/16/17 05:12	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: GB-14 E 8-10**

**Lab Sample ID: 680-146766-27**

**Date Collected: 12/12/17 11:55**

**Matrix: Solid**

**Date Received: 12/13/17 09:35**

**Percent Solids: 60.0**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	48		2.9	1.2	mg/Kg	☼	12/14/17 07:31	12/16/17 04:55	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: GB-14 S 8-10**

**Lab Sample ID: 680-146766-28**

**Date Collected: 12/12/17 11:57**

**Matrix: Solid**

**Date Received: 12/13/17 09:35**

**Percent Solids: 49.9**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	58		3.5	1.4	mg/Kg	☼	12/14/17 07:31	12/16/17 05:28	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: GB-14 W 8-10**

**Lab Sample ID: 680-146766-29**

**Date Collected: 12/12/17 11:58**

**Matrix: Solid**

**Date Received: 12/13/17 09:35**

**Percent Solids: 85.5**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.7		2.1	0.82	mg/Kg	☼	12/14/17 07:31	12/16/17 05:06	1



## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: GB-14 B 10'**

**Lab Sample ID: 680-146766-30**

**Date Collected: 12/12/17 11:53**

**Matrix: Solid**

**Date Received: 12/13/17 09:35**

**Percent Solids: 84.2**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.4	J	2.1	0.83	mg/Kg	☼	12/14/17 07:31	12/16/17 05:01	1

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 680-506362/6-A

Matrix: Solid

Analysis Batch: 506658

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 506362

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	3.2	U	6.5	3.2	ug/Kg		12/14/17 10:03	12/15/17 23:41	1
Benzo[a]pyrene	1.2	U	6.5	1.2	ug/Kg		12/14/17 10:03	12/15/17 23:41	1
Benzo[b]fluoranthene	3.2	U	6.5	3.2	ug/Kg		12/14/17 10:03	12/15/17 23:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	68		11 - 130	12/14/17 10:03	12/15/17 23:41	1
Nitrobenzene-d5 (Surr)	72		18 - 130	12/14/17 10:03	12/15/17 23:41	1
Terphenyl-d14 (Surr)	75		27 - 130	12/14/17 10:03	12/15/17 23:41	1

Lab Sample ID: LCS 680-506362/7-A

Matrix: Solid

Analysis Batch: 506658

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 506362

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzo[a]anthracene	327	117		ug/Kg		36	16 - 130
Benzo[a]pyrene	327	116		ug/Kg		36	18 - 139
Benzo[b]fluoranthene	327	109		ug/Kg		33	18 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	68		11 - 130
Nitrobenzene-d5 (Surr)	70		18 - 130
Terphenyl-d14 (Surr)	78		27 - 130

Lab Sample ID: 680-146766-5 MS

Matrix: Solid

Analysis Batch: 506658

Client Sample ID: SB-17 B 15'

Prep Type: Total/NA

Prep Batch: 506362

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Benzo[a]anthracene	160	F1 F2	359	780	E F1	ug/Kg	☼	173	16 - 130
Benzo[a]pyrene	140	F1 F2	359	690	F1	ug/Kg	☼	152	18 - 139
Benzo[b]fluoranthene	180	F1 F2	359	856	E F1	ug/Kg	☼	189	18 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl (Surr)	58		11 - 130
Nitrobenzene-d5 (Surr)	59		18 - 130
Terphenyl-d14 (Surr)	60		27 - 130

Lab Sample ID: 680-146766-5 MSD

Matrix: Solid

Analysis Batch: 506658

Client Sample ID: SB-17 B 15'

Prep Type: Total/NA

Prep Batch: 506362

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzo[a]anthracene	160	F1 F2	365	407	F2	ug/Kg	☼	68	16 - 130	63	50
Benzo[a]pyrene	140	F1 F2	365	367	F2	ug/Kg	☼	61	18 - 139	61	50
Benzo[b]fluoranthene	180	F1 F2	365	455	F2	ug/Kg	☼	76	18 - 130	61	50

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 680-146766-5 MSD

Matrix: Solid

Analysis Batch: 506658

Client Sample ID: SB-17 B 15'

Prep Type: Total/NA

Prep Batch: 506362

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	65		11 - 130
Nitrobenzene-d5 (Surr)	65		18 - 130
Terphenyl-d14 (Surr)	69		27 - 130

## Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-506353/1-A

Matrix: Solid

Analysis Batch: 506685

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 506353

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.75	U	1.9	0.75	mg/Kg		12/14/17 07:31	12/16/17 03:21	1
Lead	0.32	U	0.94	0.32	mg/Kg		12/14/17 07:31	12/16/17 03:21	1

Lab Sample ID: LCS 680-506353/2-A

Matrix: Solid

Analysis Batch: 506685

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 506353

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	9.52	9.41		mg/Kg		99	80 - 120
Lead	47.6	48.6		mg/Kg		102	80 - 120

Lab Sample ID: 680-146766-19 MS

Matrix: Solid

Analysis Batch: 506685

Client Sample ID: SB-45 W 10-12

Prep Type: Total/NA

Prep Batch: 506353

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.2		9.48	13.4		mg/Kg	☼	86	75 - 125
Lead	94	F1	47.4	111	F1	mg/Kg	☼	35	75 - 125

Lab Sample ID: 680-146766-19 MSD

Matrix: Solid

Analysis Batch: 506685

Client Sample ID: SB-45 W 10-12

Prep Type: Total/NA

Prep Batch: 506353

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	5.2		9.48	15.7		mg/Kg	☼	110	75 - 125	16	20
Lead	94	F1	47.4	100	F1	mg/Kg	☼	13	75 - 125	10	20

Lab Sample ID: MB 680-506354/1-A

Matrix: Solid

Analysis Batch: 506572

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 506354

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.32	U	0.95	0.32	mg/Kg		12/14/17 07:39	12/14/17 19:55	1

TestAmerica Savannah

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

## Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 680-506354/2-A

Matrix: Solid

Analysis Batch: 506572

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 506354

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	48.5	47.2		mg/Kg		97	80 - 120

Lab Sample ID: 680-146766-24 MS

Matrix: Solid

Analysis Batch: 506572

Client Sample ID: GB-14 W 0-5

Prep Type: Total/NA

Prep Batch: 506354

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	430		49.0	758	4	mg/Kg	✱	676	75 - 125

Lab Sample ID: 680-146766-24 MSD

Matrix: Solid

Analysis Batch: 506572

Client Sample ID: GB-14 W 0-5

Prep Type: Total/NA

Prep Batch: 506354

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Lead	430		49.4	817	4	mg/Kg	✱	790	75 - 125	8	20

# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

## GC/MS Semi VOA

### Prep Batch: 506362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-146766-1	SB-17 N 13-15	Total/NA	Solid	3546	
680-146766-2	SB-17 E 13-15	Total/NA	Solid	3546	
680-146766-3	SB-17 S 13-15	Total/NA	Solid	3546	
680-146766-4	SB-17 W 13-15	Total/NA	Solid	3546	
680-146766-5	SB-17 B 15'	Total/NA	Solid	3546	
MB 680-506362/6-A	Method Blank	Total/NA	Solid	3546	
LCS 680-506362/7-A	Lab Control Sample	Total/NA	Solid	3546	
680-146766-5 MS	SB-17 B 15'	Total/NA	Solid	3546	
680-146766-5 MSD	SB-17 B 15'	Total/NA	Solid	3546	

### Analysis Batch: 506658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-146766-2	SB-17 E 13-15	Total/NA	Solid	8270D LL	506362
680-146766-3	SB-17 S 13-15	Total/NA	Solid	8270D LL	506362
680-146766-4	SB-17 W 13-15	Total/NA	Solid	8270D LL	506362
680-146766-5	SB-17 B 15'	Total/NA	Solid	8270D LL	506362
MB 680-506362/6-A	Method Blank	Total/NA	Solid	8270D LL	506362
LCS 680-506362/7-A	Lab Control Sample	Total/NA	Solid	8270D LL	506362
680-146766-5 MS	SB-17 B 15'	Total/NA	Solid	8270D LL	506362
680-146766-5 MSD	SB-17 B 15'	Total/NA	Solid	8270D LL	506362

### Analysis Batch: 507009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-146766-1	SB-17 N 13-15	Total/NA	Solid	8270D LL	506362

## Metals

### Prep Batch: 506353

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-146766-6	GB-28 N 13-15	Total/NA	Solid	3050B	
680-146766-8	GB-28 E 13-15	Total/NA	Solid	3050B	
680-146766-9	GB-28 W 13-15	Total/NA	Solid	3050B	
680-146766-11	SB-27 N 8-12	Total/NA	Solid	3050B	
680-146766-12	SB-27 E 8-12	Total/NA	Solid	3050B	
680-146766-13	SB-27 S 8-12	Total/NA	Solid	3050B	
680-146766-14	SB-27 W 8-12	Total/NA	Solid	3050B	
680-146766-15	SB-27 B 12	Total/NA	Solid	3050B	
680-146766-16	SB-45 N 10-12	Total/NA	Solid	3050B	
680-146766-17	SB-45 E 10-12	Total/NA	Solid	3050B	
680-146766-18	SB-45 S 10-12	Total/NA	Solid	3050B	
680-146766-19	SB-45 W 10-12	Total/NA	Solid	3050B	
680-146766-21	GB-14 N 0-5	Total/NA	Solid	3050B	
680-146766-22	GB-14 E 0-5	Total/NA	Solid	3050B	
680-146766-23	GB-14 S 0-5	Total/NA	Solid	3050B	
680-146766-26	GB-14 N 8-10	Total/NA	Solid	3050B	
680-146766-27	GB-14 E 8-10	Total/NA	Solid	3050B	
680-146766-28	GB-14 S 8-10	Total/NA	Solid	3050B	
680-146766-29	GB-14 W 8-10	Total/NA	Solid	3050B	
680-146766-30	GB-14 B 10'	Total/NA	Solid	3050B	
MB 680-506353/1-A	Method Blank	Total/NA	Solid	3050B	

TestAmerica Savannah

# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

## Metals (Continued)

### Prep Batch: 506353 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-506353/2-A	Lab Control Sample	Total/NA	Solid	3050B	
680-146766-19 MS	SB-45 W 10-12	Total/NA	Solid	3050B	
680-146766-19 MSD	SB-45 W 10-12	Total/NA	Solid	3050B	

### Prep Batch: 506354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-146766-7	GB-28 S 13-15	Total/NA	Solid	3050B	
680-146766-10	GB-28 B 15'	Total/NA	Solid	3050B	
680-146766-20	SB-45 B 12	Total/NA	Solid	3050B	
680-146766-24	GB-14 W 0-5	Total/NA	Solid	3050B	
680-146766-25	GB-14 B 5	Total/NA	Solid	3050B	
MB 680-506354/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 680-506354/2-A	Lab Control Sample	Total/NA	Solid	3050B	
680-146766-24 MS	GB-14 W 0-5	Total/NA	Solid	3050B	
680-146766-24 MSD	GB-14 W 0-5	Total/NA	Solid	3050B	

### Analysis Batch: 506572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-146766-7	GB-28 S 13-15	Total/NA	Solid	6010C	506354
680-146766-10	GB-28 B 15'	Total/NA	Solid	6010C	506354
680-146766-20	SB-45 B 12	Total/NA	Solid	6010C	506354
680-146766-24	GB-14 W 0-5	Total/NA	Solid	6010C	506354
680-146766-25	GB-14 B 5	Total/NA	Solid	6010C	506354
MB 680-506354/1-A	Method Blank	Total/NA	Solid	6010C	506354
LCS 680-506354/2-A	Lab Control Sample	Total/NA	Solid	6010C	506354
680-146766-24 MS	GB-14 W 0-5	Total/NA	Solid	6010C	506354
680-146766-24 MSD	GB-14 W 0-5	Total/NA	Solid	6010C	506354

### Analysis Batch: 506685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-146766-6	GB-28 N 13-15	Total/NA	Solid	6010C	506353
680-146766-8	GB-28 E 13-15	Total/NA	Solid	6010C	506353
680-146766-9	GB-28 W 13-15	Total/NA	Solid	6010C	506353
680-146766-11	SB-27 N 8-12	Total/NA	Solid	6010C	506353
680-146766-12	SB-27 E 8-12	Total/NA	Solid	6010C	506353
680-146766-13	SB-27 S 8-12	Total/NA	Solid	6010C	506353
680-146766-14	SB-27 W 8-12	Total/NA	Solid	6010C	506353
680-146766-15	SB-27 B 12	Total/NA	Solid	6010C	506353
680-146766-16	SB-45 N 10-12	Total/NA	Solid	6010C	506353
680-146766-17	SB-45 E 10-12	Total/NA	Solid	6010C	506353
680-146766-18	SB-45 S 10-12	Total/NA	Solid	6010C	506353
680-146766-19	SB-45 W 10-12	Total/NA	Solid	6010C	506353
680-146766-21	GB-14 N 0-5	Total/NA	Solid	6010C	506353
680-146766-22	GB-14 E 0-5	Total/NA	Solid	6010C	506353
680-146766-23	GB-14 S 0-5	Total/NA	Solid	6010C	506353
680-146766-26	GB-14 N 8-10	Total/NA	Solid	6010C	506353
680-146766-27	GB-14 E 8-10	Total/NA	Solid	6010C	506353
680-146766-28	GB-14 S 8-10	Total/NA	Solid	6010C	506353
680-146766-29	GB-14 W 8-10	Total/NA	Solid	6010C	506353
680-146766-30	GB-14 B 10'	Total/NA	Solid	6010C	506353
MB 680-506353/1-A	Method Blank	Total/NA	Solid	6010C	506353

TestAmerica Savannah

# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

## Metals (Continued)

### Analysis Batch: 506685 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-506353/2-A	Lab Control Sample	Total/NA	Solid	6010C	506353
680-146766-19 MS	SB-45 W 10-12	Total/NA	Solid	6010C	506353
680-146766-19 MSD	SB-45 W 10-12	Total/NA	Solid	6010C	506353

## General Chemistry

### Analysis Batch: 506372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-146766-1	SB-17 N 13-15	Total/NA	Solid	Moisture	
680-146766-2	SB-17 E 13-15	Total/NA	Solid	Moisture	
680-146766-3	SB-17 S 13-15	Total/NA	Solid	Moisture	
680-146766-4	SB-17 W 13-15	Total/NA	Solid	Moisture	
680-146766-5	SB-17 B 15'	Total/NA	Solid	Moisture	
680-146766-6	GB-28 N 13-15	Total/NA	Solid	Moisture	
680-146766-7	GB-28 S 13-15	Total/NA	Solid	Moisture	
680-146766-8	GB-28 E 13-15	Total/NA	Solid	Moisture	
680-146766-9	GB-28 W 13-15	Total/NA	Solid	Moisture	
680-146766-10	GB-28 B 15'	Total/NA	Solid	Moisture	
680-146766-11	SB-27 N 8-12	Total/NA	Solid	Moisture	
680-146766-12	SB-27 E 8-12	Total/NA	Solid	Moisture	
680-146766-13	SB-27 S 8-12	Total/NA	Solid	Moisture	
680-146766-14	SB-27 W 8-12	Total/NA	Solid	Moisture	
680-146766-15	SB-27 B 12	Total/NA	Solid	Moisture	
680-146766-16	SB-45 N 10-12	Total/NA	Solid	Moisture	
680-146766-17	SB-45 E 10-12	Total/NA	Solid	Moisture	
680-146766-18	SB-45 S 10-12	Total/NA	Solid	Moisture	
680-146766-19	SB-45 W 10-12	Total/NA	Solid	Moisture	
680-146766-20	SB-45 B 12	Total/NA	Solid	Moisture	
680-146766-21	GB-14 N 0-5	Total/NA	Solid	Moisture	
680-146766-22	GB-14 E 0-5	Total/NA	Solid	Moisture	
680-146766-23	GB-14 S 0-5	Total/NA	Solid	Moisture	
680-146766-24	GB-14 W 0-5	Total/NA	Solid	Moisture	
680-146766-25	GB-14 B 5	Total/NA	Solid	Moisture	
680-146766-26	GB-14 N 8-10	Total/NA	Solid	Moisture	
680-146766-27	GB-14 E 8-10	Total/NA	Solid	Moisture	
680-146766-28	GB-14 S 8-10	Total/NA	Solid	Moisture	
680-146766-29	GB-14 W 8-10	Total/NA	Solid	Moisture	
680-146766-30	GB-14 B 10'	Total/NA	Solid	Moisture	



# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: SB-17 N 13-15**

**Date Collected: 12/12/17 09:38**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-1**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-17 N 13-15**

**Date Collected: 12/12/17 09:38**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-1**

**Matrix: Solid**

**Percent Solids: 84.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.29 g	1 mL	506362	12/14/17 10:03	JAM	TAL SAV
Total/NA	Analysis	8270D LL		20			507009	12/19/17 13:14	DBM	TAL SAV
Instrument ID: CMSW										

**Client Sample ID: SB-17 E 13-15**

**Date Collected: 12/12/17 09:44**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-2**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-17 E 13-15**

**Date Collected: 12/12/17 09:44**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-2**

**Matrix: Solid**

**Percent Solids: 89.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.54 g	1 mL	506362	12/14/17 10:03	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			506658	12/16/17 01:36	DBM	TAL SAV
Instrument ID: CMSW										

**Client Sample ID: SB-17 S 13-15**

**Date Collected: 12/12/17 09:45**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-3**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-17 S 13-15**

**Date Collected: 12/12/17 09:45**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-3**

**Matrix: Solid**

**Percent Solids: 85.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.23 g	1 mL	506362	12/14/17 10:03	JAM	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: SB-17 S 13-15**

**Date Collected: 12/12/17 09:45**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-3**

**Matrix: Solid**

**Percent Solids: 85.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D LL		1			506658	12/16/17 01:59	DBM	TAL SAV
Instrument ID: CMSW										

**Client Sample ID: SB-17 W 13-15**

**Date Collected: 12/12/17 09:40**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-4**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-17 W 13-15**

**Date Collected: 12/12/17 09:40**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-4**

**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			30.47 g	1 mL	506362	12/14/17 10:03	JAM	TAL SAV
Total/NA	Analysis	8270D LL		100			506658	12/16/17 02:21	DBM	TAL SAV
Instrument ID: CMSW										

**Client Sample ID: SB-17 B 15'**

**Date Collected: 12/12/17 09:35**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-5**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-17 B 15'**

**Date Collected: 12/12/17 09:35**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-5**

**Matrix: Solid**

**Percent Solids: 90.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.55 g	1 mL	506362	12/14/17 10:03	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			506658	12/16/17 02:44	DBM	TAL SAV
Instrument ID: CMSW										

**Client Sample ID: GB-28 N 13-15**

**Date Collected: 12/12/17 12:34**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-6**

**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			506372	12/14/17 09:30	EAB	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: GB-28 N 13-15**

**Date Collected: 12/12/17 12:34**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-6**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-28 N 13-15**

**Date Collected: 12/12/17 12:34**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-6**

**Matrix: Solid**

**Percent Solids: 87.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.16 g	100 mL	506353	12/14/17 07:31	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506685	12/16/17 04:33	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-28 S 13-15**

**Date Collected: 12/12/17 12:29**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-7**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-28 S 13-15**

**Date Collected: 12/12/17 12:29**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-7**

**Matrix: Solid**

**Percent Solids: 84.7**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.14 g	100 mL	506354	12/14/17 07:39	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506572	12/14/17 21:01	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-28 E 13-15**

**Date Collected: 12/12/17 12:31**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-8**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-28 E 13-15**

**Date Collected: 12/12/17 12:31**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-8**

**Matrix: Solid**

**Percent Solids: 84.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.16 g	100 mL	506353	12/14/17 07:31	CDD	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: GB-28 E 13-15**

**Date Collected: 12/12/17 12:31**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-8**

**Matrix: Solid**

**Percent Solids: 84.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		1			506685	12/16/17 06:07	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-28 W 13-15**

**Date Collected: 12/12/17 12:32**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-9**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-28 W 13-15**

**Date Collected: 12/12/17 12:32**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-9**

**Matrix: Solid**

**Percent Solids: 87.9**

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	506353	12/14/17 07:31	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506685	12/16/17 04:22	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-28 B 15'**

**Date Collected: 12/12/17 12:27**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-10**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-28 B 15'**

**Date Collected: 12/12/17 12:27**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-10**

**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	3050B			1.21 g	100 mL	506354	12/14/17 07:39	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506572	12/14/17 20:55	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: SB-27 N 8-12**

**Date Collected: 12/12/17 10:44**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-11**

**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			506372	12/14/17 09:30	EAB	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: SB-27 N 8-12**

**Date Collected: 12/12/17 10:44**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-11**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-27 N 8-12**

**Date Collected: 12/12/17 10:44**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-11**

**Matrix: Solid**

**Percent Solids: 87.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.17 g	100 mL	506353	12/14/17 07:31	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506685	12/16/17 06:13	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: SB-27 E 8-12**

**Date Collected: 12/12/17 10:35**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-12**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-27 E 8-12**

**Date Collected: 12/12/17 10:35**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-12**

**Matrix: Solid**

**Percent Solids: 87.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.14 g	100 mL	506353	12/14/17 07:31	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506685	12/16/17 05:23	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: SB-27 S 8-12**

**Date Collected: 12/12/17 10:41**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-13**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-27 S 8-12**

**Date Collected: 12/12/17 10:41**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-13**

**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	Prep	3050B			1.19 g	100 mL	506353	12/14/17 07:31	CDD	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: SB-27 S 8-12**

**Date Collected: 12/12/17 10:41**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-13**

**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	6010C		1			506685	12/16/17 05:34	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: SB-27 W 8-12**

**Date Collected: 12/12/17 10:38**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-14**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-27 W 8-12**

**Date Collected: 12/12/17 10:38**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-14**

**Matrix: Solid**

**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	3050B			1.12 g	100 mL	506353	12/14/17 07:31	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506685	12/16/17 05:56	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: SB-27 B 12**

**Date Collected: 12/12/17 11:04**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-15**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-27 B 12**

**Date Collected: 12/12/17 11:04**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-15**

**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	3050B			1.17 g	100 mL	506353	12/14/17 07:31	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506685	12/16/17 04:50	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: SB-45 N 10-12**

**Date Collected: 12/12/17 11:09**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-16**

**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			506372	12/14/17 09:30	EAB	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: SB-45 N 10-12**

**Date Collected: 12/12/17 11:09**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-16**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-45 N 10-12**

**Date Collected: 12/12/17 11:09**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-16**

**Matrix: Solid**

**Percent Solids: 84.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.19 g	100 mL	506353	12/14/17 07:31	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506685	12/16/17 04:16	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: SB-45 E 10-12**

**Date Collected: 12/12/17 11:05**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-17**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-45 E 10-12**

**Date Collected: 12/12/17 11:05**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-17**

**Matrix: Solid**

**Percent Solids: 85.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.11 g	100 mL	506353	12/14/17 07:31	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506685	12/16/17 04:28	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: SB-45 S 10-12**

**Date Collected: 12/12/17 11:06**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-18**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-45 S 10-12**

**Date Collected: 12/12/17 11:06**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-18**

**Matrix: Solid**

**Percent Solids: 84.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.13 g	100 mL	506353	12/14/17 07:31	CDD	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: SB-45 S 10-12**

**Date Collected: 12/12/17 11:06**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-18**

**Matrix: Solid**

**Percent Solids: 84.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		1			506685	12/16/17 04:11	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: SB-45 W 10-12**

**Date Collected: 12/12/17 11:08**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-19**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-45 W 10-12**

**Date Collected: 12/12/17 11:08**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-19**

**Matrix: Solid**

**Percent Solids: 88.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.17 g	100 mL	506353	12/14/17 07:31	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506685	12/16/17 03:43	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: SB-45 B 12**

**Date Collected: 12/12/17 11:03**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-20**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-45 B 12**

**Date Collected: 12/12/17 11:03**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-20**

**Matrix: Solid**

**Percent Solids: 86.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.19 g	100 mL	506354	12/14/17 07:39	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506572	12/14/17 20:50	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-14 N 0-5**

**Date Collected: 12/12/17 11:46**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-21**

**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			506372	12/14/17 09:30	EAB	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: GB-14 N 0-5**

**Date Collected: 12/12/17 11:46**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-21**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-14 N 0-5**

**Date Collected: 12/12/17 11:46**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-21**

**Matrix: Solid**

**Percent Solids: 90.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.16 g	100 mL	506353	12/14/17 07:31	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506685	12/16/17 05:40	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-14 E 0-5**

**Date Collected: 12/12/17 11:42**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-22**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-14 E 0-5**

**Date Collected: 12/12/17 11:42**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-22**

**Matrix: Solid**

**Percent Solids: 90.4**

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	506353	12/14/17 07:31	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506685	12/16/17 06:02	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-14 S 0-5**

**Date Collected: 12/12/17 11:44**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-23**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-14 S 0-5**

**Date Collected: 12/12/17 11:44**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-23**

**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	3050B			1.17 g	100 mL	506353	12/14/17 07:31	CDD	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: GB-14 S 0-5**

**Date Collected: 12/12/17 11:44**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-23**

**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	Analysis	6010C		1			506685	12/16/17 05:17	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-14 W 0-5**

**Date Collected: 12/12/17 11:43**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-24**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-14 W 0-5**

**Date Collected: 12/12/17 11:43**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-24**

**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	3050B			1.17 g	100 mL	506354	12/14/17 07:39	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506572	12/14/17 20:06	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-14 B 5**

**Date Collected: 12/12/17 11:41**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-25**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-14 B 5**

**Date Collected: 12/12/17 11:41**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-25**

**Matrix: Solid**

**Percent Solids: 87.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.16 g	100 mL	506354	12/14/17 07:39	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506572	12/14/17 20:33	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-14 N 8-10**

**Date Collected: 12/12/17 11:59**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-26**

**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			506372	12/14/17 09:30	EAB	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: GB-14 N 8-10**

**Date Collected: 12/12/17 11:59**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-26**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-14 N 8-10**

**Date Collected: 12/12/17 11:59**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-26**

**Matrix: Solid**

**Percent Solids: 77.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.12 g	100 mL	506353	12/14/17 07:31	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506685	12/16/17 05:12	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-14 E 8-10**

**Date Collected: 12/12/17 11:55**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-27**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-14 E 8-10**

**Date Collected: 12/12/17 11:55**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-27**

**Matrix: Solid**

**Percent Solids: 60.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.15 g	100 mL	506353	12/14/17 07:31	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506685	12/16/17 04:55	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-14 S 8-10**

**Date Collected: 12/12/17 11:57**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-28**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-14 S 8-10**

**Date Collected: 12/12/17 11:57**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-28**

**Matrix: Solid**

**Percent Solids: 49.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.16 g	100 mL	506353	12/14/17 07:31	CDD	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

**Client Sample ID: GB-14 S 8-10**

**Date Collected: 12/12/17 11:57**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-28**

**Matrix: Solid**

**Percent Solids: 49.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		1			506685	12/16/17 05:28	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-14 W 8-10**

**Date Collected: 12/12/17 11:58**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-29**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-14 W 8-10**

**Date Collected: 12/12/17 11:58**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-29**

**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	3050B			1.14 g	100 mL	506353	12/14/17 07:31	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506685	12/16/17 05:06	BWR	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-14 B 10'**

**Date Collected: 12/12/17 11:53**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-30**

**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			506372	12/14/17 09:30	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-14 B 10'**

**Date Collected: 12/12/17 11:53**

**Date Received: 12/13/17 09:35**

**Lab Sample ID: 680-146766-30**

**Matrix: Solid**

**Percent Solids: 84.2**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.15 g	100 mL	506353	12/14/17 07:31	CDD	TAL SAV
Total/NA	Analysis	6010C		1			506685	12/16/17 05:01	BWR	TAL SAV
Instrument ID: ICPE										

## Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TestAmerica Savannah

# Accreditation/Certification Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

## Laboratory: TestAmerica Savannah

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
	AFCEE		SAVLAB	
Alabama	State Program	4	41450	06-30-18
Alaska	State Program	10		06-30-18
Alaska (UST)	State Program	10	UST-104	11-05-17 *
Arizona	State Program	9	AZ808	12-14-17 *
Arkansas DEQ	State Program	6	88-0692	02-01-18
California	State Program	9	2939	06-30-18
Colorado	State Program	8	N/A	12-31-17
Connecticut	State Program	1	PH-0161	03-31-19
Florida	NELAP	4	E87052	06-30-18
GA Dept. of Agriculture	State Program	4	N/A	06-12-18
Georgia	State Program	4	803	06-30-18
Guam	State Program	9	15-005r	04-16-18
Hawaii	State Program	9	N/A	06-30-18
Illinois	NELAP	5	200022	11-30-18
Indiana	State Program	5	N/A	06-30-18
Iowa	State Program	7	353	06-30-19
Kentucky (DW)	State Program	4	90084	12-31-17
Kentucky (UST)	State Program	4	18	06-30-18
Kentucky (WW)	State Program	4	90084	12-31-18 *
L-A-B	DoD ELAP		L2463	09-22-19
L-A-B	ISO/IEC 17025		L2463.01	09-22-19
Louisiana	NELAP	6	30690	06-30-18
Louisiana (DW)	NELAP	6	LA160019	12-31-18
Maine	State Program	1	GA00006	09-24-18
Maryland	State Program	3	250	12-31-17
Massachusetts	State Program	1	M-GA006	06-30-18
Michigan	State Program	5	9925	06-30-18
Mississippi	State Program	4	N/A	06-30-18
Nebraska	State Program	7	TestAmerica-Savannah	06-30-18
New Jersey	NELAP	2	GA769	06-30-18
New Mexico	State Program	6	N/A	06-30-18
New York	NELAP	2	10842	03-31-18
North Carolina (DW)	State Program	4	13701	07-31-18
North Carolina (WW/SW)	State Program	4	269	12-31-17
Oklahoma	State Program	6	9984	08-31-18
Pennsylvania	NELAP	3	68-00474	06-30-18
Puerto Rico	State Program	2	GA00006	12-31-17
South Carolina	State Program	4	98001	06-30-18
Tennessee	State Program	4	TN02961	06-30-18
Texas	NELAP	6	T104704185-16-9	11-30-18
Texas	State Program	6	T104704185	06-30-18
US Fish & Wildlife	Federal		LE058448-0	07-31-18
USDA	Federal		SAV 3-04	06-14-20 *
Virginia	NELAP	3	460161	06-14-18
Washington	State Program	10	C805	06-10-18
West Virginia (DW)	State Program	3	9950C	12-31-17
West Virginia DEP	State Program	3	094	06-30-18
Wisconsin	State Program	5	999819810	08-31-18
Wyoming	State Program	8	8TMS-L	06-30-16 *

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Savannah

## Method Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-146766-1

Method	Method Description	Protocol	Laboratory
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL SAV
6010C	Metals (ICP)	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: 73326

Savannah

TestAmericaPensacola

Phone: 850-474-1001

Fax: 850-478-2671

Website: www.testamericainc.com

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

<b>CLIENT</b> GEC PROJECT NAME MGP SAMPLED BY C. Holderfield CLIENT PHONE 478-757-1606 TAT REQUESTED: RUSH NEEDS LAB PRE-APPROVAL <input type="checkbox"/> NORMAL <input type="checkbox"/> 10 BUSINESS DAYS <input type="checkbox"/> 1 DAY <input type="checkbox"/> 2 DAYS <input type="checkbox"/> 3 DAYS <input type="checkbox"/> 5 DAYS <input type="checkbox"/> 20 DAYS (Package) <input type="checkbox"/> OTHER: SAMPLE DISPOSAL: <input type="checkbox"/> RETURN TO CLIENT <input type="checkbox"/> DISPOSAL BY LAB <input type="checkbox"/> SEE CONTRACT <input type="checkbox"/> OTHER:		<b>ADDRESS</b> 514 Hillcrest Trl Blvd, Macon, GA PROJECT LOC. (STATE) GA PRESERVATIVE HCL - Hydrochloric Acid HNO3 - Nitric Acid H2SO4 - Sulfuric Acid or H3PO4 NaOH - Sodium Hydroxide CH3OH - Methanol NaHSO4 - Sodium Bisulfate Na2S2O3 - Sodium Thiosulfate Other: Drinking Water Aqueous GW, SW, WW Solid, Semisolid, Sediment Air Nonaqueous (Oil, Solvent, etc.)		<b>PROJECT NO.</b> 130659-240 <b>CONTRACT / P.O. NO.</b> 478-757-1608 <b>CLIENT E-MAIL OR FAX</b> 478-757-1608		<b>REQUESTED ANALYSIS</b> Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Lead 680-146766 Chain of Custody		<b>PAGE</b> 1 <b>OF</b> 3 <b>IDENTIFICATION</b> Δ NON-HAZARD Δ FLAMMABLE Δ RADIOACTIVE Δ POISON B Δ UNKNOWN Δ OTHER: NO. OF COOLERS PER SHIPMENT: SPECIAL INSTRUCTIONS/CONDITIONS OF RECEIPT:	
<b>DATE</b> 12/12/17 <b>TIME</b> 0938 <b>RELINQUISHED BY: (SIGNATURE)</b> [Signature] <b>EMPTY CONTAINERS</b>		<b>DATE</b> 12/13/17 <b>TIME</b> 1700 <b>RELINQUISHED BY: (SIGNATURE)</b> [Signature]		<b>DATE</b> 12/13/17 <b>TIME</b> 9:35 <b>RECEIVED BY: (SIGNATURE)</b> [Signature]		<b>DATE</b> 12/13/17 <b>TIME</b> 9:35 <b>RECEIVED BY: (SIGNATURE)</b> [Signature]			
<b>RECEIVED FOR LABORATORY BY:</b> M Twp <b>DATE</b> 12/13/17 <b>TIME</b> 930		<b>REMARKS:</b> 1.1°C (CF) 1.5°C		<b>LABORATORY USE ONLY</b> CUSTODY SEAL NO. Δ YES Δ NO					





011412

### ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

**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

TestAmerica

PROJECT REFERENCE		PROJECT NO.		PROJECT LOCATION (STATE) CONTRACT NO.		MATRIX TYPE		REQUIRED ANALYSIS		PAGE	
TAL (LAB) PROJECT MANAGER		P.O. NUMBER		CLIENT PHONE		CLIENT FAX		STANDARD REPORT DELIVERY		DATE DUE	
CLIENT NAME		CLIENT E-MAIL		CLIENT PHONE		CLIENT FAX		EXPEDITED REPORT DELIVERY (SURCHARGE)		DATE DUE	
CLIENT ADDRESS		CLIENT E-MAIL		CLIENT PHONE		CLIENT FAX		EXPEDITED REPORT DELIVERY (SURCHARGE)		DATE DUE	
COMPANY CONTRACTING THIS WORK (if applicable)		CLIENT E-MAIL		CLIENT PHONE		CLIENT FAX		EXPEDITED REPORT DELIVERY (SURCHARGE)		DATE DUE	
MGP		130654.240		GA		CONTRACT NO.		NONAQUEOUS LIQUID (OIL, SOLVENT, ...)		3	
D. Lala		478-757-1600		1478-757-		CONTRACT NO.		SOLID OR SEMISOLID		3	
C. Holderfield		478-757-1600		1478-757-		CONTRACT NO.		AQUEOUS (WATER)		3	
GEC		478-757-1600		1478-757-		CONTRACT NO.		COMPOSITE (C) OR GRAB (G) INDICATE		3	
514 Hilcrest Trl Blvd, Macon, GA		478-757-1600		1478-757-		CONTRACT NO.		AIR		3	
GEC		478-757-1600		1478-757-		CONTRACT NO.		NONAQUEOUS LIQUID (OIL, SOLVENT, ...)		3	
SAMPLE		SAMPLE IDENTIFICATION		DATE		TIME		NUMBER OF CONTAINERS SUBMITTED		REMARKS	
12/12/17		GB-14E		8-10		8-10		X		PRESERVATIVE	
1157		GB-14S		8-10		8-10		X		PRESERVATIVE	
1158		GB-14W		8-10		8-10		X		PRESERVATIVE	
1153		GB-14B		10'		10'		X		PRESERVATIVE	
NA		Temp Blank						X		PRESERVATIVE	
RELINQUISHED BY: (SIGNATURE)		DATE		TIME		RELINQUISHED BY: (SIGNATURE)		DATE		TIME	
RECEIVED BY: (SIGNATURE)		DATE		TIME		RECEIVED BY: (SIGNATURE)		DATE		TIME	
12/13/17		1700		1700		12/13/17		9:35		9:35	
RECEIVED FOR LABORATORY BY: (SIGNATURE)		DATE		TIME		CUSTODY SEAL NO.		SAVANNAH LOG NO.		LABORATORY REMARKS	
12/13/17		935		935		YES		NO		1100 (001) 500	

## Login Sample Receipt Checklist

Client: Geotechnical & Environmental Consultants

Job Number: 680-146766-1

Login Number: 146766

List Number: 1

Creator: Johnson, Jessica R

List Source: TestAmerica Savannah

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.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	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: 680-147127-1

Client Project/Site: Macon MGP

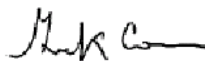
For:

Geotechnical & Environmental Consultants

514 Hillcrest Industrial Blvd.

Macon, Georgia 31204

Attn: Carrie Holderfield



Authorized for release by:

12/27/2017 1:15:12 PM

Keaton Conner, Project Manager I

(813)885-7427

[keaton.conner@testamericainc.com](mailto:keaton.conner@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.*

1

2

3

4

5

6

7

8

9

10

11

12

## Definitions/Glossary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-1

### Qualifiers

#### 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.

#### 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.

### 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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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

TestAmerica Job ID: 680-147127-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-147127-1	SB-17W2 13-15	Solid	12/19/17 13:37	12/21/17 10:45
680-147127-2	GB-11W2 0-2	Solid	12/19/17 14:20	12/21/17 10:45
680-147127-3	GB-14E2 0-5	Solid	12/19/17 15:34	12/21/17 10:45
680-147127-4	GB-14E2D 8-10	Solid	12/19/17 15:44	12/21/17 10:45
680-147127-5	GB-14S2D 8-10	Solid	12/19/17 15:55	12/21/17 10:45
680-147127-6	GB-28W2 13-15	Solid	12/19/17 14:53	12/21/17 10:45
680-147127-7	GB-28E2 13-15	Solid	12/19/17 15:07	12/21/17 10:45
680-147127-8	GB-27W2 0-2	Solid	12/19/17 16:18	12/21/17 10:45



# Case Narrative

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-1

**Job ID: 680-147127-1**

**Laboratory: TestAmerica Savannah**

**Narrative**

## CASE NARRATIVE

**Client: Geotechnical & Environmental Consultants**

**Project: Macon MGP**

**Report Number: 680-147127-1**

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 12/21/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.0 C.

### **SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) - LOW LEVEL**

Sample SB-17W2 13-15 (680-147127-1) was analyzed for Semivolatile Organic Compounds (GC/MS) - Low level in accordance with EPA SW846 Method 8270D. The samples were prepared on 12/23/2017 and analyzed on 12/26/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### **METALS (ICP)**

Samples GB-11W2 0-2 (680-147127-2), GB-14E2 0-5 (680-147127-3), GB-14E2D 8-10 (680-147127-4), GB-14S2D 8-10 (680-147127-5), GB-28W2 13-15 (680-147127-6), GB-28E2 13-15 (680-147127-7) and GB-27W2 0-2 (680-147127-8) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 12/22/2017 and analyzed on 12/26/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### **PERCENT SOLIDS/MOISTURE**

Samples SB-17W2 13-15 (680-147127-1), GB-11W2 0-2 (680-147127-2), GB-14E2 0-5 (680-147127-3), GB-14E2D 8-10 (680-147127-4), GB-14S2D 8-10 (680-147127-5), GB-28W2 13-15 (680-147127-6), GB-28E2 13-15 (680-147127-7) and GB-27W2 0-2 (680-147127-8) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 12/22/2017.

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

TestAmerica Job ID: 680-147127-1

**Client Sample ID: SB-17W2 13-15**

**Date Collected: 12/19/17 13:37**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-1**

**Matrix: Solid**

**Percent Solids: 90.9**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	3.5	U	7.1	3.5	ug/Kg	☼	12/23/17 12:50	12/26/17 16:39	1
<b>Benzo[a]pyrene</b>	<b>2.6</b>	<b>J</b>	7.1	1.3	ug/Kg	☼	12/23/17 12:50	12/26/17 16:39	1
<b>Benzo[b]fluoranthene</b>	<b>4.2</b>	<b>J</b>	7.1	3.5	ug/Kg	☼	12/23/17 12:50	12/26/17 16:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	69		11 - 130				12/23/17 12:50	12/26/17 16:39	1
Nitrobenzene-d5 (Surr)	79		18 - 130				12/23/17 12:50	12/26/17 16:39	1
Terphenyl-d14 (Surr)	64		27 - 130				12/23/17 12:50	12/26/17 16:39	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-1

**Client Sample ID: GB-11W2 0-2**

**Date Collected: 12/19/17 14:20**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-2**

**Matrix: Solid**

**Percent Solids: 83.4**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	10		1.0	0.35	mg/Kg	☼	12/22/17 06:38	12/26/17 20:14	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-1

**Client Sample ID: GB-14E2 0-5**

**Date Collected: 12/19/17 15:34**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-3**

**Matrix: Solid**

**Percent Solids: 90.5**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	65		0.99	0.34	mg/Kg	☼	12/22/17 06:38	12/26/17 20:43	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-1

**Client Sample ID: GB-14E2D 8-10**

**Date Collected: 12/19/17 15:44**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-4**

**Matrix: Solid**

**Percent Solids: 83.8**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.3	J	2.0	0.80	mg/Kg	☼	12/22/17 06:38	12/26/17 20:47	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-1

**Client Sample ID: GB-14S2D 8-10**

**Lab Sample ID: 680-147127-5**

**Date Collected: 12/19/17 15:55**

**Matrix: Solid**

**Date Received: 12/21/17 10:45**

**Percent Solids: 87.9**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.3		1.9	0.78	mg/Kg	☼	12/22/17 06:38	12/26/17 20:52	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-1

**Client Sample ID: GB-28W2 13-15**

**Date Collected: 12/19/17 14:53**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-6**

**Matrix: Solid**

**Percent Solids: 80.4**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	19		1.1	0.37	mg/Kg	☼	12/22/17 06:38	12/26/17 20:56	1



## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-1

**Client Sample ID: GB-28E2 13-15**

**Date Collected: 12/19/17 15:07**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-7**

**Matrix: Solid**

**Percent Solids: 76.0**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	3.2		1.1	0.39	mg/Kg	☼	12/22/17 06:38	12/26/17 21:00	1

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-1

**Client Sample ID: GB-27W2 0-2**

**Date Collected: 12/19/17 16:18**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-8**

**Matrix: Solid**

**Percent Solids: 89.4**

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.8		1.9	0.77	mg/Kg	☼	12/22/17 06:38	12/26/17 21:04	1

# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 680-507624/5-A

Matrix: Solid

Analysis Batch: 507636

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 507624

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	3.2	U	6.5	3.2	ug/Kg		12/23/17 12:50	12/26/17 06:09	1
Benzo[a]pyrene	1.2	U	6.5	1.2	ug/Kg		12/23/17 12:50	12/26/17 06:09	1
Benzo[b]fluoranthene	3.2	U	6.5	3.2	ug/Kg		12/23/17 12:50	12/26/17 06:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	76		11 - 130	12/23/17 12:50	12/26/17 06:09	1
Nitrobenzene-d5 (Surr)	83		18 - 130	12/23/17 12:50	12/26/17 06:09	1
Terphenyl-d14 (Surr)	79		27 - 130	12/23/17 12:50	12/26/17 06:09	1

Lab Sample ID: LCS 680-507624/6-A

Matrix: Solid

Analysis Batch: 507636

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507624

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzo[a]anthracene	328	240		ug/Kg		73	16 - 130
Benzo[a]pyrene	328	244		ug/Kg		74	18 - 139
Benzo[b]fluoranthene	328	244		ug/Kg		74	18 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	74		11 - 130
Nitrobenzene-d5 (Surr)	81		18 - 130
Terphenyl-d14 (Surr)	70		27 - 130

## Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-507467/1-A

Matrix: Solid

Analysis Batch: 507826

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 507467

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.75	U	1.9	0.75	mg/Kg		12/22/17 06:38	12/26/17 20:05	1
Lead	0.32	U	0.93	0.32	mg/Kg		12/22/17 06:38	12/26/17 20:05	1

Lab Sample ID: LCS 680-507467/2-A

Matrix: Solid

Analysis Batch: 507826

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507467

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	9.71	9.53		mg/Kg		98	80 - 120
Lead	48.5	49.5		mg/Kg		102	80 - 120

Lab Sample ID: 680-147127-2 MS

Matrix: Solid

Analysis Batch: 507826

Client Sample ID: GB-11W2 0-2

Prep Type: Total/NA

Prep Batch: 507467

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.83	U	10.1	8.57		mg/Kg	☼	85	75 - 125
Lead	10		50.4	58.3		mg/Kg	☼	95	75 - 125

TestAmerica Savannah

## QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-1

Lab Sample ID: 680-147127-2 MSD  
Matrix: Solid  
Analysis Batch: 507826

Client Sample ID: GB-11W2 0-2  
Prep Type: Total/NA  
Prep Batch: 507467

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.83	U	10.3	9.37		mg/Kg	☼	91	75 - 125	9	20
Lead	10		51.3	57.8		mg/Kg	☼	93	75 - 125	1	20

# QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-1

## GC/MS Semi VOA

### Prep Batch: 507624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147127-1	SB-17W2 13-15	Total/NA	Solid	3546	
MB 680-507624/5-A	Method Blank	Total/NA	Solid	3546	
LCS 680-507624/6-A	Lab Control Sample	Total/NA	Solid	3546	

### Analysis Batch: 507636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-507624/5-A	Method Blank	Total/NA	Solid	8270D LL	507624
LCS 680-507624/6-A	Lab Control Sample	Total/NA	Solid	8270D LL	507624

### Analysis Batch: 507677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147127-1	SB-17W2 13-15	Total/NA	Solid	8270D LL	507624

## Metals

### Prep Batch: 507467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147127-2	GB-11W2 0-2	Total/NA	Solid	3050B	
680-147127-3	GB-14E2 0-5	Total/NA	Solid	3050B	
680-147127-4	GB-14E2D 8-10	Total/NA	Solid	3050B	
680-147127-5	GB-14S2D 8-10	Total/NA	Solid	3050B	
680-147127-6	GB-28W2 13-15	Total/NA	Solid	3050B	
680-147127-7	GB-28E2 13-15	Total/NA	Solid	3050B	
680-147127-8	GB-27W2 0-2	Total/NA	Solid	3050B	
MB 680-507467/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 680-507467/2-A	Lab Control Sample	Total/NA	Solid	3050B	
680-147127-2 MS	GB-11W2 0-2	Total/NA	Solid	3050B	
680-147127-2 MSD	GB-11W2 0-2	Total/NA	Solid	3050B	

### Analysis Batch: 507826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147127-2	GB-11W2 0-2	Total/NA	Solid	6010C	507467
680-147127-3	GB-14E2 0-5	Total/NA	Solid	6010C	507467
680-147127-4	GB-14E2D 8-10	Total/NA	Solid	6010C	507467
680-147127-5	GB-14S2D 8-10	Total/NA	Solid	6010C	507467
680-147127-6	GB-28W2 13-15	Total/NA	Solid	6010C	507467
680-147127-7	GB-28E2 13-15	Total/NA	Solid	6010C	507467
680-147127-8	GB-27W2 0-2	Total/NA	Solid	6010C	507467
MB 680-507467/1-A	Method Blank	Total/NA	Solid	6010C	507467
LCS 680-507467/2-A	Lab Control Sample	Total/NA	Solid	6010C	507467
680-147127-2 MS	GB-11W2 0-2	Total/NA	Solid	6010C	507467
680-147127-2 MSD	GB-11W2 0-2	Total/NA	Solid	6010C	507467

## General Chemistry

### Analysis Batch: 507472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147127-1	SB-17W2 13-15	Total/NA	Solid	Moisture	
680-147127-2	GB-11W2 0-2	Total/NA	Solid	Moisture	
680-147127-3	GB-14E2 0-5	Total/NA	Solid	Moisture	

TestAmerica Savannah

## QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-1

### General Chemistry (Continued)

#### Analysis Batch: 507472 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147127-4	GB-14E2D 8-10	Total/NA	Solid	Moisture	
680-147127-5	GB-14S2D 8-10	Total/NA	Solid	Moisture	
680-147127-6	GB-28W2 13-15	Total/NA	Solid	Moisture	
680-147127-7	GB-28E2 13-15	Total/NA	Solid	Moisture	
680-147127-8	GB-27W2 0-2	Total/NA	Solid	Moisture	

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-1

**Client Sample ID: SB-17W2 13-15**

**Date Collected: 12/19/17 13:37**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-1**

**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			507472	12/22/17 08:50	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: SB-17W2 13-15**

**Date Collected: 12/19/17 13:37**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-1**

**Matrix: Solid**

**Percent Solids: 90.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.95 g	1 mL	507624	12/23/17 12:50	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			507677	12/26/17 16:39	OK	TAL SAV
Instrument ID: CMSAE										

**Client Sample ID: GB-11W2 0-2**

**Date Collected: 12/19/17 14:20**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-2**

**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			507472	12/22/17 08:50	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-11W2 0-2**

**Date Collected: 12/19/17 14:20**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-2**

**Matrix: Solid**

**Percent Solids: 83.4**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.16 g	100 mL	507467	12/22/17 06:38	CDD	TAL SAV
Total/NA	Analysis	6010C		1			507826	12/26/17 20:14	BCB	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-14E2 0-5**

**Date Collected: 12/19/17 15:34**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-3**

**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			507472	12/22/17 08:50	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-14E2 0-5**

**Date Collected: 12/19/17 15:34**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-3**

**Matrix: Solid**

**Percent Solids: 90.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.12 g	100 mL	507467	12/22/17 06:38	CDD	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-1

**Client Sample ID: GB-14E2 0-5**

**Date Collected: 12/19/17 15:34**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-3**

**Matrix: Solid**

**Percent Solids: 90.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		1			507826	12/26/17 20:43	BCB	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-14E2D 8-10**

**Date Collected: 12/19/17 15:44**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-4**

**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			507472	12/22/17 08:50	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-14E2D 8-10**

**Date Collected: 12/19/17 15:44**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-4**

**Matrix: Solid**

**Percent Solids: 83.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.20 g	100 mL	507467	12/22/17 06:38	CDD	TAL SAV
Total/NA	Analysis	6010C		1			507826	12/26/17 20:47	BCB	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-14S2D 8-10**

**Date Collected: 12/19/17 15:55**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-5**

**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			507472	12/22/17 08:50	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-14S2D 8-10**

**Date Collected: 12/19/17 15:55**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-5**

**Matrix: Solid**

**Percent Solids: 87.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.17 g	100 mL	507467	12/22/17 06:38	CDD	TAL SAV
Total/NA	Analysis	6010C		1			507826	12/26/17 20:52	BCB	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-28W2 13-15**

**Date Collected: 12/19/17 14:53**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-6**

**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			507472	12/22/17 08:50	EAB	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-1

**Client Sample ID: GB-28W2 13-15**

**Date Collected: 12/19/17 14:53**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-6**

**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			507472	12/22/17 08:50	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-28W2 13-15**

**Date Collected: 12/19/17 14:53**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-6**

**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	Prep	3050B			1.14 g	100 mL	507467	12/22/17 06:38	CDD	TAL SAV
Total/NA	Analysis	6010C		1			507826	12/26/17 20:56	BCB	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-28E2 13-15**

**Date Collected: 12/19/17 15:07**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-7**

**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			507472	12/22/17 08:50	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-28E2 13-15**

**Date Collected: 12/19/17 15:07**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-7**

**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	3050B			1.15 g	100 mL	507467	12/22/17 06:38	CDD	TAL SAV
Total/NA	Analysis	6010C		1			507826	12/26/17 21:00	BCB	TAL SAV
Instrument ID: ICPE										

**Client Sample ID: GB-27W2 0-2**

**Date Collected: 12/19/17 16:18**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-8**

**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			507472	12/22/17 08:50	EAB	TAL SAV
Instrument ID: NOEQUIP										

**Client Sample ID: GB-27W2 0-2**

**Date Collected: 12/19/17 16:18**

**Date Received: 12/21/17 10:45**

**Lab Sample ID: 680-147127-8**

**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	3050B			1.16 g	100 mL	507467	12/22/17 06:38	CDD	TAL SAV

TestAmerica Savannah

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-1

**Client Sample ID: GB-27W2 0-2**

**Lab Sample ID: 680-147127-8**

**Date Collected: 12/19/17 16:18**

**Matrix: Solid**

**Date Received: 12/21/17 10:45**

**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	Analysis	6010C		1			507826	12/26/17 21:04	BCB	TAL SAV
Instrument ID: ICPE										

## Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

# Accreditation/Certification Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-1

## Laboratory: TestAmerica Savannah

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
	AFCEE		SAVLAB	
Alabama	State Program	4	41450	06-30-18
Alaska	State Program	10		06-30-18
Alaska (UST)	State Program	10	UST-104	11-05-17 *
Arizona	State Program	9	AZ808	12-14-18
Arkansas DEQ	State Program	6	88-0692	02-01-19
California	State Program	9	2939	06-30-18
Colorado	State Program	8	N/A	12-31-17
Connecticut	State Program	1	PH-0161	03-31-19
Florida	NELAP	4	E87052	06-30-18
GA Dept. of Agriculture	State Program	4	N/A	06-12-18
Georgia	State Program	4	803	06-30-18
Guam	State Program	9	15-005r	04-16-18
Hawaii	State Program	9	N/A	06-30-18
Illinois	NELAP	5	200022	11-30-18
Indiana	State Program	5	N/A	06-30-18
Iowa	State Program	7	353	06-30-19
Kentucky (DW)	State Program	4	90084	12-31-18
Kentucky (UST)	State Program	4	18	06-30-18
Kentucky (WW)	State Program	4	90084	12-31-18 *
L-A-B	DoD ELAP		L2463	09-22-19
L-A-B	ISO/IEC 17025		L2463.01	09-22-19
Louisiana	NELAP	6	30690	06-30-18
Louisiana (DW)	NELAP	6	LA160019	12-31-18
Maine	State Program	1	GA00006	09-24-18
Maryland	State Program	3	250	12-31-17
Massachusetts	State Program	1	M-GA006	06-30-18
Michigan	State Program	5	9925	06-30-18
Mississippi	State Program	4	N/A	06-30-18
Nebraska	State Program	7	TestAmerica-Savannah	06-30-18
New Jersey	NELAP	2	GA769	06-30-18
New Mexico	State Program	6	N/A	06-30-18
New York	NELAP	2	10842	03-31-18
North Carolina (DW)	State Program	4	13701	07-31-18
North Carolina (WW/SW)	State Program	4	269	12-31-18
Oklahoma	State Program	6	9984	08-31-18
Pennsylvania	NELAP	3	68-00474	06-30-18
Puerto Rico	State Program	2	GA00006	12-31-17
South Carolina	State Program	4	98001	06-30-18
Tennessee	State Program	4	TN02961	06-30-18
Texas	NELAP	6	T104704185-16-9	11-30-18
Texas	State Program	6	T104704185	06-30-18
US Fish & Wildlife	Federal		LE058448-0	07-31-18
USDA	Federal		SAV 3-04	06-14-20 *
Virginia	NELAP	3	460161	06-14-18
Washington	State Program	10	C805	06-10-18
West Virginia (DW)	State Program	3	9950C	12-31-17
West Virginia DEP	State Program	3	094	06-30-18
Wisconsin	State Program	5	999819810	08-31-18
Wyoming	State Program	8	8TMS-L	06-30-16 *

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Savannah

## Method Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: Macon MGP

TestAmerica Job ID: 680-147127-1

Method	Method Description	Protocol	Laboratory
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL SAV
6010C	Metals (ICP)	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 011422

## 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)	MATRIX TYPE	REQUIRED ANALYSIS	PAGE	OF
LAB PROJECT MANAGER		P.O. NUMBER	CONTRACT NO.			STANDARD REPORT DELIVERY	
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX	CLIENT E-MAIL			DATE DUE	
CLIENT NAME	CLIENT E-MAIL	CLIENT FAX	CLIENT E-MAIL			DATE DUE	
CLIENT ADDRESS	CLIENT E-MAIL	CLIENT FAX	CLIENT E-MAIL			DATE DUE	
MRP	130659	GA					
K. Conner							
C. Holderfield	478-757-1606	478-757-1608					
GEC	478-757-1608	478-757-1608					
514 Hillcrest Ind Blvd, Macon, GA							
COMPANY CONTRACTING THIS WORK (if applicable)							
GEC							
SAMPLE		SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS SU			
DATE	TIME						
12-19-17	1337	SB-17W2	13-15				
	1420	GB-11W2	0-2				
	1534	GB-14E2	0-5				
	1544	GB-14E2D	8-10				
	1555	GB-14S2D	8-10				
	1453	GB-28W2	13-15				
	1507	GB-28E2	13-15				
	1618	GB-27W2	0-2				
	1835	1DW-1					
	1853	1DW-2					
	1420	1DW-3					
	1523	1DW-4					
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RELINQUISHED BY: (SIGNATURE)		DATE	TIME
K. Holderfield		12-20-17	1200				
RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME
LABORATORY USE ONLY				LABORATORY REMARKS			
RECEIVED FOR LABORATORY BY: (SIGNATURE)		DATE	TIME	CUSTODY SEAL NO.		SAVANNAH LOG NO.	
James R. Conner		12/21/17	1045			0-6 CCF + QCD 1.0	





## Login Sample Receipt Checklist

Client: Geotechnical & Environmental Consultants

Job Number: 680-147127-1

Login Number: 147127

List Number: 1

Creator: Edwards, Jessica R

List Source: TestAmerica Savannah

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.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	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 Phoenix

4625 East Cotton Ctr Blvd

Suite 189

Phoenix, AZ 85040

Tel: (602)437-3340

TestAmerica Job ID: 550-94673-1

TestAmerica Sample Delivery Group: 130659.240

Client Project/Site: MGP Macon

For:

Geotechnical & Environmental Consultants

514 Hillcrest Industrial Blvd.

Macon, Georgia 31204

Attn: Carrie Holderfield



Authorized for release by:

12/20/2017 5:01:02 PM

Carlene McCutcheon, Project Manager II

(602)659-7612

[carlene.mccutcheon@testamericainc.com](mailto:carlene.mccutcheon@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

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

*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.*

# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Definitions/Glossary . . . . .	3
Case Narrative . . . . .	4
Sample Summary . . . . .	5
Detection Summary . . . . .	6
Client Sample Results . . . . .	7
QC Sample Results . . . . .	8
QC Association Summary . . . . .	9
Lab Chronicle . . . . .	10
Certification Summary . . . . .	11
Method Summary . . . . .	12
Chain of Custody . . . . .	13
Receipt Checklists . . . . .	14



## Definitions/Glossary

Client: Geotechnical & Environmental Consultants  
Project/Site: MGP Macon

TestAmerica Job ID: 550-94673-1  
SDG: 130659.240

### 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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

## Case Narrative

Client: Geotechnical & Environmental Consultants  
Project/Site: MGP Macon

TestAmerica Job ID: 550-94673-1  
SDG: 130659.240

**Job ID: 550-94673-1**

**Laboratory: TestAmerica Phoenix**

### Narrative

#### Job Narrative 550-94673-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 12/13/2017 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Industrial Hygiene

Method(s) 7300: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-134716 and analytical batch 550-135036.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## Sample Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: MGP Macon

TestAmerica Job ID: 550-94673-1  
SDG: 130659.240

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-94673-1	MGP-1 pump #14 L40444	Air	12/11/17 00:00	12/13/17 09:30
550-94673-2	MGP#2 pump # L40444	Air	12/12/17 00:00	12/13/17 09:30

## Detection Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: MGP Macon

TestAmerica Job ID: 550-94673-1  
SDG: 130659.240

**Client Sample ID: MGP-1 pump #14 L40444**

**Lab Sample ID: 550-94673-1**

☐ No Detections.

**Client Sample ID: MGP#2 pump # L40444**

**Lab Sample ID: 550-94673-2**

☐ No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Phoenix

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: MGP Macon

TestAmerica Job ID: 550-94673-1  
SDG: 130659.240

**Client Sample ID: MGP-1 pump #14 L40444**

**Lab Sample ID: 550-94673-1**

**Date Collected: 12/11/17 00:00**

**Matrix: Air**

**Date Received: 12/13/17 09:30**

**Sample Air Volume: 570 L**

**Sample Container: IH - MCE, 0.8 micron, 37-mm Filter**

**Method: PE-MET-012 - NIOSH Method 7300**

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<2.50	<0.00439		2.50	12/14/17 13:40	12/18/17 22:36	1
Lead	<0.310	<0.000544		0.310	12/14/17 13:40	12/18/17 22:36	1

**Client Sample ID: MGP#2 pump # L40444**

**Lab Sample ID: 550-94673-2**

**Date Collected: 12/12/17 00:00**

**Matrix: Air**

**Date Received: 12/13/17 09:30**

**Sample Air Volume: 254 L**

**Sample Container: IH - MCE, 0.8 micron, 37-mm Filter**

**Method: PE-MET-012 - NIOSH Method 7300**

Analyte	Result ug/Sample	Result mg/m3	Result Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<2.50	<0.00984		2.50	12/14/17 13:40	12/18/17 22:39	1
Lead	<0.310	<0.00122		0.310	12/14/17 13:40	12/18/17 22:39	1



# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: MGP Macon

TestAmerica Job ID: 550-94673-1  
SDG: 130659.240

## Method: PE-MET-012 - NIOSH Method 7300

Lab Sample ID: MB 550-134716/1-A  
Matrix: Air  
Analysis Batch: 135036

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 134716

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<2.50		2.50	ug/Sample		12/14/17 13:40	12/18/17 21:58	1
Lead	<0.310		0.310	ug/Sample		12/14/17 13:40	12/18/17 21:58	1

Lab Sample ID: LCS 550-134716/2-A  
Matrix: Air  
Analysis Batch: 135036

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 134716

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	25.0	24.26		ug/Sample		97	80 - 120
Lead	25.0	24.47		ug/Sample		98	80 - 120

Lab Sample ID: LCSD 550-134716/3-A  
Matrix: Air  
Analysis Batch: 135036

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 134716

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	25.0	24.43		ug/Sample		98	80 - 120	1	20
Lead	25.0	24.72		ug/Sample		99	80 - 120	1	20

## QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: MGP Macon

TestAmerica Job ID: 550-94673-1  
SDG: 130659.240

### IH - Metals

#### Prep Batch: 134716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-94673-1	MGP-1 pump #14 L40444	Total/NA	Air	Filter Prep	
550-94673-2	MGP#2 pump # L40444	Total/NA	Air	Filter Prep	
MB 550-134716/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-134716/2-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-134716/3-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

#### Analysis Batch: 135036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-94673-1	MGP-1 pump #14 L40444	Total/NA	Air	PE-MET-012	134716
550-94673-2	MGP#2 pump # L40444	Total/NA	Air	PE-MET-012	134716
MB 550-134716/1-A	Method Blank	Total/NA	Air	PE-MET-012	134716
LCS 550-134716/2-A	Lab Control Sample	Total/NA	Air	PE-MET-012	134716
LCSD 550-134716/3-A	Lab Control Sample Dup	Total/NA	Air	PE-MET-012	134716

## Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: MGP Macon

TestAmerica Job ID: 550-94673-1  
SDG: 130659.240

**Client Sample ID: MGP-1 pump #14 L40444**

**Date Collected: 12/11/17 00:00**

**Date Received: 12/13/17 09:30**

**Lab Sample ID: 550-94673-1**

**Matrix: Air**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			134716	12/14/17 13:40	EXZ	TAL PHX
Total/NA	Analysis	PE-MET-012		1	135036	12/18/17 22:36	ARE	TAL PHX

**Client Sample ID: MGP#2 pump # L40444**

**Date Collected: 12/12/17 00:00**

**Date Received: 12/13/17 09:30**

**Lab Sample ID: 550-94673-2**

**Matrix: Air**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			134716	12/14/17 13:40	EXZ	TAL PHX
Total/NA	Analysis	PE-MET-012		1	135036	12/18/17 22:39	ARE	TAL PHX

### Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Accreditation/Certification Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: MGP Macon

TestAmerica Job ID: 550-94673-1  
SDG: 130659.240

Laboratory: TestAmerica Phoenix

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
AIHA-LAP, LLC	IHLAP		154268	07-01-19

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

## Method Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: MGP Macon

TestAmerica Job ID: 550-94673-1  
SDG: 130659.240

Method	Method Description	Protocol	Laboratory
PE-MET-012	NIOSH Method 7300	NIOSH	TAL PHX

### Protocol References:

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994.

### Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

94673

## ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Serial Number

# 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

② Alternate Laboratory Name/Location  
4625 E Cotton Center Blvd  
#189  
Phoenix, AZ 85000

Phone: 662 437 3340  
Fax:

[illegible]

## Login Sample Receipt Checklist

Client: Geotechnical & Environmental Consultants

Job Number: 550-94673-1

SDG Number: 130659.240

**Login Number: 94673**

**List Number: 1**

**Creator: Gravlin, Andrea**

**List Source: TestAmerica Phoenix**

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.	False	Thermal preservation not required.
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 (excluding tests with immediate HTs)	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.	True	
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	Check done at department level as required.



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Phoenix

4625 East Cotton Ctr Blvd

Suite 189

Phoenix, AZ 85040

Tel: (602)437-3340

TestAmerica Job ID: 550-94436-1

TestAmerica Sample Delivery Group: 130659.241

Client Project/Site: MAWN MGP

For:

Geotechnical & Environmental Consultants

514 Hillcrest Industrial Blvd.

Macon, Georgia 31204

Attn: Carrie Holderfield



Authorized for release by:

12/11/2017 5:55:42 PM

Carlene McCutcheon, Project Manager II

(602)659-7612

[carlene.mccutcheon@testamericainc.com](mailto:carlene.mccutcheon@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

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

*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.*

# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Definitions/Glossary . . . . .	3
Case Narrative . . . . .	4
Sample Summary . . . . .	5
Detection Summary . . . . .	6
Client Sample Results . . . . .	7
QC Sample Results . . . . .	8
QC Association Summary . . . . .	9
Lab Chronicle . . . . .	10
Certification Summary . . . . .	11
Method Summary . . . . .	12
Chain of Custody . . . . .	13
Receipt Checklists . . . . .	14



## Definitions/Glossary

Client: Geotechnical & Environmental Consultants  
Project/Site: MAWN MGP

TestAmerica Job ID: 550-94436-1  
SDG: 130659.241

### 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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

## Case Narrative

Client: Geotechnical & Environmental Consultants  
Project/Site: MAWN MGP

TestAmerica Job ID: 550-94436-1  
SDG: 130659.241

**Job ID: 550-94436-1**

**Laboratory: TestAmerica Phoenix**

### Narrative

#### Job Narrative 550-94436-1

### Comments

No additional comments.

### Receipt

The sample was received on 12/8/2017 9:00 AM; the sample arrived in good condition.

### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### Industrial Hygiene

Method(s) 7300: The Method Blank, Field Blank (or other QC results) were not used to correct client sample results associated with preparation batch 550-134390 and analytical batch 550-134415. No air volume was supplied for the sample submitted.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## Sample Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: MAWN MGP

TestAmerica Job ID: 550-94436-1  
SDG: 130659.241

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-94436-1	Background	Air	12/06/17 00:00	12/08/17 09:00

## Detection Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: MAWN MGP

TestAmerica Job ID: 550-94436-1  
SDG: 130659.241

### Client Sample ID: Background

### Lab Sample ID: 550-94436-1

☐ No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Phoenix

## Client Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: MAWN MGP

TestAmerica Job ID: 550-94436-1  
SDG: 130659.241

### Client Sample ID: Background

Date Collected: 12/06/17 00:00

Date Received: 12/08/17 09:00

Sample Container: IH - MCE, 0.8 micron, 37-mm Filter

### Lab Sample ID: 550-94436-1

Matrix: Air

#### Method: 7300 - NIOSH Method 7300 (Modified)

Analyte	Result ug/Sample	Result	Result	Qualifier	RL ug/Sample	Prepared	Analyzed	Dil Fac
Arsenic	<2.50				2.50	12/11/17 13:10	12/11/17 17:16	1
Lead	<0.310				0.310	12/11/17 13:10	12/11/17 17:16	1



# QC Sample Results

Client: Geotechnical & Environmental Consultants  
Project/Site: MAWN MGP

TestAmerica Job ID: 550-94436-1  
SDG: 130659.241

## Method: 7300 - NIOSH Method 7300 (Modified)

Lab Sample ID: MB 550-134390/1-A

Matrix: Air

Analysis Batch: 134415

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 134390

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<2.50		2.50	ug/Sample		12/11/17 13:10	12/11/17 16:44	1
Lead	<0.310		0.310	ug/Sample		12/11/17 13:10	12/11/17 16:44	1

Lab Sample ID: LCS 550-134390/2-A

Matrix: Air

Analysis Batch: 134415

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 134390

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	25.0	24.54		ug/Sample		98	80 - 120
Lead	25.0	25.13		ug/Sample		101	80 - 120

Lab Sample ID: LCSD 550-134390/3-A

Matrix: Air

Analysis Batch: 134415

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 134390

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	25.0	25.10		ug/Sample		100	80 - 120	2	20
Lead	25.0	25.65		ug/Sample		103	80 - 120	2	20

## QC Association Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: MAWN MGP

TestAmerica Job ID: 550-94436-1  
SDG: 130659.241

### IH - Metals

#### Prep Batch: 134390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-94436-1	Background	Total/NA	Air	Filter Prep	
MB 550-134390/1-A	Method Blank	Total/NA	Air	Filter Prep	
LCS 550-134390/2-A	Lab Control Sample	Total/NA	Air	Filter Prep	
LCSD 550-134390/3-A	Lab Control Sample Dup	Total/NA	Air	Filter Prep	

#### Analysis Batch: 134415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-94436-1	Background	Total/NA	Air	7300	134390
MB 550-134390/1-A	Method Blank	Total/NA	Air	7300	134390
LCS 550-134390/2-A	Lab Control Sample	Total/NA	Air	7300	134390
LCSD 550-134390/3-A	Lab Control Sample Dup	Total/NA	Air	7300	134390

# Lab Chronicle

Client: Geotechnical & Environmental Consultants  
Project/Site: MAWN MGP

TestAmerica Job ID: 550-94436-1  
SDG: 130659.241

## Client Sample ID: Background

Date Collected: 12/06/17 00:00

Date Received: 12/08/17 09:00

## Lab Sample ID: 550-94436-1

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Filter Prep			134390	12/11/17 13:10	EXZ	TAL PHX
Total/NA	Analysis	7300		1	134415	12/11/17 17:16	ARE	TAL PHX

### Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

## Accreditation/Certification Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: MAWN MGP

TestAmerica Job ID: 550-94436-1  
SDG: 130659.241

### Laboratory: TestAmerica Phoenix

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
AIHA-LAP, LLC	IHLAP		154268	07-01-19

## Method Summary

Client: Geotechnical & Environmental Consultants  
Project/Site: MAWN MGP

TestAmerica Job ID: 550-94436-1  
SDG: 130659.241

Method	Method Description	Protocol	Laboratory
7300	NIOSH Method 7300 (Modified)	NIOSH	TAL PHX

### Protocol References:

NIOSH = NIOSH Manual Of Analytical Methods, National Institute For Occupational Safety And Health, 4th Edition, August 1994.

### Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

550-94436

Serial Number 99579

# TestAmerica

## ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

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: **Macun MGP MGP** PROJECT NO. **130659.241** PROJECT LOCATION (STATE) **GA** CONTRACT NO.

TAL (LAB) PROJECT MANAGER

CLIENT (SITE) PM **Carrie Holderfield** CLIENT PHONE **478-757-1606** CLIENT FAX **478-757-1608**

CLIENT NAME **Holderfieldadgesconsultants.com** CLIENT E-MAIL

CLIENT ADDRESS **514 Hillcrest Industrial Blvd Macun, Ga 31204**  
COMPANY CONTRACTING THIS WORK (if applicable)

SAMPLE DATE **12/6/17** TIME **11:55** SAMPLE IDENTIFICATION **Background**

COMPOSITE (C) OR GRAB (G), INDICATE  
AQUEOUS (WATER)  
SOLID OR SEMISOLID  
AIR  
NONAQUEOUS LIQUID (OIL, SOLVENT, ...)

**pb, Ar**

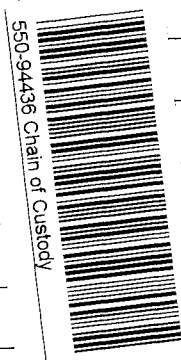
NUMBER OF CONTAINERS SUBMITTED

REMARKS

**PRESERVATIVE**

PAGE **1** OF **1**  
STANDARD REPORT DELIVERY ☐  
DATE DUE **12-11-17**  
EXPEDITED REPORT DELIVERY (SURCHARGE) ☐  
DATE DUE  
NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

**FUSIL**



550-94436 Chain of Custody

RELINQUISHED BY: (SIGNATURE) **[Signature]** DATE **12/6/17** TIME **1515** RECEIVED BY: (SIGNATURE) **[Signature]** DATE **12/6/17** TIME **1515**

RECEIVED FOR LABORATORY BY: (SIGNATURE) **[Signature]** DATE **11/26/17** TIME **0915** CUSTODY INTACT YES ☐ NO ☐ CUSTODY SEAL NO. **0** SAVANNAH LOG NO. **11266-0.5)0.7** LABORATORY REMARKS **Am13**

## Login Sample Receipt Checklist

Client: Geotechnical & Environmental Consultants

Job Number: 550-94436-1

SDG Number: 130659.241

**Login Number: 94436**

**List Number: 1**

**Creator: Gravlin, Andrea**

**List Source: TestAmerica Phoenix**

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.	False	Thermal preservation not required.
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 (excluding tests with immediate HTs)	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.	True	
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.	False	Check done at department level as required.