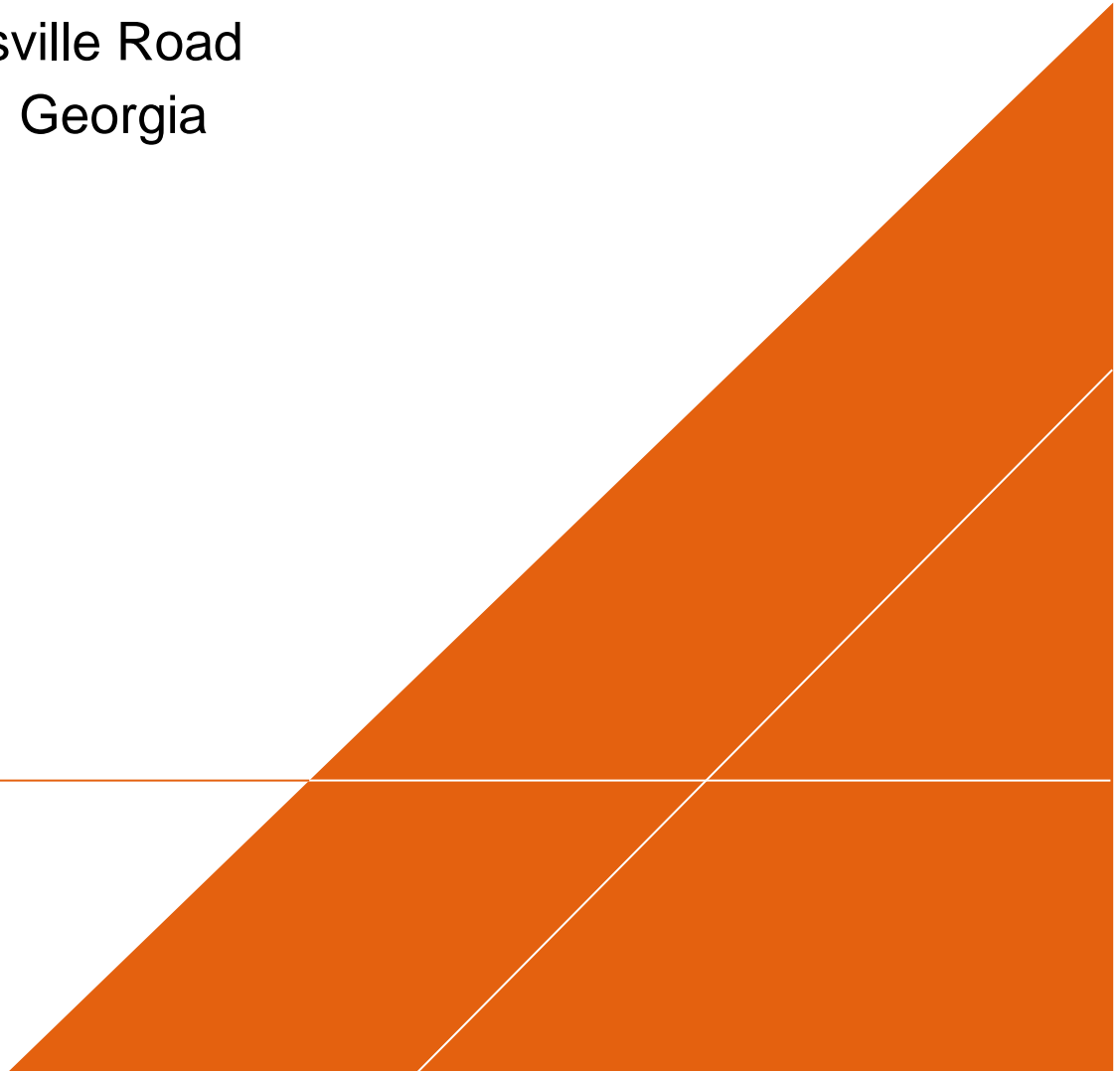




# COMPLIANCE STATUS REPORT

3000 Louisville Road  
Savannah, Georgia

October 2018






## COMPLIANCE STATUS REPORT

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3000 Louisville Road  
Savannah, Georgia

Prepared for:  
Hercules LLC



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OH011000.GA61.18300

Date:  
October 2018

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Based on a 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 this site/property is in compliance with industrial risk reduction standards for soil and groundwater.

Timothy HASSON

NAME (Please type or print)

ROMBANTON PROJECT  
MANAGER

TITLE

[Signature]

SIGNATURE

10/31/18

DATE

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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 gathered and evaluated 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.

Former Hercules LLC, Environmental Remediation – 3000 Louisville Road, Savannah, Georgia  
Facility Name

Compliance Status Report  
Document Title



\_\_\_\_\_  
Timothy Hassett, Project Manager- Remediation  
Name and Title



\_\_\_\_\_  
Date



## Professional Engineer/Geologist Certification

I certify that I am a qualified groundwater scientist who has received a baccalaureate or postgraduate 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 groundwater monitoring and contaminant fate and transport. I further certify that this report was prepared by me or by a subordinate working under my direction.



David M. Wilderman, P.G.  
Georgia Registration No. 978

October 31, 2018  
Date



Former Hercules – 3000 Louisville Road, Savannah, Georgia  
Facility Name

Compliance Status Report  
Document Title



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### ACRONYMS AND ABBREVIATIONS

2,3,7,8-TCDD	tetrachlorodibenzofuran
amsl	above mean sea level
Arcadis	Arcadis U.S., Inc.
AST	aboveground storage tank
ASV	alternative screening value
bgs	below ground surface
C	target groundwater concentration
CAP	Corrective Action Plan
C <sub>l</sub>	leachate concentration
C <sub>0</sub>	mixed groundwater concentration
COC	constituent of concern
COPC	constituent of potential concern
COPEC	constituent of potential ecological concern
CSM	conceptual site model
CSR	2018 Compliance Status Report
CSR Addendum	Compliance Status Report Addendum
CSR Addendum #2	Compliance Status Report Addendum #2
C <sub>t</sub>	total soil concentration
CTO	crude tall oil
DAF	dilution attenuation factor
d <sub>c</sub>	chemical transport distance
ECOSAR	Ecological Structure Activity Relationships
ELCR	excess lifetime cancer risk
EPC	exposure point concentration
ESV	ecological screening value
f <sub>oc</sub>	fraction of organic carbon
ft/ft	foot per foot
GA EPD	Georgia Department of Natural Resources, Environmental Protection Division
Hercules	Hercules LLC



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HHRA	human health risk assessment
HSI	Hazardous Site Inventory
i	hydraulic gradient
IWQC	in-stream water quality criteria
k	constant
K	hydraulic conductivity
MFL	million fibers per liter
mg/kg	milligrams per kilogram
mg/L	milligram per liter
NAWQC	National Ambient Water Quality Criteria
NTU	nephelometric turbidity unit
PCB	polychlorinated biphenyl
POE	point of exposure
PVC	polyvinyl chloride
P <sub>w</sub>	pore water phase
R <sub>f</sub>	retardation factor
RG	remedial goal
RRS	risk reduction standards
RSL	Regional Screening Level
RUZ	Restricted Use Zone
SESD	Science and Ecosystem Support Division
site	former Hercules Savannah facility, located at 3000 Louisville Road, Savannah, Georgia
SLERA	screening level ecological risk assessment
SMP	Soil Management Plan
Solenis	Solenis International, L.P.
s.u.	standard unit
SVOC	semivolatile organic compound
t	time
TEF	Toxicity Equivalency Factor
2,3,7,8-TCDD TEQ	Total dioxin, furan, and dioxin-like PCBs 2,3,7,8-TCDD Toxicity Equivalent Quotient



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TestAmerica	TestAmerica Laboratories, Inc., located in Savannah, Georgia
TOC	total organic carbon
UCL	upper confidence limit
UEC	Uniform Environmental Covenant
USEPA	United States Environmental Protection Agency
USFWS	U.S. Fish & Wildlife Service
$V_c$	transport rate in groundwater
VIRP	Voluntary Investigation and Remediation Plan
VISL	vapor intrusion screening level
VOC	volatile organic compound
VRP	Voluntary Remediation Program
VRPA	Voluntary Remediation Program Act
$\mu\text{g/L}$	microgram per liter
$V_s$	seepage water velocity
$^{\circ}\text{C}$	degrees Celsius
$^{\circ}\text{F}$	degrees Fahrenheit
$\theta_e$	effective porosity
$\lambda$	chemical half-life



## 1 INTRODUCTION

On behalf of Hercules LLC (Hercules), Arcadis U.S., Inc. (Arcadis) prepared this Compliance Status Report (CSR) for the former Hercules Savannah facility, located at 3000 Louisville Road, Savannah, Georgia (site), to meet requirements outlined in the Georgia Voluntary Remediation Program Act (VRPA). This CSR incorporates data obtained from recent investigations completed under a Voluntary Investigation and Remediation Plan (VIRP) since 2013, as well as previous investigations dating back to 2000. Information and data contained in this CSR are provided in a streamlined format and additional information, if required, can be provided to the Georgia Department of Natural Resources, Environmental Protection Division (GA EPD) upon request.

This CSR documents investigations that were successful in delineating all constituents of potential concern (COPCs) to either localized areas at the facility, or where localized delineation activities were limited by site restrictions, provide delineation of these detections on a site-wide basis. In addition, this CSR provides both a human health risk assessment (HHRA) and a screening level ecological risk assessment (SLERA) for these COPCs, which confirms the limited risks associated with residual compounds at the facility. Based on the results of these investigations and risk assessments, site-specific Type 4 RRS were established for select compounds at the facility. At select locations, residual compounds (1,1-biphenyl, Aroclor 1254, 2,3,7,8-TCDD toxicity equivalent quotient [TEQ]) were present at concentrations exceeding these criteria. To address these areas, it is proposed to eliminate pathways to potential receptors through institutional controls contained in a Uniform Environmental Covenant (UEC).

### 1.1 Site History

Historical site operations have included distillation of crude tall oil (CTO) and production of sizing, release agents, emulsifiers, coating agents, defoamers, fatty acid esters, disproportionated rosin, and polyamides. The tall oil distillation and rosin production operations ceased in 2004 and 2006, respectively, and the facility currently produces chemicals used in the paper processing industry.

The property was first developed in 1922 by Paper Makers Chemical Corporation for pulp and paper chemical manufacturing. Hercules Incorporated purchased the facility in 1931. Hercules Incorporated, which became a wholly owned subsidiary of Ashland Inc. in 2008, sold its water technologies business and associated assets to Solenis International, L.P. (Solenis) on July 31, 2014. Accordingly, Solenis is now the owner and operator of the facility and operations continue to be consistent with industrial site use. On September 27, 2016, Hercules Incorporated became Hercules LLC and Ashland Inc. became Ashland LLC.

The facility comprises 14 separately deeded parcels of land (approximately 32.5 acres) bordered by railroad tracks, wetlands, and industrial and residential properties. Two of the 14 property parcels (Parcel ID Nos. 2-0734-01-001 and 2-0734-03-001), comprising 29.09 acres, are the properties approved for inclusion in the Voluntary Remediation Program (VRP) and are currently listed on the Hazardous Site Inventory (HSI) as ID No. 10696.



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Hercules is coordinating the remediation efforts outlined in the VIRP for the two parcels shown on Figure 1 superimposed on a topographic map of the area. These parcels constitute the two properties referenced in the GA EPD HSI for Site 10696. The term “site” is used throughout this CSR to refer to the two tracts that comprise HSI No. 10696 that are owned by Solenis, but whose current environmental remediation HSRA/VRP requirements are managed by Hercules. Figure 2 provides an aerial view of the VRP properties, the qualifying property boundaries, and abutting properties. Figure 3 shows the layout of the VRP properties and monitoring well locations. A tax parcel map showing specific information on land tracks and ownership is provided in Appendix A, along with a March 2001 survey completed by Connor and Associates, Inc. that shows the extent of the property sold to Solenis in 2014.

### 1.2 Report Organization

The remainder of this report is organized into the following sections:

- *Section 2 – Regulatory and Site Investigation History.* Presents a timeline of release, response, and remedial action history.
- *Section 3 – Conceptual Site Model Summary.* Describes the physical features of the site that may affect the fate and transport of regulated constituents identified in soil, sediment, surface water, and groundwater.
- *Section 4 – Site Environmental Conditions.* Discusses environmental conditions at the site based on an accumulation of data collected during historical investigations completed since 2000.
- *Section 5 – Updated Risk Assessment.* Discusses the HHRA and SLERA conducted at the site.
- *Section 6 – Compliance with RRS.* Discusses evaluations completed to determine compliance with the applicable RRS at the site.
- *Section 7 – Proposed Corrective Actions.* Summarizes the planned corrective actions including the UEC and institutional controls, to be used at the site.
- *Section 8 – Summary and Conclusions.* Summarizes historical investigations at the site, as well as the HHRA and SLERA, and presents conclusions based on the results of investigations.
- *Section 9 – References.* Lists the references cited throughout this report.



## 2 REGULATORY AND SITE INVESTIGATION HISTORY

Historical investigations have been ongoing at the site since the initial release notifications in 2000. Investigations have resulted in a better understanding of site conditions including the complete delineation of site related COPCs on site as well as the identification of areas where site-specific Type 4 RRS were developed. The following is a timeline of events including details on the release, response, and remedial action history:

- On March 9, 2001, the GA EPD determined that a release exceeding a reportable quantity occurred at the facility. This determination was based on information provided in the following release notifications: June 15, 2000 (caustic release in the Dry Size Tank Farm Area), July 13, 2000 (asbestos and benzene in the former Fatty Acid 50s and 60s Tank Areas), and August 11, 2000 (acrolein release in the Hard Resins Area). Subsequently, the facility was placed on the Georgia HSI.
  - To assess groundwater conditions at the site, Hercules installed 11 temporary groundwater monitoring wells in July 2000 and 24 groundwater monitoring wells (21 shallow and three deep) in October 2000 (the MW-F series). The site groundwater monitoring network and well construction details are provided in Table 1.
- Hercules submitted an amended release notification on March 9, 2001, documenting removal actions completed in the Hard Resins Area for acrolein-contaminated soil and providing additional analytical data gathered during the 2001 Phase II investigation.
- In 2001, in support of a business transaction, Arcadis-Geraghty & Miller conducted a Phase II site investigation of the Resin Manufacturing Areas and the Common Wastewater Treatment Facility Area. The investigation included groundwater and soil sampling (NewFields 2004).
- Consistent with the Georgia Rules for Hazardous Site Response, Rule 391-3-19-.06(3)(a), versions of a CSR for the site were prepared and submitted on June 1, 2002; February 9, 2003; and August 9, 2004 (NewFields 2004).
  - In response to GA EPD comments on the CSRs, seven shallow and six deep groundwater monitoring wells were added to the site monitoring network in October through December 2002 (Table 1), additional groundwater and soil sampling was conducted in 2002 and 2004 by MacTec, Inc., and the CSR findings were affirmed and/or revised.
  - In July and August 2006, additional groundwater and soil data were collected by MacTec, Inc. and S&ME, Inc. to supplement the existing dataset and provide information for preparation of a CSR addendum.
  - A Compliance Status Report Addendum (CSR Addendum; NewFields 2006) to the 2004 CSR was submitted on September 29, 2006 to document 2006 data collection and the site status regarding the risk reduction standards (RRS) of Rule 391-3-19-.07 for regulated substances associated with the site.
  - The GA EPD issued a letter dated March 11, 2008 in response to the CSR Addendum (NewFields 2006), requesting submittal of a Corrective Action Plan (CAP) to address



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groundwater contamination, as well as additional data to determine the compliance status for soil at the site (GA EPD 2008).

- A CAP was submitted in October 2008 (NewFields 2008) to document groundwater corrective action means and methods, as a partial fulfillment of requirements described in the GA EPD comments received in March 2008 (GA EPD 2008).
- A Compliance Status Report Addendum #2 (CSR Addendum #2; NewFields 2009) was submitted in March 2009 to address the remainder of GA EPD comments received in March 2008 (GA EPD 2008).
  - The CSR Addendum #2 (NewFields 2009) documented assessments of soil investigations to horizontally delineate constituents of concern (COCs) in the Hard Resins Area and former Fatty Acid 50s and 60s Tank Areas, the installation of one replacement shallow groundwater monitoring well (MW-F3R) and two new shallow and two new deep groundwater monitoring wells in November 2008 (Table 1), and groundwater slug test results.
- The GA EPD issued comments on October 25, 2010 to the CSR Addendum #2 (GA EPD 2010) requesting additional characterization and delineation of soil and groundwater at the site and a field work plan. Arcadis submitted a response to these comments in February 2011 (Arcadis 2011).
- The GA EPD issued a letter dated December 8, 2011 (GA EPD 2011), in response to the February 2011 submittal (Arcadis 2011), which requested several actions including additional sampling and delineation, revisions to the calculated RRS, and preparation of a revised CAP pursuant to the Georgia Rules for Hazardous Site Response.
- In lieu of preparing and submitting a revised CAP, Hercules submitted a VIRP on April 9, 2012 (Arcadis 2012), as requested in the GA EPD December 2011 letter.
- The GA EPD approved the VIRP application on March 15, 2013 (GA EPD 2013).
- Hercules submitted a Work Plan for Semiannual Groundwater Sampling in July 2012.
- The First Semiannual Progress Report (Arcadis 2013) summarized the initial tasks completed following approval of the VIRP application and provided details of planned tasks for 2014.
- The Semiannual Progress Report #2 (Arcadis 2014a) was submitted on March 15, 2014, documenting routine groundwater monitoring activities.
- The Semiannual Progress Report #3 (Arcadis 2014b) was submitted on September 15, 2014, documenting routine groundwater monitoring, soil sampling at historical locations, sediment and surface water sampling, and slug test activities.
- The Semiannual Progress Report #4 (Arcadis 2015a) was submitted on March 30, 2015 and included the following:
  - 2014 groundwater monitoring, soil, sediment, and surface water delineation results
  - An updated conceptual site model (CSM)
  - Results of the HHRA and SLERA completed in 2014
  - Details of a soil excavation completed in October 2014, as part of the Kymene® Reactor expansion.



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- Semiannual Progress Report #5 (Arcadis 2015b) was submitted on October 6, 2015, documenting routine groundwater monitoring activities and outlining the completion of the August 2015 soil sampling event in the Dowtherm® Area.
- Semiannual Progress Report #6 (Arcadis 2016a) was submitted on April 6, 2016 and included the following:
  - Results of routine groundwater monitoring activities
  - An updated CSM
  - Analytical results from the August 2015 soil sampling event to further delineate COCs in the Dowtherm® Area.
- Semiannual Progress Report #7 (Arcadis 2016b) was submitted on October 5, 2016, documenting routine groundwater monitoring activities.
  - The GA EPD issued a letter dated January 5, 2017 (GA EPD 2017a), in response to the Semiannual Progress Report #7 (Arcadis 2016b), which requested several actions, including: re-evaluation of the delineation standards in soil and groundwater for bis(2-chloroethyl)ether and phenol, re-evaluation of the SLERA, completion of vertical delineation in soil above the water table, and collection of pH data in the caustic substance release area. The response also requested the completion of a comprehensive groundwater monitoring event.
- Semiannual Progress Report #8 (Arcadis 2017a) was submitted on March 15, 2017 in response to GA EPD comments received on January 5, 2017 (GA EPD 2017a) to the Semiannual Progress Report #7 (Arcadis 2016b).
  - The GA EPD issued a letter dated June 28, 2017 (GA EPD 2017b) in response to the Semiannual Progress Report #8 (Arcadis 2017a), which requested several actions including additional sampling and delineation.
- Semiannual Progress Report #9 (Arcadis 2017b) was submitted on September 29, 2017 in response to GA EPD comments received on June 28, 2017 (GA EPD 2017b) for Semiannual Progress Report #8 (Arcadis 2017a).
- In response to GA EPD requests to complete further delineation at the site (GA EPD 2017a, 2017b), Hercules completed additional soil and groundwater investigations at the site in 2017 and 2018, including the installation of six temporary shallow groundwater monitoring wells in October 2017 (Table 1). Data from these investigations are documented in this CSR.

Throughout the subsurface investigations, regulated substances were identified in site groundwater and soil. In addition, trace concentrations of regulated substances were detected in surface water and sediment samples collected from Dundee Canal, located hydraulically downstream from the site (Figure 3), as reported in Semiannual Progress Report #4 (Arcadis 2015a). The regulated substances detected at the site, along with the applicable delineation standards, are provided in the VIRP (Arcadis 2012).

The GA EPD provided pre-approved RRS to Hercules following the submittal of the VIRP (Arcadis 2012) in a letter dated January 10, 2014 (GA EPD 2014a). The GA EPD-approved RRS are provided in Tables 2, 3, and 4. In these tables, Type 1 and 2 RRS apply to residential areas, while Type 3 and 4 RRS apply to nonresidential areas. Hercules elected to use these RRS for the delineation and initial cleanup



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standards under the VIRP (Arcadis 2012). At a meeting in May 2018, Hercules revisited these pre-approved RRS with the GA EPD. The outcome of this meeting was that Hercules could propose site-specific Type 4 RRS developed using accepted risk assessment practices. The development of site-specific Type 4 RRS are discussed in Section 5.



### 3 CONCEPTUAL SITE MODEL SUMMARY

Investigations of soil and groundwater at the site have been conducted since 2000 to identify potential source areas of regulated constituents and provide horizontal and vertical delineation of constituents in affected media. Site investigations have been successful in identifying the presence of regulated constituents in groundwater and soil, the horizontal and vertical extents of the constituents, and limited areas containing residual concentrations of 1,1-biphenyl and polychlorinated biphenyls (PCBs) greater than their site-specific Type 4 RRS. The limited number and areal extent of potential source areas combined with the low hydraulic conductivity typical of the shallow saturated zone have resulted in minimal vertical and lateral migration of regulated constituents.

This section describes the physical features of the site that may affect the fate and transport of regulated constituents identified in soil, sediment, surface water, and groundwater. Understanding these characteristics provides a basis for performing field data collection activities necessary to evaluate environmental conditions at the site that may lead to unacceptable risks or hazards to potentially exposed human or ecological receptors. The physical properties described in this section form the CSM and are further supported by the risk-based exposure evaluations provided in Section 5, which quantitatively evaluate risks and hazards to both present and theoretical future receptors populations.

#### 3.1 Climate

The climate in Chatham County is warm and moist, with the annual temperature averaging 66 degrees Fahrenheit (°F) and an annual rainfall of 51 inches. The average January temperature is 51 °F and the average July temperature is 81 °F. Peak rainfall occurs in June through August.

#### 3.2 Topography

The site is located in the Coastal Plain physiographic province. The Coastal Plain is characterized by low topographic relief with extensive marshy tracts. Surface runoff in the Savannah area is less than 10 inches annually due to the combined effects of the flat surface topography, abundant marshy areas, and sandy soil.

The site is divided by a surface water feature, Dundee Canal, which is a manmade structure that extends through the city of Savannah. Dundee Canal traverses the site, flowing from the southwest to northeast, and eventually discharges into the Savannah River approximately 2.5 miles northeast of the site. The portion of Dundee Canal that traverses the site (approximately 855 linear feet) includes an open channel (approximately 95 linear feet), which flows into a below-grade concrete culvert (approximately 710 linear feet), with a small portion (approximately 50 linear feet) of open channel near the MW-F17 and MWD-F3 area on the western portion of the site (Figure 3). Site surface water drainage is convergent to the canal with ground surface elevations becoming lower approaching Dundee Canal. Ground surface elevations at the site range from 5.3 feet above mean sea level (amsl) in the north-central portion of the site close to Dundee Canal, to 15.66 feet amsl in the southwest portion of the site upstream and farther away from the canal.



### 3.3 Geology

Southeastern Chatham County is underlain by approximately 4,000 feet of sedimentary Coastal Plain sediment ranging in age from Holocene to Cretaceous. From land surface to a depth of approximately 500 feet, this sediment is generally unconsolidated to somewhat indurated beds of sand and clay of recent (Holocene) age to indurated limestones of Oligocene and Eocene age. The Oligocene and Eocene limestones comprise what is commonly referred to as the Upper Floridan aquifer.

The soil in the area of the site is classified as Wahee Series soil by the Natural Resources Conservation Service. The soil is characterized as poorly drained, occurring in areas with less than a 2 percent slope, and generally has low organic matter and acidic pH (4.5 to 5 standard units [s.u.]). The soil profile comprises a sandy loam approximately 12 inches thick underlain by approximately 4 feet of sandy loam and clay.

The uppermost stratigraphic unit, the Satilla Formation, is Late Pleistocene to Holocene in age and consists of coastal marine deposits. It is a heterogeneous unit of fossiliferous, shelly sands and clays overlaying the late Pliocene Cypresshead Formation (pebbly, coarse-grained sand with some gravel, mica, shells, and localized clay beds) in some areas and the Coosawatchie Formation (sandy clay with subordinate amounts of dolomite, mica, claystone, and chert) in other areas. The Satilla Formation sand is typically fine to medium grained and well-sorted. Post-Miocene sediments generally consists of marginal to shallow marine beds overlain by a series of sandy, marine terrace deposits that are capped by a thin layer of fluvial sand or residuum.

Shallow groundwater is generally encountered within the Pleistocene sands, occurring under both unconfined and confined conditions in the coastal zone. In places, a basal Pleistocene sand, typically about 15 feet to as much as 40 feet thick, is separated from an upper fine-grained sand by a low-permeability dark-gray clay.

### 3.4 Hydrogeology

Four major water-bearing zones are present in the Savannah area: surficial saturated zone within the Satilla Formation (shallow aquifer), Upper Brunswick Aquifer, Upper Floridan Aquifer, and Lower Floridan aquifer. The screened sections of monitoring wells installed at the site are within the uppermost saturated zone or shallow aquifer. This zone typically consists of layers of silt and clay, thin limestone beds, and sand, which yield small quantities of water.

The subsurface geology at the site consists predominantly of silt and clay and exhibits low permeability. Elsewhere in the Savannah area, the Upper Brunswick Aquifer is approximately 20 feet thick with the deeper portions composed of more coarse-grained materials that yield sufficient water to wells to be used as the principal shallow water-bearing unit. Regionally and locally, this Aquifer exists mainly under unconfined conditions. However, past reports indicate that local clay lenses can cause semiconfined conditions in the aquifer.

Previous investigations at the site indicated a brown silty clay unit with minor amounts of fine-grained sand observed at most shallow soil boring locations to approximately 10 feet below ground surface (bgs). A fine- to medium-grained sand with 0 to 30 percent silt and clay was present in the interval from 10 to 20 feet bgs. A distinctive, bluish-green clay with abundant shell fragments was encountered at approximately



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20 feet bgs. This unit exhibits low hydraulic conductivity and does not yield appreciable amounts of groundwater. Below 20 feet bgs, alternating clayey and sandy intervals were encountered to a total depth of 100 feet bgs. The deep monitoring wells at the site are screened in this interval.

The lithologies discussed above form the surficial aquifer for the facility. Beneath the surficial aquifer are clay aquitard units. Within these latter units, the Brunswick aquifer (125 to 150 feet bgs) can be present. The Upper Floridian aquifer is present beneath the site at approximately 240 feet bgs (Clarke, Hacke, and Peck 1990).

### 3.5 Hydraulic Gradient

The static depth to water was measured in all accessible site wells most recently on December 27 and 28, 2017. These measurements were used to develop a potentiometric surface contour map for the shallow water unit and to calculate a hydraulic gradient. The general groundwater flow direction based on these measurements was convergent toward Dundee Canal, which is consistent with historical data. The hydraulic gradient was calculated from potentiometric surface elevations of wells located perpendicular to groundwater flow direction, from both sides of Dundee Canal. The average hydraulic gradient is 0.007 foot per foot (ft/ft), which is typical of shallow aquifers in the Coastal Plain depositional environment. The hydraulic gradient was calculated to be 0.008 ft/ft on the west side of Dundee Canal based on water level measurements from MW-F13 and MW-F17, while on the east side of Dundee Canal the hydraulic gradient was 0.006 ft/ft as calculated from monitoring wells MW-F9 and MW-F5. Well construction details are provided in Table 1 and groundwater elevations are summarized in Table 5. A potentiometric surface contour map is provided on Figure 4. December 2017 groundwater elevations are consistent with historical groundwater elevations (Appendix B).

A tidal evaluation was conducted at the site within Dundee Canal on August 28 and 29, 2014, to determine if tidal changes exhibited influence on the monitoring well water levels, as requested by GA EPD in a letter dated January 10, 2014 (GA EPD 2014a). The evaluation was completed by installing a wooden stake into the deepest portion of Dundee Canal, located near the SW/SED-3 sample location on the northeastern side of the site (Figure 3). Local tide charts were reviewed, from which the times of low and high tides were determined. The distance from the top of the stake to the water surface of Dundee Canal was measured during low tide. The process was duplicated during the next high tide. These two measurements were compared, and it was determined that Dundee Canal, within the SW/SED-3 area, fluctuates by 1 inch between low and high tides.

The purpose of the tidal evaluation was to determine if tidal-induced fluctuations in Dundee Canal could result in possible upgradient migration of hazardous constituents from the site during periods of high tide. However, during the habitat assessment conducted in August 2014 (Arcadis 2015a), Hercules determined that because Dundee Canal is conveyed through the site via concrete piping, it exits the piping above the natural level of the canal; therefore, the canal upgradient of the site is not tidally influenced.



### 3.6 Hydraulic Conductivity, Seepage Velocity, and Gradient Summary

Hydraulic testing was conducted on September 28 and 29, 2014 at nine wells on the two VRP properties to evaluate the hydraulic parameters of the shallow and deep aquifers. These tests were conducted by performing a minimum of two slug-out tests to measure the rate of recharge. The tests were performed by first measuring the static water level at each test location. Following the measurement, a Level TROLL 700 transducer was deployed in the well. Tests were initiated by dropping a 3-foot solid slug into the well. The water level was continually monitored until it reached near static levels. At that point, the slug was quickly removed, and the water level was again continuously monitored until levels reached at least 90 percent of the static level, at which point the test was considered complete and the logging was suspended. Results of the hydraulic slug testing are presented below and summarized in Appendix C.

Calculations using the Bouwer-Rice method and Dagan method for an unconfined aquifer were used to calculate the hydraulic conductivity for each well from data collected in the field during the slug test, as presented in the Semiannual Progress Report #4 (Arcadis 2015a). Monitoring wells MW-22, MW-24, MW-F1, MW-F9, MW-F13, and MW-F15 were used to determine the hydraulic conductivity for shallow wells at the site. Hydraulic conductivity in the shallow wells ranged from 0.033 foot per day in MW-F13 to 1.5 feet per day in MW-22, with an average hydraulic conductivity of 0.47 foot per day. The table below shows that calculated seepage velocity in the shallow zone averages approximately 10 feet per year assuming an effective porosity of 0.10 and an average gradient of 0.006 ft/ft as calculated using data from the December 2017 water level gauging event. Monitoring wells MWD-22, MWD-24, and MWD-29 were used to determine the hydraulic conductivity of intermediate wells at the site. Hydraulic conductivity for intermediate wells ranged from 0.06 foot per day in MWD-29 to 0.39 foot per day in MWD-22 with an average hydraulic conductivity of 0.13 foot per day. Calculated seepage velocities in the intermediate zone average approximately 12 foot per year as shown in the table. Monitoring well MWD-F3 was used to calculate the hydraulic conductivity of the deep wells at the site. The hydraulic conductivity for MWD-F3 was calculated to be 0.0081 foot per day and, using December 2017 water level data from MWD-F1 and MWD-F2, the seepage velocity was estimated at less than 1 foot per year.



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Zone	Monitoring Well	Groundwater Elevation (feet)	Distance Between Wells (feet)	Hydraulic Gradient (ft/ft)	Groundwater Velocity (feet per year)
Shallow	MW-25	7.42	674	0.002	3.72
	MW-F14	5.96			
	MW-F19	6.29	295	0.012	21.40
	MW-F2	2.61			
	MW-26	7.24	440	0.003	5.42
	MW-F17	5.85			
	<b>Average:</b>			<b>0.006</b>	<b>10.18</b>
Intermediate	MWD-22	7.08	103	0.047	22.113
	MWD-23	2.28			
	MWD-27	7.19	260	0.007	3.176
	MWD-30	5.45			
	MWD-27	7.19	215	0.023	10.836
	MWD-23	2.28			
	<b>Average:</b>			<b>0.025</b>	<b>12.04</b>
Deep	MWD-F2	-10.62	423	0.024	0.702
	MWD-F1	-20.67			

### Notes:

- Hydraulic gradient calculated using  $i = \frac{h_2 - h_1}{d}$ , where  $h_2$  is the upgradient water level,  $h_1$  is the downgradient water level, and  $d$  is the distance between the two wells.
- Groundwater velocity calculated using  $V = \frac{K \cdot i}{\phi}$ , where  $K$  is the hydraulic conductivity and  $\phi$  is the porosity of the soil.
- The estimated effective porosity is 0.10 and average hydraulic conductivities presented in the 2015 PR#4 were 0.47 and 0.13 foot per day, respectively, for the shallow and intermediate well zones.
- The estimated effective porosity is 0.10 and average hydraulic conductivity presented in the 2015 PR#4 for the deep zone was 0.0081 foot per day.

Vertical hydraulic gradients were evaluated in four nested well pairs located along the northern site boundary. Water level measurement data collected in December 2017 from these well pairs are shown in the table below and indicate that the predominant vertical gradient is downward. A slight upward vertical gradient is noted at the MW-24 and MWD-24 well pair. The strong downward gradient observed at MW-F19 and MWD-F2 between the shallow and deep zones indicates these water-bearing zones are separated by a confining unit and are likely not hydraulically connected. The pronounced drop in water table elevation at MWD-F2 is likely associated with some type of withdrawal from the shallow aquifer that lies below the Satilla Formation sediments.



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Well ID	Ground Surface Elevation (feet amsl)	Depth to Well Screen (feet)	Screen Length (feet)	Depth to Water (feet)	Vertical Gradient (ft/ft)	Zonal Flow Comparison	Flow Direction
MW-F19	7.68	10	10	4.18			
MWD-F2	7.80	80	20	21.14	0.2265	shallow to deep	downward
MW-24	7.71	10	10	4.38			
MWD-24	7.67	40	10	4.19	-0.0063	shallow to intermediate	upward
MW-23	7.08	10	10	5.82			
MWD-23	6.83	40	10	6.99	0.0387	shallow to intermediate	downward
MW-22	7.36	10	10	2.67			
MWD-22	7.71	40	10	2.97	0.0101	shallow to intermediate	downward

### 3.7 Historical Identified Potential Source Areas

As shown on Figure 3, the site includes several current and historical operational areas, including:

- **Hard Resins Area.** This area, located within the central portion of the plant, is used for resin production. This area was also formerly used for rosin processing, but the rosins process was discontinued in 2006. This area is contained by a concrete secondary containment structure. A release of acrolein to groundwater occurred in this area, according to the August 11, 2000 release notification.
- **Former Tall Oil Plant Area.** This area, located in the eastern portion of the plant, is used for CTO processing and tall oil production. This area was contained by a concrete secondary containment structure. The Tall Oil Plant was decommissioned/demolished in 2004.
- **Former Dry Size Tank Area.** This area, located west of the Hard Resins Area, contains alkaline storage tanks. These tanks are surrounded by concrete containment structures. The Dry Size Tank Area converted CTO and wood rosin into sodium and potassium salts to form dry size and paste size for the paper industry. A historical release of sodium hydroxide and potassium hydroxide to groundwater occurred at this location, as noted in the June 15, 2000 release notification. The Dry Size Tank Area was decommissioned/demolished in 2006.
- **Former Fatty Acid 50s and 60s Tank Areas.** Prior to 1950, these adjoining areas were used for on-site storage of demolition debris from maintenance and construction, including rosin dross (wood rosin), pipe insulation, and siding. Tanks were removed from this area in 2006. Seven of the eight tanks were contained within a concrete secondary structure. A release of asbestos and benzene to soil and groundwater occurred here, as noted in the July 13, 2000 release notification. As stated in the VIRP, resampling of downgradient wells showed no detections of asbestos above reporting levels. However, based on the February 2011 EPD response submittal, this area will be established as a RUZ and incorporated into the UEC.



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- **30s Tank Area.** This area, located in the central portion of the plant, includes aboveground storage tanks (ASTs) for the storage of manufactured product (currently Hercobond™), hydrochloric acid, and sodium hydroxide. This area was formerly used to store fatty acids. This area is contained by a concrete secondary structure.
- **Former CTO Tank Area.** This area, located within an earthen dike in the north-central portion of the plant, formerly included four ASTs, three CTO tanks, and one Pitch Unit. These tanks were decommissioned and removed from this area in 2004.
- **Primary oil/water separator.** This is located in the northern portion of the plant. Process water from various portions of the plant and runoff from the southern portion of the plant are treated at this separator before being discharged to the wastewater treatment facility – secondary units.
- **Electrical substations.** Two electrical substations are currently located at the plant. The main substation is located on the south side of Warehouses 1, 2, and 3 (No.8526). A second substation is located near the former Tall Oil Plant (No. 8527). Both substations are non-PCB type. PCB-containing transformers/capacitors were historically used at substation No. 8526 and were removed and disposed of in 1990.
- **Dowtherm® Area.** Dowtherm® oil was historically used in this area in connection with the water technologies business. The presence of this constituent in soil is likely a result of past incidental releases from the piping system. The soil surrounding the pipe was excavated as part of the planned construction, and the pipe was plugged with concrete mix and a plumbers cap.

### 3.8 Fate and Transport Modeling

Arcadis evaluated the potential for constituents in soil to leach from shallow vadose zone soil to groundwater at the site. A Leaching of Chemicals in Soils to Groundwater Model was submitted to the GA EPD in July 2018 (Arcadis 2018) and the data presented in the model are summarized below.

1,1-Biphenyl, Aroclor 1254, and total PCBs were detected in site soil at concentrations exceeding the GA EPD Type 1/2 RRS (Arcadis 2016b), which were used as the site standard for delineation. As a result, these three chemicals were further evaluated to determine if the total soil concentrations present at the site could pose a potential threat to groundwater and to groundwater receptors in accordance with provisions outlined in Georgia Rule 391-3-19, Hazardous Site Response.

A series of standard chemical transport equations were used to evaluate the maximum chemical transport distance in groundwater for each respective compound using the maximum detected soil concentration on site as presented in Appendix D. The calculations accounted for chemical retardation and degradation in groundwater and were based on the Soil Screening Guidance (United States Environmental Protection Agency [USEPA] 1996) and standard chemical transport equations from Contaminant Hydrogeology (Fetter 1999). The evaluation completed is similar to a BIOSCREEN evaluation; however, it also included steps to convert the soil concentrations to a mixed groundwater concentration. The equations were combined in a stepwise approach as follows to estimate the maximum transport distance:

1. **Chemical partitioning from soil to pore water phase ( $P_w$ ) and equivalent chemical leachate concentration ( $C_i$ )** in liters per kilogram and milligrams per liter (mg/L), respectively. The chemical



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equilibrium between pore-water concentration and adsorbed soil concentration was used to convert the total soil concentration ( $C_t$ ) to a pore-water  $C_i$  in soil ( $C_i = C_t \div P_w$ ).<sup>1</sup>

2. Dilution attenuation factor (DAF) and mixed groundwater concentration ( $C_0$ ), dimensionless and in mg/L, respectively. The DAF was used to convert the  $C_i$  to a  $C_0$  ( $C_0 = C_i \div \text{DAF}$ ).
3. *Average seepage water velocity* ( $V_s$ ) in feet per day. The transport rate (velocity) of groundwater was calculated using site-specific groundwater properties (aquifer hydraulic conductivity [ $K$ ], the hydraulic gradient [ $i$ ], and the effective porosity ( $\theta_e$ );  $V_s = [K \cdot i] \div \theta_e$ ).  $V_s$  was used in Step 4.
4. *Chemical-specific retardation factor* ( $R_f$ ) and the resulting *chemical-specific transport rate in groundwater* ( $V_c$ ) dimensionless and in feet per day, respectively. The  $R_f$  in conjunction with the  $V_s$  (from Step 3) were used to calculate the chemical transport velocity in groundwater ( $V_c = V_s \div R_f$ ).
5. *Chemical degradation rate and time to reach the target groundwater concentrations* ( $C$ ) in days and days, respectively. The respective chemical half-life ( $\lambda$ ) and resulting constant ( $k$ ),  $C_0$  (from Step 2), and Type 1-2 RSS in groundwater ( $C$ ) were used to estimate the time ( $t$ ) it would take each chemical in groundwater to reach their respective  $C$  ( $t = \ln(C \div C_0) \div k$ ).
6. *Chemical transport distance* ( $d_c$ ) in feet. The respective  $V_c$  and  $t$  (from Steps 4 and 5, respectively) are used to estimate the maximum transport distance ( $d_c = V_c \cdot t$ ).

The equations, inputs, calculations, and assumptions are included in Appendix D and follow the six steps outlined above.

The equation inputs and parameters were based on site-specific data, default USEPA or GA EPD values, or on literature values that were considered representative of the site conditions (e.g., soil type). The assumptions used in simulating fate and transport of target analytes are detailed in Appendix D and the primary assumptions are summarized below:

- Infinite soil source mass\*
- Instantaneous leaching of maximum soil source leachate concentration to groundwater\*
- EPD default DAF of 20 for a ½-acre or less source area
- $V_s$  was based on site-specific average hydraulic gradient (0.008 ft/ft) and highest reported hydraulic conductivity (1.5 feet per day)<sup>1</sup>
- Fraction of organic carbon ( $f_{oc}$ ) of 0.002 for  $P_w$  based on USEPA default<sup>2</sup>
- Groundwater transport calculations do not include dispersion, diffusion, or volatile losses\*
- Chemical degradation rate (first order decay)\* in groundwater based on the most conservative scenario (i.e., highest reported half-life [lower degradation rate] for anaerobic or aerobic degradation in soil or groundwater).

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<sup>1</sup> Conservatively assumed the total soil concentration was fully adsorbed to soil (i.e., all phases of the chemical were sorbed to soil resulting in a greater pore water phase equilibrium concentration).

<sup>2</sup> Conservatively assumed the total soil concentration was fully adsorbed to soil (i.e., all phases of the chemical were sorbed to soil resulting in a greater pore water phase equilibrium concentration).



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- Mixing in the Dundee Canal\* was not assessed but would further dilute the groundwater discharge concentration, if any.

Assumptions identified with an asterisk (\*) are conservative in nature and thereby result in improving protections to human health and the environment.

The key groundwater flow advection equations are linear in nature. Therefore, the parameters generally have a one to one effect on the maximum transport distance. For example, if the *foc* is doubled, the transport distance would effectively decrease by one-half. Conversely, if the hydraulic conductivity is doubled, the transport distance would double. However, given the conservative approach, the predictions likely overestimate chemical transport distances.

The calculated maximum groundwater transport distances for 1,1-biphenyl, Aroclor 1254, and total PCBs are all less than 4 feet from their respective source area[s] after mixing (see above and Appendix D). The nearest point of compliance or receptor was 15 feet from a location exceeding a Type 3/4 RRS (i.e., distance from soil boring SB-204 to the Dundee Canal). Thus, even if the transport distance was two or three times greater, potential receptors would not be adversely affected.

Site-specific data indicate that 1,1-biphenyl, Aroclor 1254, and total PCB concentrations in groundwater are less than their respective Type 1/2 RRS groundwater standards (Arcadis 2016b), except for 1,1-biphenyl at shallow monitoring well TMW-22.<sup>3</sup> The presence of 1,1-biphenyl in monitoring well TW-22 is likely associated with a small, localized, release of 1,1-biphenyl in the TMW-22 area. TW-22 is more than 2,000 feet from the Dundee Canal and therefore, would not reach the canal at a concentration that would pose unacceptable risk or hazard as shown in the transport calculation presented in Appendix D.

The leaching and fate and transport assessment indicates the chemicals are not mobile in groundwater and will not threaten nearby potential groundwater receptors, including the Dundee Canal. This is consistent with the site-specific data. Thus, the observed soil concentrations are protective of groundwater at the points of compliance.

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<sup>3</sup> The depth to groundwater in monitoring well TMW-22 is approximately 8 feet bgs.



## 4 SITE ENVIRONMENTAL CONDITIONS

Environmental conditions presented in this CSR are based on an accumulation of data collected at the site during historical investigations completed since 2000.

### 4.1 Risk Reduction Standards

The GA EPD provided revised (“pre-approved”) RRS (Type 1 through 4) to Hercules following the submittal of the VIRP (Arcadis 2012; GA EPD 2014a). Hercules used these GA EPD-approved revised Type 1/2 RRS as delineation standards for the VIRP properties during the field investigations outlined in the VIRP and progress reports. Hercules used the GA EPD provided Type 3/4 RRS as the initial screening values for the site-specific criteria. However, Section 12-8-108(6) of the VRPA states that “Any cleanup standard lawfully promulgated pursuant to Code Section 12-8-93 that is protective of human health and the environment and accomplishes the provisions, purposes, standards, and policies of this part may be used without demonstrating that a different cleanup standard is inappropriate or impracticable”. Further, the GA EPD’s January 5, 2017 comments on Progress Report #7 (GA EPD 2017a) noted that soil concentrations must be protective of groundwater to comply with cleanup standards under the Georgia Rules for Hazardous Site Response and the VRP Act. The GA EPD confirmed during a May 2018 meeting that alternative cleanup standards may be developed and must be based on acceptable risk calculations.

Based on this, criteria for developing a site-specific Type 4 RRS for soil included both an evaluation of the protection of groundwater in addition to criteria for direct contact. Section 12-8-108(5) of the VRPA further provides that compliance with site-specific RRS for soil (Type 4) may be based on soil concentrations for protection of groundwater criteria at an established point of exposure (POE) for groundwater defined under the VRPA. The GA EPD provided RRS are provided in Tables 2, 3, and 4. The calculated site-specific RRS, developed for use in remedial alternatives analysis have been added to Table 2.

### 4.2 Groundwater

The horizontal and vertical delineation of COPCs in groundwater was accomplished through the installation and monitoring of wells at the site. A site map showing all monitoring well locations is included on Figure 3. Geologic cross-sections were prepared to show the current subsurface conditions at the site. Transect locations are provided on Figure 5. The cross-sectional geologic interpretations of subsurface conditions provided on Figure 5a (along the groundwater flow direction parallel to Dundee Canal), Figure 5b (perpendicular to groundwater flow direction), and Figure 5c (along the groundwater flow direction on the eastern side of the site) include the December 2017 groundwater analytical results and historical soil analytical results.

The A-A’ transect is oriented parallel to Dundee Canal and passes through the 30s Tank Area and the former CTO Tank Area (both shown on Figure 3). This cross-section shows that no target analytes are present at concentrations exceeding relevant RRS in either soil or groundwater.

Cross-section B-B’ is oriented northwest to southeast and represents site conditions at several potential source areas. This cross-section shows that no target analytes are present at concentrations exceeding



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relevant RRS in groundwater. The limited extent of 1,1-biphenyl detections in soil above the Type 1/2 RRS (SB-126 and SB-128) is shown on the northwest portion of Figure 5b and soil results are discussed in Section 4.3.

Cross-section C-C' shows additional potential source areas, as requested by the GA EPD in a letter dated January 10, 2014 (GA EPD 2014a). The locations of the former Fatty Acid 60s Tank Area, the former Tall Oil Plant, the former Dowtherm® Unit, and the primary oil/water separator are represented in this cross-section. This figure shows how limited positive detections of regulated constituents are along this transect and that none of the groundwater results are greater than delineation standards.

Recent groundwater monitoring activities completed at the site include the installation of six shallow groundwater monitoring wells, collection of water-level measurements, and groundwater sampling and analysis. Recent activities completed are summarized below.

### 4.2.1 Shallow Groundwater Monitoring Well Installation

Six shallow groundwater monitoring wells (TMW-18 through TMW-23) were installed in October 2017, to provide groundwater data downgradient of locations where select PCBs or 1,1-biphenyl were identified in shallow soil at concentrations exceeding the respective Type 1/2 RRS. Data collected from the wells were intended to confirm the absence of any vertical migration of select PCBs or 1,1-biphenyl from the locations where they were previously identified.

The shallow groundwater monitoring wells were installed as 1-inch-diameter, Schedule 40 polyvinyl chloride (PVC) pipe constructed with a 0.010-inch slotted, 5-foot screen (i.e., pre-packed well) to a total depth of 15 feet bgs and were installed based on field observations of groundwater levels. The shallow groundwater monitoring wells were completed with a Schedule 40 PVC riser to approximately 6 inches below land surface and capped. A No. 1 sand-filter pack was placed around the well screens to approximately 2 feet above the screens. Approximately 1 to 2 feet of No. 00 sand was placed above the filter packs. The remaining annular space was filled to the ground surface with neat cement using the Tremie method. A flush-mount vault was installed around the riser to complete the wells.

The shallow groundwater monitoring wells were developed on October 27, 2017 to remove any potential fine particulate matter, clay, and silt from the well screens. Monitoring wells were then surged and overpumped until a visible reduction in silt content was observed, or a reduction in turbidity was measured with a turbidity meter, to a maximum of 10 well volumes. Turbidity was measured periodically during well development. Soil boring and well construction logs are provided in Appendix E and well construction details are included in Table 1.

### 4.2.2 Groundwater Sampling Methodology

Well purging and sampling were completed using a peristaltic pump and low-flow, low-purge volume sampling methodologies following the USEPA Region 4 Science and Ecosystem Support Division (SESD) operating procedures, dated September 19, 2017 (USEPA 2017d), for groundwater sampling to ensure a representative sample is collected and to minimize the quantity of well purge water generated during sampling. Prior to initiating pumping, a properly decontaminated water-level meter was lowered into the well to monitor static water level prior to and during the purging process.



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During purging and sampling, the Teflon® tubing intake was placed at the mid-portion of the screened interval of the well. Flow rates were maintained at levels less than the recharge rate of the aquifers by measuring the top of the water column with a water-level indicator while purging. With respect to the groundwater chemistry, an adequate purge was complete when the measurements of pH and specific conductance had stabilized, and the turbidity had either stabilized or was less than 10 nephelometric turbidity units (NTUs [twice the Primary Drinking Water Standard of 5 NTUs]). Stabilization occurred when pH measurements remained constant within 0.1 s.u. and specific conductance varied no more than 5 percent for at least three consecutive readings and NTU measurements were 10 or less. Groundwater samples were collected following the USEPA-accepted “soda straw” sampling method when water quality parameters had been reached. Field readings of pH were taken from each monitoring well prior to sampling and the readings range from 4.39 to 7.27 s.u.

Once field parameters were considered stable for three consecutive measurements, groundwater samples were collected in clean, laboratory-supplied containers. All sample bottles were labeled with indelible ink, sealed, placed in a cooler with wet ice, and cooled to 4 degrees Celsius (°C). Samples were delivered under appropriate chain-of-custody protocols to TestAmerica Laboratories, Inc., located in Savannah, Georgia (TestAmerica) for analysis in accordance with the parameters and methods listed in Table 6. Well purging and sampling logs from the 2017 comprehensive groundwater monitoring event are provided in Appendix E.

### 4.2.3 Comprehensive Groundwater Monitoring Event

In accordance the GA EPD request (GA EPD 2017) and subsequent discussions with the GA EPD, a comprehensive groundwater monitoring event was completed in December 2017, with several monitoring wells resampled in early 2018 as a result of sampling issues. In addition, TMW-22 was resampled in May 2018 to confirm laboratory analytical results from the December 2017 event. The 2017 comprehensive groundwater monitoring event included the collection of water-level measurements from 41 on-site monitoring wells (Table 5) and groundwater samples from 14 monitoring wells (Table 6).

### 4.2.4 Groundwater Sampling Analytical Results

Analytical results from the 2017 comprehensive groundwater monitoring event indicate a limited distribution of COPCs at the site. Laboratory analytical results from the comprehensive groundwater monitoring event are provided in Table 7 and summarized below:

- *Volatile organic compounds (VOCs)*. Laboratory analyses indicate that trace concentrations of VOCs were present in several groundwater samples; however, all VOC detections were less than the Type 1-4 RRS.
- *Semivolatile organic compounds (SVOCs)*. 1,1-Biphenyl was the only SVOC detected at a concentration greater than the Type 1/2 and 3/4 RRS. The 1,1-biphenyl concentration in the sample collected from temporary shallow groundwater monitoring well TMW-22 in December 2017 was 1,400 micrograms per liter (µg/L), which exceeds the Type 1/2 and 3/4 RRS of 10 µg/L. A confirmation sample was collected from TMW-22 in May 2018, which had a 1,1-biphenyl concentration of 840 µg/L.



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- *Aroclors and PCBs.* Aroclor concentrations in the samples collected from shallow groundwater monitoring wells MW-F3R, TMW-19, TMW-21, and TMW-23 were less than the laboratory detection limit. Laboratory analyses indicate that trace concentrations of PCBs were present in several groundwater samples; however, all PCB detections were less than the Type 1-4 RRS.
- *Dioxins/furans and 2,3,7,8-TCDD TEQ.* Dioxin/furan concentrations in the samples collected from groundwater monitoring wells TMW-19 and TMW-21 were less than the laboratory detection limit, while 2,3,7,8-TCDD TEQ concentrations were 0.27 and 0.021 picogram per liter, respectively. The GA EPD requires that detected concentrations of the 12 dioxin-like PCB congeners be addressed using the toxicity equivalency factor method along with the detected dioxins and chlorinated dibenzofurans. A discussion of how risk from constituent classes which include dioxins, furans, and dioxin-like PCBs using the toxicity equivalency method is provide in Section 5.1.7.
- *Asbestos.* The asbestos concentration in the sample collected from shallow groundwater monitoring well MW-F15 was less than the laboratory detection limit.
- *Pesticides.* Pesticide concentrations in the sample collected from shallow groundwater monitoring well MW-F3R were less than the laboratory detection limit.

Groundwater results from the 2017 groundwater monitoring event for the shallow and deep aquifers are summarized on Figures 6 and 7, respectively. Laboratory analytical reports for the 2017 comprehensive groundwater monitoring event are included in Appendix F.

### 4.2.5 Groundwater Delineation Status

Groundwater data from the 2017 comprehensive groundwater monitoring event were compared to the Type 1/2 RRS for delineation of groundwater at the site. Only one compound, 1,1-biphenyl, was identified at a concentration greater than its respective Type 1/2 RRS (10 µg/L; see Figure 8) in shallow groundwater monitoring well TMW-22, located in the Dowtherm® Area Unit 2024. No other detections of 1,1-biphenyl were noted on site during this monitoring event. In addition, historically detected naphthalene in well MW-F21 was present at a concentration of 4.5 µg/L, which is less than the Type 1/4 RRS of 20 µg/L. Historical groundwater analytical results for the site are provided in Appendix G and the current delineation status for the site is provided on Figure 8.

Based on the current and historical groundwater data available for the site, detected concentrations in groundwater are delineated within the property boundaries. Further, groundwater modelling activities (Section 3.8) show that residual concentrations of 1,1-biphenyl in groundwater will migrate less than 1 foot in groundwater prior to attenuating to acceptable concentrations. Based on this data evaluation, concentrations of compounds are considered delineated at the site and will require no additional action.

## 4.3 Soil Investigation Summary

Based on laboratory analytical results from the 2014 and 2015 soil investigations, additional soil samples were most recently collected at the site in October and December 2017 to further delineate the extent of previously detected PCBs and 1,1-biphenyl concentrations in soil exceeding the Type 1/2 RRS. As part of the 2017 investigation, soil samples were collected from 59 locations across the site, in accordance with



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the sampling and analysis plan provided in Table 8. The sampling methodology, rationale, and analytical results for the 2017 soil investigations are summarized below.

### 4.3.1 Soil Sample Methodology

Supplemental soil investigation activities were conducted in 2017 to delineate regulated substances previously identified at concentrations greater than Type 1/2 RRS. Soil samples were collected from select depths at each location, targeted to match the interval where detections were previously identified. A hand auger was used to complete each soil boring. From each boring, one composite soil sample was collected at the selected depth interval.

Each soil sample was placed in a clean, laboratory-supplied container. All sample containers were labeled with indelible ink, sealed, placed in a cooler with wet ice, and cooled to 4 °C. Samples were delivered under appropriate chain-of-custody protocols to TestAmerica for analysis of PCBs USEPA Method 1668) or 1,1-biphenyl (USEPA Method 8270D).

The location of each boring was recorded using a hand-held global positioning system unit. At the completion of each boring, the location was properly abandoned by adding neat Portland Type 1 cement from the base of the borehole to ground surface. Soil borings were containerized in Department of Transportation approved 55-gallon drums for future transport to an approved disposal facility. Details of the 2017 soil samples are summarized in Table 8. Field observations and lithology were recorded on the soil boring logs, which are provided in Appendix E.

### 4.3.2 2017 Soil Investigation Activities

Historical investigations have been successful in delineating detected compounds within the limits of the site. While delineation efforts have been successful within the site boundary, additional delineation activities were historically completed in an effort to refine this delineation to more localized areas. Soil samples collected as part of the 2017 soil investigation were intended to refine the delineation at specific locations across the site. Details of this investigation presented in the following sections.

### 4.3.3 2017 Soil Investigation Results

This section summarizes analytical results by COC for soil samples collected during the 2017 soil investigation.

#### 4.3.3.1 Polychlorinated Biphenyls

Analytical results of PCB analysis for the 2017 soil investigation are provided in Table 9; on Figures 9a, 9b, and 9c; and summarized below:

- *Hard Resins Area (Figure 9a).* Three soil samples (SB-204-1, SB-204-2, and SB-204-3) were collected around SB-204 from the 0- to 2-foot interval and analyzed for Aroclor 1254, PCBs, and 2,3,7,8-TCDD TEQ during the October 2017 soil investigation. All three samples exceeded the Type 1 RRS for one or more constituents during the October 2017 soil investigation. Five additional soil samples (SB-204-1A, SB-204-2A, SB-204-2B, SB-204-3A, and SB-204-3B) were collected around the SB-204 location during the December 2017 soil investigation to further delineate the October



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2017 exceedances. Laboratory analytical results of these samples identified no concentrations of Aroclor 1254, PCBs, or 2,3,7,8-TCDD TEQ greater than their respective Type 1 RRS.

Three soil samples (SB-207-1, SB-207-2, and SB-207-3) were collected around SB-207 from the 0- to 2-foot interval and analyzed for PCBs and 2,3,7,8-TCDD TEQ during the October 2017 soil investigation. Laboratory analytical data for all three samples showed no concentrations greater than their respective Type 1/2 RRS for PCBs and 2,3,7,8-TCDD TEQ.

- *Electrical Substation 8526 Area (Figure 9b).* Four soil samples (SB-122-1 through SB-122-4) were collected around SB-122 from the 0- to 1-foot interval and analyzed for Aroclor 1254 during the October 2017 soil investigation. All four samples were less than the Type 1/2 RRS of 1.55 milligrams per kilogram (mg/kg) for Aroclor 1254.
- *Former Dry Size Tank Area (Figure 9c).* One soil sample (SB-137-1) was collected near SB-137 from the 0- to 1-foot interval and analyzed for Aroclor 1254 during the October 2017 soil investigation. Aroclor 1254 concentrations in SB-137-1 (4.4 mg/kg) were greater than the Type 1 RRS of 1.55 mg/kg. One additional sample (SB-137-1A) was collected to the north of SB-137-1 to further delineate the area around SB-137. Aroclor 1254 concentrations in SB-137-1A (3.7 mg/kg) were greater than the Type 1 RRS of 1.55 mg/kg.

Two soil samples (SB-202-1 and SB-202-2) were collected around SB-202 from the 0- to 2-foot interval and analyzed for Aroclor 1254, PCBs, and 2,3,7,8-TCDD TEQ during the October 2017 soil investigation. Aroclor 1254 and PCB concentrations in SB-202-1 were greater than the respective Type 1 RRS. One additional sample (SB-202-1A) was collected to the northeast of SB-202-1 to further delineate the area around SB-202. No concentrations of Aroclor 1254 or total PCBs were present in SB-202-1A at concentrations greater than their respective Type 1 RRS.

Figure 11 provides comprehensive historical PCB sample locations and analytical results.

Previous investigations completed at the facility identified the presence of select PCBs (total PCBs, Aroclor 1254, and 2,3,7,8-TCDD TEQ) at select locations throughout the site including the electrical substations, former Dry Size Tank Area, and Hard Resins Area. Select compounds were identified at concentrations greater than their respective Type 1/4 RRS. Subsequent phases of investigation were completed in 2017 to delineate these compounds in shallow soil.

In the Hard Resins Area, samples collected were successful in delineating total PCBs and 2,3,7,8-TCDD TEQ to concentrations less than their respective RRS near sample SB-207. Additional delineation efforts near SB-204 were successful in delineating Aroclor 1254, total PCBs, and 2,3,7,8-TCDD TEQ to the north and south. However, sampling efforts to the northeast and southwest were limited due to existing structures and surficial covers (Figure 9a).

Near the Electrical Substation 8526 Area, samples collected around sample SB-122 (October 2014) were successful in delineating the presence of Aroclor 1254 in shallow soil (Figure 9b).

In the former Dry Size Tank Area, delineation efforts near the 2014 samples SB-137 (Aroclor 1254) and SB-202 (Aroclor 1254, total PCBs, and 2,3,7,8-TCDD TEQ) were successful to the south, east, and west. However, the presence of surficial cover limited subsequent sampling in the northern direction (Figure 9c).



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Based on the results of historical and recent sampling efforts, delineation of select PCB compounds is deemed complete. Where samples were unable to be collected, structures and/or surficial cover are present that would eliminate the potential for surficial soil impacts. In addition, when evaluating the delineation of PCB compounds on a site-wide basis, it is shown as complete (Figure 11). The site-wide delineation, coupled with the UEC for the site, remains protective of human health and the environment.

### 4.3.3.2 1,1-Biphenyl

Analytical results for the 2017 soil investigation associated with 1,1-biphenyl delineation are provided in Table 9; on Figures 10, 10a, 10b, and 10c; and summarized below:

- *Dowtherm® Area Unit 2028 (Figure 10a).* A total of 21 soil samples were collected in the Dowtherm® Area Unit 2028 from the 0- to 1-foot or 0- to 2-foot intervals and analyzed for 1,1-biphenyl. Sample locations were selected to delineate historical 1,1-biphenyl detections in 2014/2015 samples. Of the samples collected, only one sample (EX-21-1) had 1,1-biphenyl at a concentration (1.5 mg/kg) greater than the Type 1/2 RRS of 1 mg/kg during the October 2017 soil investigation. One additional sample (EX-21-1A) was collected to further delineate the EX-21-1 location during the December 2017 soil investigation. Analytical results for EX-21-1A showed 1,1-biphenyl concentrations were less than the laboratory detection limit.
- *Former Dry Size Tank Area (Figure 10b).* Four soil samples (DS-9-1 through DS-9-4) were collected in the former Dry Size Tank Area to delineate a previously detected 1,1-biphenyl concentration in sample location DS-9 (November 2008) from the 0- to 4-foot interval. Sample DS-9-1 encountered auger refusal at 2 feet bgs, so a sample was collected at the 0- to 2-foot interval. Laboratory analysis of sample (DS-9-2) identified 1,1-biphenyl at a concentration of 2.5 mg/kg, which is greater than the Type 1/2 RRS of 1 mg/kg, during the October 2017 soil investigation. One additional sample (DS-9-2A) was collected to further delineate the DS-9-2 location during the December 2017 soil investigation. Analytical results for DS-9-2A showed 1,1-biphenyl concentrations (0.11 mg/kg) were less than the Type 1/2 RRS of 1 mg/kg.
- *Dowtherm® Area Unit 2024 (Figure 10c).* Nine soil samples were collected in the Dowtherm® Area Unit 2024 from the 0- to 1-foot or 0- to 2-foot interval and analyzed for 1,1-biphenyl. Sample locations were selected to delineate historical 1,1-biphenyl detections in 2014/2015 samples. Laboratory analytical results showed two samples (SB-128-1 and SB-159-3) containing 1,1-biphenyl concentrations greater than the Type 1/2 RRS of 1 mg/kg during the October 2017 soil investigation. Three additional soil samples (SB-128-1A, SB-128-1B, and SB-159-3A) were collected to further delineate the SB-128-1 and SB-159-3 locations as part of the December 2017 soil investigation. Analytical results for SB-128-1A (210 mg/kg) showed 1,1-biphenyl concentrations were greater than the Type 1/2 RRS; however, analytical results for SB-128-1B, which was collected to further delineate the SB-128-1A location, showed 1,1-biphenyl concentrations were less than the laboratory detection limit. Analytical results for SB-159-3A (an estimated 0.3 mg/kg) showed 1,1-biphenyl concentrations were less than the Type 1/2 RRS.

Historical 1,1-biphenyl sample locations and analytical results are provided on Figure 12.

Recent soil investigation activities have been focused on completing delineation activities near the locations of samples DS-9, SB-126, SB-128, SB-159, as well as at several locations within the former



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Dowtherm® Area Unit 2028. To complete delineation of 1,1-biphenyl, it was necessary to collect samples in multiple phases.

Analytical results of this effort resulted in a more complete understanding of the presence of 1,1-biphenyl on site. The presence of 1,1-biphenyl in soil was delineated within the Dowtherm® Area Unit 2028, as well as in the former Dry Size Tank Area (Figures 10a and 10b). In the Dowtherm® Area Unit 2024, delineation was complete along the majority of the area, but was not fully completed due to the structure present on the northeast side of the SB-126 area (Figure 10c).

Based on the results of these recent phases of investigation, delineation of the 1,1-biphenyl in soil is deemed complete. It should be noted further that delineation of 1,1-biphenyl within the site boundaries is also considered complete, as shown on Figure 12.

### 4.3.3.3 Aniline

Aniline has only been detected at concentrations greater than the Type 1/2 RRS in one soil boring (SB-F3) located within the Hard Resins Area. Subsequent soil sampling has indicated no additional positive detections greater than the delineation standards at the site. Therefore, delineation is complete for this compound. The historical and August 2014 aniline analytical results are included in Appendix G.

## 4.4 Surface Water and Sediment Investigation Summary

Surface water and corresponding sediment samples were collected as part of the November 2000 and August 2014 site investigations. During the 2000 investigation, four surface water/sediment samples (SW/SED -F2, SW/SED -F3, SW/SED -F4, and SW/SED -F5) were collected from locations approximately 200, 700, 1,200, and 3,000 feet downstream (north) of the plant outfall (Figure 3; Arcadis 2012). During the 2014 investigation, three surface water/sediment samples (SW/SED -01, SW/SED -02, and SW/SED -03) were collected from locations along the Dundee Canal, upgradient from the site, within the site prior to the culverted section, and downgradient of the site (Figure 3; Arcadis 2015a).

### 4.4.1 Surface Water and Sediment Sample Methodology

Surface water samples were collected following the USEPA SESDPROC-201-R4 Surface Water Sampling Standard Operating Procedure dated December 16, 2016 (USEPA 2016c). Samples were collected directly into the sample container from a location approximately halfway between the center of the canal and the water line on the bank. The samples were collected while facing in the upstream direction to avoid disturbing the water and were collected in a way that prevented the preservation from the sample vials from being displaced while the bottles were being filled. Field parameters, including pH, specific conductance, temperature, dissolved oxygen, and oxidation-reduction potential, were collected at each location. Field records for sample collection are provided in the Semiannual Progress Report #4 (Arcadis 2015a).

After the surface water samples were collected, sediment samples were collected at a location directly below each of the surface water sample locations. The sediment samples were collected using a decontaminated stainless-steel scoop or spoon. The scoop or spoon was run along the surface of the streambed in a downstream to upstream direction. Excess water was removed from the sediment; however, some water was retained to ensure that silt and clay-sized particles were included in the



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sample. The sediment from the scoop was placed into a stainless-steel bowl and the process was repeated until enough sediment had been collected to fill the sample jars. Surface water and sediment sample locations were recorded on a map, based on measurements to two known points after the sampling was completed. Sample locations are shown on Figure 3.

Surface water and sediment samples were placed in a laboratory-supplied container and stored in sealed, ice-filled coolers. All samples were hand delivered to a Georgia-certified laboratory (TestAmerica) under appropriate preservation and chain-of-custody procedures. Surface water samples were analyzed for fluoride and ammonia (USEPA 300.0), SVOCs (USEPA SW-846 8270D), and VOCs (USEPA SW-846 8260B). Sediment samples were analyzed for dioxins (USEPA 8290A), SVOCs (USEPA SW-846 8270D), VOCs (USEPA SW-846 8260B), total organic carbon (TOC using the Lloyd Kahn Method), and grain size (ASTM International Method ASTM D422).

### 4.4.2 Sediment and Surface Water Analytical Results

Analytical results for surface water from the 2000 investigation indicated that regulated substances (1,4-dioxane, ammonia, and fluoride) were present at concentrations less than the in-stream water quality criteria (IWQC) and the Type 1 RRS. Analytical results for surface water from the August 2014 investigation indicate that fluoride, ammonia nitrogen, and n nitrosodi-n-butylamine were detected less than the Type 1 RRS. No other constituents were detected in surface water samples. The surface water results are presented in Appendix G.

Analytical results for corresponding sediment samples from the 2000 investigation indicated that regulated substances (acetone, benzo(a)pyrene and bis(2-ethylhexyl)phthalate) were present in sediment at concentrations less than the calculated RRS. Additionally, trace concentrations of several dioxins and furans were detected in the composite sample, but at concentrations less than the RRS. Analytical results from the corresponding sediment samples from the August 2014 investigation indicate that the only detection in sediment greater than the Type 1 RRS was for 2,3,7,8-TCDD TEQ. The 2,3,7,8-TCDD TEQ slightly exceeded the nonresidential RRS in only one of the three sediment samples (SED-2). The 2,3,7,8-TCDD TEQ values were less than the residential RRS in the two samples collected both upgradient and downgradient in the Dundee Canal outside the VRP area (SED-1 and SED-3). August 2014 sediment samples were also collected from Dundee Canal to determine TOC concentrations, which ranged from 9,800 mg/kg in SED-3 to 20,000 mg/kg in SED-2. The potential for exposure to constituents in sediment in that area is negligible for the industrial worker receptor under current conditions due to the remote location of the area and lack of need to access the area (e.g., for landscaping activities). The sediment sample results are presented in Appendix G.

### 4.4.3 Sediment and Surface Water Delineation Status

The only constituents detected in surface water were 1,4-dioxane, ammonia, ammonia nitrogen, fluoride, and n nitrosodi-n-butylamine. GA EPD IWQC were not available for ammonia, nitrogen, and n nitrosodi-n-butylamine; therefore, they were compared to groundwater Type 1 RRS. None of the detected constituents were present at maximum concentrations that were greater than the applicable IWQS or Type 1 RRS. Therefore, the delineation of regulated compounds in surface water is complete.



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The only constituents detected in sediment were acetone, benzo(a)pyrene, bis(2-ethylhexyl)phthalate, and dioxins and furans. Acetone, benzo(a)pyrene, and bis(2-ethylhexyl)phthalate were present at concentrations less than the RRS, while the total dioxin and furan 2,3,7,8-TCDD TEQ was greater than the soil Type 1/2 RRS at one location, SED-2. This sample is delineated both upstream and downstream, so the delineation of regulated compounds in sediment is complete.



## 5 UPDATED RISK ASSESSMENT

An update to the 2014 risk assessment was completed in September 2018. The risk assessment was revised to include data collected during the 2017 comprehensive groundwater monitoring event as well as data collected from the 2017 and 2018 soil investigations.

### 5.1 Risk Assessment Overview

An HHRA and a SLERA were conducted for the site following GA EPD VRP requirements consistent with USEPA guidance for risk assessments (USEPA 1989, 1997, 1998, 2002a, 2002b, 2004, 2009, 2018a, 2018b, 2018c, 2018d, 2018e) in consideration of GA EPD recommendations and comments provided in a letter dated December 29, 2014 (GA EPD 2014b). The purpose of the risk assessments was to evaluate the effect of potential exposures to site-related constituents to human and ecological receptors identified at the site. The dataset used to complete the assessments is common to both the HHRA and the SLERA and is presented first and followed by separate sections for the HHRA and the SLERA. The RRS used in the assessments are those approved by GA EPD in their January 10, 2014 comment letter (GA EPD 2014a; Table 2), unless toxicity values were available and the RRS were revised. Tables supporting the risk assessment are presented in Appendix H.

Site-related data were evaluated for usability and further organized into risk assessment datasets. Only data determined to be representative of current conditions were used in the risk assessments. In this section, the methods that are used to evaluate the data acquired during investigational activities and to identify risk assessment datasets are summarized.

#### 5.1.1 Data Quality

Quality assurance and quality control procedures were routinely used during investigation activities to evaluate analytical data quality. Analytical data from the laboratory were validated to evaluate the sample preservation and shipping methods, holding times, laboratory blanks, laboratory control samples, and matrix spikes.

#### 5.1.2 Data Usability

The available data from all investigations were evaluated for use in the risk assessments. The following were considered in the data evaluation: sample date, sample type (e.g., primary or duplicate), data qualifications, and the vertical and spatial distribution of the data.

#### 5.1.3 Sample Date

Including older data in risk assessment datasets can result in an overestimation of risk because concentrations from old data may not be reflective of current conditions due to chemical transformation and transport processes such as degradation and volatilization. However, it is often unavoidable with soil data at a site when investigation activities have spanned several years. At this site, soil data were gathered starting in 1998 and the most recent data were collected in 2017. All soil data, regardless of



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age, were used in the risk assessments. The conservative approach taken in this risk assessment therefore likely overestimates risk and hazards in soil at this site.

For groundwater, data from the last 3 years (2015 through 2018) were used in the risk assessments to reflect current conditions. This is because several of the constituents are known to degrade through time; therefore, historical groundwater data could overestimate potential exposure and subsequent risk. Surface water data from samples collected in 2014 were used in the SLERA, considering no more recent surface water data are available.

### 5.1.4 Sample Type

Where there are duplicate results due to field duplicate samples or duplicate analyses (e.g., naphthalene), the maximum detected concentration or the minimum detection limit for non-detected constituents was used as the concentration. Further, data from composite soil samples were not used in the risk assessments.

The results of two historical samples taken at a location referred to as "Confirmation Sample" were excluded from the risk assessment datasets. An unsubstantiated concentration of acrolein equal to the reporting limit was reported in 2000 at that location (as documented in the February 2011 response to GA EPD comments on the 2009 CSR Addendum #2 [Arcadis 2011]); therefore, the area was resampled in August 2014, consistent with the Voluntary Investigation and Remediation Plan Work Plan (VIRP Work Plan; Arcadis 2012) and a sample at SB-131 was acquired. The results from sample SB-131 will be used in lieu of historical results at the same location.

### 5.1.5 Data Qualifications

All qualified data with the exception of rejected data were assessed for inclusion in the risk assessment dataset. Laboratory-qualified data with the following data qualifiers were retained within the dataset:

- U = Not detected greater than the reporting limit.
- B = For organic constituents, the analyte was also detected in the blank; for metals, the analyte concentration is estimated.
- D = Compounds identified in an analysis at a secondary dilution filter.
- E = Result exceeded calibration range.
- G = The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference.
- J = Value is estimated.

### 5.1.6 Vertical and Spatial Data Distribution

Groundwater data collected from the surficial saturated zone were combined into the groundwater risk assessment dataset, consistent with USEPA recommendations (USEPA 2014c).

Soil data were excluded from the risk assessment datasets if the data were collected from outside the VRP site boundaries, were considered saturated soil, or came from composite samples. The site is



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defined as the two tracts that comprise HSI Site ID No. 10696 and are owned by Solenis, but whose environmental impacts are being managed by Hercules (Figure 1). Data from those two parcels were used in the risk assessments. Data from areas outside those two parcels were excluded. Saturated soil samples were excluded from the risk assessment dataset because those data are reflective of groundwater conditions (not soil conditions). Further, exposure to soil at that depth is not likely to occur because it is highly unlikely that any excavation at the site will be deeper than 6 feet (for example, as may be required for basements) because of the shallow depth to groundwater at the site. The only excavation expected would be related to trenches for utility installation, which are typically between 3 to 6 feet in depth. Sample locations and sample names and depths excluded from the risk assessments and the reasoning are presented in Appendix H, Table H-1.

### 5.1.7 Evaluation of Constituent Classes

Select constituents, especially those in the same class of compounds, behave similarly, and therefore were grouped together for evaluation in the HHRA and SLERA, as discussed below.

The toxicity of dioxins, furans, and dioxin-like PCBs (non-orthosubstituted PCB congeners PCB-77, PCB-81, PCB-126, PCB-169; and mono-orthosubstituted PCB congeners PCB-105, PCB-114, PCB-118, PCB-123, PCB-156, PCB-157, PCB-167, and PCB-189) has been studied in relation to the toxicity of 2,3,7,8-TCDD. The data for PCB-180 were reported by the laboratory as PCB-180/193; thus, assuming the reported concentrations of these two PCBs are equivalent to PCB-180 may be a conservative assumption. To evaluate exposure to these compounds, their 2,3,7,8-TCDD TEQs were calculated using the USEPA recommended toxicity equivalency factors (TEF) (USEPA 2010).

The following groups of constituents were prepared for evaluation in the HHRA:

- *Total dioxin and furan 2,3,7,8-TCDD TEQ.* The sum of TEQs of the dioxins and furans.
- *Total dioxin-like PCBs 2,3,7,8-TCDD TEQ.* The sum of the TEQs of the dioxin-like PCB congeners.
- *Total dioxin, furan, and dioxin-like PCBs 2,3,7,8-TCDD TEQ.* The sum of total dioxin and furan 2,3,7,8-TCDD TEQ and total dioxin-like PCBs 2,3,7,8-TCDD TEQ.
- *Total non-dioxin-like PCBs.* The sum of all PCB congeners not considered to be dioxin-like.

The total concentrations in each sample for each constituent class are calculated and presented in Table H-2 for soil and Table H-3 for sediment. Individual compounds (e.g., individual PCB congeners) listed for groups of compounds (i.e., total dioxin-like PCBs) were not included in the estimation of total concentration if they are nondetect (qualified with “U” or “UJ”) and nondetect values were set equal to zero. When calculating TEQ for dioxins, samples from 2000 and 2017 were used as the 2014 samples only provided values for totals (e.g., total pentachlorodibenzofurans) as opposed to specific dioxin congeners.

### 5.1.8 Risk Assessment Datasets

Risk assessment datasets compiled for use at the site were summarized in tables to present the frequency of detection, range of detection limits, range of detected values, and location and depth (for soil) or date (for groundwater, sediment and surface water) of the sample where the maximum detect was



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identified. The soil Type 1/2 RRS and the groundwater Type 1 RRS are also shown in those tables. The risk assessment datasets are discussed below.

### 5.1.8.1 Soil

The dataset used for the soil risk assessment is summarized in Table H-4. Constituents present at maximum concentrations greater than their respective residential and nonresidential RRS include aniline, 1,1-biphenyl, 2,3,7,8-TCDD TEQ of dioxin-like PCBs, a 2,3,7,8-TCDD TEQ of dioxins and furans and dioxin-like PCBs, and Aroclor 1254. As noted in Section 4.3.3.3, aniline has only been detected at a concentration greater than Type 1/2 RRS in one soil boring at SB-F3, located in the Hard Resins Area. As noted in Section 3.3.2.1, 1,1-biphenyl has been detected at concentrations exceeding its RRS at the former Dowtherm® Area Units located on the western and eastern portions of the site. The maximum detected concentration of 1,1-biphenyl was 4,400 mg/kg in the 0 to 1 foot bgs sample at SB-128, with the next highest concentration of 1,200 mg/kg in sample EX-19 in the interval from 0 to 2 feet bgs. The maximum detected concentrations of 2,3,7,8-TCDD TEQ of dioxin-like PCBs and 2,3,7,8-TCDD TEQ of dioxins and furans and dioxin-like PCBs were in soil boring SB-204 at concentrations of  $5 \times 10^{-4}$  and  $5.1 \times 10^{-4}$  mg/kg, respectively. The maximum concentration of Aroclor 1254 greater than Type 1/2 RRS was detected in soil boring SB-122.

### 5.1.8.2 Groundwater

The groundwater risk assessment dataset is summarized for shallow and deep groundwater in Tables H-5a and H-5b. Constituents present at concentrations greater than their respective Type 1 RRS for shallow groundwater are 1,1-biphenyl, biphenyl ether, and naphthalene. These constituents were detected at concentrations greater than their Type 1 RRS in two wells (TMW-22 and MW-F21) within the last 3 years. This impact appears to be localized because the constituents were not detected in downgradient well MW-F5 (see Section 3.2.2). No constituents were present at maximum concentrations greater than the Type 1 RRS for deep groundwater.

### 5.1.8.3 Sediment

Detected constituents in sediment included acetone and dioxins and furans as summarized in Table H-6. Acetone was present at concentrations less than the RRS, while the total dioxin and furan 2,3,7,8-TCDD TEQ was greater than the soil Type 1/2 RRS.

### 5.1.8.4 Surface Water

Detected constituents in surface water included ammonia, fluoride, and n-nitrosodi-n-butylamine. A Georgia IWQC are not available for those constituents (GA EPD 2015); therefore, they were compared to groundwater Type 1 RRS. The only constituent present at concentrations exceeding the Type 1 RRS was n-nitrosodi-n-butylamine as summarized in Table H-7.

## 5.2 Human Health Risk Assessment

Consistent with the USEPA HHRA framework (USEPA 2014a), the first step of the HHRA is the human health problem formulation, or the human health exposure CSM. Following the development of the CSM,



the other elements of the HHRA are presented in the following order: selection of COPCs and media of concern, toxicity assessment, exposure assessment, and risk characterization. Each of these elements of the HHRA is further described below.

### 5.2.1 Human Health Exposure Conceptual Site Model

The human health exposure CSM identifies the sources of potential impact as well as constituent fate and transport mechanisms, primary receptors, exposure points, and exposure routes. Combined, these four elements (source, transport mechanism, receptors, and exposure point and exposure routes) are used to identify exposure pathways at the site. All five elements must be present for an exposure pathway to be considered complete. This section is organized by the elements of an exposure pathway and concludes with identification of complete exposure pathways at the site.

#### 5.2.1.1 Sources

The site has been in operation since 1922. The plant was a rosin and paper chemical manufacturing facility. Historical site operations included distillation of crude tall oil and production of sizing release agents, emulsifiers, coating agents, defoamers, fatty acid esters, disproportionated rosin, and polyamides. Several releases have been reported at the site; therefore, a variety of potential source areas exist as the facility. Historical operations may have potentially impacted soil, groundwater, sediment, and surface water at the site.

#### 5.2.1.2 Transport Mechanisms

The mechanisms affecting the distribution and migration of constituents from the release source and their ultimate fate in the environment were identified in the VIRP Work Plan (Arcadis 2014). The primary site fate and transport mechanisms identified included:

- Volatilization of constituents from soil and groundwater
- Erosion of particulate-bound constituents from soil
- Leaching from soil with infiltrating water
- Transport of constituents with water flow.

#### 5.2.1.3 Potential Human Receptors

The site is currently owned and operated by Solenis LLC as a facility that makes chemicals used in paper manufacturing processes. Shipments of chemicals are delivered to the facility via truck and railroad car. The majority of the site is covered with buildings, concrete, asphalt, and gravel. Small portions of the site are covered with landscaping and grass. Access to the site is tightly controlled by 24-hour surveillance and a 6-foot-tall, barbed-wire-topped fence that encircles the operational areas of the facility. Future site use is expected to remain industrial. Zoning at the site is industrial and is expected to continue to remain as such. Therefore, the only on-site human receptors identified are limited to current and potential future industrial workers and excavation/construction workers. Outside of the fenced area, the only potential



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human receptors are recreational receptors that may come in contact with sediment and surface water contained in Dundee Canal.

### 5.2.1.4 Exposure Pathways

In general, a receptor may come in contact with constituents in groundwater, soil, sediment, and surface water via direct contact (incidental ingestion, dermal contact, and inhalation of particulates) or inhalation of vapors volatilizing from the subsurface. Exposure pathways for each environmental medium and the justification/rationale for further consideration are discussed below.

#### 5.2.1.4.1 Groundwater Exposure Pathways

Potable water for the facility and surrounding areas is provided by the City of Savannah Water Department. Existing City of Savannah ordinance prohibits the use of private potable wells within the city limits. Therefore, no private potable wells can be installed either at, or adjacent to, the site. This ordinance, coupled with the extremely low water yield of the shallow geology, effectively eliminates the potential for developing local shallow groundwater resources for potable use.

A potable well survey was performed in March 2012 to identify registered public and private water wells that exist within a 1-mile radius of the site (Appendix I). Four production wells were identified within the 1-mile search radius in addition to the wells owned and operated by Solenis at the site. Data provided in the Environmental Data Resources, Inc. report indicate that the wells identified, with the potential exception of the Roger Wood Packing well (for which well construction data were unavailable), draw water from the Floridian aquifer and are likely hydraulically separated by several confining units from any impact in the shallow saturated zone.

Potable water is obtained by the City of Savannah from pumping municipal wells screened in the Floridian aquifer system. No municipal public supply wells were identified with a 1-mile radius of the site. No off-site groundwater withdrawal points (e.g., municipal supply wells) were identified that could potentially influence groundwater flow in the surficial aquifer at the site.

The shallow groundwater table is likely tidally influenced in this area and may not be suitable for potable use based on salinity and other water quality parameters. Consequently, the drinking water exposure pathway was not considered complete for the site.

Given the presence of buildings at the site, the vapor intrusion pathway was evaluated for constituents that exceeded the RRS and vapor intrusion screening level (VISL; USEPA 2018f) values. This is discussed further in Section 5.2.2.2.

#### 5.2.1.4.2 Potential Soil Exposure Pathways

The parcels are almost completely covered with buildings or other structure; therefore, direct exposure to soil (ingestion, dermal contact, and inhalation of dust) by the current industrial worker is an incomplete exposure pathway. Exposure to soil is a complete exposure pathway for the current/future on-site construction/excavation worker. Further, in the case of potential site redevelopment, direct exposure to soil could be a complete exposure pathway for a future industrial worker. Exposure to vapors from



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constituents in the vadose zone soil is a complete exposure pathway for all current and future receptors. In summary, potentially complete exposure pathways for soil include:

- *Current on-site industrial worker.* Inhalation of vapors from the subsurface.
- *Future on-site industrial worker.* Incidental ingestion of and dermal contact with soil, and inhalation of soil-derived particulates or vapors.
- *Current/future on-site construction/excavation worker.* Incidental ingestion of and dermal contact with soil, and inhalation of soil-derived particulates or vapors.

### 5.2.1.4.3 Sediment and Surface Water Exposure Pathways

The Dundee Canal crosses the site in a southwest to northeast direction and exits toward the east where it eventually joins the Savannah River approximately 2.5 miles northeast of the site. The Dundee Canal is a man-made structure that extends through the City of Savannah. While traversing the site, a portion of the canal is enclosed in a culvert, daylighting at the northern border of the property. No industrial discharge from the site other than surficial storm drainage and noncontact waters enters Dundee Canal. Industrial wastewater from the facility is discharged to the City of Savannah sanitary sewer system under Industrial Discharge Permit No. 25348-15. On-site surface water consists of overland flow during precipitation events and surface water that flows through the underground conduit portion of Dundee Canal.

The potential for exposure to constituents in sediment and surface water in the open sections of the ditch and canal is low due to the infrequent use of the ditch in this area by potential receptors. The potential for exposure to constituents in sediment and surface water at on-site locations is negligible for the industrial worker receptor under current conditions due to the remote location of those areas. Landscaping activities do not occur in or adjacent to the culverted sections of Dundee Canal or in areas where Dundee Canal is open-air (western portion of the facility).

The recreational value of the canal immediately upgradient and downgradient from the site is low because it is a man-made drainage feature with limited potential to support recreational activities (e.g., boating, fishing, swimming). Potentially complete exposure pathways in off-site portions of the Dundee Canal include:

- *Current/future youth trespasser.* Incidental ingestion of and dermal contact with sediment and surface water and inhalation of vapor from sediment and surface water and sediment-derived particulates.

## 5.2.2 Selection of Constituents of Potential Concern

COPCs are constituents that are expected to contribute the majority of potential exposure and risk, consistent with USEPA (1989) guidance. COPC identification constitutes a conservative, health-based screening evaluation. Under USEPA (1989) guidelines, COPCs can be identified based on criteria such as frequency of detection, toxicity, comparison with background concentrations, or whether a constituent can be considered a common laboratory contaminant. The VRPA states that, "compliance with site-specific cleanup standards shall be determined on the basis of representative concentrations of COPCs in soils across each applicable soil exposure domain and the representative concentrations for groundwater at a point of exposure." Therefore, COPCs were selected based on a comparison of



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representative concentrations to both residential and nonresidential RRS as well as USEPA risk-based VISLs (USEPA 2018f).

The representative concentrations (also referred to as the exposure point concentrations [EPCs]) were estimated consistent with USEPA methodology (USEPA 1989, 2002a, 2002b, 2014b). The EPC was set at the lower of the maximum concentration and the 95 percent upper confidence limit on the mean as recommended by the USEPA. The upper confidence limit (UCL) is a statistical number calculated to represent the mean concentration with a high percentage of confidence (e.g., 95 percent or higher) that the true arithmetic mean concentration will be less than the UCL. The high level of confidence is used to compensate for the uncertainty involved in representing site conditions with a finite number of samples. The USEPA's ProUCL software - version 5.1 (USEPA 2016a, 2016b) was used to calculate UCLs when sufficient data were available (a minimum of five detections and eight samples).

### 5.2.2.1 Soil

Seven constituents (1,1-biphenyl, aniline 2,3,7,8-TCDD TEQ of dioxin-like PCBs, dioxin-like PCBs, and Aroclor 1254) were detected at maximum concentrations exceeding RRS in localized areas at the site (Table H-4). These seven constituents were selected as initial COPCs. The EPCs (where calculable) for 1,1-biphenyl, aniline, and Aroclor 1254 also exceeded residential (Type 1/2) and nonresidential (Type 3/4) RRS; therefore, they were selected as COPCs (Table H-8).

### 5.2.2.2 Groundwater

To select groundwater COPCs for direct contact pathways, the EPCs for constituents detected at maximum concentrations exceeding Type 1 RRS for the last 3 years (i.e., 1,1-biphenyl, biphenyl ether, and naphthalene as seen in Table H-5) were compared to the groundwater residential and nonresidential RRS (Table H-9). The EPC for 1,1-biphenyl and biphenyl ether exceeded both the residential and nonresidential RRS. The EPC for naphthalene exceeded the residential RRS but not the nonresidential RRS. Therefore, 1,1-biphenyl and biphenyl ether were selected as groundwater COPCs for the nonresidential scenario (Table H-9). However, direct exposure to groundwater is not evaluated further for several reasons. The presence of 1,1-biphenyl and biphenyl ether in groundwater appears to be localized to the vicinity of MW-F21 and TMW-22 because it was not detected in downgradient well MF-5. Further, as described in Section 5.2.1.4, the drinking water exposure pathway was not considered complete for the site. Therefore, these constituents in groundwater were not assessed for direct exposure pathways.

To select groundwater COPCs for the vapor intrusion pathway, concentrations for all detected volatile constituents in the groundwater risk assessment dataset (i.e., 1,1-biphenyl, biphenyl ether, and naphthalene) were compared to VISLs current at the time of the HHRA (USEPA 2018f) for both a residential and commercial scenario. VISLs were identified for an acceptable target cancer risk of  $1 \times 10^{-5}$  and target hazard of 1 (consistent with RRS calculation methods). 1,1-Biphenyl and biphenyl ether were present at maximum concentrations greater than the VISLs and were evaluated for the vapor intrusion pathway (Table H-9).



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### 5.2.2.3 Sediment

The only constituents detected in sediment were acetone and 2,3,7,8-TCDD TEQ. Maximum levels of acetone and 2,3,7,8-TCDD TEQ were less than both the residential and nonresidential RRS (Table H-6). Based on this, no sediment COPCs were noted.

### 5.2.2.4 Surface Water

The only constituent detected in surface water at levels greater than the groundwater Type 1 RRS used in the absence of Georgia in-stream values is n-nitrosodi-n-butylamine (Table H-7). However, n-nitrosodi-n-butylamine was not detected at off-site locations and was only detected at on-site location SW-2 as discussed in Section 5.2.1.1. Exposure to sediment and surface water on site is not a complete exposure pathway. Because no constituents were present at maximum concentrations exceeding the Type 1 RRS at off-site locations (i.e., SW-1 and SW-2), no COPCs were identified for surface water.

## 5.2.3 Toxicity Assessment

The toxicity assessment describes the relationship between the administered and/or the absorbed dose of a constituent and the magnitude or likelihood of adverse health effects (USEPA 1989). Toxicity values for potential noncarcinogenic and carcinogenic effects were obtained consistent with the recommended USEPA hierarchy (USEPA 2003, 2015a) and the latest USEPA guidance (USEPA 2004, 2009) for the soil COPCs. The following sources were used to obtain toxicity values, in the order presented below:

- Integrated Risk Information System (USEPA 2018c)
- Provisional Peer Reviewed Toxicity Values (USEPA 2018d)
- Superfund program's Health Effects Assessment Summary Tables (USEPA 2011)

Toxicity values are summarized in Table H-10.

## 5.2.4 Exposure Assessment

Exposure assessment is the process of measuring or estimating the intensity, frequency, and duration of human exposure to substances present in the environment, which is dependent on the EPCs and the receptor exposure assumptions. The exposure assessment focused on the receptors identified in the human health exposure CSM for COPCs identified at the site. The following receptors and exposure pathways were quantitatively assessed in the risk assessment for site COPCs in soil (aniline, 1,1-biphenyl, and Aroclor 1254):

- *Future on-site industrial worker.* Incidental ingestion of and dermal contact with soil, and inhalation of soil-derived particulates or vapors.
- *Current/future on-site construction/excavation worker.* Incidental ingestion of and dermal contact with soil, and inhalation of soil-derived particulates or vapors.

To estimate the dose for the receptors, soil EPCs were combined with standard exposure assumptions. Dermal absorption factors for assessing the soil dermal pathway, particulate emission factors for assessing COPCs adhered to dust, and volatilization factors for assessing volatile COPCs were identified



from USEPA (2018e) Regional Screening Level (RSL) tables. Receptor exposure assumptions were also obtained from USEPA sources (USEPA 2004, 2014b). Receptor exposure assumptions are receptor- and scenario-specific values that are used in the risk calculations (e.g., body weight, ingestion rates). Receptor exposure assumptions were selected so that the risk calculated is for the reasonable maximum exposure scenario. These input values are summarized in Tables H-11 and H-12 for an industrial worker receptor and a construction worker receptor, respectively.

The vapor intrusion pathway for groundwater was qualitatively assessed as part of the risk assessment for 1,1-biphenyl and biphenyl ether in shallow groundwater. To estimate the dose in these scenarios, groundwater EPCs were combined with standard exposure assumptions.

### 5.2.5 Risk Characterization

Risk characterization is the final step in the risk assessment process. In this step, the results of the hazard identification, exposure assessment, and toxicity assessment are integrated to yield a quantitative measure of carcinogenic risk and noncarcinogenic hazards. Potential carcinogenic risks and noncarcinogenic hazards are evaluated for COPCs for the receptors and exposure pathways identified in Section 5.2.1.

Constituent-specific excess lifetime cancer risk (ELCR) estimates and noncancer hazard quotients (HQs) were calculated for each of the COPCs. Constituent-specific ELCRs and HQs were then summed to get an additive cancer risk (total ELCR) and an additive noncancer hazard index (HI). The target noncancer HIs were compared to the target level of 1 while the total ELCRs were compared to USEPA's target risk range of  $1 \times 10^{-4}$  to  $1 \times 10^{-6}$  consistent with the National Contingency Plan, as presented in 40 Code of Federal Regulations 300.430. The equations used to estimate risk, as well as the input parameters, are summarized in Tables H-11 and H-12 for an industrial worker receptor and a construction worker receptor, respectively.

#### 5.2.5.1 Future On-Site Industrial Worker

The calculation of HQs, HIs, and ELCRs for exposure to COPCs in soil for an industrial worker receptor is presented in Table H-11 together with all the equations and input variables used. The HI for both direct contact with soil (incidental ingestion, dermal contact, inhalation of vapors, and COPCs adhered to dust) is 0.7, which is less than the target HI of 1. The total ELCR across the same pathways is  $3 \times 10^{-6}$  and the calculated cancer risk driver in soil is Aroclor 1254. Aroclor 1254 is classified by the USEPA as a Class B2 carcinogen (sufficient evidence of carcinogenicity in animals with inadequate or lack of evidence in humans [USEPA 2015]). As such, under RRS methodology, the target cancer risk for Aroclor 1254 is  $1 \times 10^{-5}$ . The total ELCR calculated is within the USEPA target risk range of  $1 \times 10^{-4}$  to  $1 \times 10^{-6}$  and less than the GA EPD decision point of  $1 \times 10^{-5}$  (used in RRS calculation methods). This indicates that risk to a future industrial worker receptor is less than target acceptable levels.

#### 5.2.5.2 Current/Future Construction Worker

The calculation of HQs, HIs, and ELCRs for exposure to COPCs in soil for an industrial worker receptor is presented in Table H-12 together with all the equations and input variables used. The HI for both direct contact with soil (incidental ingestion, dermal contact, inhalation of vapors, and COPCs adhered to dust)



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is 0.4, which is less than the target HI of 1. The total ELCR across the same pathways is  $2 \times 10^{-7}$ , which is well below the USEPA target risk range of  $1 \times 10^{-4}$  to  $1 \times 10^{-6}$  as well as the GA EPD decision point of  $1 \times 10^{-5}$ . This indicates that risk to a future industrial worker receptor is less than acceptable levels.

### 5.2.5.3 Commercial Vapor Intrusion Assessment

The USEPA (2017a, 2017b) version of the Johnson and Ettinger model was used to evaluate the vapor intrusion exposure pathway. The site will remain nonresidential; therefore, the model was run for a commercial worker. The calculation of HQs and ELCRs for exposure to COPCs in groundwater via vapor intrusion for the commercial scenario is presented in Table H-13 together with the input variables used. The HI for 1,1-biphenyl and biphenyl ether were 1 and 0.2, respectively, and the sum of which is equal to the target HI of 1. Neither constituent has an Inhalation Unit Risk toxicity value and no ELCR value was calculated. This indicates that risk to receptors in a commercial scenario is equal to the regulatory benchmark.

### 5.2.6 Human Health Risk Assessment Results Summary

The available data were compared to the Type 1/2 RRS to identify the initial list of COPCs. Where EPCs could be calculated, they were compared to the Type 1/2 RRS to further refine the list of COPCs. Based on this comparison, soil and groundwater COPCs were carried forward into the risk assessment. No COPCs were identified for further evaluation in sediment or surface water for the exposure scenarios considered. COPCs identified for human health were aniline, 1,1-biphenyl, and Aroclor 1254 in soil; and 1,1-biphenyl and biphenyl ether in groundwater. Cancer risk and noncancer hazard were estimated for those COPCs for the receptors identified at the site using USEPA-recommended methods. Risk to both an industrial worker and a construction worker were within or less than the USEPA target risk range of  $1 \times 10^{-4}$  to  $1 \times 10^{-6}$  as well as the GA EPD decision point of  $1 \times 10^{-5}$ , and the noncancer hazard was well below the target HI of 1. In conclusion, risk to an industrial worker and a construction worker was less than acceptable levels.

## 5.3 Screening Level Ecological Risk Assessment

A SLERA was conducted to assess the impact of constituents present at the site on ecological receptors. The SLERA was conducted consistent with USEPA (1997, 2018b) guidance. The SLERA for the site comprises Steps 1 and 2 of the eight-step ecological risk assessment process outlined in USEPA guidance documents: Screening-Level Problem Formulation (Step 1) and Screening Level Ecological Effects Evaluation (Step 2). A SLERA refinement (Step 3a) consistent with USEPA (2018b) risk assessment methodology is also presented.

### 5.3.1 Screening-Level Problem Formulation

The screening-level problem formulation presents a habitat assessment for the site, receptors, and ecosystem characteristics, as well as information on the sources of stressors potentially affecting ecological receptors at the site (USEPA 1997, 1998). This section describes the potential presence of threatened and endangered species at the site and identifies the ecological function and wildlife use at the site.



### 5.3.1.1 Habitat Assessment

An Arcadis ecologist performed a reconnaissance-level ecological field survey of the site on August 26, 2014 (Arcadis 2015a). The site assessment focused on lands within the boundaries of HSI ID No. 10696 and was conducted to categorize and assess ecological habitats on site, to identify and document wildlife using the site, and to determine whether the site contains habitat that may support federal and/or state-protected wildlife resources. A photo log of select photos taken during the habitat assessment is included in Appendix H. Further, information gathered during the habitat assessment is summarized on figures included in Appendix H.

The habitat types present at the site are shown on Figure H-1 in Appendix H. Observed habitat composition of the 32.5-acre facility is estimated as follows:

- 1.24 acres of mixed hardwoods along southern property limit:
  - Species: water oak (*Quercus nigra*), sweet gum (*Liquidambar styraciflua*), sugarberry (*Celtis laevigata*), and various pines (*Pinus* spp.)
- 2.11 acres of decommissioned operational area with early successional shrub/scrub cover
- 2.38 acres of decommissioned operational area with recruited grass cover
- 2.70 acres of decommissioned operational area with exposed soil and gravel cover
- 1.43 acres of operational area with lawn grass cover (bahia grass [*Paspalum notatum*])
- 0.25-acre fire water storage pond
- 1.63 acres of open, maintained railroad right-of-way
- 20.76 acres of operational area comprised of buildings, structures, and various other semipermeable and nonpermeable ground covers.

One potential emergent/shrubby wetland (Figure H-2 in Appendix H) and one linear surface water feature (Figure H-3 in Appendix H) occur within the site boundaries. Both features have potential for identification as aquatic habitats subject to regulation under Section 404 of the Clean Water Act. The linear surface water feature is an artificial (excavated – highly channelized) Savannah River tributary known as the Dundee Canal. Canal waters flow northeastward through the eastern portion of the site via the following channel types and structures:

- **Reach 1.** Reach 1 is 95 linear feet of open channel composed of natural substrate/bed material and rooted bank vegetation dominated by alligator weed (*Alternanthera philoxeroides*), arrow arum (*Peltandra virginica*), lizard tail (*Saururus cernuus*), maiden cane (*Panicum hemitomon*), and *Scirpus* spp.
  - Observed water quality consisted of slightly turbid, low-velocity flowing water with moderate filamentous algae presence.
  - Observed aquatic fauna consists of sunfish/bream (*Lepomis* spp.), juvenile bass (*Micropterus* sp.; likely largemouth bass [*M. salmoides*]), and top minnows (*Fundulus* spp.).



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- **Reach 2.** Reach 2 is 710 linear feet of subsurface concrete pipe with three junction drop-boxes/manways where stormwater from portions of the eastern site sector discharges to the Dundee Canal waters. The drop-boxes have slightly elevated, grated manways.
  - Observed water quality within the drop-boxes appeared less turbid than Reach 1.
  - The southern junction drop-box receives stormwater from the truck loading dock. This drop-box has a manual gate that is maintained in the closed position to prevent stormwater from discharging to Dundee Canal waters until after a visual inspection of the stormwater is performed.
  - The central and northern drop-boxes receive overflow discharge from the fire water pond.
    - Water within the pond is composed of pumped groundwater.
    - Vegetation/algae control consist of water darkening agent application and stocking grass carp.
- **Reach 3.** Reach 3 is 50 linear feet of open channel that is confined by walls of an open-top, vault-type, concrete structure where Dundee Canal waters are mixed with discharged noncontact process water before entering a culvert inlet that leads to the facility outfall.
  - Noncontact process waters originate from pumped groundwater used for cooling purposes. Temperatures of discharged process waters are typically elevated above background canal water temperatures.
  - The vault structure is equipped with gates that prevent discharge in the event of a spill and may be used to prevent intrusion by storm surge waters.
  - Substrate within the vault structure appeared to mimic natural stream/canal bed conditions. Two active bream beds were observed inside the primary cell of the vault.
  - Rooted aquatic/semiaquatic vegetation has established within the vault structure and is dominated by duck potato (*Sagittaria lancifolia*).
  - Observed aquatic fauna consists of sunfish/bream, juvenile bass, and top minnows.
  - A large amount of shells of American ribbed fluke snail (*Lymnaea columella*; an amphibious snail) were observed along elevated pipe/pole structures.

### 5.3.1.2 Threatened and Endangered Species

Federally listed species and designated critical habitat data for Chatham County and the general property area were obtained from the Information, Planning, and Consultation System, and the Environmental Conservation Online System databases managed by the U.S. Fish & Wildlife Service (USFWS). No designated critical habitat occurs within, or adjacent to, the site.

The site was surveyed for the presence of preferred habitats specific to each of the 17 federally protected species identified by USFWS database queries. One area of potentially suitable habitat for the endangered pondberry shrub (*Lindera melissifolia*) was identified during the field survey. This area of potential habitat is located within the excavated depression of the potential wetland area associated with Reach 1 of the Dundee Canal channel. Although suitable habitat may be present, there are no known occurrences of the pondberry shrub or any other threatened or endangered species at the site. No



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additional suitable/preferred habitats for protected species were observed. The federally protected species listed as potentially occurring in Chatham County and comments regarding their habitat as related to the site are presented in Table H-14.

### 5.3.1.3 Ecological Function/Wildlife Use

This is an active industrial site located within a heavily developed urban area comprising mixed commercial, industrial, residential, and transportation land uses. Available terrestrial wildlife habitats within the general area are substantially fragmented by transportation corridors and by mixed residential, commercial, and industrial developments. The site is isolated from large tracts of forested habitat located north and west of the property by the U.S. Highway 80 corridor to the north and the Chatham Parkway and Interstate 16 corridors to the west and south. Activity related to facility operations, maintenance, and landscaping of facility grounds and the well-maintained perimeter security fence of the largest property parcel (Parcel 2-0734-01-001) exclude large mammal access and restrict use by small mammals and other terrestrial fauna. The 1.24 acres of mixed hardwoods in the southern portion of the site (Figure H-1 in Appendix H) was never associated with past operations and is therefore unimpacted. Overall, terrestrial wildlife within the site evaluation boundary is considered minimal; therefore, a SLERA of the terrestrial habitat was not warranted.

Dundee Canal provides cover and forage habitat for aquatic, semiaquatic, and amphibian fauna. Use of the Dundee Canal reach within the site boundary for amphibian breeding habitat is substantially repressed by the presence of predatory fish. Dundee Canal and wetlands in the off-site area may provide suitable ecological habitat for aquatic wildlife and could be a POE to site-related constituents if they are present in surface water or sediment. Therefore, the SLERA focused on the aquatic ecological habitat in the Dundee Canal.

### 5.3.2 Screening Level Ecological Effects Evaluation

In this step, maximum constituent concentrations in sediment and surface water collected from the Dundee Canal were compared to the applicable ecological screening values (ESVs). ESVs are constituent concentrations in environmental media below which there is negligible or insignificant risk to receptors exposed to those media. ESVs were identified from the following sources:

- Georgia IWQC (GA EPD 2015)
- USEPA Region 4 Ecological Screening Values (USEPA 2018b)
- USEPA Region 3 Ecological Screening Values (USEPA 2006).

Where concentrations in sediment and/or surface water exceeded the conservative ESVs, constituents were selected as contaminants of potential ecological concern (COPECs). Considering the conservative nature of the ESVs, alternative screening values (ASVs) were identified to refine the potential effect of these constituents on ecological receptors in the Dundee Canal and to select refined COPECs if warranted, consistent with USEPA risk assessment methods (USEPA 2018b). The selection and refinement of COPECs is presented in Table H-15 for sediment and in Table H-16 for surface water and is described in the sections below.



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### 5.3.2.1 Sediment

The comparison of sediment data to ESVs is presented in Table H-15. The only detected constituents in sediment were acetone and dioxins and furans as summarized in Table H-15.

Acetone was present in one of three samples at a maximum concentration of 0.1 mg/kg, which exceeds the USEPA Region 4 ESV of 0.065 mg/kg. Further, the 2,3,7,8-TCDD TEQ in sediment was reported at concentrations above the USEPA Region 4 ESV of 0.0000025 mg/kg in all three sediment samples.

Therefore, acetone and 2,3,7,8-TCDD TEQ were considered screening level COPECs and evaluated further as described below.

#### 5.3.2.1.1 Acetone

Acetone was detected at a concentration of 0.1 mg/kg in the sediment sample collected at on-site location SED-2, but it was not detected in sediment samples collected at the two other locations (i.e., SED-1 and SED-3). It should be noted that the quality of aquatic habitat at the SED-2 location is poorer than the other two locations where acetone was not detected (Figure H-3 in Appendix H). Acetone is a naturally occurring constituent and a common laboratory contaminant, and its detection in the sediment sample may not be related to activities at the site. The USEPA Region 4 (2018b) ASV for acetone is 38.133 mg/kg. The maximum detected acetone concentration in sediment is well below this screening value. Therefore, acetone was not selected as a refined COPEC, and further evaluation for acetone in sediment is not warranted.

#### 5.3.2.1.2 Dioxin and Furans

The 2,3,7,8-TCDD TEQ concentrations in sediment were greater than the USEPA Region 4 (2018b) ESV of 0.0000025 mg/kg in all three sediment samples collected from Dundee Canal. The maximum 2,3,7,8-TCDD TEQ concentration of 0.00007 mg/kg (SED-2) is also greater than the Region 4 ASV of 0.000025 mg/kg; however, the 2,3,7,8-TCDD TEQ concentrations in sediment samples collected at SED-1 (0.000009 mg/kg) and SED-3 (0.00003 mg/kg) are less than or essentially equivalent to the Region 4 ASV of 0.000025 mg/kg. The arithmetic average of the three concentrations is 0.000036 mg/kg, which also approximates the Region 4 ASV. The USEPA Region 9 determined a national average background level of 0.0000053 mg/kg dioxin TEQ in sediment (USEPA 2018b). Considering dioxins and furans were detected in sediment at the sample location upstream of the site, and the generally low magnitude dioxin TEQ concentrations in sediment relative to the Region 4 ASV, their presence in sediment may not be related to activities at the site. Additionally, a refined ecological HQ based on the average TEQ concentration (0.000036 mg/kg) compared to the Region 4 ASV (0.000025 mg/kg) would equal 1. This evaluation demonstrates that the potential for ecological risk is negligible, and further evaluation for dioxins and furans in sediment is not warranted.

### 5.3.2.2 Surface Water

The only detected constituents in surface water were ammonia, fluoride, and n-nitrosodi-n-butylamine (Table H-16).

Fluoride was detected at a maximum concentration of 0.53 mg/L, which is less than the Region 4 ESV of 2.7 mg/L for fluoride in freshwater surface water. Therefore, fluoride was not identified as a COPEC.



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Ammonia was detected at a maximum concentration greater than the Region 3 ESV, and no screening values are available for n-nitrosodi-n-butylamine in surface water. Therefore, ammonia and n-nitrosodi-n-butylamine were selected as screening level COPECs and are further evaluated below.

### 5.3.2.2.1 *Ammonia*

Ammonia was detected at concentrations greater than the Region 3 ESV of 0.019 mg/L in all three surface water samples. To further assess the probable effect of ammonia on ecological receptors in the Dundee Canal, the basis of the ESV was investigated and an ASV was identified. The USEPA Region 3 ESV for ammonia is based on value from 2003. A more recent assessment of ammonia in surface water by the USEPA resulted in the establishment of National Ambient Water Quality Criteria (NAWQC; USEPA 2013). The maximum detected ammonia concentration of 0.32 mg/L is less than the USEPA chronic NAWQC for ammonia of 1.9 mg/L at a pH of 7 s.u. and a water temperature of 20 °C. Therefore, ammonia was not selected as a refined surface water COPEC.

### 5.3.2.2.2 *N-Nitrosodi-n-butylamine*

An ESV or ASV for n-nitrosodi-n-butylamine could not be identified from the readily available sources identified for this evaluation. However, the Estimation Programs Interface Suite (USEPA 2017c) was used to run the Ecological Structure Activity Relationships (ECOSAR) Predictive Model to calculate chronic toxicity values for structurally similar organic chemicals (i.e., aliphatic amines). The ECOSAR chronic values range from 0.2 mg/L for aquatic invertebrates (Daphnid) to 0.996 mg/L for fish. The maximum n-nitrosodi-n-butylamine concentration of 0.078 mg/L is well below the lowest chronic value of 0.2 mg/L. N-nitrosodi-n-butylamine is a VOC that was, in general, detected infrequently and at a relatively low concentration. N-nitrosodi-n-butylamine was detected at on-site location SW-2 where Dundee Canal is considered to represent, at best, marginal aquatic habitat (Figure H-3 in Appendix H). Furthermore, this constituent was not detected in surface water samples SW-1 and SW-3. Therefore n-nitrosodi-n-butylamine is not expected to contribute significantly to potential risk for aquatic ecological receptors in Dundee Canal.

## 5.3.3 Screening Level Ecological Risk Assessment Results Summary

Risks were characterized for aquatic wildlife receptors at the site based on comparisons to ESVs and ASVs, with emphasis on the weight-of-evidence, such as conservatism of the ESVs and the quality of the available habitat. None of the constituents detected in sediment or surface water were identified as refined COPECs, and no further evaluation of sediment or surface water is warranted. Based on the overall analysis of surface water and sediment exposures, adverse impacts are considered unlikely for any aquatic wildlife and sediment dwelling organisms that might occur in the reaches of Dundee Canal within the boundaries of the site.



## 6 COMPLIANCE WITH RISK REDUCTION STANDARDS

Historical investigations have confirmed PCB compounds and 1,1-biphenyl to be present in site soil at concentrations greater than their site-specific Type 4 RRS in small, localized areas. Delineation of these compounds has been completed at several of these locations; however, delineation was incomplete in a few localized areas due to obstructions or access limitations. For these areas, compounds were evaluated on a site-wide basis. The site-wide approach confirmed that the presence of these compounds was limited to areas within the site boundaries. These limits, coupled with the UEC to be placed on the site, results in a complete delineation that is protective of human health and the environment.

While delineation is deemed complete and evaluated on a site-wide basis, additional evaluations were completed to determine the compliance with the applicable Type 4 RRS at the site.

### 6.1 Soil

The April 9, 2012 VIRP/VRP application that Hercules submitted to the GA EPD was approved in a March 15, 2013 GA EPD letter to Hercules. Section 12-8-108(6) of the VRPA provides that any cleanup standard promulgated pursuant to Code Section 12-8-93 (Hazardous Site Response Act (Official Code of Georgia Annotated §12-8-90 et seq.) may be used. Potentially applicable cleanup standards include the Type 1 through 4 RRS promulgated pursuant to the Hazardous Site Response Act as listed in Section 391-3-19-.07 of the Georgia Rules for Hazardous Site Response. Part of the criteria for evaluating RRS for soil involves protection of groundwater, in addition to criteria for direct contact. Section 12-8-108(5) of the VRPA also allows the calculation of site-specific cleanup standards for soil which may be based on: (1) direct exposure factors for surficial soil within 2 feet of land surface, (2) construction worker exposure factors for subsurface soils to a specified construction depth, and (3) soil concentrations for protection of groundwater criteria at an established POE for groundwater as defined under the VRPA.

Standard risk assessment calculations were used to derive site specific Type 4 RRS for site-related compounds at the POE that are protective for direct contact and the protection of groundwater as part of the HHRA. As discussed with the GA EPD, the POE for the site was established as the downgradient end of the Dundee Canal. Modeling was completed (see Section 3.8) to determine the concentrations of select COPCs in soil (1,1-biphenyl, Aroclor 1254) that would result in an exceedance of groundwater concentrations at the POE. Results of the modeling showed that an “unreal” concentration (i.e., greater than the saturation concentration) would be necessary for there to be an exceedance of the groundwater protection standard at the POE. Modeling was further completed to determine the modeled distance that the COPCs would migrate in groundwater prior to their attenuation. These modeled distances were all less than 4 feet for these compounds.

Based on the results of the modeling, demonstrating that the groundwater pathway is incomplete, the direct contact risk concentration for each compound would be the governing concentration for soil when compared to concentrations derived for the protection of groundwater. The results of the HHRA and SLERA indicated that there are no unacceptable risks to human health or the environment. Nonetheless, based on historical discussions with the regulatory agencies and on the maximum detected concentrations, direct contact exposure assumptions, as well as other acceptable cleanup criteria, the following are proposed for use as the site-specific Type 4 RRS (Table 2):



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- 1,1-Biphenyl: 214 mg/kg
- 2,3,7,8-TCDD TEQ: 0.00044 mg/kg
- Aroclor 1254: 7.3 mg/kg
- ACM: 10,000 mg/kg

These results are based on nonresidential use of the property and the following assumptions.

### 6.1.1 1,1-Biphenyl

1,1-biphenyl is not regulated under the Hazardous Site Response Act. The GA EPD provided an initial RRS of 1 mg/kg as the Type 4 RRS. The USEPA (2018e) industrial soil RSLs are 450 mg/kg based on a target cancer risk of  $1 \times 10^{-6}$  and 214 mg/kg based on a target HQ of 1. Hercules proposes to set the site-specific Type 4 RRS at 214 mg/kg for 1,1-biphenyl. The USEPA (2018e) RSLs rely on current exposure assumptions and derivations of the inhalation parameters.

### 6.1.2 2,3,7,8-TCDD Toxicity Equivalent Quotient

The proposed Type 4 RRS for 2,3,7,8-TCDD TEQ is 0.00044 mg/kg. This value was originally provided by the GA EPD to Hercules following the submittal of the VIRP (GA EPD 2014) as part of the “pre-approved” Type 1 through 4 RRS. Note that this value represents the summed TEF-adjusted concentrations for detected polychlorinated dioxin, furans, and dioxin-like PCBs in a single sample as required by the GA EPD.

### 6.1.3 Aroclor 1254

The proposed site-specific Type 4 RRS for Aroclor 1254 is 7.3 mg/kg. This concentration is the more conservative of the direct contact soil RRS and the RRS derived based on protection of groundwater. Details of the RRS calculations are provided in Appendix H.

Using these concentrations, five Restricted Use Zones (RUZs) were established at the site (Figures 13, 13a, 13b, 13c, 13d, 13e, and 13f). RUZs were established around Type 4 RRS exceedances using sample locations in compliance with established cleanup standards as a boundary. A site overview with all five RUZs is provided on Figure 13. RUZs will be incorporated into the UEC and will require that a Soil Management Plan (SMP) be in place as well as GA EPD notification and approval for any activity that will result in a disturbance of the soil. Further, these areas will receive an additional 6-inch-thick cover and be marked on site as areas that are not to be disturbed unless GA EPD approval is granted. The cover will vary in each area, selected based on the surrounding areas and land use (i.e., areas near paved areas will be finished to match, areas within grassed or vegetated areas will receive a 6-inch soil cover). Cover material will be maintained and inspected as part of the site engineering controls. Annual inspections of these areas will be documented and maintained on site.

### 6.1.4 Asbestos Containing Material (ACM)

As part of the VIRP, Hercules responded to the detection of asbestos in a temporary monitoring well with confirmation groundwater sampling results (MW-F8 and MW-F9) that showed no detections of ACM



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above the laboratory reporting limits (0.2 million fibers per liter [MFL]). Despite these results, it was noted by the GA EPD that potential ACM noted as part of June 2000 site improvement activities may remain in soil present beneath the concrete pad constructed in the Former Fatty Acid 50's Tank Area. Based on this, it was proposed as part of the VIRP to develop site specific Type 4 RRS for ACM in soil. Hercules is proposing to use the GA EPD provided Type 4 RRS of 10,000 ppm for ACM in soil. It is also noted that based on discussions with the EPD, the 50's/60's Tank Area will be included as a RUZ with the existing concrete cover in place as an additional control.

### 6.2 Groundwater

Groundwater monitoring has been ongoing at the site since 2000. During this time, numerous events have been conducted to delineate and monitor reported releases at the site. During the most recent monitoring events (May 2016 and December 2017) only two compounds were detected at concentrations exceeding their respective RRS. Naphthalene was historically detected in well MW-F21 at concentrations exceeding the Type 1/4 RRS of 20 µg/L, as recently as May 2016. However, the concentration of naphthalene has been steadily decreasing in this well since 2014 and during the most recent monitoring event, was detected at a concentration (4.5 µg/L) below the RRS in this well (Appendix G-2).

Six additional monitoring wells were installed at the site (TMW-18 thru TMW-23) in November 2017 as part of delineation activities completed to evaluate soil to groundwater migration of PCBs and/or 1,1-biphenyl. These wells were sampled in December 2017 and/or early 2018. Results of this sampling showed no detections of compounds at concentrations exceeding their respective Type 1/4 RRS, except one detection of 1,1-biphenyl in well TMW-22 (1,400 µg/L). A resampling of the well in May 2018 confirmed the detection in the well (840 µg/L). No additional detections of 1,1-biphenyl were noted, including at well locations downgradient of TMW-22.

Based on the limited detections of compounds in groundwater, and the limited potential for migration of the detected compounds in groundwater, delineation activities of compounds in groundwater is considered complete. A modified groundwater monitoring program is proposed to be implemented at the site as detailed in Section 7.3.



## 7 PROPOSED CORRECTIVE ACTIONS

A combination of active remedial actions and passive remedies is proposed for this site to minimize or eliminate exposure to regulated constituents at concentrations greater than the provided and/or site-specific Type 4 RRS. Active remedies include the construction of covers to isolate soil that exceeds the Type 4 RRS as described in Section 6.1. The protectiveness of these engineering controls will be enhanced by placing placarding or signage at each covered area that specifies any action that might disrupt the cover must receive pre-approval from the GA EPD. Institutional controls will be used to restrict potential exposure to regulated constituents in soil in order to meet a site-specific Type 4 RRS with controls. These passive controls will also be achieved through the development, approval, and recording of a UEC on the property deed. This section summarizes the planned corrective actions, including the UEC and institutional controls, to be used at the site.

### 7.1 Restricted Use Zones

Based on the presence of residual compounds in soil at concentrations greater than their site-specific RGs, RUZs will be established. These zones, as shown on Figures 13, 13a, 13b, 13c, 13d, 13e, and 13f will be created by placing an additional 6 inches of cover material over a designated area. The cover area will consist of a soil/vegetative cover or paving material to match the existing areas.

Once these RUZs are considered complete, each area will be posted with signage noting them as RUZs and providing contact information in the event that these areas must be entered and/or disturbed. Any disturbance in these areas will be completed in accordance with an approved SMP. In addition, these areas will be documented as restricted areas in the UEC. The restrictions on these areas will continue to be implemented by Solenis, LLC and will be carried forward in any property transaction.

### 7.2 Uniform Environmental Covenant and Institutional Controls

Institutional controls will be used at the site to limit or eliminate any completed exposure pathways. These controls will be based primarily on the site-wide delineation of site COPCs to Type 1/2 within the property boundaries and the limited exposure pathways present on site. The chain of title recorded with the Superior Court of Chatham County will be updated for the site to include the UEC and types of land use controls and boundaries as follows:

- Direct use or extraction of shallow (i.e., from wells screened shallower than 50 feet bgs) groundwater from anywhere on site for potable use will be prohibited.
- The removal, destruction, or alteration of the concrete floor in the site buildings in such a way as to make any of the underlying impacted soil accessible will be prohibited, unless such controls are replaced in a manner that constitutes a functionally equivalent engineering control.
- Excavation, construction, utility installation or maintenance, and similar land disturbing activities in soil will be prohibited in the established RUZs, as shown on Figures 13, 13a, 13b, 13c, 13d, 13e, and 13f unless such work is performed by informed and properly trained contractors under an approved SMP



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and with the approval of the GA EPD such that human exposure to potentially hazardous materials does not occur.

- Residential use of the property will be prohibited in accordance with the UEC and institutional controls.

### 7.3 Annual Groundwater Monitoring

A revised, focused groundwater monitoring program is proposed based on the limited detections of compounds in groundwater and the limited potential migration of residual concentrations in soil and groundwater.

The sampling program will gather the data needed to confirm the attenuation of naphthalene in well MW-F21 and to track the attenuation of 1,1-biphenyl in well TMW-22. Monitoring is proposed to be completed until concentrations are reduced to levels less than their respective RRS for two events or a maximum annually for 3 years. The monitoring program will include wells MW-F21, MW-F5, MW-F7, and TMW-22.

Samples will be collected and analyzed for select VOCs plus naphthalene by USEPA Method 8260B. Laboratory analytical data will be reported annually to the GA EPD.



## 8 SUMMARY AND CONCLUSIONS

Historical investigations performed over the past two decades have identified concentrations of regulated constituents in soil and groundwater greater than select RRS at limited areas on site. These constituents have been delineated to their respective Type 1/2 RRS both locally and on a site-wide basis within property boundaries. In addition, modeling of these residual compounds in soil showed that migration to downgradient POEs would not occur.

Based on the findings of the assessment activities and historical investigations performed over the past two decades, the following conclusions are presented:

- Groundwater has been delineated to Type 1/3 RRSs at the within property boundaries.
- Only one compound, 1,1-biphenyl, was identified at a concentration greater than its respective Type 1/3 RRS in groundwater. Groundwater modelling activities show that residual concentrations of 1,1-biphenyl in groundwater will migrate less than 4 feet laterally in groundwater prior to attenuating to acceptable concentrations. Based on this data evaluation, concentrations of compounds are considered delineated at the site and will require no additional action.
- COPCs identified for protection of human health based on the refined COPC identification step were aniline, 1,1-biphenyl, and Aroclor 1254 in soil and 1,1-biphenyl and biphenyl ether in groundwater. Cancer risk and non-cancer hazard were estimated for those COPCs for the receptors identified at the site using USEPA recommended methods. Risk to both an industrial worker and a construction worker were within or below the USEPA target risk range of  $1 \times 10^{-4}$  to  $1 \times 10^{-6}$  as well as the GA EPD decision point of  $1 \times 10^{-5}$ , and the non-cancer hazard was well below the target HI of 1. Potential risks to an industrial worker and a construction worker using standard and site-specific exposure assumptions were below acceptable levels.
- Based on the overall analysis of surface water and sediment exposures, adverse impacts associated with this site are considered unlikely for any aquatic wildlife and sediment dwelling organisms that might occur in the reaches of Dundee Canal within the boundaries of the site.
- Based on the results of investigation, as well as modeling and risk assessment conclusions, site specific Type 4 RRS were established. These criteria were a combination of the direct contact numbers established as part of the risk assessments, the RRS provided by the GA EPD as part of the VIRP, and the USEPA Industrial RSLs. Residual soil concentrations of regulated constituents above these site-specific Type 4 RRS are vertically limited from the ground surface to the top of saturated soils and are horizontally delineated to their respective Type 4 RRS based on historical and current investigations.

The subject site will be eligible for delisting from the HSI because it is in compliance with Types 1-4 RRS and will implement institutional controls for “Restricted Use Zones” and groundwater to ensure exposure pathways remain incomplete. Continued activities including the final execution of the UEC, construction of the RUZs, and the continued annual groundwater monitoring and reporting program will be completed as noted above under the VIRP program.



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TABLES





Table 1  
Well Construction Details  
Compliance Status Report  
Hercules Savannah Facility - Savannah, Georgia

Well Id	Install Date	Approximate Total Depth (ft bgs)	Well Diameter (inches)	Construction Material	Casing Length (ft bgs)	Screen Interval (ft bgs)	Well Completion	Site Area	Installer	Ground Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	X_Coord	Y_Coord
<b>Shallow Monitoring Wells</b>													
MWA	--	10.4	--	--	--	-- - 10.4	--	Resin Areas	--	--	--	--	--
MWB	--	10.2	--	--	--	-- - 10.2	--	Resin Areas	--	--	--	--	--
MWC	--	10.2	--	--	--	-- - 10.2	--	Resin Areas	--	--	--	--	--
MWD	--	8.8	--	--	--	-- - 8.8	--	Resin Areas	--	--	--	--	--
MW-F1	10/19/2000	20	2	PVC	10	10 - 20	Stick-up	Resin Areas	AGM	7.13	9.55	972032.85	761040.92
MW-F2	10/24/2000	10	2	PVC	5	5 - 10	--	Resin Areas	AGM	7.70	7.51	972102.94	761052.82
MW-F3	10/19/2000	20	2	PVC	10	10 - 20	--	Resin Areas	AGM	--	--	--	--
MW-F3R	11/6/2008	20	2	PVC	10	10 - 20	Stick-up	Resin Areas	WPC	8.32	12.53	972048.64	760847.82
MW-F4	10/18/2000	20	2	PVC	10	10 - 20	--	Resin Areas	AGM	--	--	--	--
MW-F5	10/18/2000	20	2	PVC	10	10 - 20	Stick-up	Resin Areas	AGM	9.07	11.49	971873.39	760808.39
MW-F6	10/19/2000	20	2	PVC	10	10 - 20	Flush mount	Resin Areas	AGM	8.97	8.59	971701.74	760828.95
MW-F7	10/18/2000	20	2	PVC	10	10 - 20	Stick-up	Resin Areas	AGM	10.70	13.23	972183.92	760724.16
MW-F8	10/20/2000	20	2	PVC	10	10 - 20	Stick-up	Resin Areas	AGM	11.22	12.59	972046.60	760480.48
MW-F9	10/17/2000	20	2	PVC	10	10 - 20	--	Resin Areas	AGM	12.00	11.78	972164.72	760413.72
MW-F10	10/17/2000	20	2	PVC	10	10 - 20	--	Resin Areas	AGM	--	--	--	--
MW-F11	10/18/2000	20	2	PVC	10	10 - 20	Flush mount	Resin Areas	AGM	8.80	8.58	971580.26	760896.40
MW-F12	10/18/2000	20	2	PVC	10	10 - 20	Flush mount	Resin Areas	AGM	9.47	9.34	971655.43	761008.30
MW-F13	10/17/2000	20	2	PVC	10	10 - 20	Stick-up	Resin Areas	AGM	15.66	18.47	971065.09	760750.75
MW-F14	10/16/2000	20	2	PVC	10	10 - 20	Stick-up	Resin Areas	AGM	6.05	8.38	971239.02	760386.49
MW-F15	10/19/2000	20	2	PVC	10	10 - 20	Flush mount	Resin Areas	AGM	9.87	9.79	971614.97	760515.47
MW-F16	10/16/2000	20	2	PVC	10	10 - 20	Stick-up	Resin Areas	AGM	6.03	8.51	971740.79	760253.83
MW-F17	10/17/2000	20	2	PVC	10	10 - 20	Stick-up	Resin Areas	AGM	8.93	11.36	971473.15	760653.52
MW-F19	10/16/2000	20	2	PVC	10	10 - 20	Stick-up	Resin Areas	AGM	7.68	10.47	971817.99	761114.03
MW-F20	10/23/2000	13	2	PVC	3	3 - 13	--	Resin Areas	AGM	--	--	--	--
MW-F21	10/23/2000	20	2	PVC	10	10 - 20	Stick-up	Resin Areas	AGM	9.96	12.46	971924.65	760723.04
MW-22	10/29/2002	20	2	PVC	10	10 - 20	Stick-up	Shallow Background Well	MacTec	7.36	10.06	972286.64	760995.12
MW-23	10/28/2002	20	2	PVC	10	10 - 20	Stick-up	Resin Areas	MacTec	7.08	9.4	972196.80	761026.02
MW-24	10/28/2002	20	2	PVC	10	10 - 20	Stick-up	Resin Areas	MacTec	7.71	10.23	971892.58	761100.36
MW-25	10/29/2002	20	2	PVC	10	10 - 20	Stick-up	Shallow Background Well	MacTec	10.32	12.72	971739.06	759933.44
MW-26	10/30/2002	20	2	PVC	10	10 - 20	Stick-up	Size Tank Farm	MacTec	13.69	15.69	971121.87	760920.25
MW-27	12/17/2002	20	2	PVC	10	10 - 20	Flush mount	Resin Areas	MacTec	10.36	10.23	972219.03	760708.64
MW-28	12/17/2002	20	2	PVC	10	10 - 20	Stick-up	Shallow Background Well	MacTec	7.60	10.5	972336.90	761101.32
MW-29	11/6/2008	20	2	PVC	10	10 - 20	Stick-up	Resin Areas	WPC	9.58	12.8	972233.28	760810.51
MW-32	11/18/2008	20	2	PVC	10	10 - 20	Stick-up	Shallow Background Well	WPC	5.30	7.05	972283.76	761187.89
Well-1	1/7/1998	19	--	--	--	-- - 19	--	Size Tank Farm	Ferguson-Harbour	--	--	--	--
Well-2	1/7/1998	17	--	--	--	-- - 17	--	Size Tank Farm	Ferguson-Harbour	--	--	--	--
Well-3	1/7/1998	17	--	--	--	-- - 17	--	Size Tank Farm	Ferguson-Harbour	--	--	--	--
TMW-5	7/6/2000	~12-16	--	--	--	-- - ~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--	--	--
TMW-6	7/6/2000	~12-16	--	--	--	-- - ~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--	--	--
TMW-7	7/6/2000	~12-16	--	--	--	-- - ~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--	--	--
TMW-10	7/6/2000	~12-16	--	--	--	-- - ~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--	--	--
TMW-11	7/6/2000	~12-16	--	--	--	-- - ~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--	--	--
TMW-12	7/6/2000	~12-16	--	--	--	-- - ~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--	--	--
TMW-13	7/6/2000	~12-16	--	--	--	-- - ~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--	--	--
TMW-14	7/6/2000	~12-16	--	--	--	-- - ~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--	--	--
TMW-15	7/6/2000	~12-16	--	--	--	-- - ~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--	--	--
TMW-16	7/6/2000	~12-16	--	--	--	-- - ~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--	--	--
TMW-17	7/6/2000	~12-16	--	--	--	-- - ~12-16	--	50s Tank and Hard Resin Area	S&ME	--	--	--	--
TMW-18	10/26/2017	15	1	PVC	15	10 - 15	Flush mount	Dowtherm Unit 2028	Arcadis / Cascade	--	--	972077.41	760873.66
TMW-19	10/26/2017	15	1	PVC	15	10 - 15	Flush mount	Hard Resin Area	Arcadis / Cascade	--	--	971826.08	760825.42
TMW-20	10/26/2017	15	1	PVC	15	10 - 15	Flush mount	Former Dry Size Area	Arcadis / Cascade	--	--	971212.86	760999.49



Table 1  
Well Construction Details  
Compliance Status Report  
Hercules Savannah Facility - Savannah, Georgia

Well Id	Install Date	Approximate Total Depth (ft bgs)	Well Diameter (inches)	Construction Material	Casing Length (ft bgs)	Screen Interval (ft bgs)	Well Completion	Site Area	Installer	Ground Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	X_Coord	Y_Coord
TMW-21	10/26/2017	15	1	PVC	15	10 - 15	Flush mount	Former Dry Size Area	Arcadis / Cascade	--	--	971090.31	761053.26
TMW-22	10/26/2017	15	1	PVC	15	10 - 15	Flush mount	Dowtherm Unit 2024	Arcadis / Cascade	--	--	970717.98	761313.15
TMW-23	10/26/2017	15	1	PVC	15	10 - 15	Flush mount	Electrical Substation 8526	Arcadis / Cascade	--	--	971511.55	761112.17
<b>Deep Monitoring Wells</b>													
MWD-F1	10/17/2000	100	2	PVC	80	80 - 100	Stick-up	Resin Areas	AGM	6.92	9.25	972204.33	760928.77
MWD-F2	10/17/2000	100	2	PVC	80	80 - 100	Stick-up	Resin Areas	AGM	7.80	10.52	971823.02	761112.21
MWD-F3	10/18/2000	87	2	PVC	67	67 - 87	Stick-up	Resin Areas	AGM	8.77	11.23	971485.74	760651.17
MWD-22	10/29/2002	50	2	PVC	40	40 - 50	Stick-up	Resin Areas	MacTec	7.71	10.05	972290.65	760995.03
MWD-23	11/1/2002	50	2	PVC	40	40 - 50	Stick-up	Resin Areas	MacTec	6.83	9.27	972201.05	761024.76
MWD-24	10/29/2002	50	2	PVC	40	40 - 50	Stick-up	Deep Background Well	MacTec	7.67	10.34	971897.16	761098.54
MWD-25	10/30/2002	50	2	PVC	40	40 - 50	Stick-up	Deep Background Well	MacTec	10.26	12.58	971735.04	759936.37
MWD-27	12/17/2002	50	2	PVC	40	40 - 50	Flush mount	Resin Areas	MacTec	10.25	10.09	972220.82	760714.96
MWD-28	12/17/2002	50	2	PVC	40	40 - 50	Stick-up	Deep Background Well	MacTec	7.27	10.66	972332.51	761100.69
MWD-29	11/10/2008	50	2	PVC	40	40 - 50	Stick-up	Resin Areas	WPC	9.51	13.56	972226.03	760811.89
MWD-30	11/11/2008	50	2	PVC	40	40 - 50	Stick-up	Resin Areas	WPC	10.06	13.41	971925.16	760727.08
<b>Onsite Production Wells</b>													
Well 1 (12")	~1955	1000	12	--	270	open borehole	--	--	--	--	--	--	--
Well 2 (10")	~1950	750	10	--	250	open borehole	--	--	--	--	--	--	--
Well 3 (8")	Before January 1956	--	8	--	--	--	--	--	--	--	--	--	--

**Notes:**  
 -- unknown or not applicable  
 grey shading = well abandoned or destroyed

**Acronyms and Abbreviations:**

AGM = Arcadis-Geraghty & Miller  
 amsl = above mean seal level  
 Arcadis = Arcadis U.S., Inc.  
 bgs = below ground surface  
 Cascade = Cascade Drilling, LP  
 ft = foot/feet  
 MACTEC = MacTec, Inc.  
 PVC = polyvinyl chloride  
 S&ME = S&ME, Inc.  
 WPC = WPC, Inc.



**Table 2**  
**Acceptable Soil Residential and Non-Residential Risk Reduction Standards**  
**Compliance Status Report**  
**Hercules Savannah Facility - Savannah, Georgia**

Constituent	CAS #	Units	Residential RRS Type 1 and 2 [Higher Value of Type 1 and 2 RRS]	Non-Residential RRS Type 3 and Type 4 [Higher Value of Type 3 and 4 RRS]	Site-Specific Type 4 Soil RRS <sup>5</sup>
<b>Volatile Organic Compounds</b>					
Acetone	67-64-1	mg/kg	400	400	--
Acetonitrile	75-05-8	mg/kg	20	20	--
Acetophenone	98-86-2	mg/kg	400	400	--
Acrolein	107-02-8	mg/kg	0.1	0.1	--
Benzene	71-43-2	mg/kg	0.5	0.5	--
1,1-Biphenyl	92-52-4	mg/kg	1	1	214
Carbon Disulfide	75-15-0	mg/kg	400	400	--
Chlorobenzene	108-90-7	mg/kg	10	10	--
1,4-Dichloro-2-butene	764-41-0	mg/kg	0.110	0.100	--
trans-1,4-Dichloro-2-butene	110-57-6	mg/kg	0.113	0.140	--
1,2-Dichloropropane	78-87-5	mg/kg	0.5	0.5	--
Ethylbenzene	100-41-4	mg/kg	70	70	--
Ethyl Methacrylate	97-63-2	mg/kg	300	300	--
Isobutyl Alcohol	78-83-1	mg/kg	1000	1000	--
Methyl Ethyl Ketone	78-93-3	mg/kg	200	200	--
Methyl Isobutyl Ketone	108-10-1	mg/kg	200	200	--
Styrene	100-42-5	mg/kg	14	14	--
Tetrachloroethene	127-18-4	mg/kg	0.5	0.5	--
Toluene	108-88-3	mg/kg	100	100	--
Total Xylenes <sup>1</sup>	1330-20-7	mg/kg	1000	1000	--
m-Xylene <sup>1</sup>	108-38-3	mg/kg	20	20	--
o-Xylene <sup>1</sup>	95-47-6	mg/kg	20	20	--
p-Xylene <sup>1</sup>	106-42-3	mg/kg	20	20	--
<b>Semi-Volatile Organic Compounds (excluding Polynuclear Aromatic Hydrocarbons)</b>					
Aniline	62-53-3	mg/kg	2	2	--
Bis(2-ethylhexyl)phthalate	117-81-7	mg/kg	50	50	--
Butyl Benzyl Phthalate	85-68-7	mg/kg	50	218.540	--
Total Cresols	1319-77-3	mg/kg	3.8	8	--
m-Cresol	108-39-4	mg/kg	3.80	4.1	--
o-Cresol	95-48-7	mg/kg	3.80	4.1	--
p-Creso	106-44-5	mg/kg	3.800	8	--
Dibenzofuran	132-64-9	mg/kg	1	1.90	--
2,4-Dimethylphenol	105-67-9	mg/kg	70.0	70	--
m-Dinitrobenzene	99-65-0	mg/kg	1.05	1.05	--
Di-n-octyl Phthalate	117-84-0	mg/kg	70	70	--
1,4-Dioxane	123-91-1	mg/kg	7	7	--
Formaldehyde	50-00-0	mg/kg	100	100	--
Ni-Nitroso-di-N-butylamine	924-16-3	mg/kg	1	1	--
N-Nitrosomethylethylamine	10595-95-6	mg/kg	0.68	1	--
<b>Semi-Volatile Organic Compounds (Polynuclear/Polycyclic Aromatic Hydrocarbons)</b>					
Acenaphthene	83-32-9	mg/kg	300	300	--
Acenaphthylene	208-96-8	mg/kg	130	130	--
Anthracene	120-12-7	mg/kg	500	1009	--
Benz[a]anthracene	56-55-3	mg/kg	5	5	--
Benzo[a]pyrene	50-32-8	mg/kg	1.64	1.64	--
Benzo[b]fluoranthene	205-99-2	mg/kg	5	5	--
Benzo[g,h,i]perylene	191-24-2	mg/kg	500	500	--
Benzo[k]fluoranthene	207-08-9	mg/kg	5	46	--
Chrysene	218-01-9	mg/kg	5	141	--
Dibenz[a,h]anthracene	53-70-3	mg/kg	2	5	--
Fluoranthene	206-44-0	mg/kg	500	500	--
Fluorene	86-73-7	mg/kg	360	360	--
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	5	15	--
Naphthalene	91-20-3	mg/kg	100	100	--
Phenanthrene	85-01-8	mg/kg	110	110	--
Pyrene	129-00-0	mg/kg	500	500	--



**Table 2**  
**Acceptable Soil Residential and Non-Residential Risk Reduction Standards**  
**Compliance Status Report**  
**Hercules Savannah Facility - Savannah, Georgia**

Constituent	CAS #	Units	Residential RRS Type 1 and 2 [Higher Value of Type 1 and 2 RRS]	Non-Residential RRS Type 3 and Type 4 [Higher Value of Type 3 and 4 RRS]	Site-Specific Type 4 Soil RRS <sup>5</sup>
<b>Dioxins, Chlorinated Dibenzofurans, and Dioxin-Like PCBs</b>					
2,3,7,8-TCDD <sup>2</sup> (TEQ)		mg/kg	0.00012	0.00044	0.00044
<b>Pesticides</b>					
Endrin	72-20-8	mg/kg	10	10	--
Endrin aldehyde	7421-93-4	mg/kg	10	10	--
DDT	50-29-3	mg/kg	0.66	2.80	--
Methoxychlor	72-43-5	mg/kg	10	28	--
Parathion	56-38-2	mg/kg	20	20	--
<b>Polychlorinated Biphenyls</b>					
Total PCBs <sup>3,4</sup>	1336-36-3	mg/kg	1.55	1.55	--
Aroclor 1254	11097-69-1	mg/kg	1.55	1.55	7.3
Aroclor 1260	11096-82-5	mg/kg	1.55	1.55	--
<b>Inorganics</b>					
Ammonia	7664-41-7	mg/kg	3000	3000	--
Asbestos	1332-21-4	% or ppm	1or 10,000 ppm	1or 10,000 ppm	--
Fluoride	16984-48-8	mg/kg	NA	NA	--
pH	NA	s.u.	>2 and <12.5	>2 and <12.5	--

**Notes:**

The acceptable soil residential and non-residential RRSs were provided by the GA EPD following the submittal of the VIRP (GA EPD 2014).

1 - The applicable groundwater delineation standard for this individual isomer is 0.001 if analytical results are reported as the individual isomers. If m- and p- isomer concentrations are only reported as combined isomer concentrations, the delineation standard defaults to the detection limit/PQL of 0.002 as proposed on revised Table 8 (second revision of the VIRP).

2 - Summed TEF-adjusted concentrations for detected polychlorinated dioxin, furans, and dioxin-like PCBs in a single sample to be compared to these media standards.

3 - PCBs are regulated as Aroclors (mixtures of various PCB homologues/congeners), total PCBs (summation of the concentrations the 197 individual non-dioxin-like PCB congeners), and the individual regulated 12 dioxin-like PCB congeners. Detected concentrations of the dioxin-like PCB congeners should be addressed using the TEF method along with the detected dioxins and chlorinated dibenzofurans.

4 - Values shown are consistent with Georgia Hazardous Site Response Rules. However, detections of PCBs in soil or groundwater may be subject to the Federal Toxic Substance Control Act (TSCA) and cleanup standards set forth within it. Participant should contact EPA regarding the applicability of TSCA at this site.

5 - The Site-Specific Type 4 RRS concentrations are based on the following:

- 1,1-Biphenyl: The USEPA industrial soil Regional Screening Level (based on a target hazard quotient of 1) of 214 mg/kg.
- 2,3,7,8-Dioxin TEQ: The concentration of 0.00044 mg/kg was originally proposed by the GA EPD to Hercules following the submittal of the VIRP (GA EPD 2014) as part of the "pre-approved" Type 1/4 RRS.
- Aroclor 1254: The concentration of 7.3 mg/kg is the more conservative of the 2018 risk assessment direct contact soil RRS and the Site-Specific Type 4 RRS derived based on protection of groundwater.

**Acronyms and Abbreviations:**

-- = not established

GA EPD = Georgia Environmental Protection Division

mg/kg = milligram per kilogram

NA = not applicable

PCB = polychlorinated biphenyl

ppm = parts per million

PQL = practical quantitation limit

RRS = Risk Reduction Standard

s.u. = standard unit

TEF = toxic equivalency factor

TEQ = toxicity equivalent quotient

USEPA = United States Environmental Protection Agency

VIRP = Voluntary Investigation and Remediation Plan



**Table 3**  
**Soil and Groundwater Delineation Standards**  
**Compliance Status Report**  
**Hercules Savannah Facility - Savannah, Georgia**

Constituent	CAS #	Units	Soil Delineation Criteria Applicable to Entire Vadose Zone [Higher Value of Type 1 and 2 RRS]	Units	GW Delineation Criteria (Type 1 RRS)
<b>Volatile Organic Compounds</b>					
Acetone	67-64-1	mg/kg	400	mg/L	4
Acetonitrile	75-05-8	mg/kg	20	mg/L	0.2
Acetophenone	98-86-2	mg/kg	400	mg/L	4
Acrolein	107-02-8	mg/kg	0.1	mg/L	0.7
Benzene	71-43-2	mg/kg	0.5	mg/L	0.005
1,1-Biphenyl	92-52-4	mg/kg	1	mg/L	0.01
Carbon Disulfide	75-15-0	mg/kg	400	mg/L	4
Chlorobenzene	108-90-7	mg/kg	10	mg/L	0.1
1,4-Dichloro-2-butene	764-41-0	mg/kg	0.11	mg/L	0.001
trans-1,4-Dichloro-2-butene	110-57-6	mg/kg	0.11	mg/L	0.002
1,2-Dichloropropane	78-87-5	mg/kg	0.5	mg/L	0.005
Ethylbenzene	100-41-4	mg/kg	70	mg/L	0.7
Ethyl Methacrylate	97-63-2	mg/kg	300	mg/L	3
Isobutyl Alcohol	78-83-1	mg/kg	1000	mg/L	10
Methyl Ethyl Ketone	78-93-3	mg/kg	200	mg/L	2
Methyl Isobutyl Ketone	108-10-1	mg/kg	200	mg/L	2
Styrene	100-42-5	mg/kg	14	mg/L	0.1
Tetrachloroethene	127-18-4	mg/kg	0.5	mg/L	0.005
Toluene	108-88-3	mg/kg	100	mg/L	1
Total Xylenes <sup>1</sup>	1330-20-7	mg/kg	1000	mg/L	10
m-Xylene <sup>1</sup>	108-38-3	mg/kg	20	mg/L	0.001 (0.002)
o-Xylene <sup>1</sup>	95-47-6	mg/kg	20	mg/L	0.001
p-Xylene <sup>1</sup>	106-42-3	mg/kg	20	mg/L	0.001 (0.002)
<b>Semi-Volatile Organic Compounds (excluding Polynuclear Aromatic Hydrocarbons)</b>					
Aniline	62-53-3	mg/kg	2	mg/L	0.02
Bis(2-ethylhexyl)phthalate	117-81-7	mg/kg	50	mg/L	0.01
Bis(2-chloroethyl) ether	111-44-4	mg/kg	0.60	mg/L	Detection Limit
Butyl Benzyl Phthalate	85-68-7	mg/kg	50	mg/L	0.1
Total Cresols	1319-77-3	mg/kg	3.8	mg/L	0.01
m-Cresol	108-39-4	mg/kg	3.8	mg/L	0.01
o-Cresol	95-48-7	mg/kg	3.8	mg/L	0.01
p-Creso	106-44-5	mg/kg	3.8	mg/L	0.01
Dibenzofuran	132-64-9	mg/kg	1	mg/L	0.01
2,4-Dimethylphenol	105-67-9	mg/kg	70	mg/L	0.7
m-Dinitrobenzene	99-65-0	mg/kg	1.05	mg/L	0.01
Di-n-octyl Phthalate	117-84-0	mg/kg	70	mg/L	0.7
1,4-Dioxane	123-91-1	mg/kg	7	mg/L	0.07
Formaldehyde	50-00-0	mg/kg	100	mg/L	1
Ni-Nitroso-di-N-butylamine	924-16-3	mg/kg	1	mg/L	0.01
N-Nitrosomethylethylamine	10595-95-6	mg/kg	0.68	mg/L	0.01
<b>Semi-Volatile Organic Compounds (Polynuclear/Polycyclic Aromatic Hydrocarbons)</b>					
Acenaphthene	83-32-9	mg/kg	300	mg/L	2
Acenaphthylene	208-96-8	mg/kg	130	mg/L	0.01
Anthracene	120-12-7	mg/kg	500	mg/L	0.01
Benz[a]anthracene	56-55-3	mg/kg	5	mg/L	0.01
Benzo[a]pyrene	50-32-8	mg/kg	1.64	mg/L	0.01
Benzo[b]fluoranthene	205-99-2	mg/kg	5	mg/L	0.01
Benzo[g,h,i]perylene	191-24-2	mg/kg	500	mg/L	0.01
Benzo(k)fluoranthene	207-08-9	mg/kg	13.7	mg/L	0.01
Chrysene	218-01-9	mg/kg	43	mg/L	0.01
Dibenz[a,h]anthracene	53-70-3	mg/kg	2	mg/L	0.01
Fluoranthene	206-44-0	mg/kg	500	mg/L	1
Fluorene	86-73-7	mg/kg	360	mg/L	1
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	5	mg/L	0.01
Naphthalene	91-20-3	mg/kg	100	mg/L	0.02
Phenanthrene	85-01-8	mg/kg	110	mg/L	0.01
Phenol	108-95-2	mg/kg	50	mg/L	4
Pyrene	129-00-0	mg/kg	500	mg/L	1



**Table 3**  
**Soil and Groundwater Delineation Standards**  
**Compliance Status Report**  
**Hercules Savannah Facility - Savannah, Georgia**

Constituent	CAS #	Units	Soil Delineation Criteria Applicable to Entire Vadose Zone [Higher Value of Type 1 and 2 RRS]	Units	GW Delineation Criteria (Type 1 RRS)
<b>Dioxins, Chlorinated Dibenzofurans, and Dioxin-Like PCBs</b>					
2,3,7,8-TCDD <sup>2</sup>		mg/kg	1.15E-04	mg/L	0.00001
<b>Pesticides</b>					
Endrin	72-20-8	mg/kg	10	mg/L	0.002
Endrin aldehyde	7421-93-4	mg/kg	10	mg/L	0.0001
DDT	50-29-3	mg/kg	0.84	mg/L	0.0001
Methoxychlor	72-43-5	mg/kg	10	mg/L	0.04
Parathion	56-38-2	mg/kg	20	mg/L	0.2
<b>Polychlorinated Biphenyls (PCBs)</b>					
Total PCBs <sup>3,4</sup>	1336-36-3	mg/kg	1.55	mg/L	0.0005
Aroclor 1254	11097-69-1	mg/kg	1.55	mg/L	0.0005
Aroclor 1260	11096-82-5	mg/kg	1.55	mg/L	0.0005
<b>Inorganics and Hazardous Waste Characteristics</b>					
Ammonia	7664-41-7	mg/kg	3000	mg/L	30
Asbestos	1332-21-4	% or ppm	1 or 10,000	(MFL)	7 million
Fluoride	16984-48-8	mg/kg	NA	mg/L	4
pH	NA	s.u.	>2 and <12.5	s.u.	>2 and <12.5

**Notes:**

1 - The applicable groundwater delineation standard for this individual isomer is 0.001 if analytical results are reported as the individual isomers. If m- and p- isomer concentrations are only reported as combined isomer concentrations, the delineation standard defaults to the detection limit/PQL of 0.002 as proposed on revised Table 8 (second revision of the VIRP).

2 - Summed TEF-adjusted concentrations for detected polychlorinated dioxin, furans, and dioxin-like PCBs in a single sample to be compared to these media standards.

3 - PCBs are regulated as Aroclors (mixtures of various PCB homologues/congeners), total PCBs (summation of the concentrations the 197 individual non-dioxin-like PCB congeners), and the individual regulated 12 dioxin-like PCB congeners. Detected concentrations of the dioxin-like PCB congeners should be addressed using the TEF method along with the detected dioxins and chlorinated dibenzofurans.

4 - Values shown are consistent with Georgia Hazardous Site Response Rules. However, detections of PCBs in soil or groundwater may be subject to the Federal Toxic Substance Control Act (TSCA) and cleanup standards set forth within it. Participant should contact EPA regarding the applicability of TSCA at this site.

**Acronyms and Abbreviations:**

mg/kg = milligram per kilogram

mg/L = milligram per liter

MFL = million fibers per liter

NA = not applicable

PCB = polychlorinated biphenyl

ppm = parts per million

PQL = practical quantitation limit

RRS = Risk Reduction Standard

s.u. = standard unit

TEF = toxic equivalency factor

VIRP = Voluntary Investigation and Remediation Plan



**Table 4**  
**Groundwater Risk Reduction Standards**  
**Compliance Status Report**  
**Hercules Savannah Facility - Savannah, Georgia**

Constituent	CAS #	Units	Residential RRS Type 1 and 2 [Higher Value of Type 1 and 2 RRS]	Non-Residential RRS Type 3 and Type 4 [Higher Value of Type 3 and 4 RRS]
<b>Volatile Organic Compounds</b>				
Acetone	67-64-1	mg/L	8	46
Acetonitrile	75-05-8	mg/L	0.2	0.2
Acetophenone	98-86-2	mg/L	4	10
Acrolein	107-02-8	mg/L	0.7	0.7
Benzene	71-43-2	mg/L	0.0054	0.0087
1,1-Biphenyl	92-52-4	mg/L	0.01	0.01
Carbon Disulfide	75-15-0	mg/L	4	4
Chlorobenzene	108-90-7	mg/L	0.1	0.14
1,4-Dichloro-2-butene	764-41-0	mg/L	0.001	0.001
trans-1,4-Dichloro-2-butene	110-57-6	mg/L	0.002	0.002
1,2-Dichloropropane	78-87-5	mg/L	0.005	0.0074
Ethylbenzene	100-41-4	mg/L	0.7	0.7
Ethyl Methacrylate	97-63-2	mg/L	3	3
Isobutyl Alcohol	78-83-1	mg/L	10	31
Methyl Ethyl Ketone	78-93-3	mg/L	2.3	12
Methyl Isobutyl Ketone	108-10-1	mg/L	2	4.2
Styrene	100-42-5	mg/L	0.5	2.6
Tetrachloroethene	127-18-4	mg/L	0.019	0.098
Toluene	108-88-3	mg/L	1	5.2
Total Xylenes <sup>1</sup>	1330-20-7	mg/L	10	10
m-Xylene <sup>1</sup>	108-38-3	mg/L	0.058	0.29
o-Xylene <sup>1</sup>	95-47-6	mg/L	0.058	0.29
p-Xylene <sup>1</sup>	106-42-3	mg/L	0.058	0.29
<b>Semi-Volatile Organic Compounds (excluding Polynuclear Aromatic Hydrocarbons)</b>				
Aniline	62-53-3	mg/L	0.11	0.5
Bis(2-ethylhexyl)phthalate	117-81-7	mg/L	0.061	0.2
Butyl Benzyl Phthalate	85-68-7	mg/L	3.129	15.061
Total Cresols	1319-77-3	mg/L	1.6	10
m-Cresol	108-39-4	mg/L	0.78	5.1
o-Cresol	95-48-7	mg/L	0.78	5.1
p-Creso	106-44-5	mg/L	1.560	10
Dibenzofuran	132-64-9	mg/L	0.016	0.01
2,4-Dimethylphenol	105-67-9	mg/L	0.7	2
m-Dinitrobenzene	99-65-0	mg/L	0.01	0.01
Di-n-octyl Phthalate	117-84-0	mg/L	0.7	0.7
1,4-Dioxane	123-91-1	mg/L	0.07	0.07
Formaldehyde	50-00-0	mg/L	1	20
Ni-Nitroso-di-N-butylamine	924-16-3	mg/L	0.01	0.01
N-Nitrosomethylethylamine	10595-95-6	mg/L	0.01	0.01
<b>Semi-Volatile Organic Compounds (Polynuclear/Polycyclic Aromatic Hydrocarbons)</b>				
Acenaphthene	83-32-9	mg/L	2	6.1
Acenaphthylene	208-96-8	mg/L	0.01	0.01
Anthracene	120-12-7	mg/L	4.7	31
Benz[a]anthracene	56-55-3	mg/L	0.01	0.01
Benzo[a]pyrene	50-32-8	mg/L	0.01	0.01
Benzo[b]fluoranthene	205-99-2	mg/L	0.01	0.01
Benzo[g,h,i]perylene	191-24-2	mg/L	0.01	0.01
Benzo(k)fluoranthene	207-08-9	mg/L	0.012	0.039
Chrysene	218-01-9	mg/L	0.12	0.04
Dibenz[a,h]anthracene	53-70-3	mg/L	0.01	0.01
Fluoranthene	206-44-0	mg/L	1	4.1
Fluorene	86-73-7	mg/L	1	4.1
Indeno(1,2,3-cd)pyrene	193-39-5	mg/L	0.01	0.01
Naphthalene	91-20-3	mg/L	0.02	0.02
Phenanthrene	85-01-8	mg/L	0.01	0.01
Pyrene	129-00-0	mg/L	1	3.1



**Table 4**  
**Groundwater Risk Reduction Standards**  
**Compliance Status Report**  
**Hercules Savannah Facility - Savannah, Georgia**

Constituent	CAS #	Units	Residential RRS Type 1 and 2 [Higher Value of Type 1 and 2 RRS]	Non-Residential RRS Type 3 and Type 4 [Higher Value of Type 3 and 4 RRS]
<b>Dioxins, Chlorinated Dibenzofurans, and Dioxin-Like PCBs</b>				
2,3,7,8-TCDD <sup>2</sup>		mg/L	0.00001	0.00001
<b>Pesticides</b>				
Endrin	72-20-8	mg/L	0.0047	0.031
Endrin aldehyde	7421-93-4	mg/L	0.0001	0.0001
DDT	50-29-3	mg/L	0.0025	0.0084
Methoxychlor	72-43-5	mg/L	0.078	0.51
Parathion	56-38-2	mg/L	0.2	0.61
<b>Polychlorinated Biphenyls</b>				
Total PCBs <sup>3,4</sup>	1336-36-3	mg/L	0.0005	0.0014
Aroclor 1254	11097-69-1	mg/L	0.0005	0.0014
Aroclor 1260	11096-82-5	mg/L	0.0005	0.0014
<b>Inorganics</b>				
Ammonia	7664-41-7	mg/L	30	30
Asbestos	1332-21-4	(MFL)	7	7
Fluoride	16984-48-8	mg/L	4	4.1
pH	NA	s.u.	>2 and <12.5	>2 and <12.5

**Notes:**

1 - The applicable groundwater delineation standard for this individual isomer is 0.001 if analytical results are reported as the individual isomers. If m- and p- isomer concentrations are only reported as combined isomer concentrations, the delineation standard defaults to the detection limit/PQL of 0.002 as proposed on revised Table 8 (second revision of the VIRP).

2 - Summed TEF-adjusted concentrations for detected polychlorinated dioxin, furans, and dioxin-like PCBs in a single sample to be compared to these media standards.

3 - PCBs are regulated as Aroclors (mixtures of various PCB homologues/congeners), total PCBs (summation of the concentrations the 197 individual non-dioxin-like PCB congeners), and the individual regulated 12 dioxin-like PCB congeners. Detected concentrations of the dioxin-like PCB congeners should be addressed using the TEF method along with the detected dioxins and chlorinated dibenzofurans.

4 - Values shown are consistent with Georgia Hazardous Site Response Rules. However, detections of PCBs in soil or groundwater may be subject to the Federal Toxic Substance Control Act (TSCA) and cleanup standards set forth within it. Participant should contact EPA regarding the applicability of TSCA at this site.

**Acronyms and Abbreviations:**

mg/L = milligram per liter

MFL = million fibers per liter

NA = not applicable

PCB = polychlorinated biphenyl

PQL = practical quantitation limit

RRS = Risk Reduction Standard

s.u. = standard unit

TEF = toxic equivalency factor

VIRP = Voluntary Investigation and Remediation Plan



**Table 5**  
**Groundwater Elevations - December 27-28, 2017**  
**Compliance Status Report**  
**Hercules Savannah Facility - Savannah, Georgia**

Well ID	Screened Interval (ft bgs)	Top of Casing Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
<b>Shallow Monitoring Wells</b>				
MW-F1	10-20	9.55	4.06	5.49
MW-F2	5-10	7.51	4.90	2.61
MW-F3R	10-20	12.53	6.82	5.71
MW-F5	10-20	11.49	5.69	5.80
MW-F6	10-20	8.59	3.00	5.59
MW-F7	10-20	13.23	5.27	7.96
MW-F8	10-20	12.59	4.76	7.83
MW-F9	10-20	11.78	3.54	8.24
MW-F11	10-20	8.58	2.35	6.23
MW-F12	10-20	9.34	2.70	6.64
MW-F13	10-20	18.47	9.73	8.74
MW-F14	10-20	8.38	2.42	5.96
MW-F15	10-20	9.79	4.13	5.66
MW-F16	10-20	8.51	2.11	6.40
MW-F17	10-20	11.36	5.51	5.85
MW-F19	10-20	10.47	4.18	6.29
MW-F21	10-20	12.46	5.90	6.56
MW-22	10-20	10.06	2.67	7.39
MW-23	10-20	9.40	5.82	3.58
MW-24	10-20	10.23	4.38	5.85
MW-25	10-20	12.72	5.30	7.42
MW-26	10-20	15.69	8.45	7.24
MW-27	10-20	10.23	2.13	8.10
MW-29	10-20	12.80	4.90	7.90
MW-32	10-20	7.05	2.63	4.42
<b>Deep Monitoring Wells</b>				
MWD-22	40-50	10.05	2.97	7.08
MWD-23	40-50	9.27	6.99	2.28
MWD-24	40-50	10.34	4.19	6.15
MWD-25	40-50	12.58	5.17	7.41
MWD-27	40-50	10.09	2.90	7.19
MWD-28	40-50	10.66	Destroyed	
MWD-29	40-50	13.56	6.59	6.97
MWD-30	40-50	13.41	7.96	5.45
MWD-F1	80-100	9.25	29.92	-20.67
MWD-F2	80-100	10.52	21.14	-10.62
MWD-F3	67-87	11.23	16.96	-5.73

**Notes:**

amsl = above mean sea level

bgs = below ground surface

ft = foot/feet



**Table 6**  
**Groundwater Sampling and Analysis Plan**  
**Compliance Status Report**  
**Hercules Savannah Facility - Savannah, Georgia**

Sample ID	Screened Interval (ft bgs)	Analytical Parameters							
		VOCs (8260B)	SVOCs (8270C)	Aroclors & Congeners (8082A, 1262, 1268, 1668B)	ACM (Asbestos) (600-R-93-116)	PCB Aroclor 1254 (8082)	TEQ		1,1-Biphenyl (8270D)
							Total PCBs (1668)	Dioxins/Furans (8290)	
MW-F3R	10-20			X					
MW-F5	10-20	X	X						
MW-F7	10-20	X	X						
MW-F15	10-20	Benzene			X				
MW-F21	10-20	X	X						
MW-27	10-20	X	X						
MW-29	10-20	X	X						
MWD-30	40-50	X	X						
TMW-18	10-15								X
TMW-19	10-15					X	X	X	
TMW-20	10-15								X
TMW-21	10-15					X	X	X	
TMW-22	10-15								X
TMW-23	10-15					X			

**Notes:**

*Italics* = Shallow monitoring well installed October 2017

The groundwater sampling and analysis plan was revised in March 2016.

**Acronyms and Abbreviations:**

ACM = asbestos containing material

bgs = below ground surface

ft = foot/feet

PCB = polychlorinated biphenyl

SVOC = semi-volatile organic compound

TEQ = toxicity equivalent quotient

VOC = volatile organic compound



Table 7  
Groundwater Analytical Data Summary - December 2017 through May 2018  
Compliance Status Report  
Hercules Savannah Facility - Savannah, Georgia



Sample Location Sample ID Sample Date	GW Cleanup Type 1/2 RRS	GW Cleanup Type 3/4 RRS	MW-F3R MW-F3R (122817) 12/28/2017	MW-F5 MW-F5 (122717) 12/27/2017	MW-F7 MW-F7 (122717) 12/27/2017	MW-F15 MW-F15 (122817) 12/28/2017	MW-F21 MW-F21 (122717) 12/27/2017	MW-27 MW-27 (122717) 12/27/2017	MW-27 DUP-01 (122717) 12/27/2017	MW-29 MW-29 (122717) 12/27/2017	MWD-30 MWD-30 (122717) 12/27/2017	TMW-18 TMW-18 (122817) 12/28/2017	TMW-19 TMW-19 (122817) 12/28/2017	TMW-19 TMW-19 (022018) 2/20/2018	TMW-20 TMW-20 (12292017) 12/29/2017	TMW-21 TMW-21 (013118) 1/31/2018	TMW-22 TMW-22 (122817) 12/28/2017	TMW-22 TMW-22 (051818) 5/18/2018	TMW-23 TMW-23 (122817) 12/28/2017
Volatile Organic Compounds (µg/L)																			
1,2-Dichloropropane	5	7.4	NA	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	2000	12000	NA	< 10 U	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-1-propanol	10000	31000	NA	< 50 U	< 50 U	NA	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	2000	4200	NA	< 10 U	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	4000	46000	NA	< 10 U	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	NA	NA	NA	NA	NA	NA	NA
Acetonitrile	200	200	NA	< 40 U	< 40 U	NA	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	700	700	NA	< 20 U	< 20 U	NA	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	5	8.7	NA	< 1.0 U	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	4000	4000	NA	< 2.0 U	< 2.0 U	NA	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	100	140	NA	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	3000	3000	NA	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	700	NA	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylenes	2		NA	< 1.0 U	< 1.0 U	NA	0.46 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	1		NA	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	NA	NA	NA	NA	NA	NA	NA
Styrene (Monomer)	100	2600	NA	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5	98	NA	< 1.0 U	5	NA	< 1.0 U	1.3	1.3	< 1.0 U	< 1.0 U	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1000	5200	NA	< 1.0 U	< 1.0 U	NA	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	2	10000	NA	< 1.0 U	< 1.0 U	NA	0.46 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	2	2	NA	< 2.0 U	< 2.0 U	NA	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	NA	NA	NA	NA	NA	NA	NA	NA
Semi-Volatile Organic Compounds (µg/L)																			
1,1-Biphenyl	10	10	NA	< 1.1 U	< 1.0 U	NA	< 1.1 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	NA	NA	< 1.0 UH	NA	1400	840	NA
1,3-Dinitrobenzene	10	10	NA	< 1.1 U	< 1.0 U	NA	< 1.1 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	70	70	NA	< 2.1 U	< 2.0 U	NA	3.3	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	700	2000	NA	< 2.1 U	< 2.0 U	NA	< 2.2 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	10	5100	NA	< 2.1 U	< 2.0 U	NA	< 2.2 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	10	10000	NA	< 2.1 U	< 2.0 U	NA	< 2.2 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	2000	6100	NA	11	< 0.20 U	NA	1.3	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	10	10	NA	< 0.21 U	< 0.20 U	NA	< 0.22 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	4000	10000	NA	< 1.1 U	< 1.0 U	NA	< 1.1 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	20	500	NA	< 2.1 U	< 2.0 U	NA	< 2.2 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	10	31000	NA	< 0.21 U	< 0.20 U	NA	< 0.22 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	10	10	NA	< 0.21 U	< 0.20 U	NA	< 0.22 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	10	10	NA	< 0.21 U	< 0.20 U	NA	< 0.22 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	10	10	NA	< 0.21 U	< 0.20 U	NA	< 0.22 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	10	10	NA	< 0.21 U	< 0.20 U	NA	< 0.22 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	10	39	NA	< 0.21 U	< 0.20 U	NA	< 0.22 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether			NA	< 1.1 U	< 1.0 U	NA	< 1.1 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	10	200	NA	< 5.3 U	< 5.0 U	NA	< 5.4 U	< 5.0 U	< 5.3 U	< 5.4 U	< 5.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Butyl benzyl phthalate	100	15061	NA	< 1.1 U	< 1.0 U	NA	< 1.1 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	10	40	NA	< 0.21 U	< 0.20 U	NA	< 0.22 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	10	10	NA	< 0.21 U	< 0.20 U	NA	< 0.22 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	10	10	NA	< 1.1 U	< 1.0 U	NA	< 1.1 U	< 1.0 U	< 1.1 U	< 1.1 U	0.15 J	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	700	700	NA	< 1.1 U	< 1.0 U	NA	< 1.1 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	1000	4100	NA	< 0.21 U	< 0.20 U	NA	< 0.22 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	1000	4100	NA	< 0.21 U	< 0.20 U	NA	0.11 J	< 0.21 U	< 0.21 U	< 0.21 U	0.13 J	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	10	10	NA	< 0.21 U	< 0.20 U	NA	< 0.22 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	20	20	NA	< 0.21 U	< 0.20 U	NA	4.5	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-n-butylamine	10	10	NA	< 1															



Table 7  
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Sample Location Sample ID Sample Date	GW Cleanup Type 1/2 RRS	GW Cleanup Type 3/4 RRS	MW-F3R MW-F3R (122817) 12/28/2017	MW-F5 MW-F5 (122717) 12/27/2017	MW-F7 MW-F7 (122717) 12/27/2017	MW-F15 MW-F15 (122817) 12/28/2017	MW-F21 MW-F21 (122717) 12/27/2017	MW-27 MW-27 (122717) 12/27/2017	MW-27 DUP-01 (122717) 12/27/2017	MW-29 MW-29 (122717) 12/27/2017	MWD-30 MWD-30 (122717) 12/27/2017	TMW-18 TMW-18 (122817) 12/28/2017	TMW-19 TMW-19 (122817) 12/28/2017	TMW-19 TMW-19 (022018) 2/20/2018	TMW-20 TMW-20 (12292017) 12/29/2017	TMW-21 TMW-21 (013118) 1/31/2018	TMW-22 TMW-22 (122817) 12/28/2017	TMW-22 TMW-22 (051818) 5/18/2018	TMW-23 TMW-23 (122817) 12/28/2017
PCB-136			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30 J	NA	12 J	NA	NA	NA
PCB-137			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16 J	NA	3.0 J	NA	NA	NA
PCB-139/140			< 390 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.0 J	NA	< 390 U	NA	NA	NA
PCB-14			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-141			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	44 J	NA	12 J	NA	NA	NA
PCB-142			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-144			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.7 J	NA	3.7 J	NA	NA	NA
PCB-145			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-146			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	31 J	NA	7.2 J	NA	NA	NA
PCB-147/149			2.9 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170 JB	NA	55 JB	NA	NA	NA
PCB-148			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-15			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-150			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-152			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-153/168			3.7 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	180 JB	NA	45 JB	NA	NA	NA
PCB-154			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-155			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-156			< 39 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	43	NA	7.3 J	NA	NA	NA
PCB-158			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	34 J	NA	7.6 J	NA	NA	NA
PCB-159			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-16			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	6.7 J	NA	NA	NA
PCB-160			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-161			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-162			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-164			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	23 J	NA	5.3 J	NA	NA	NA
PCB-165			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-167			< 20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12 J	NA	2.4 J	NA	NA	NA
PCB-169			< 20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 20 U	NA	0.57 J	NA	NA	NA
PCB-17			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.7 J	NA	4.6 J	NA	NA	NA
PCB-170			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	27 JB	NA	6.0 J	NA	NA	NA
PCB-171/173			< 390 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.3 J	NA	2.2 J	NA	NA	NA
PCB-172			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.1 J	NA	< 200 U	NA	NA	NA
PCB-174			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	24 JB	NA	7.2 J	NA	NA	NA
PCB-175			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-176			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.1 J	NA	0.90 J	NA	NA	NA
PCB-177			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13 J	NA	3.4 J	NA	NA	NA
PCB-178			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.6 J	NA	1.3 J	NA	NA	NA
PCB-179			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.4 J	NA	2.4 J	NA	NA	NA
PCB-18/30			< 390 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.1 J	NA	14 J	NA	NA	NA
PCB-180/193			1.2 JB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	45 JB	NA	12 JB	NA	NA	NA
PCB-181			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.64 J	NA	< 200 U	NA	NA	NA
PCB-182			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-183			1.3 JB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12 JB	NA	4.6 JB	NA	NA	NA
PCB-184			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-185			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.7 J	NA	< 200 U	NA	NA	NA
PCB-186			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-187			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22 JB	NA	6.7 J	NA	NA	NA
PCB-188			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-189			< 20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4 J	NA	< 20 U	NA	NA	NA
PCB-19			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	4.7 J	NA	NA	NA
PCB-190			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.4 J	NA	1.1 J	NA	NA	NA
PCB-191			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.3 J	NA	< 200 U	NA	NA	NA
PCB-192			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-194			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.3 J	NA	1.9 JB	NA	NA	NA
PCB-195			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1 J	NA	< 200 U	NA	NA	NA
PCB-196			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.4 J	NA	< 200 U	NA	NA	NA
PCB-197			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-198/199			< 390 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.7 J	NA	1.8 J	NA	NA	NA
PCB-2			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.3 J	NA	2.7 J	NA	NA	NA
PCB-20/28			< 390 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14 J	NA	8.9 J	NA	NA	NA
PCB-200			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-201			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.85 J	NA	< 200 U	NA	NA	NA
PCB-202			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.6 J	NA	< 200 U	NA	NA	NA
PCB-203			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.5 J	NA	< 200 U	NA	NA	NA
PCB-204			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-205			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-206			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.7 J	NA	1.4 J	NA	NA	NA
PCB-207			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-208			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4 J	NA	< 200 U	NA	NA	NA
PCB-21/33			< 390 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.9 J	NA	6.3 J	NA	NA	NA
PCB-22			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	4.5 J	NA	NA	NA
PCB-23			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-24			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-25			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	3.2 J	NA	NA	NA
PCB-26/29			< 390 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 390 U	NA	< 390 U	NA	NA	NA
PCB-27			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-3			2.5 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.8 J	NA	4.0 J	NA	NA	NA
PCB-31			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.3 JB	NA	13 J	NA	NA	NA
PCB-32			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.2 J	NA	4.0 J	NA	NA	NA
PCB-34			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-35			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-36			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-37			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA</		



Table 7  
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Sample Location Sample ID Sample Date	GW Cleanup Type 1/2 RRS	GW Cleanup Type 3/4 RRS	MW-F3R MW-F3R (122817) 12/28/2017	MW-F5 MW-F5 (122717) 12/27/2017	MW-F7 MW-F7 (122717) 12/27/2017	MW-F15 MW-F15 (122817) 12/28/2017	MW-F21 MW-F21 (122717) 12/27/2017	MW-27 MW-27 (122717) 12/27/2017	MW-27 DUP-01 (122717) 12/27/2017	MW-29 MW-29 (122717) 12/27/2017	MWD-30 MWD-30 (122717) 12/27/2017	TMW-18 TMW-18 (122817) 12/28/2017	TMW-19 TMW-19 (122817) 12/28/2017	TMW-19 TMW-19 (022018) 2/20/2018	TMW-20 TMW-20 (12292017) 12/29/2017	TMW-21 TMW-21 (013118) 1/31/2018	TMW-22 TMW-22 (122817) 12/28/2017	TMW-22 TMW-22 (051818) 5/18/2018	TMW-23 TMW-23 (122817) 12/28/2017
PCB-39			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-4			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-40/71			< 390 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>23 JB</b>	NA	<b>16 J</b>	NA	NA	NA
PCB-41			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-42			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>8.3 J</b>	NA	<b>6.9 J</b>	NA	NA	NA
PCB-43			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-44/47/65			<b>47 JB</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>170 JB</b>	NA	<b>190 JB</b>	NA	NA	NA
PCB-45			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	<b>4.0 J</b>	NA	NA	NA
PCB-46			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>3.3 J</b>	NA	< 200 U	NA	NA	NA
PCB-48			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>3.0 J</b>	NA	<b>3.9 J</b>	NA	NA	NA
PCB-49/69			<b>1.8 J</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>56 J</b>	NA	<b>38 J</b>	NA	NA	NA
PCB-5			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-50/53			< 390 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>15 J</b>	NA	<b>9.6 J</b>	NA	NA	NA
PCB-51			<b>9.2 J</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>25 JB</b>	NA	<b>15 J</b>	NA	NA	NA
PCB-52			<b>2.1 JB</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>170 J</b>	NA	<b>280 B</b>	NA	NA	NA
PCB-54			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-55			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-56			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>12 J</b>	NA	<b>12 J</b>	NA	NA	NA
PCB-57			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-58			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-59/62/75			< 590 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>2.6 J</b>	NA	<b>1.8 J</b>	NA	NA	NA
PCB-6			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-60			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	<b>3.9 J</b>	NA	NA	NA
PCB-61/70/74/76			<b>2.2 JB</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>120 JB</b>	NA	<b>96 J</b>	NA	NA	NA
PCB-63			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-64			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>18 J</b>	NA	<b>27 J</b>	NA	NA	NA
PCB-66			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>49 JB</b>	NA	<b>24 J</b>	NA	NA	NA
PCB-67			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-68			<b>2.6 J</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>6.3 JB</b>	NA	<b>6.1 J</b>	NA	NA	NA
PCB-7			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-72			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-73			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-77			< 20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>3.7 J</b>	NA	<b>2.4 J</b>	NA	NA	NA
PCB-78			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-79			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-8			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-80			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-81			< 20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 20 U	NA	< 20 U	NA	NA	NA
PCB-82			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>28 J</b>	NA	<b>18 J</b>	NA	NA	NA
PCB-83			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-84			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>76 J</b>	NA	<b>67 J</b>	NA	NA	NA
PCB-85/116/117			< 590 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>45 J</b>	NA	<b>23 J</b>	NA	NA	NA
PCB-86/87/97/108/119/125			< 1200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>190 J</b>	NA	<b>110 J</b>	NA	NA	NA
PCB-88/91			< 390 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>38 J</b>	NA	<b>24 J</b>	NA	NA	NA
PCB-89			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-9			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-90/101/113			< 590 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>290 JB</b>	NA	<b>160 JB</b>	NA	NA	NA
PCB-92			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>56 J</b>	NA	<b>31 J</b>	NA	NA	NA
PCB-93/100			< 390 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 390 U	NA	< 390 U	NA	NA	NA
PCB-94			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 200 U	NA	< 200 U	NA	NA	NA
PCB-95			<b>3.0 J</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>220 B</b>	NA	<b>220 B</b>	NA	NA	NA
PCB-96			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>1.8 J</b>	NA	<b>1.8 J</b>	NA	NA	NA
PCB-98/102			< 390 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 390 U	NA	<b>4.7 J</b>	NA	NA	NA
PCB-99			< 200 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>120 J</b>	NA	<b>53 J</b>	NA	NA	NA
Total Polychlorinated Biphenyls	500000	1400000	<b>100 J</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>4000</b>	NA	<b>2300</b>	NA	NA	NA
<b>Dioxins and Furans (pg/L)</b>																			
2,3,7,8-Tetrachlorodibenzo-p-dioxin	10000	10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.2 UH	NA	NA	< 0.17 U	NA	NA	NA
<b>TEQ (pg/L)</b>																			
TEQ WHO2005 ND=0.5			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.27	NA	NA	NA	NA	NA	NA
TEQ WHO2005 ND=DL			0.00014	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.27	NA	NA	0.021	NA	NA	NA
Total PCB TEQ			0.00014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.021	NA	NA	NA
<b>Asbestos (MFL)</b>																			
Asbestos	7	7	NA	NA	NA	< 0.54 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Pesticides (µg/L)</b>																			
4,4-DDT	2.5	8.4	< 0.050 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	4.7	31	< 0.050 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde	0.1	0.1	< 0.050 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor	78	510	< 0.050 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Field Parameters</b>																			
pH (s.u.)	--	--	6.80	6.88	4.87	6.73	5.90	4.67	4.67	4.80	7.61	6.61	7.02	6.94	5.89	6.84	6.15	5.99	5.99

Notes:  
**Bold** = Concentration is greater than the laboratory detection limit  
Shaded = Concentration exceeds the GA EPD Type 1/4 RRS  
The Type 1/2 RRS is used for groundwater delineation and the Type 3/4 RRS is used as the groundwater cleanup standard.  
**Acronyms and Abbreviations:**  
DUP = field duplicate  
GA EPD = Georgia Environmental Protection Division  
MFL = million fibers per liter  
NA = not analyzed  
PCB = polychlorinated biphenyl  
pg/L = picogram per liter  
RRS = Risk Reduction Standard  
s.u. = standard units  
TEQ = toxicity equivalent quotient  
µg/L = microgram per liter  
**Data Validation Qualifiers:**  
B = Compound was detected in the associated blank  
H = Sample was analyzed outside of the hold time  
J = Result is estimated  
U = Result is less than the laboratory detection limit



Table 8

Soil Boring Sampling and Analysis Plan and Summary  
Compliance Status Report  
Hercules Savannah Facility - Savannah, Georgia

Sample ID	Sample Interval (ft bgs)	Sample Date	Northing	Easting	Analytical Parameters			
					PCB Aroclor 1254 (8082)	TEQ		1,1-Biphenyl (8270D)
						Total PCBs (1668)	Dioxins/ Furans (8290)	
Hard Resin Area								
SB-204-1	0-2	10/26/2017	760827.12	971727.34	X	X	X	
SB-204-1A	0-2	12/29/2017	760839.48	971727.05	X	X		
SB-204-2	0-2	10/26/2017	760836.71	971709.49	X	X	X	
SB-204-2A	0-2	12/29/2017	760825.40	971757.69	X	X		
SB-204-2B	0-2	12/29/2017	760810.86	971759.39	X	X		
SB-204-3	0-2	10/26/2017	760785.42	971717.28	X	X	X	
SB-204-3A	0-2	12/29/2017	760788.29	971703.12		X	X	
SB-204-3B	0-2	12/29/2017	760782.83	971699.87		X		
SB-207-1	0-2	10/26/2017	760776.28	971639.72	X	X	X	
SB-207-2	0-2	10/26/2017	760727.08	971641.41	X	X	X	
SB-207-3	0-2	10/26/2017	760780.79	971640.14	X	X	X	
Electrical Substation 8526								
SB-122-1	0-1	10/26/2017	761092.75	971425.94	X			
SB-122-2	0-1	10/26/2017	761078.65	971423.85	X			
SB-122-3	0-1	10/26/2017	761078.42	971407.64	X			
SB-122-4	0-1	10/26/2017	761100.66	971412.21	X			
Former Dry Size Area								
SB-137-1	0-1	10/24/2017	761045.04	970980.55	X			
SB-137-1A	0-1	12/29/2017	761059.77	970983.80	X			
SB-202-1	0-2	10/24/2017	761055.93	971021.07	X	X	X	
SB-202-1A	0-2	12/29/2017	761078.90	971030.35	X	X		
SB-202-2	0-2	10/24/2017	761039.43	971019.76	X	X	X	
DS-9-1	0-2	10/24/2017	761006.19	971172.11				X
DS-9-2	0-4	10/24/2017	760992.73	971162.78				X
DS-9-2A	0-4	12/29/2017	760981.44	971168.74				X
DS-9-3	0-4	10/24/2017	760994.37	971149.92				X
DS-9-4	0-4	10/24/2017	761014.42	971155.24				X
Dowtherm Unit 2024								
SB-126-1	0-1	10/24/2017	761278.03	970640.21				X
SB-126-2	0-1	10/24/2017	761279.43	970620.98				X
SB-126-3	0-1	10/24/2017	761288.32	970618.83				X
SB-128-1	0-1	10/24/2017	761280.66	970615.12				X
SB-128-1A	0-1	12/29/2017	761285.51	970596.31				X
SB-128-1B	0-1	12/29/2017	761272.53	970580.07				X
SB-128-2	0-1	10/24/2017	761301.73	970605.53				X
SB-128-3	0-1	10/24/2017	761272.38	970603.87				X
SB-159-1	0-2	10/24/2017	761267.48	970627.01				X
SB-159-2	0-2	10/24/2017	761261.27	970623.63				X
SB-159-3	0-2	10/24/2017	761272.65	970605.16				X
SB-159-3A	0-2	12/29/2017	761253.45	970603.79				X
Dowtherm Unit 2028								
EX-21-1	0-2	10/25/2017	760848.31	972163.07				X
EX-21-1A	0-2	12/29/2017	760860.41	972163.69				X
EX-21-2	0-2	10/25/2017	760828.74	972156.15				X
EX-22-1	0-2	10/25/2017	760804.34	972181.89				X
EX-22-2	0-2	10/25/2017	760798.05	972197.99				X
EX-22-3	0-2	10/25/2017	760795.32	972170.50				X
EX-26-1	0-2	10/26/2017	760789.66	972177.40				X
EX-26-2	0-2	10/26/2017	760770.63	972190.38				X
EX-26-3	0-2	10/26/2017	760785.90	972164.88				X
SB-142-1	0-1	10/26/2017	760785.90	972211.78				X
SB-142-2	0-1	10/26/2017	760777.69	972196.87				X
SB-142-3	0-1	10/26/2017	760788.88	972190.41				X
SB-165-1	0-2	10/25/2017	760825.88	972190.27				X
SB-165-2	0-2	10/25/2017	760813.78	972199.16				X
SB-168-1	0-2	10/25/2017	760813.31	972143.78				X
SB-168-2	0-2	10/25/2017	760801.09	972134.68				X
SB-168-3	0-2	10/25/2017	760811.44	972119.31				X
SB-189-1	0-2	10/25/2017	760839.56	972148.44				X
SB-189-2	0-2	10/25/2017	760826.97	972126.22				X
SB-189-3	0-2	10/25/2017	760843.39	972121.45				X
SB-198-1	0-2	10/25/2017	760843.67	972181.69				X
SB-198-2	0-2	10/25/2017	760820.44	972172.30				X

**Acronyms and Abbreviations:**

bgs = below ground surface

ft = foot/feet

PCB = polychlorinated biphenyl

TEQ = toxicity equivalent quotient



Table 9  
Soil Analytical Results - 2017  
Compliance Status Report  
Hercules Inc. - Savannah, GA



				Former Dry Size Area					Dowtherm Unit 2024														
Location ID	Soil Type 1/2 RRS	Soil Type 3/4 RRS	Site- Specific Type 4 RRS	DS-9-1	DS-9-2	DS-9-2A	DS-9-3	DS-9-4	SB-126-1	SB-126-2	SB-126-3	SB-128-1	SB-128-1A	SB-128-1A	SB-128-1B	SB-128-2	SB-128-3	SB-159-1	SB-159-2	SB-159-3	SB-159-3A		
Date				10/24/2017	10/24/2017	12/29/2017	10/24/2017	10/24/2017	10/24/2017	10/24/2017	10/24/2017	10/24/2017	12/29/2017	12/29/2017	12/29/2017	10/24/2017	10/24/2017	10/24/2017	10/24/2017	10/24/2017	10/24/2017	12/29/2017	
Sample ID				DS-9-1 (0-2) (102417)	DS-9-2 (0-4) (102417)	DS-9-2A (12292017)	DS-9-3 (0-4) (102417)	DS-9-4 (0-4) (102417)	SB-126-1 (0-1) (102417)	SB-126-2 (0-1) (102417)	SB-126-3 (0-1) (102417)	SB-128-1 (0-1) (102417)	SB-128-1A (12292017)	DUP-2 (12292017)	SB-128-3B (12292017)	SB-128-2 (0-1) (102417)	DUP-3 (102417)	SB-128-3 (0-1) (102417)	SB-159-1 (0-2) (102417)	SB-159-2 (0-2) (102417)	SB-159-3 (0-2) (102417)	SB-159-1A (12292017)	
Sample Type				N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Semi-Volatile Organic Compounds (µg/kg)																							
1,1-Biphenyl	1000	1000	214,000	91	2,500	110	160	130	890	170	190	1,200,000	210,000	180,000	< 360 UH	530	320 J	270	140	150	2,000	300 J	

**Notes:**  
**Bold** = Concentration is greater than the laboratory detection limit  
Shaded = Concentration exceeds the GA EPD Type 1/4 RRS  
**Red** = Concentration exceeds the Site-SpecificType 4 RRS  
The Type 1/2 RRS is used for groundwater delineation and the  
Type 3/4 RRS is used as the groundwater cleanup standard.  
The Site-Specific Type 4 RRS for 1,1-biphenyl is derived using the USEPA  
industrial soil RSL, THQ of 1.  
**Acronyms and Abbreviations:**  
DUP = field duplicate  
GA EPD = Georgia Environmental Protection Division  
RRS = Risk Reduction Standard  
RSL = Regional Screening Level  
THQ = target hazard quotient  
µg/kg = microgram per kilogram  
USEPA = United States Environmental Protection Agency  
**Data Validation Qualifiers:**  
H = Constituent was analyzed outside of the hold time  
J = Result is estimated  
U = Result is less than the laboratory detection limit



Table 9  
Soil Analytical Results - 2017  
Compliance Status Report  
Hercules Inc. - Savannah, GA

Area			Dowtherm Unit 2028																								
Location ID	Soil Type 1/2 RRS	Soil Type 3/4 RRS	EX-21-1	EX-21-1A	EX-21-2	EX-22-1	EX-22-2	EX-22-3	EX-26-1	EX-26-1	EX-26-2	EX-26-3	SB-142-1	SB-142-2	SB-142-3	SB-165-1	SB-165-2	SB-168-1	SB-168-2	SB-168-3	SB-189-1	SB-189-2	SB-189-3	SB-198-1	SB-198-2		
Date			10/25/2017	12/29/2017	10/25/2017	10/25/2017	10/25/2017	10/25/2017	10/26/2017	10/26/2017	10/26/2017	10/26/2017	10/26/2017	10/26/2017	10/26/2017	10/25/2017	10/25/2017	10/25/2017	10/25/2017	10/25/2017	10/25/2017	10/25/2017	10/25/2017	10/25/2017	10/25/2017		
Sample ID			EX-21-1 (0-2) (102517)	EX-21-1A (12292017)	EX-21-2 (0-2) (102517)	EX-22-1 (0-2) (102517)	EX-22-2 (0-2) (102517)	EX-22-3 (0-2) (102517)	EX-26-1 (0-2) (102617)	DUP-2 (102617)	EX-26-2 (0-2) (102617)	EX-26-3 (0-2) (102617)	SB-142-1 (0-1) (102617)	SB-142-2 (0-1) (102617)	SB-142-3 (0-1) (102617)	SB-165-1 (0-2) (102517)	SB-165-2 (0-2) (102517)	SB-168-1 (0-2) (102517)	SB-168-2 (0-2) (102517)	SB-168-3 (0-2) (102517)	SB-189-1 (0-2) (102517)	SB-189-2 (0-2) (102517)	SB-189-3 (0-2) (102517)	SB-198-1 (0-2) (102517)	SB-198-2 (0-2) (102517)		
Sample Type	N																										
Semi-Volatile Organic Compounds (µg/kg)																											
1,1-Biphenyl	1000	1000	1,500	< 190 U	100 J	13 J	12 J	13 J	31 J	73	< 380 U	< 37 U	< 360 U	< 370 U	150	270	12 J	86 F	580	250	120	140	70	< 41 U	110 J		

**Notes:**  
**Bold** = Concentration is greater than the laboratory detection lin  
Shaded = Concentration exceeds the GA EPD Type 1/4 RRS  
**Red** = Concentration exceeds the Site-SpecificType 4 RRS  
The Type 1/2 RRS is used for groundwater delineation and the  
Type 3/4 RRS is used as the groundwater cleanup standard.  
The Site-Specific Type 4 RRS for 1,1-biphenyl is derived using t  
industrial soil RSL, THQ of 1.

**Acronyms and Abbreviations:**  
DUP = field duplicate  
GA EPD = Georgia Environmental Protection Division  
RRS = Risk Reduction Standard  
RSL = Regional Screening Level  
THQ = target hazard quotient  
µg/kg = microgram per kilogram  
USEPA = United States Environmental Protection Agency

**Data Validation Qualifiers:**  
H = Constituent was analyzed outside of the hold time  
J = Result is estimated  
U = Result is less than the laboratory detection limit



Table 9  
Soil Analytical Results - 2017  
Compliance Status Report  
Hercules Inc. - Savannah, GA



Location ID	Soil Type 1/2 RRS	Soil Type 3/4 RRS	Site- Specific Type 4 RRS	Hard Resin Area												Electrical Substation 8526				Former Dry Size Area							
SB-204-1				SB-204-2	SB-204-3	SB-204-1A	SB-204-2A	SB-204-2A	SB-204-2B	SB-204-3A	SB-204-3B	SB-207-1	SB-207-2	SB-207-3	SB-122-1	SB-122-2	SB-122-3	SB-122-4	SB-137-1	SB-137-1A	SB-202-1	SB-202-1	SB-202-1A	SB-202-2			
Date				10/26/2017	10/26/2017	10/26/2017	12/29/2017	12/29/2017	12/29/2017	12/29/2017	12/29/2017	12/29/2017	12/29/2017	12/29/2017	12/29/2017	10/26/2017	10/26/2017	10/26/2017	10/26/2017	10/24/2017	12/29/2017	10/24/2017	12/29/2017	10/24/2017	12/29/2017	10/24/2017	
Sample ID	SB-204-1 (0-2)	SB-204-2 (0-2)	SB-204-3 (0-2)	SB-204-1A	SB-204-2A	DUP-1	SB-204-2B	SB-204-3A	SB-204-3B	SB-207-1 (0-2)	SB-207-2 (0-2)	SB-207-3 (0-2)	SB-122-1 (0-1)	SB-122-2 (0-1)	SB-122-3 (0-1)	SB-122-4 (0-1)	SB-137-1 (0-1)	SB-137-1A	SB-202-1 (0-2)	DUP-1	SB-202-1A	SB-202-2 (0-2)					
Sample Type	(102617)	(102617)	(102617)	(12292017)	(12292017)	(12292017)	(12292017)	(12292017)	(12292017)	(102617)	(102617)	(102617)	(102617)	(102617)	(102617)	(102617)	(102417)	(12292017)	(102417)	(102417)	(102417)	(102417)					
Dioxins and Furans (µg/kg)																											
2,3,7,8-Tetrachlorodibenzo-p-dioxin				< 0.0019 U	< 0.0015 U	< 0.0022 U	--	--	--	--	< 0.0030 U	--	< 0.0012 U	< 0.0013 U	< 0.0011 U	--	--	--	--	--	< 0.0014 U	< 0.0012 U	--	< 0.023 U			
TEQ Dioxin/Furan WHO2005ND=0				0.00091	0.00056	0.01	--	--	--	--	--	--	0.0023	0.016	0.0019	--	--	--	--	--	0.015	0.0079	--	0.022			
TEQ WHO2005 ND=0.5	0.12	0.44	0.44	--	--	--	--	--	--	--	0.0031	--	--	--	--	--	--	--	--	--	--	--	--	--			
TEQ WHO2005 ND=DL				--	--	--	0.0011	0.018	0.0088	0.0043	0.021	0.0016	--	--	--	--	--	--	--	--	--	0.00094	--	--			
Total PCB TEQ			0.44	0.0068	0.005	0.5	0.0011	0.018	0.0088	0.0043	0.018	0.0016	0.00053	0.00084	0.00093	--	--	--	--	--	0.0051	0.0035	0.00094	0.011			
Toxicity Equivalent ND =0			0.44	0.0078	0.0055	0.51	--	--	--	--	--	--	0.0029	0.017	0.0029	--	--	--	--	--	0.02	0.011	--	0.033			
Pesticides (µg/kg)																											
4,4-DDT	660	2800		< 1.9 U	< 2.0 U	< 2.1 U	--	--	--	--	--	--	--	--	--	43 p	< 2.1 U	< 2.0 U	< 1.9 U	< 2.0 U	--	< 2.0 U	< 1.9 U	--	< 1.9 U		
Endrin	10000	10000		< 1.9 U	< 2.0 U	< 2.1 U	--	--	--	--	--	--	--	--	--	< 2.2 U	< 2.1 U	< 2.0 U	< 1.9 U	< 2.0 U	--	< 2.0 U	< 1.9 U	--	< 1.9 U		
Endrin aldehyde	10000	10000		< 1.9 U	< 2.0 U	< 2.1 U	--	--	--	--	--	--	--	--	--	< 2.2 U	< 2.1 U	< 2.0 U	< 1.9 U	< 2.0 U	--	< 2.0 U	< 1.9 U	--	< 1.9 U		
Methoxychlor	10000	28000		< 1.9 U	< 2.0 U	< 2.1 U	--	--	--	--	--	--	--	--	--	< 2.2 U	< 2.1 U	< 2.0 U	< 1.9 U	< 2.0 U	--	< 2.0 U	< 1.9 U	--	< 1.9 U		
Aroclors (µg/kg)																											
Aroclor 1254	1550	1550	7300	1600	5200	400	250	3500	2900	910	--	--	--	--	--	1200	1400	900	270	4400	3700	1700	770	330	1100		
Aroclor 1260	1550	1550	20000	< 37 U	< 38 U	< 40 U	--	--	--	--	--	--	--	--	--	< 42 U	< 41 U	< 38 U	< 37 U	< 39 U	--	< 38 U	< 37 U	--	< 36 U		
Aroclor 1262				< 37 U	< 38 U	< 40 U	--	--	--	--	--	--	--	--	--	< 42 U	< 41 U	< 38 U	< 37 U	< 39 U	--	< 38 U	< 37 U	--	< 36 U		
Aroclor 1268				< 37 U	< 38 U	< 40 U	--	--	--	--	--	--	--	--	--	< 42 U	< 41 U	< 38 U	< 37 U	< 39 U	--	< 38 U	< 37 U	--	< 36 U		
Polychlorinated Biphenyls (µg/kg)																											
Decachlorobiphenyl				0.24	0.10 JB	0.27 JB	0.031 J	0.46	0.23 J	0.84	0.82	0.34	0.16 B	0.53 B	0.027 JB	--	--	--	--	--	--	0.40 B	0.43 B	0.12	0.55 JB		
PCB-1				0.029	0.22 J	0.014 J	0.0037 J	0.089 J	0.090 J	0.055 J	0.25	0.011 J	0.0025 J	0.0046 J	0.0031 J	--	--	--	--	--	--	0.0093 J	0.032	0.0029 J	0.074 J		
PCB-10				< 0.024 U	< 0.47 U	< 0.50 U	< 0.23 U	0.012 J	< 0.51 U	< 0.13 U	0.054 J	< 0.12 U	< 0.12 U	< 0.13 U	< 0.11 U	--	--	--	--	--	--	< 0.024 U	< 0.024 U	< 0.11 U	< 1.2 U		
PCB-103				< 0.99 U	< 0.86 U	< 2.5 U	< 0.23 U	< 2.9 U	< 1.5 U	< 0.68 U	3.3 G	< 0.49 U	< 0.12 U	< 0.26 U	< 0.16 U	--	--	--	--	--	--	< 1.3 U	< 1.0 U	< 0.22 U	< 2.0 U		
PCB-104				0.0048 J	0.021 J	0.013 J	< 0.23 U	0.027 J	0.010 J	0.021 J	0.38	< 0.12 U	< 0.12 U	< 0.13 U	0.0043 J	--	--	--	--	--	--	0.0041 J	0.0042 J	< 0.11 U	< 1.2 U		
PCB-105				56	39	100	9.0 B	150 EB	74 EB	35 BE	150 EB	11 B	4.3	6	7.2	--	--	--	--	--	--	39 G	36 G	7.2 B	94 G		
PCB-106				< 0.90 U	< 0.78 U	< 2.2 U	< 0.23 U	< 2.7 U	< 1.4 U	< 0.62 U	< 2.9 U	< 0.45 U	< 0.12 U	< 0.23 U	< 0.15 U	--	--	--	--	--	--	< 1.1 U	< 0.91 U	< 0.20 U	< 1.8 U		
PCB-107/124				5.9	3.9	8.8	0.83	14 G	6.8 G	3.4 G	17 G	1.2 G	0.4	0.55	0.63	--	--	--	--	--	--	3.7 G	4.3 G	0.86	8.8		
PCB-109				9.5	7	20	1.4 B	26 EB	12 B	6.1 G	26 EB	2.1 G	0.69	1.1	1.4	--	--	--	--	--	--	5.9 G	6.2 G	1.2 B	14 G		
PCB-11				0.0061 J	< 0.47 U	0.055 J	< 0.23 U	< 0.24 U	< 0.51 U	< 0.13 U	< 0.23 U	< 0.12 U	< 0.12 U	< 0.13 U	< 0.11 U	--	--	--	--	--	--	0.012 J	0.0096 J	0.0066 JB	< 1.2 U		
PCB-110/115				150	110	290	24 B	410 EB	200 EB	91 BE	450 EB	45 BE	12 B	26	24	--	--	--	--	--	--	150 G	68 B	26 EB	320 B		
PCB-111				< 0.85 U	< 0.74 U	< 2.1 U	< 0.23 U	< 2.5 U	< 1.3 U	< 0.58 U	< 2.7 U	< 0.42 U	< 0.12 U	< 0.22 U	< 0.14 U	--	--	--	--	--	--	< 1.1 U	< 0.86 U	< 0.19 U	< 1.7 U		
PCB-112				< 0.88 U	< 0.76 U	< 2.2 U	< 0.23 U	< 2.6 U	< 1.4 U	< 0.60 U	< 2.8 U	< 0.44 U	< 0.12 U	< 0.23 U	< 0.14 U	--	--	--	--	--	--	< 1.1 U	< 0.89 U	< 0.19 U	< 1.8 U		
PCB-114				3.5	1.5	4.1	0.30 G	6.6 G	2.7 G	1.5 G	6.9 G	0.51 G	0.14	0.3	0.28	--	--	--	--	--	--	2.2 G	2.1 G	0.26 G	6.2 G		
PCB-118				130	96	240	22 B	320 EB	170 EB	83 BE	330 EB	29 BE	9.4	16	18	--	--	--	--	--	--	92 G	49 G	18 EB	210 G		
PCB-12/13				0.020 J	0.052 J	< 1.0 U	< 0.46 U	0.053 J	< 1.0 U	< 0.25 U	0.18 J	< 0.23 U	< 0.24 U	< 0.25 U	< 0.22 U	--	--	--	--	--	--	0.012 J	0.013 J	< 0.22 U	0.091 J		
PCB-120				< 0.81 U	< 0.70 U	< 2.0 U	< 0.23 U	< 2.4 U	< 1.2 U	< 0.55 U	< 2.6 U	< 0.40 U	< 0.12 U	< 0.21 U	< 0.13 U	--	--	--	--	--	--	< 1.0 U	< 0.82 U	< 0.18 U	< 1.6 U		
PCB-121				< 0.81 U	< 0.70 U	< 2.0 U	< 0.23 U	< 2.4 U	< 1.2 U	< 0.55 U	< 2.6 U	< 0.40 U	< 0.12 U	< 0.21 U	< 0.13 U	--	--	--	--	--	--	< 1.0 U	< 0.82 U	< 0.18 U	< 1.6 U		
PCB-122				1.2	< 0.83 U	< 2.4 U	< 0.23 U	< 2.8 U	< 1.5 U	< 0.65 U	< 3.0 U	< 0.47 U	< 0.12 U	< 0.25 U	0.16	--	--	--	--	--	--	1.4 G	1.4 G	< 0.21 U	< 1.9 U		
PCB-123				2	1.3																						



4/5



Table 9  
Soil Analytical Results - 2017  
Compliance Status Report  
Hercules Inc. - Savannah, GA



Location ID Date Sample ID Sample Type	Soil Type 1/2 RRS	Soil Type 3/4 RRS	Site- Specific Type 4 RRS	Hard Resin Area												Electrical Substation 8526				Former Dry Size Area					
				SB-204-1 10/26/2017	SB-204-2 10/26/2017	SB-204-3 10/26/2017	SB-204-1A 12/29/2017	SB-204-2A 12/29/2017	SB-204-2A 12/29/2017	SB-204-2B 12/29/2017	SB-204-3A 12/29/2017	SB-204-3B 12/29/2017	SB-207-1 10/26/2017	SB-207-2 10/26/2017	SB-207-3 10/26/2017	SB-122-1 10/26/2017	SB-122-2 10/26/2017	SB-122-3 10/26/2017	SB-122-4 10/26/2017	SB-137-1 10/24/2017	SB-137-1A 12/29/2017	SB-202-1 10/24/2017	SB-202-1 10/24/2017	SB-202-1A 12/29/2017	SB-202-2 10/24/2017
				SB-204-1 (0-2) (102617)	SB-204-2 (0-2) (102617)	SB-204-3 (0-2) (102617)	SB-204-1A (12292017)	SB-204-2A (12292017)	DUP-1 (12292017)	SB-204-2B (12292017)	SB-204-3A (12292017)	SB-204-3B (12292017)	SB-207-1 (0-2) (102617)	SB-207-2 (0-2) (102617)	SB-207-3 (0-2) (102617)	SB-122-1 (0-1) (102617)	SB-122-2 (0-1) (102617)	SB-122-3 (0-1) (102617)	SB-122-4 (0-1) (102617)	SB-137-1 (0-1) (102417)	SB-137-1A (12292017)	SB-202-1 (0-2) (102417)	DUP-1 (102417)	SB-202-1A (12292017)	SB-202-2 (0-2) (102417)
				N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
PCB-48				0.98	0.43 JB	1.1 B	0.10 JB	1.4 B	0.68 B	0.36	5.6 B	0.10 J	0.017 JB	0.056 JB	0.049 JB	--	--	--	--	--	--	1.5 B	0.81 B	0.054 JB	--
PCB-49/69				9.9	14 B	12 B	1.2 B	28 B	14 B	11 B	140 EB	1.5 B	0.27 B	0.79 B	2.3 B	--	--	--	--	--	--	8.4 EB	7.6 EB	0.88 B	--
PCB-5				0.024	0.023 J	< 0.50 U	< 0.23 U	0.019 J	< 0.51 U	0.030 J	0.16 J	< 0.12 U	< 0.12 U	< 0.13 U	< 0.11 U	--	--	--	--	--	--	< 0.024 U	0.016 J	< 0.11 U	< 1.2 U
PCB-50/53				0.97 B	3.3 B	1.4 B	0.12 JB	3.4 B	1.9 B	3.9 B	50 EB	0.14 JB	0.033 JB	0.10 JB	0.57 B	--	--	--	--	--	--	1.4 B	0.95 B	0.13 JB	--
PCB-51				0.16	2.3	0.23 J	0.014 JB	1.1 B	0.60 B	2.2 B	34 EB	0.028 JB	0.0043 J	0.026 J	0.52	--	--	--	--	--	--	0.29	0.11	0.043 JB	--
PCB-52				52	39 B	65	7.1 B	130 EB	62 EB	31 BE	250 EB	7.7 B	2.1 B	4.5 B	4.6 B	--	--	--	--	--	--	40 EB	42 EB	4.7 B	--
PCB-54				0.0065 J	0.11 J	0.018 J	< 0.23 U	0.12 J	0.086 J	0.41	4.9	< 0.12 U	< 0.12 U	0.0021 J	0.034 J	--	--	--	--	--	--	0.017 J	0.0085 J	0.0056 J	0.040 J
PCB-55				< 0.22 U	< 0.47 U	< 0.50 U	< 0.23 U	< 0.44 U	< 0.51 U	< 0.13 U	< 0.88 U	< 0.12 U	< 0.12 U	< 0.13 U	< 0.11 U	--	--	--	--	--	--	< 0.26 U	< 0.20 U	< 0.11 U	--
PCB-56				4.9	2.9	7.1	0.63 B	11 B	5.3 B	2.8 B	24 EB	0.82 B	0.18	0.069 J	0.41	--	--	--	--	--	--	4.2 G	3.4 G	0.41 B	--
PCB-57				< 0.22 U	< 0.47 U	< 0.50 U	< 0.23 U	< 0.44 U	< 0.51 U	< 0.13 U	< 0.88 U	< 0.12 U	< 0.12 U	< 0.13 U	< 0.11 U	--	--	--	--	--	--	< 0.26 U	< 0.20 U	< 0.11 U	--
PCB-58				< 0.21 U	< 0.47 U	< 0.50 U	< 0.23 U	< 0.43 U	< 0.51 U	< 0.13 U	< 0.86 U	< 0.12 U	0.13	0.31	0.25	--	--	--	--	--	--	1.4 G	2.0 G	< 0.11 U	--
PCB-59/62/75				0.45	0.49 J	0.56 J	0.053 J	1	0.54 J	0.45	5.6	0.088 J	0.014 J	0.037 J	0.099 J	--	--	--	--	--	--	0.64	0.38	0.039 J	--
PCB-6				0.046	0.082 J	0.031 J	< 0.23 U	0.11 J	0.074 J	0.062 J	0.32	< 0.12 U	< 0.12 U	< 0.13 U	< 0.11 U	--	--	--	--	--	--	0.034	0.071	< 0.11 U	0.19 J
PCB-60				2	1	2.4	0.27	4.2 G	2.1	< 0.13 U	9.4 G	0.3	0.068 J	0.26	0.11	--	--	--	--	--	--	1.8 G	1.3 G	0.12	--
PCB-61/70/74/76				47	33 B	67 B	6.7 B	130 EB	64 B	31 B	210 EB	7.6 B	1.7 B	3.5 B	3.6 B	--	--	--	--	--	--	30 G	32 G	3.5 B	--
PCB-63				0.49	0.43 J	0.6	0.058 J	1.4 G	0.75	0.52	5.0 G	0.068 J	< 0.12 U	0.030 J	0.081 J	--	--	--	--	--	--	< 0.23 U	0.27 G	0.027 J	--
PCB-64				5.6	4.2 B	7.6 B	0.74 B	13 B	6.6 B	3.6 B	27 EB	1.1 B	0.25 B	0.37 B	0.59 B	--	--	--	--	--	--	4.2 EB	4.2 EB	0.54 B	--
PCB-66				15	16 B	17 B	1.9 B	38 EB	19 B	11 B	100 EB	2.5 B	0.58 B	1.0 B	2.6 B	--	--	--	--	--	--	11 G	9.5 G	1.1 B	--
PCB-67				< 0.21 U	< 0.47 U	< 0.50 U	< 0.23 U	< 0.41 U	< 0.51 U	< 0.13 U	< 0.82 U	< 0.12 U	< 0.12 U	< 0.13 U	< 0.11 U	--	--	--	--	--	--	< 0.24 U	< 0.19 U	< 0.11 U	--
PCB-68				< 0.19 U	0.30 J	< 0.50 U	< 0.23 U	0.49 B	0.27 JB	< 0.23 B	2.6 B	< 0.12 U	< 0.12 U	< 0.13 U	0.071 J	--	--	--	--	--	--	< 0.22 U	< 0.18 U	< 0.11 U	--
PCB-7				< 0.024 U	0.025 J	< 0.50 U	< 0.23 U	0.024 J	< 0.51 U	< 0.13 U	0.10 J	< 0.12 U	< 0.12 U	< 0.13 U	< 0.11 U	--	--	--	--	--	--	< 0.024 U	< 0.024 U	< 0.11 U	< 1.2 U
PCB-72				< 0.21 U	0.39 J	< 0.50 U	< 0.23 U	1.1 G	0.59	0.37	2.0 G	0.045 J	< 0.12 U	< 0.13 U	0.062 J	--	--	--	--	--	--	< 0.24 U	< 0.19 U	< 0.11 U	--
PCB-73				< 0.024 U	0.091 J	< 0.50 U	< 0.23 U	< 0.24 U	< 0.51 U	< 0.13 U	1.6 G	< 0.12 U	< 0.12 U	< 0.13 U	0.046 J	--	--	--	--	--	--	< 0.024 U	0.15	< 0.11 U	--
PCB-77				1.9	1.4	7.4	0.28 G	4.5 G	2.2 G	1.2 G	8.7 G	0.41 G	0.12	0.18	0.21	--	--	--	--	--	--	1.1 G	0.68 G	0.19 G	--
PCB-78				0.47	< 0.47 U	< 0.50 U	< 0.23 U	< 0.45 U	< 0.51 U	< 0.13 U	< 0.89 U	< 0.12 U	< 0.12 U	< 0.13 U	< 0.11 U	--	--	--	--	--	--	< 0.26 U	< 0.21 U	< 0.11 U	--
PCB-79				0.97	0.64	2	0.12 J	2.4 G	1.1	0.44	3.0 G	0.2	0.053 J	0.098 J	0.10 J	--	--	--	--	--	--	0.81 G	0.83 G	0.12	--
PCB-8				0.22	0.46 J	0.12 J	0.037 J	0.55	0.39 J	0.46	6.1	0.035 J	< 0.12 U	0.016 J	0.024 J	--	--	--	--	--	--	0.13	0.31	0.020 J	0.90 J
PCB-80				0.63	< 0.47 U	< 0.50 U	0.090 J	< 0.38 U	< 0.51 U	0.39	< 0.76 U	< 0.12 U	< 0.12 U	< 0.13 U	< 0.11 U	--	--	--	--	--	--	0.47 G	0.56 G	0.083 J	--
PCB-81				< 0.20 U	< 0.18 U	2.7	< 0.025 U	< 0.40 U	< 0.23 U	< 0.10 U	< 0.81 U	< 0.032 U	< 0.012 U	< 0.024 U	< 0.026 U	--	--	--	--	--	--	< 0.28 U	< 0.20 U	< 0.017 U	--
PCB-82				13	8.4	25	2.0 B	33 EB	15 B	6.5 G	41 EB	2.7 G	0.78	1.8	1.3	--	--	--	--	--	--	9.7 G	10 G	2.1 B	27 G
PCB-83				< 1.5 U	< 1.3 U	< 3.7 U	< 0.28 U	< 4.4 U	< 2.3 U	< 1.0 U	< 4.7 U	< 0.74 U	< 0.18 U	< 0.38 U	< 0.24 U	--	--	--	--	--	--	< 1.9 U	< 1.5 U	< 0.32 U	< 3.0 U
PCB-84				27	19	47	4.5 B	66 EB	30 B	15 BE	96 EB	5.7 B	1.4	4.4	3	--	--	--	--	--	--	29 G	26 G	3.9 B	59 G
PCB-85/116/117				20	14	32	3.5 B	55 B	27 B	13 B	60 B	5.0 B	1.7	2.5	2.7	--	--	--	--	--	--	18 G	17 G	3.2 B	30
PCB-86/87/97/108/119/125				84 B	58 B	160 B	14 B	230 EB	100 B	47 B	280 EB	19 B	4.8 B	11 B	10 B	--	--	--	--	--	--	73 G	72 G	13 B	160 B
PCB-88/91				12	11	22	1.9 B	32 B	15 B	8.3 B	56 EB	3.3 B	0.81	2	1.9	--	--	--	--	--	--	12 G	11 G	2.0 B	25
PCB-89				< 1.2 U	< 1.0 U	< 3.0 U	< 0.23 U	< 3.5 U	< 1.8 U	< 0.81 U	< 3.8 U	< 0.59 U	< 0.15 U	< 0.31 U	< 0.19 U	--	--	--	--	--	--	< 1.5 U	< 1.2 U	< 0.26 U	< 2.4 U
PCB-9				0.015 J	0.031 J	< 0.50 U	< 0.23 U	0.037 J	< 0.51 U	< 0.13 U	0.085 J	< 0.12 U	< 0.12 U	< 0.13 U	< 0.11 U	--	--	--	--	--	--	0.0080 J	0.017 J	< 0.11 U	0.054 J
PCB-90/101/113				120 B	87 B	240	21 B	340 EB	160 EB	71 BE	400 EB	37 BE	7.6 B	17 B	16 B	--	--	--	--	--	--	110 B	52 B	19 B	220 B
PCB-92				21	17	43	3.8 B	63 EB	30 B	14 BE	82 EB	6.8 B	1.4	< 0.30 U	3.2	--	--	--	--	--	--	20 G	20 G	3.5 B	14 G
PCB-93/100				< 1.1 U	< 0.94 U	< 2.7 U	< 0.46 U	< 3.2 U	< 1.7 U	< 0.74 U	4.0 G	< 0.54 U	&												

**Notes:**  
**Bold** = Concentration is greater than the laboratory detection limit  
Shaded = Concentration exceeds the GA EPD Type 1/4 RRS  
**Red** = Concentration exceeds the Site-Specific Type 4 RRS  
The Type 1/2 RRS is used for groundwater delineation and the Type 3/4 RRS is used as the groundwater cleanup standard.  
Site-Specific Type 4 RRS is derived using the following:  
TEQ: Proposed by the GA EPD to Hercules following the submittal of the VIRP (GA EPD 2014) as part of the "no haggle" Type 1/4 RRS  
PCBs: The more conservative direct contact soil RRS in the 2018 risk assessment, based on the protection of groundwater

**Acronyms and Abbreviations:**  
DUP = field duplicate  
GA EPD = Georgia Environmental Protection Division  
PCB = polychlorinated biphenyl  
RRS = Risk Reduction Standard  
TEQ = toxicity equivalent quotient  
µg/kg = microgram per kilogram  
VIRP = Voluntary Investigation and Remediation Plan  
**Data Validation Qualifiers:**  
B = Compound was detected in the associated blank  
H = Constituent was analyzed outside of the hold time  
J = Result is estimated  
U = Result is less than the laboratory detection limit



# FIGURES





CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: A.CARLONE PIC: J.REID PM: D.WILDERMAN TM: J.HANNA DBASE: T.WALL BY: ACARLONE SAVED: 10/12/2018  
PROJECT: OH008000.GA61 PATH: Z:\GIS\PROJECTS\ENV\ASHLAND\ASHLAND\_HERCULES.GA SAVANNAH\MAPDOCS\2018\2018 COMPLIANCE STATUS REPORT\2018\F1\_GA61\_CSR2018 SITELOCATION.MXD



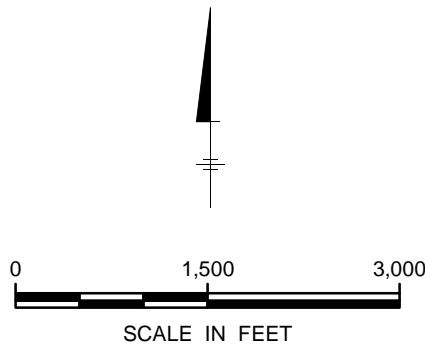
Service Layer Credits: Copyright:© 2013 National Geographic Society, i-cubed



**LEGEND**  
Site Boundary

PROJECTION: NAD83 State Plane Georgia East Feet

SOURCES:  
1) ESRI Online Services (USA Topo Maps).  
2) Parcels: SAGIS (2008).  
  
REFERENCE:  
U.S.G.S. 7.5 Minute Series Topographic Quadrangles:  
Garden City, Georgia 1981,  
Savannah, Georgia 1979.  
CONTOUR INTERVAL: 20 foot.



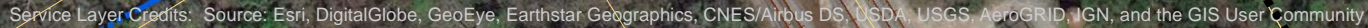
HERCULES LLC / SOLENIS LLC  
SAVANNAH PLANT (HSI #10696)  
SAVANNAH, GEORGIA  
**COMPLIANCE STATUS REPORT**

**Site Location Map**



FIGURE  
**1**

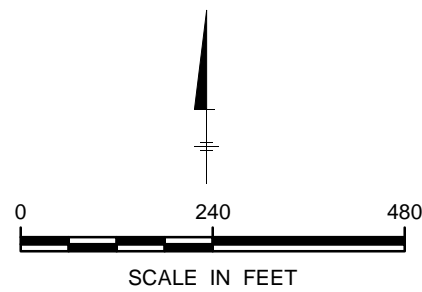




- Property Boundaries (Conner 2001)
- Site Boundary
- Surrounding Property (SAGIS)
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction

\* As defined by the Connor and Associates, March 16, 2001,  
Boundary Survey of the Hercules Property  
for Parcels 2-0734-01-001 and 2-0734-03-001.

BASE REFERENCE:  
 1) Ashland (baseplot.dwg and toplot.dwg).  
 2) SAGIS parcels (2008).  
 3) Ashland Savannahbase.dwg (March 2014).  
 PROJECTION: NAD83 State Plane Georgia East Feet  
 AERIAL SOURCE: ESRI Online Imagery (NAIP, August 2013)



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**COMPLIANCE STATUS REPORT**

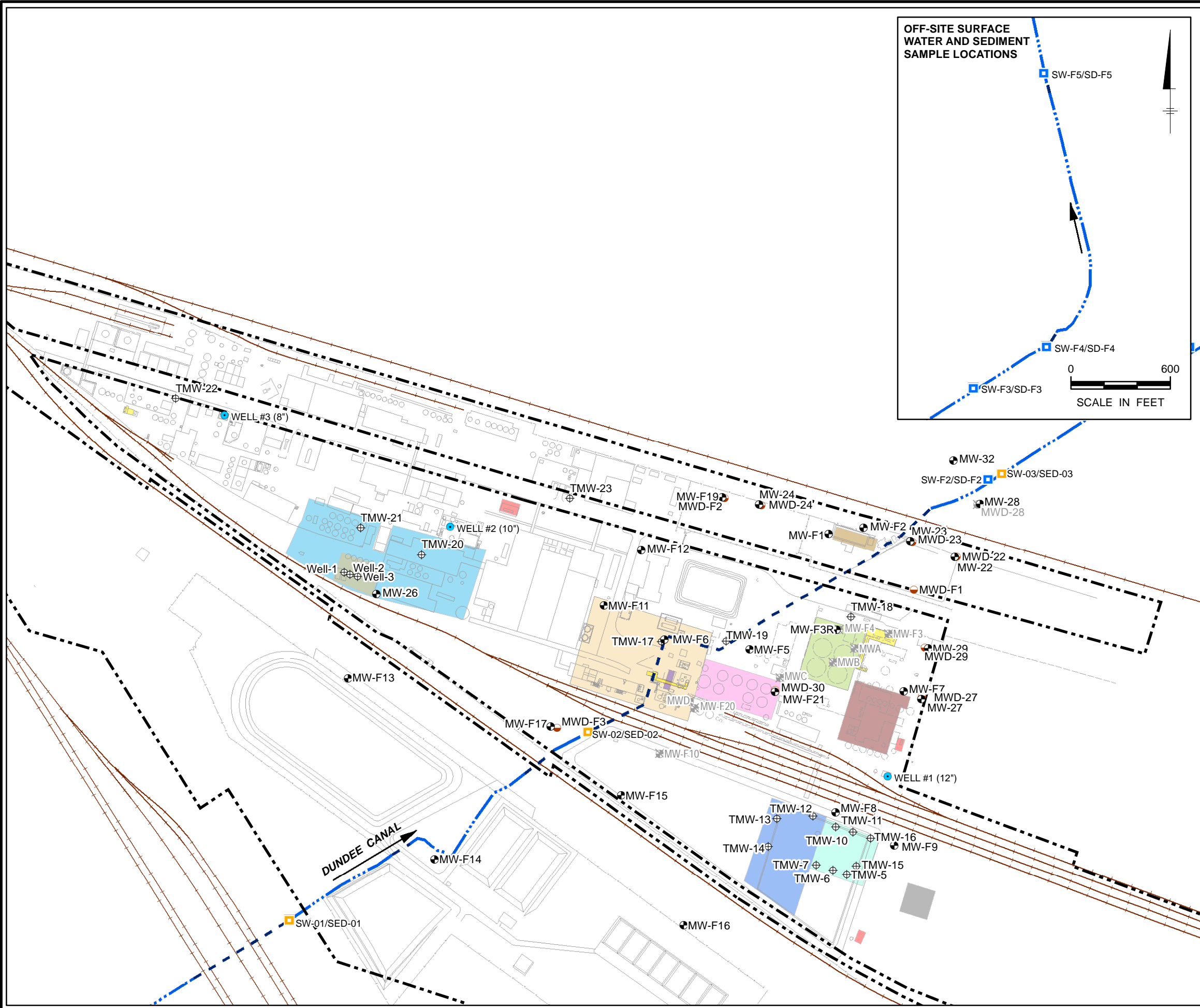
### Site Layout – Aerial View



FIGURE



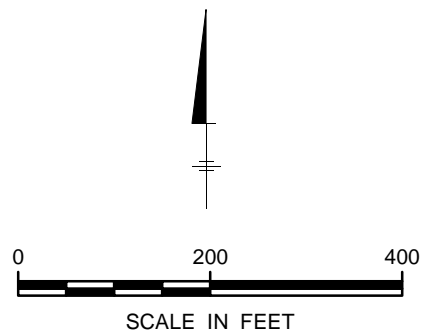
CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: A.CARLONE PIC: J.REID PM: D.WILDERMAN TM: J.HANNA DBASE: T.WALL BY: A.CARLONE SAVED: 10/12/2018  
PROJECT: OH008000.GA61 PATH: Z:\GIS\PROJECTS\ENV\ASHLAND\HERCULES.GA SAVANNAH\MAPDOCS\2018\2018 COMPLIANCE STATUS REPORT\2018\F3\_GA61\_CSR2018.SITE.MXD



## LEGEND

- Monitoring Well (shallow)
- Monitoring Well (deep)
- Temporary Monitoring Well (shallow)
- Production Well
- Monitoring Well (abandoned/destroyed)
- Surface Water/Sediment Sample (August 2014)
- Surface Water/Sediment Sample (November 2000)
- Property Boundaries (Conner 2001)
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction
- Contractor Yard
- Former Fatty Acid 60s Tank Area
- 30s Tank Area
- Former Fatty Acid 50s Tank Area
- Hard Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release)
- Dowtherm Release
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Dry Size Tank Area

\* As defined by the Connor and Associates, March 16, 2001, Boundary Survey of the Hercules Property for Parcels 2-0734-01-001 and 2-0734-03-001.



BASE REFERENCE:  
1) Ashland (baseplot.dwg and toplot.dwg).  
2) Ashland Savannahbase.dwg (March 2014).  
PROJECTION: NAD83 State Plane Georgia East Feet

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**Site Layout with Monitoring Well, Surface Water, and Sediment Sampling Locations**

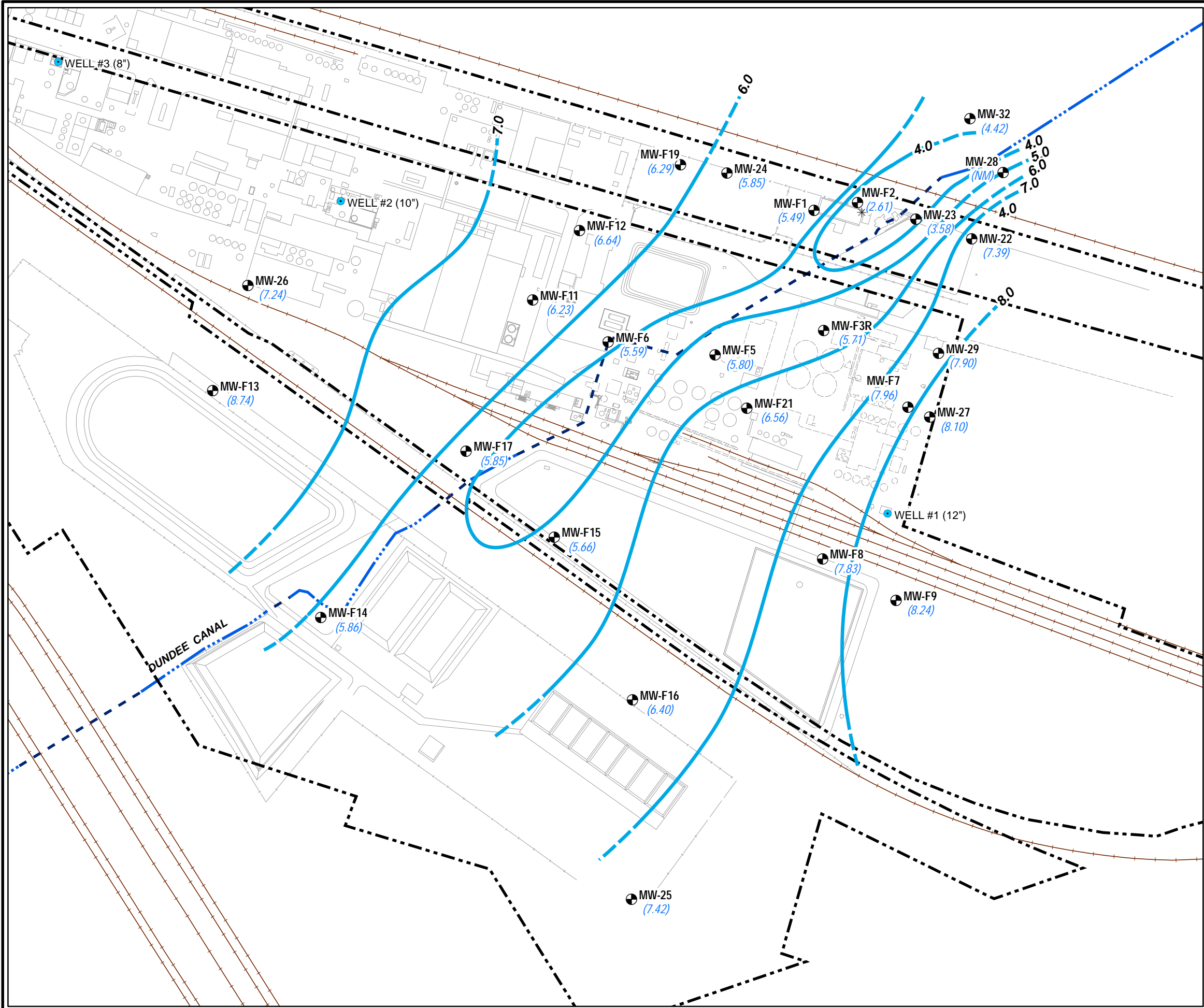


FIGURE

3

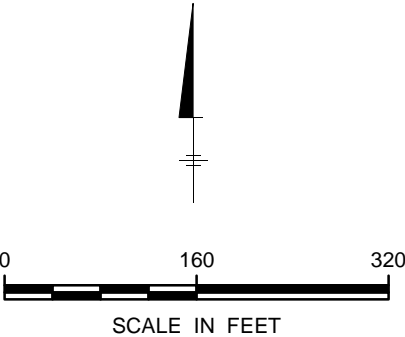


CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: A.CARLONE PIC: J.REID PM: D.WILDERMAN TM: J.HANNA DBASE: T.WALL BY: ACARLONE SAVED: 10/12/2018  
PROJECT: OH008000.GA61 PATH: Z:\GIS\PROJECTS\ENV\ASHLAND\ASHLAND\_HERCULES.GA SAVANNAH\MAPDOCS\2018\2018 COMPLIANCE STATUS REPORT\2018\F4\_GA61\_CSR2018\_POT\_DEC2017.MXD



- LEGEND**
- Production Well
  - ⊕ Monitoring Well (shallow)
  - (7.83) Groundwater Elevation (ft amsl)
  - \* Not Used to Construct Contours
  - Groundwater Contour Line (ft amsl)
  - - - (inferred where dashed)
  - Groundwater Flow Direction
  - - - Dundee Canal (culverted section)
  - Dundee Canal (open section)
  - - - Property Boundaries (Conner 2001)

Note:  
Groundwater elevation measured December 27-28, 2017



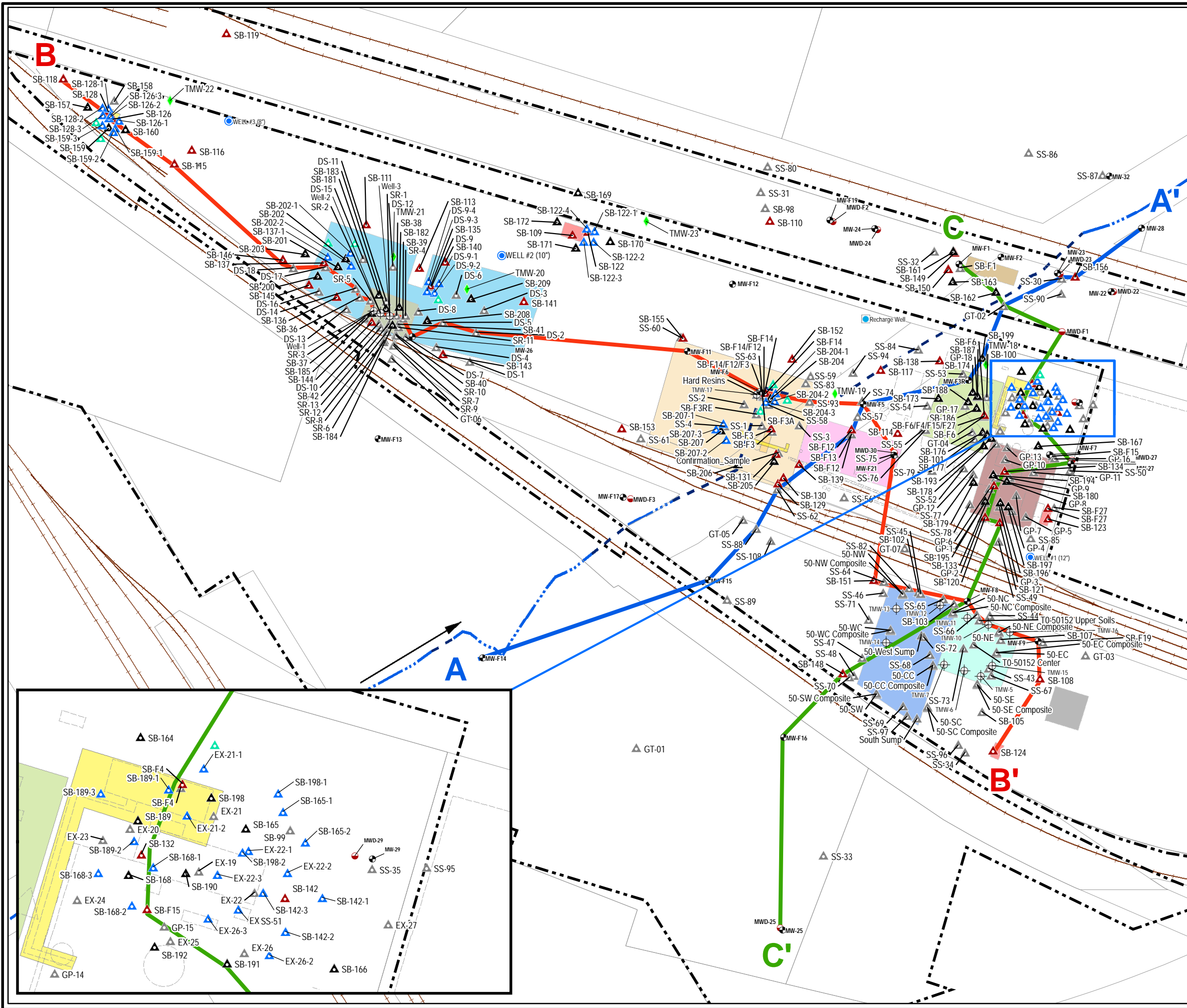
BASE REFERENCE:  
1) Ashland (baseplot.dwg and toplot.dwg).  
2) Conner and Associates Survey (March 2001).  
3) Ashland Savannahbase.dwg (March 2014).  
PROJECTION: NAD83 State Plane Georgia East Feet

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SAVANNAH, GEORGIA  
**COMPLIANCE STATUS REPORT**

**Shallow Potentiometric Surface Map**  
**December 27-28, 2017**

**ARCADIS** Design & Consultancy  
for natural and built assets

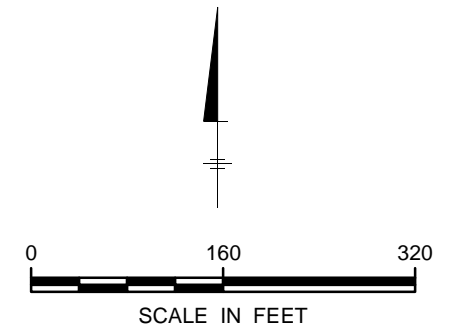




## LEGEND

- Monitoring Well (shallow)
- Monitoring Well (deep)
- Temporary Monitoring Well (shallow)
- Production Well
- Recharge Well
- Temporary Monitoring Well (October 2017)
- Soil Boring (Historical)
- Soil Boring (2014)
- Soil Boring (2015)
- Soil Boring (October 2017)
- Soil Boring (December 2017)
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction
- Property Boundaries (Conner 2001)
- Contractor Yard
- Former Fatty Acid 60s Tank Area
- 30s Tank Area
- Former Fatty Acid 50s Tank Area
- Hard Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release)
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Dry Size Tank Area

NOTE: \*SB-115 was not collected due to obstruction.

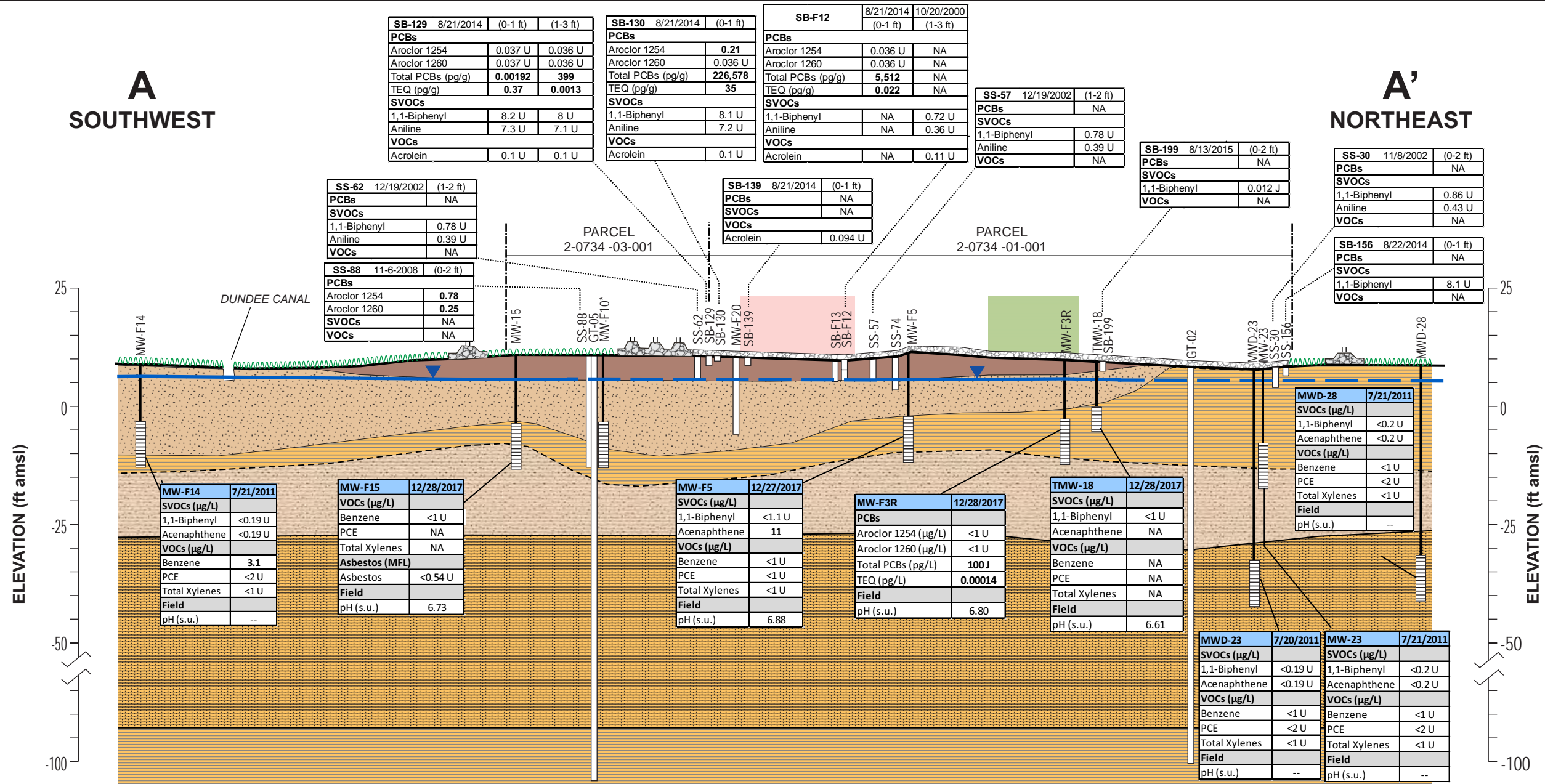


BASE REFERENCE:  
1) Ashland (baseplot.dwg and toplot.dwg).  
2) SAGIS (2008).  
3) Conner and Associates Survey (March 2001).  
4) Ashland Savannahbase.dwg (March 2014).  
PROJECTION: NAD83 State Plane Georgia East Feet

HERCULES LLC / SOLENIS LLC  
SAVANNAH PLANT (HSI #10696)  
SAVANNAH, GEORGIA  
COMPLIANCE STATUS REPORT

Geologic Cross-Section Locations





#### LEGEND



Water-Table (May 2, 2016)  
(inferred where dashed)



Soil Boring



Monitoring Well  
Screened Interval



Railroad Easement



Concrete/Asphalt



Grass



30s Tank Area



Former CTO Tank Area  
(Tall Oil Release)



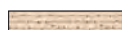
FILL MATERIAL, gravel, silty, sandy



SAND, fine-grained, silty, clayey



CLAY, high-plasticity (inferred where dashed)



SAND, clayey, silty; with shell fragments  
(inferred where dashed)



SILT, sandy (inferred where dashed)



AQUITARD

Soil	Type 1/2 RRS	Type 3/4 RRS
<b>Regulated Hazardous Constituent</b>		
<b>Polychlorinated Biphenyls (PCBs)</b>		
Aroclor 1254 (mg/kg)	1.55	1.55
Aroclor 1260 (mg/kg)	1.55	1.55
Total PCBs (pg/g)	1,550,000	1,550,000
TEQ (pg/g)	115	440
<b>Semi-Volatile Organic Compounds (SVOCs)</b>		
1,1-Biphenyl (mg/kg)	1	1
Aniline (mg/kg)	2	2
<b>Volatile Organic Compounds (VOCs)</b>		
Acrolein (mg/kg)	0.1	0.1

#### NOTES:

- Groundwater analytical results represent data from May 2-3, 2016, sampling event.
- All soil concentrations reported in milligrams per kilogram (mg/kg) except Toxic Equivalency (TEQ) and the Total PCBs that are the sum of all Total Non-Dioxin-like PCBs which have been calculated in picograms per gram (pg/g).
- All groundwater concentrations reported in micrograms per liter (µg/L) unless otherwise shown.
- Only constituents with historical detections above Type 1-4 Risk Reduction Standards (RRS) are shown.

Groundwater	Type 1/2 RRS	Type 3/4 RRS
<b>Regulated Hazardous Constituent</b>		
<b>Polychlorinated Biphenyls (PCBs)</b>		
Aroclor 1254 (µg/L)	0.5	1.4
Aroclor 1260 (µg/L)	0.5	1.4
Total PCBs (pg/L)	500,000	1,400,000
TEQ (pg/L)	10,000	10,000
<b>Semi-Volatile Organic Compounds (µg/L)</b>		
1,1-Biphenyl	10	10
Acenaphthene	10	10
<b>Volatile Organic Compounds (µg/L)</b>		
Benzene	5.4	8.7
PCE	19	98
Total Xylenes	10,000	10,000
<b>Asbestos (million fibers per liter)</b>		
Asbestos	7	7
<b>Field</b>		
pH (s.u.)	<2 and <12.5	<2 and <12.5

NA - Not analyzed

ND - Not detected

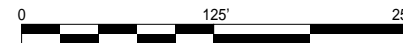
J - Result is less than the RL but greater than or equal to the minimum detection limit (MDL) and the concentration is an approximate value.

U - Indicates the analyte was analyzed for but not detected.

pg/L - picograms per liter

s.u. - Standard unit

\* - Well Abandoned



HORIZONTAL SCALE

VERTICAL EXAGGERATION: 5X

HERCULES LLC / SOLENIS LLC  
SAVANNAH PLANT (HSI #10696)  
SAVANNAH, GEORGIA

#### COMPLIANCE STATUS REPORT

#### Distribution of Select Constituents along Geologic Cross-Section A-A'





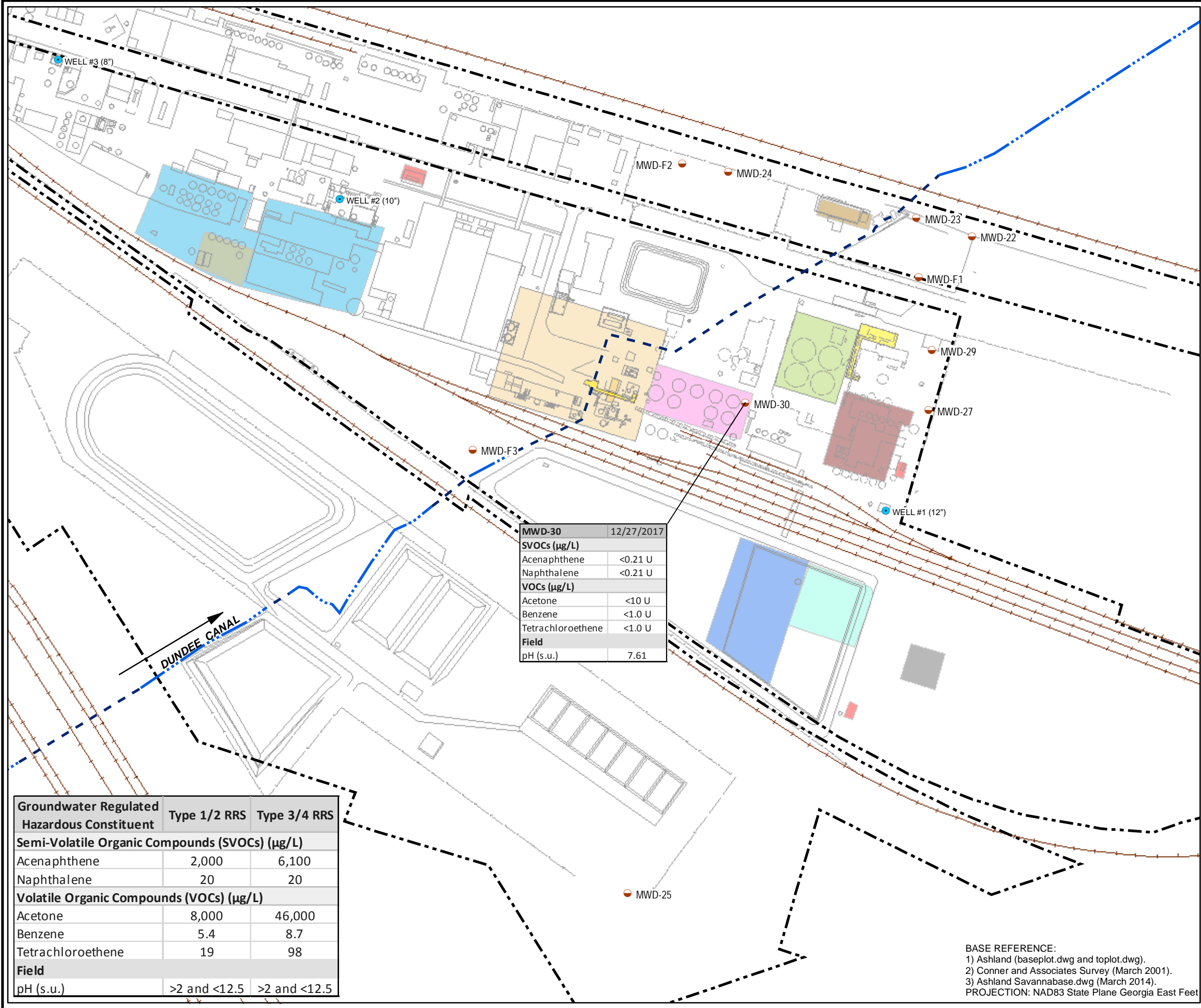













**HERCULES LLC / SOLENIS LLC**  
SAVANNAH PLANT (HSI #10696)  
SAVANNAH, GEORGIA  
**COMPLIANCE STATUS REPORT**

**Regulated Constituents**  
**in Deep Groundwater, December 2017**

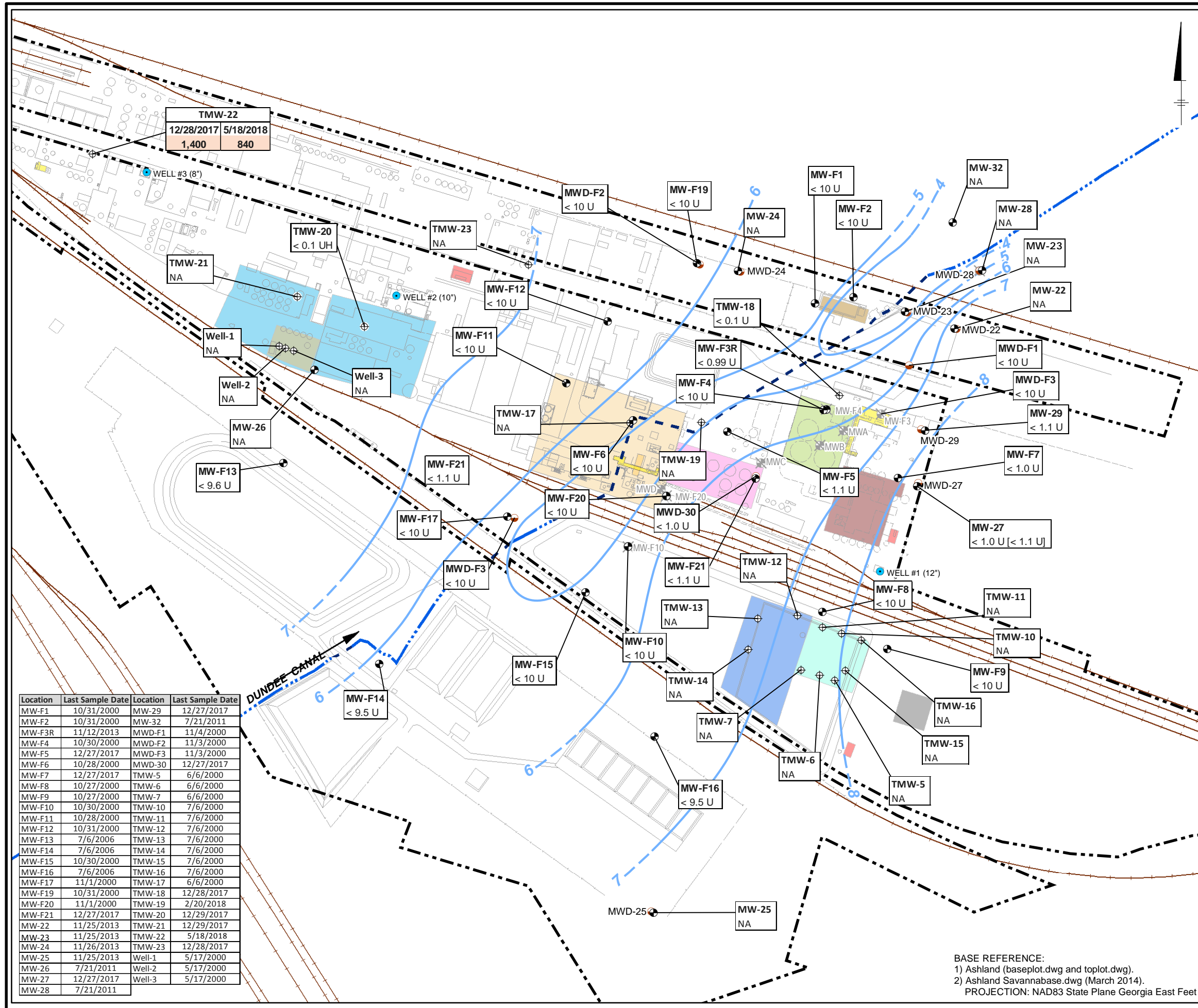


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FIGURE  
**7**

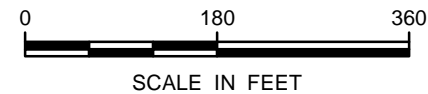


CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: A.CARLONE PIC: J.REID PM: D.WILDERMAN TM: J.HANNA DBASE: T.WALL BY: ACARLONESAVED: 10/4/2018  
PROJECT: OH008000.GA60  
PATH: Z:\GIS\PROJECTS\ ENV\ASHLAND\ASHLAND\_HERCULES\_GA\_SAVANNAHMAPDOCS\2018\2018 COMPLIANCE STATUS REPORT\2018\F8\_GA61\_CSR2018\_SITE\_BIPHENYLDelineation\_V2.MXD



- LEGEND**
- Monitoring Well (shallow)
  - Monitoring Well (deep)
  - Temporary Monitoring Well (shallow)
  - Production Well
  - Monitoring Well (abandoned/destroyed)
  - Potentiometric Contour
  - (Dashed where Inferred)
  - Property Boundaries (Conner 2001)
  - Dundee Canal (culverted section)
  - Dundee Canal (open section)
  - Canal Flow Direction
  - Contractor Yard
  - Former Fatty Acid 60s Tank Area
  - 30s Tank Area
  - Former Fatty Acid 50s Tank Area
  - Hard Resins Area
  - Primary Oil/Water Separator
  - Former Tall Oil Plant
  - Former CTO Tank Area (Tall Oil Release)
  - Dowtherm Release
  - Former Dowtherm Unit
  - Electrical Substation
  - Former Dry Size Area
  - Former Dry Size Tank Area

- Notes:**
- 1) All units are in micrograms per liter (µg/L).
  - 2) All locations are approximate.
  - 3) **Bold** = Concentration is greater than the laboratory detection limit.
  - 4) **Shaded** = Concentration exceeds the GA EPD Type 1-4 RRS for 1,1-biphenyl (10 µg/L).
  - 5) Duplicate sample results are shown in brackets.
  - 6) NA = not analyzed
  - 7) RRS = Risk Reduction Standard
  - 8) µg/L = microgram per liter
  - 9) H = Sample was analyzed outside of the holding time.
  - 10) U = Result is less than the laboratory detection limit.



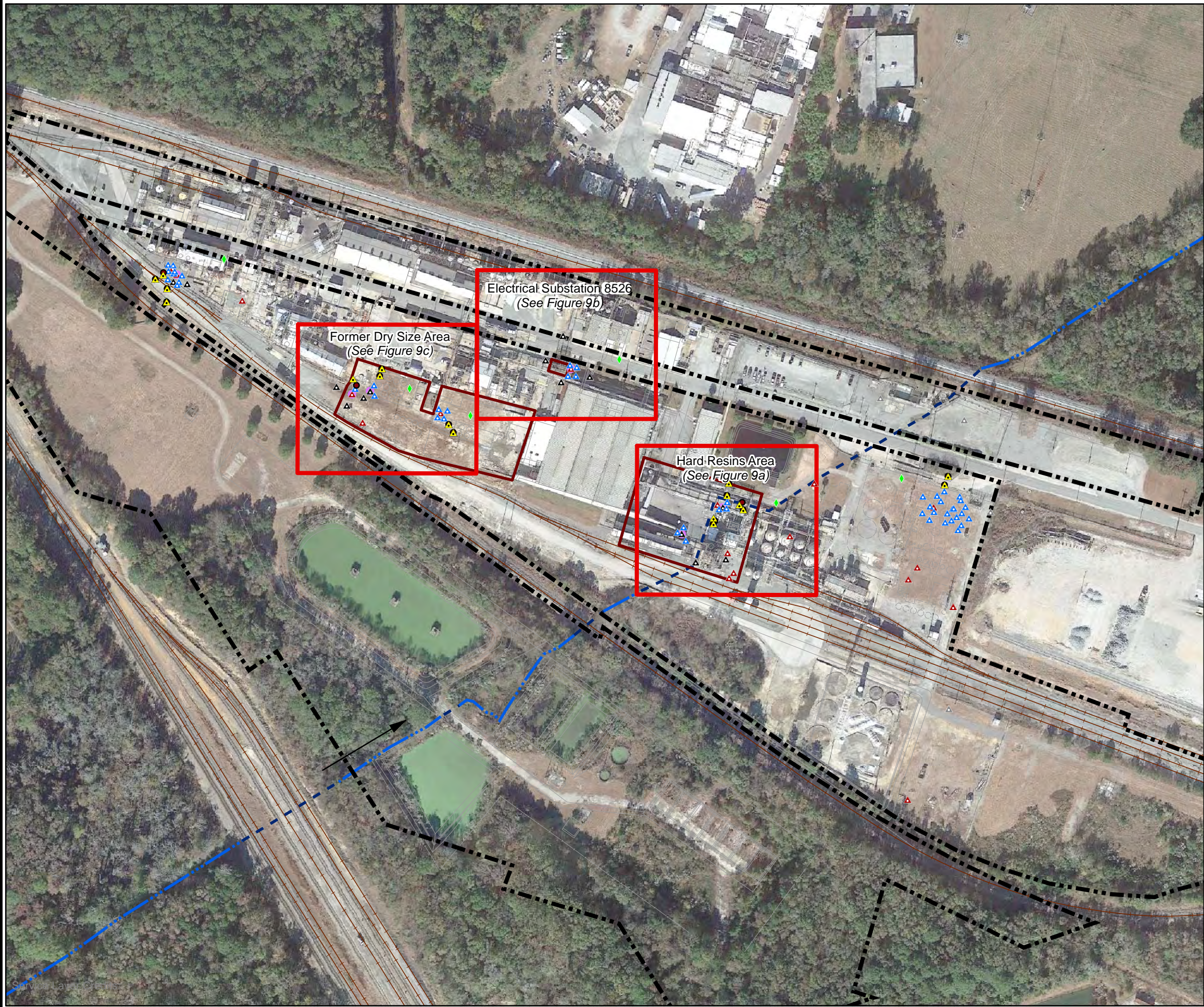
HERCULES LLC / SOLENIS LLC  
SAVANNAH PLANT (HSI #10696)  
SAVANNAH, GEORGIA  
**COMPLIANCE STATUS REPORT**

**Comprehensive 1,1-Biphenyl Delineation  
in Groundwater**



BASE REFERENCE:  
1) Ashland (baseplot.dwg and toplot.dwg).  
2) Ashland Savannahbase.dwg (March 2014).  
PROJECTION: NAD83 State Plane Georgia East Feet





#### LEGEND

- ▲ Soil Boring (2000-2008)
- ▲ Soil Boring (August 2014)
- ▲ Soil Boring (August/September 2015)
- ▲ Soil Boring (October 2017)
- ▲ Soil Boring (December 2017)
- Laboratory Reporting Limit above Type 1-4 RRS
- ◆ Temporary Monitoring Well (October 2017)
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction
- - - Property Boundaries (Conner 2001)
- Site Area

#### NOTES:

- 1) All locations are approximate.
- 2) The highest of the Type 1/2 RRS was used for delineation purposes.
- 3) PCB - Polychlorinated Biphenyl  
RRS - Risk Reduction Standard

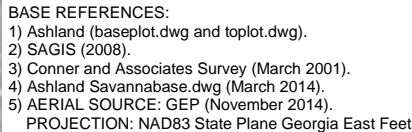
#### BASE REFERENCES:

- 1) Ashland (baseplot.dwg and toplot.dwg).
  - 2) SAGIS (2008).
  - 3) Conner and Associates Survey (March 2001).
  - 4) Ashland Savannahbase.dwg (March 2014).
- AERIAL SOURCE: GEP (November 2014).  
PROJECTION: NAD83 State Plane Georgia East Feet

HERCULES LLC / SOLENIS LLC  
SAVANNAH PLANT (HSI #10696)  
SAVANNAH, GEORGIA  
**COMPLIANCE STATUS REPORT**

**PCB Delineation in Soil -  
Area Locations**

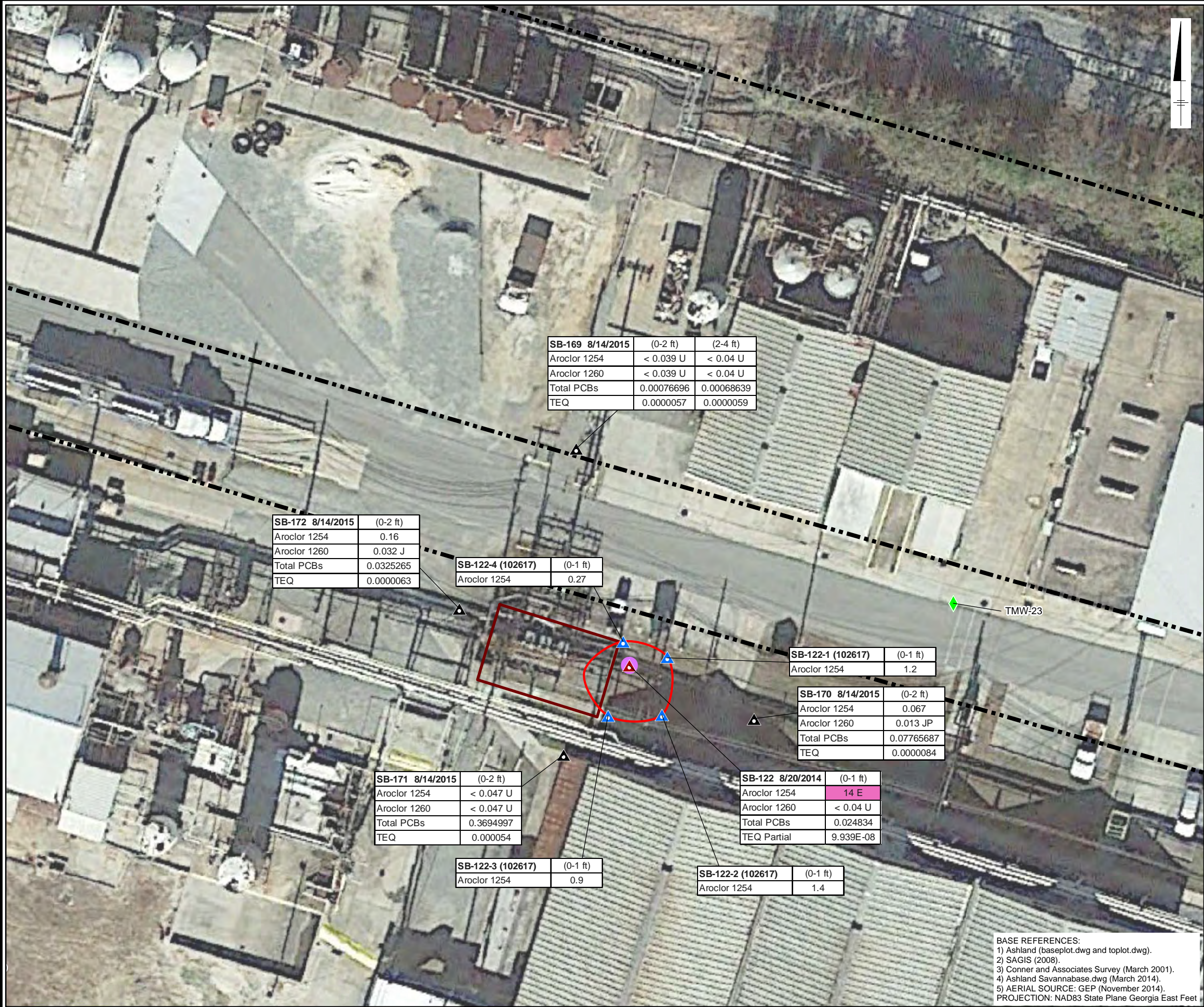




9a



CITY: KNOXVILLE DIV/GRP: ENV/GIS LD: A.CARLONE PIC: J.REID PM: D.WILDERMAN TM: J.HANNA DBASE: T.WALL BY: A.CARLONE SAVED: 10/12/2018  
PROJECT: OH008000.GA61  
PATH: Z:\GIS\PROJECTS\ENV\ASHLAND\ASHLAND\_HERCULES.GA SAVANNAH\MAPDOCS\2018\2018 COMPLIANCE STATUS REPORT\2018\F9B\_GA61\_CSR2018\_SOIL\_PCBPLUME\_SUBSTATION8526.MXD



#### LEGEND

- ▲ Soil Boring (2000-2008)
- ▲ Soil Boring (August 2014)
- ▲ Soil Boring (August/September 2015)
- ▲ Soil Boring (October 2017)
- Result above Type 1-4 RRS
- ◆ Temporary Monitoring Well (October 2017)
- Property Boundaries (Conner 2001)
- Delineation Line
- ▭ Electrical Substation 8526

Constituent	Type 1-4 RRS
Aroclor 1254 (mg/kg)	1.55
Aroclor 1260 (mg/kg)	1.55
Total PCBs (mg/kg)	1.55
TEQ Partial (mg/kg)	---
TEQ (mg/kg)	0.000115

**Proposed Site-Specific Type 4 RRS:**  
**Aroclor 1254 = 7.3 mg/kg**  
**(Site-Specific Type 4 RRS derived based on the direct contact number, protection of groundwater)**  
**2,3,7,8 TCDD TEQ = 0.00044 mg/kg**  
**(Site-Specific Type 4 RRS derived based on the Type 4 RRS provided by GAEPD)**

- NOTES:
- 1) All locations are approximate.
  - 2) Location IDs and data boxes are provided only for soil sample locations where the target constituent was analyzed.
  - 3) If a duplicate was taken, the highest value is shown.
  - 4) Composite samples were not included in the analytical data shown.
  - 5) All soil concentrations reported in milligrams per kilogram (mg/kg).
  - 6) The highest of the Type 1-4 RRS was used for delineation purposes.
  - 7) **Shaded** represent results above the Type 2 RRS.
  - 8) NA - Not Analyzed  
ND - Not Detected  
E - Analyte exceeds the calibration range of equipment.  
J - Result is less than the reporting limit but greater than or equal to the detection limit and the concentration is an approximate value.  
P - The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.  
U - Indicates the analyte was analyzed for but not detected.  
RRS - Risk Reduction Standard  
TEQ - Toxic Equivalency  
TEF - Toxic Equivalency Factor  
TEQ Partial - The summed TEF adjusted concentration of detected dioxin-like PCBs.

0 30 60  
SCALE IN FEET

HERCULES LLC / SOLENIS LLC  
SAVANNAH PLANT (HSI #10696)  
SAVANNAH, GEORGIA  
**COMPLIANCE STATUS REPORT**

**PCB Delineation in Soil in the  
Vicinity of the Electrical Substation 8526**

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FIGURE

**9b**



CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: A.CARLONE PIC: J.REID PM: D.WILDERMAN TM: J.HANNA DBASE: T.WALL BY: ACARLONE SAVED: 10/12/2018  
PROJECT: OH008000.GA61  
PATH: Z:\GIS\PROJECTS\ENV\ASHLAND\ASHLAND\_HERCULES\GIGA\_SAVANNAH\MAPDOCS\2018\2018 COMPLIANCE STATUS REPORT\2018\F0C\_GA61\_SOIL\_PCBPLUME\_DRYSIZEAREA.MXD

Service Layer Credits:

<b>SB-203 8/14/2015</b>	(0-2 ft)
Aroclor 1254	0.31
Aroclor 1260	0.061
Total PCBs	0.2424423
TEQ	0.000029

<b>SB-137-1 (102417)</b>	(0-1 ft)
Aroclor 1254	4.4

<b>SB-137-1A (122917)</b>	(0-1 ft)
Aroclor 1254	3.7

<b>SB-137 8/21/2014</b>	(0-1 ft)
Aroclor 1254	1.7 E
Aroclor 1260	< 0.041 U
Total PCBs	1.53431
TEQ Partial	0.000136303

<b>SB-202-1A (122917)</b>	(0-2 ft)
Aroclor 1254	0.33
Total PCBs	0.25
TEQ	NA

<b>SB-202-1 (102417)</b>	(0-2 ft)
Aroclor 1254	1.7
Total PCBs	1.7
TEQ	0.00002

<b>SB-202 8/14/2015</b>	(0-2 ft)
Aroclor 1254	4.9
Aroclor 1260	0.53
Total PCBs	6.024349
TEQ	0.00053

<b>SB-202-2 (102417)</b>	(0-2 ft)
Aroclor 1254	1.1
Total PCBs	1.1
TEQ	0.000033

<b>SB-201 8/13/2015</b>	(0-2 ft)	(2-4 ft)
Aroclor 1254	0.17	0.018 J
Aroclor 1260	0.045	< 0.038 U
Total PCBs	0.9759662	0.00640721
TEQ	0.000093	0.0000077

<b>SB-200 8/13/2015</b>	(0-2 ft)	(2-4 ft)
Aroclor 1254	0.056	< 0.039 U
Aroclor 1260	0.033 J	< 0.039 U
Total PCBs	0.0959158	0.024839
TEQ	0.000019	0.000016

<b>SB-135 8/21/2014</b>	(0-1 ft)
Aroclor 1254	0.56
Aroclor 1260	< 0.042 U
Total PCBs	0.903923
TEQ Partial	9.87129E-05

BASE REFERENCES:  
1) Ashland (baseplot.dwg and toplot.dwg).  
2) SAGIS (2008).  
3) Conner and Associates Survey (March 2001).  
4) Ashland Savannabase.dwg (March 2014).  
5) AERIAL SOURCE: GEP (November 2014).  
PROJECTION: NAD83 State Plane Georgia East Feet

## LEGEND

- ▲ Soil Boring (2000-2008)
- ▲ Soil Boring (August 2014)
- ▲ Soil Boring (August/September 2015)
- ▲ Soil Boring (October 2017)
- ▲ Soil Boring (December 2017)
- Result above Type 1-4 RRS
- ◆ Temporary Monitoring Well (October 2017)
- Property Boundaries (Conner 2001)
- Delineation Line
- Delineation Incomplete due to Field Obstruction
- Former Dry Size Area

Constituent	Type 1-4 RRS
Aroclor 1254 (mg/kg)	1.55
Aroclor 1260 (mg/kg)	1.55
Total PCBs (mg/kg)	1.55
TEQ Partial (mg/kg)	---
TEQ (mg/kg)	0.000115

**Proposed Site-Specific Type 4 RRS:**  
**Aroclor 1254 = 7.3 mg/kg**  
**(Site-Specific Type 4 RRS derived based on the direct contact number, protection of groundwater)**  
**2,3,7,8 TCDD TEQ = 0.00044 mg/kg**  
**(Site-Specific Type 4 RRS derived based on the Type 4 RRS provided by GAEPD)**

- NOTES:
- 1) All locations are approximate.
  - 2) Location IDs and data boxes are provided only for soil sample locations where the target constituent was analyzed.
  - 3) If a duplicate was taken, the highest value is shown.
  - 4) Composite samples were not included in the analytical data shown.
  - 5) All soil concentrations reported in milligrams per kilogram (mg/kg).
  - 6) The highest of the Type 1-4 RRS was used for delineation purposes.
  - 7) **Shaded** represent results above the Type 2 RRS.
  - 8) A third step-out sample was not collected for SB-137-2, as the area is paved.
  - 9) NA - Not Analyzed  
E - Analyte exceeds the calibration range of equipment.  
J - Result is less than the reporting limit but greater than or equal to the detection limit and the concentration is an approximate value.  
U - Indicates the analyte was analyzed for but not detected.  
RRS - Risk Reduction Standard  
TEQ - Toxic Equivalency  
TEQ Partial - The summed TEF adjusted concentration of detected dioxin-like PCBs.

0 30 60  
SCALE IN FEET

HERCULES LLC / SOLENIS LLC  
SAVANNAH PLANT (HSI #10696)  
SAVANNAH, GEORGIA  
**COMPLIANCE STATUS REPORT**

**PCB Delineation in Soil in the Vicinity of the Former Dry Size Area**

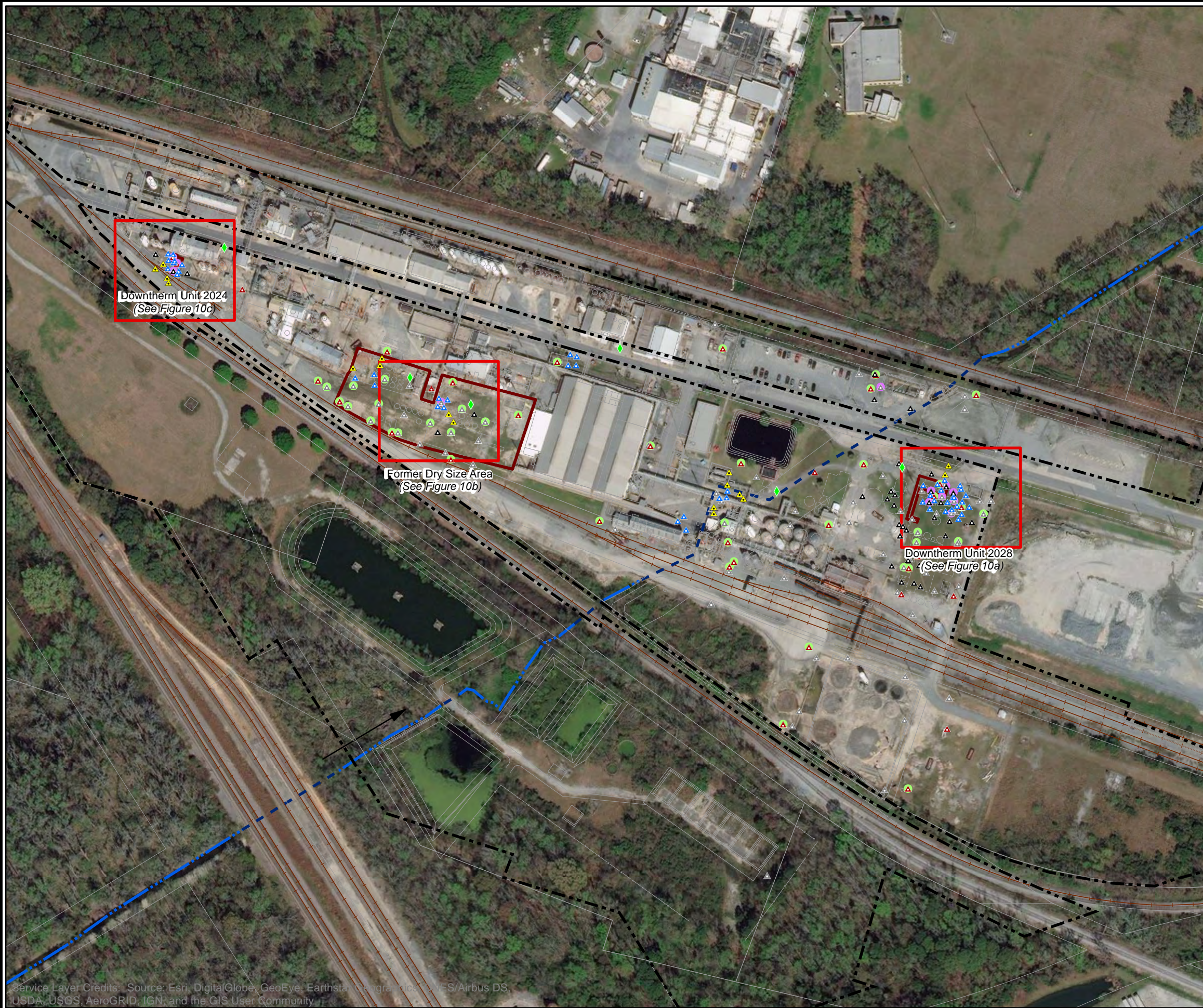
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FIGURE

**9c**



CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: A.CARLONE PIC: J.REID PM: D.WILDERMAN TM: J.HANNA DBASE: T.WALL BY: A.CARLONE SAVED: 9/4/2018  
PROJECT: OH008000.GA61 PATH: Z:\GIS\PROJECTS\ENV\ASHLAND\ASHLAND\_HERCULES.GA SAVANNAH\MAPDOCS\2018\2018 COMPLIANCE STATUS REPORT\2018\F11\_GA61\_CSR2018\_SOIL\_BIPHENYL.MXD



LEGEND

- △ Soil Boring (2000-2008)
- ▲ Soil Boring (August 2014)
- ▲ Soil Boring (August 2015)
- ▲ Soil Boring (October 2017)
- ▲ Soil Boring (December 2017)
- Laboratory Reporting Limit above Type 1-4 RRS
- Result above Type 1-4 RRS (1.0 mg/kg)
- ◆ Temporary Monitoring Well (October 2017)
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction
- - - Property Boundaries (Conner 2001)
- Site Area

- NOTES:
- 1) Location IDs and data boxes are provided only for soil sample locations where the target constituent was analyzed.
  - 2) All concentrations reported in milligrams per kilogram (mg/kg).
  - 3) If a duplicate was taken, the highest value is shown.
  - 4) RRS - Risk Reduction Standard

BASE REFERENCES:

- 1) Ashland (baseplot.dwg and toplot.dwg).
- 2) SAGIS (2008).
- 3) Conner and Associates Survey (March 2001).
- 4) Ashland Savannahbase.dwg (March 2014).

PROJECTION: NAD83 State Plane Georgia East Feet  
AERIAL SOURCE: ESRI Online Imagery (NAIP, October 2015)

HERCULES LLC / SOLENIS LLC  
SAVANNAH PLANT (HSI #10696)  
SAVANNAH, GEORGIA  
COMPLIANCE STATUS REPORT

1,1-Biphenyl Delineation in Soil -  
Area Locations

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FIGURE  
10

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar, GeoGraphics, IGN, Airbus DS,  
USDA, USGS, AeroGRID, IGN, and the GIS User Community



FIGURE  
**10a**

BASE REFERENCES:

- 1) Ashland (baseplot.dwg and toplot.dwg).
- 2) SAGIS (2008).
- 3) Conner and Associates Survey (March 2001).
- 4) Ashland Savannabase.dwg (March 2014).

PROJECTION: NAD83 State Plane Georgia East Feet  
AERIAL SOURCE: GEP (November 2014)



CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: A.CARLONE PIC: J.REID PM: D.WILDERMAN TM: J.HANNA DBASE: T.WALL BY: A.CARLONE SAVED: 10/12/2018  
PROJECT: OH008000.GA61  
PATH: Z:\GIS\PROJECTS\ENV\ASHLAND\ASHLAND\HERCULES\GA SAVANNAH\MAPDOCS\2018\2018 COMPLIANCE STATUS REPORT\2018\F10B\_GA61\_PLUME\_DRYSIZEAREA.MXD



LEGEND

- ▲ Soil Boring (2000-2008)
- ▲ Soil Boring (August 2014)
- ▲ Soil Boring (August 2015)
- ▲ Soil Boring (October 2017)
- ▲ Soil Boring (December 2017)
- Laboratory Reporting Limit above Type 1-4 RRS
- Result above Type 1-4 RRS (1.0 mg/kg)
- ◆ Temporary Monitoring Well (October 2017)
- - - Property Boundaries (Conner 2001)
- Delineation Line
- - - Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction
- ▭ Former Dry Size Area

**Proposed 1,1-Biphenyl Site-Specific Type 4 RRS: 214 mg/kg**  
**(Site-Specific Type 4 USEPA Industrial Soil Regional Screening Level based on a target hazard quotient of 1 [HQ = 1])**

NOTES:

- 1) All locations are approximate.
  - 2) Location IDs and data boxes are provided only for soil sample locations where the target constituent was analyzed.
  - 3) If a duplicate was taken, the highest value is shown.
  - 4) Composite samples were not included in the analytical data shown.
  - 5) All soil concentrations reported in milligrams per kilogram (mg/kg).
  - 6) The highest of the Type 1-4 RRS was used for delineation purposes.
  - 7) DS-9-1 hit refusal at 2 ft bgs.
  - 8) J - Result is less than the reporting limit but greater than or equal to the detection limit and the concentration is an approximate value.
- NA - Not Analyzed  
U - Indicates the analyte was analyzed for but not detected.  
RRS - Risk Reduction Standard  
RSL - Regional Screening Levels  
USEPA - United States Environmental Protection Agency

0 20 40  
SCALE IN FEET

HERCULES LLC / SOLENIS LLC  
SAVANNAH PLANT (HSI #10696)  
SAVANNAH, GEORGIA  
**COMPLIANCE STATUS REPORT**

**1,1-Biphenyl Delineation in Soil  
in the Vicinity of the Former Dry Size Area**

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built assets

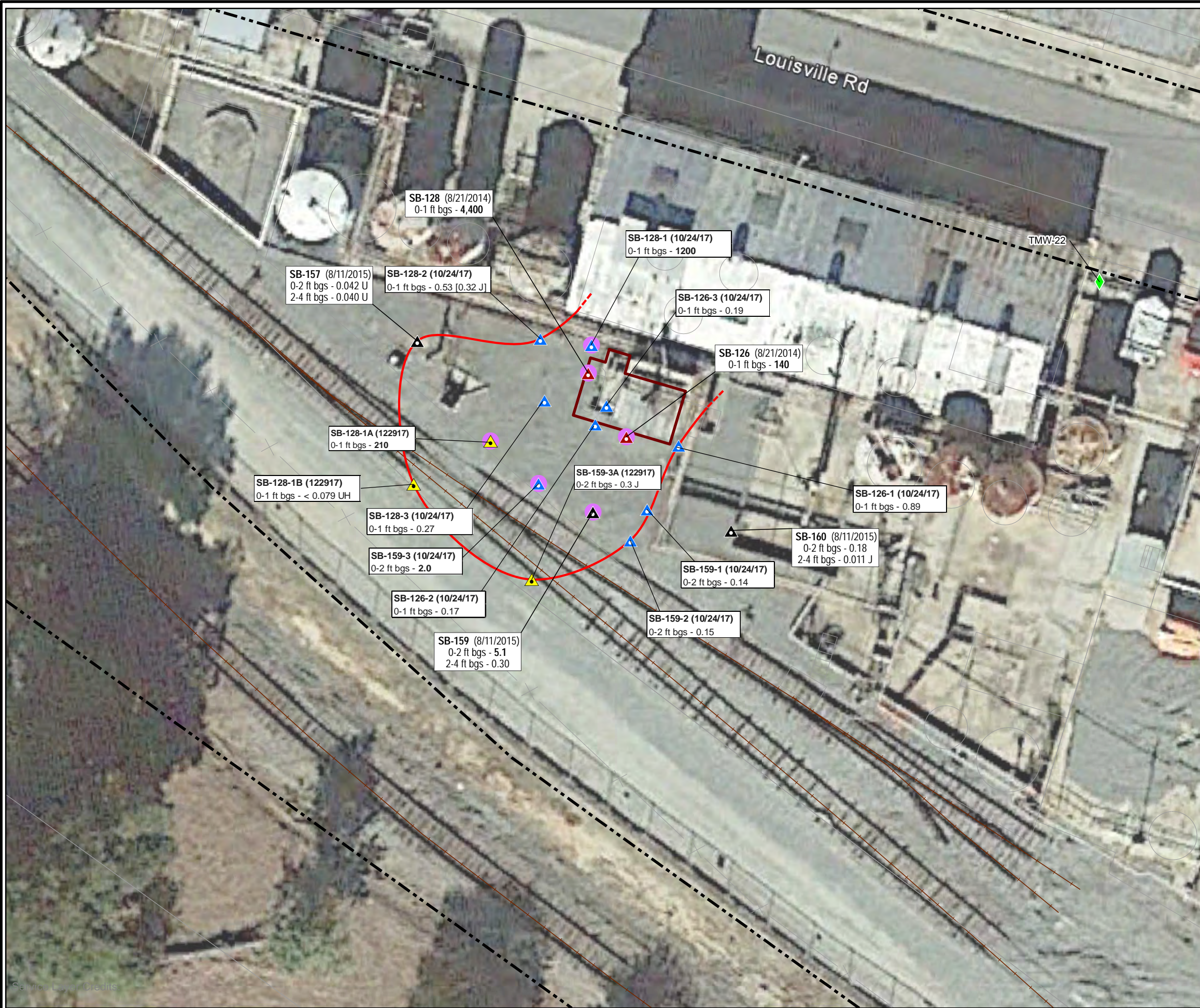
FIGURE

**10b**

BASE REFERENCES:  
1) Ashland (baseplot.dwg and toplot.dwg).  
2) SAGIS (2008).  
3) Conner and Associates Survey (March 2001).  
4) Ashland Savannahbase.dwg (March 2014).  
PROJECTION: NAD83 State Plane Georgia East Feet  
AERIAL SOURCE: GEP (November 2014).



CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: A.CARLONE PIC: J.REID PM: D.WILDERMAN TM: J.HANNA DBASE: T.WALL BY: ACARLONE SAVED: 10/12/2018  
PROJECT: OH008000.GA61  
PATH: Z:\GIS\PROJECTS\ENV\ASHLAND\ASHLAND\_HERCULES\GA\_SAVANNAH\MAPDOCS\2018\2018 COMPLIANCE STATUS REPORT\2018\F10C\_GA61\_PLUME\_DOWNTHERM2024.MXD



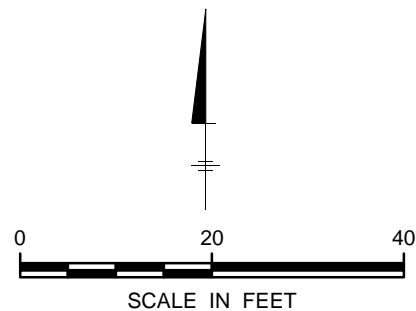
#### LEGEND

- ▲ Soil Boring (2000-2008)
- ▲ Soil Boring (August 2014)
- ▲ Soil Boring (August 2015)
- ▲ Soil Boring (October 2017)
- ▲ Soil Boring (December 2017)
- Laboratory Reporting Limit above Type 1-4 RRS
- Result above Type 1-4 RRS (1.0 mg/kg)
- ◆ Temporary Monitoring Well (October 2017)
- Property Boundaries (Conner 2001)
- Delineation Line
- Delineation Incomplete due to Field Obstruction
- ▭ Downterm Unit 2024

**Proposed 1,1-Biphenyl Site-Specific Type 4 RRS: 214 mg/kg**  
**(Site-Specific Type 4 USEPA Industrial Soil Regional Screening Level based on a target hazard quotient of 1 [HQ = 1])**

#### NOTES:

- 1) All locations are approximate.
  - 2) Location IDs and data boxes are provided only for soil sample locations where the target constituent was analyzed.
  - 3) If a duplicate was taken, the highest value is shown.
  - 4) Composite samples were not included in the analytical data shown.
  - 5) All soil concentrations reported in milligrams per kilogram (mg/kg).
  - 6) The highest of the Type 1-4 RRS was used for delineation purposes.
  - 7) J - Result is less than the reporting limit but greater than or equal to the detection limit and the concentration is an approximate value.
- NA - Not Analyzed  
U - Indicates the analyte was analyzed for but not detected.  
RRS - Risk Reduction Standard  
RSL - Regional Screening Levels  
USEPA - United States Environmental Protection Agency



#### BASE REFERENCES:

- 1) Ashland (baseplot.dwg and toplot.dwg).
  - 2) SAGIS (2008).
  - 3) Conner and Associates Survey (March 2001).
  - 4) Ashland Savannahbase.dwg (March 2014).
- PROJECTION: NAD83 State Plane Georgia East Feet  
AERIAL SOURCE: GEP (November 2014).

HERCULES LLC / SOLENIS LLC  
SAVANNAH PLANT (HSI #10696)  
SAVANNAH, GEORGIA  
**COMPLIANCE STATUS REPORT**

**1,1-Biphenyl Delineation in Soil  
in the Vicinity of the Downterm Unit 2024**

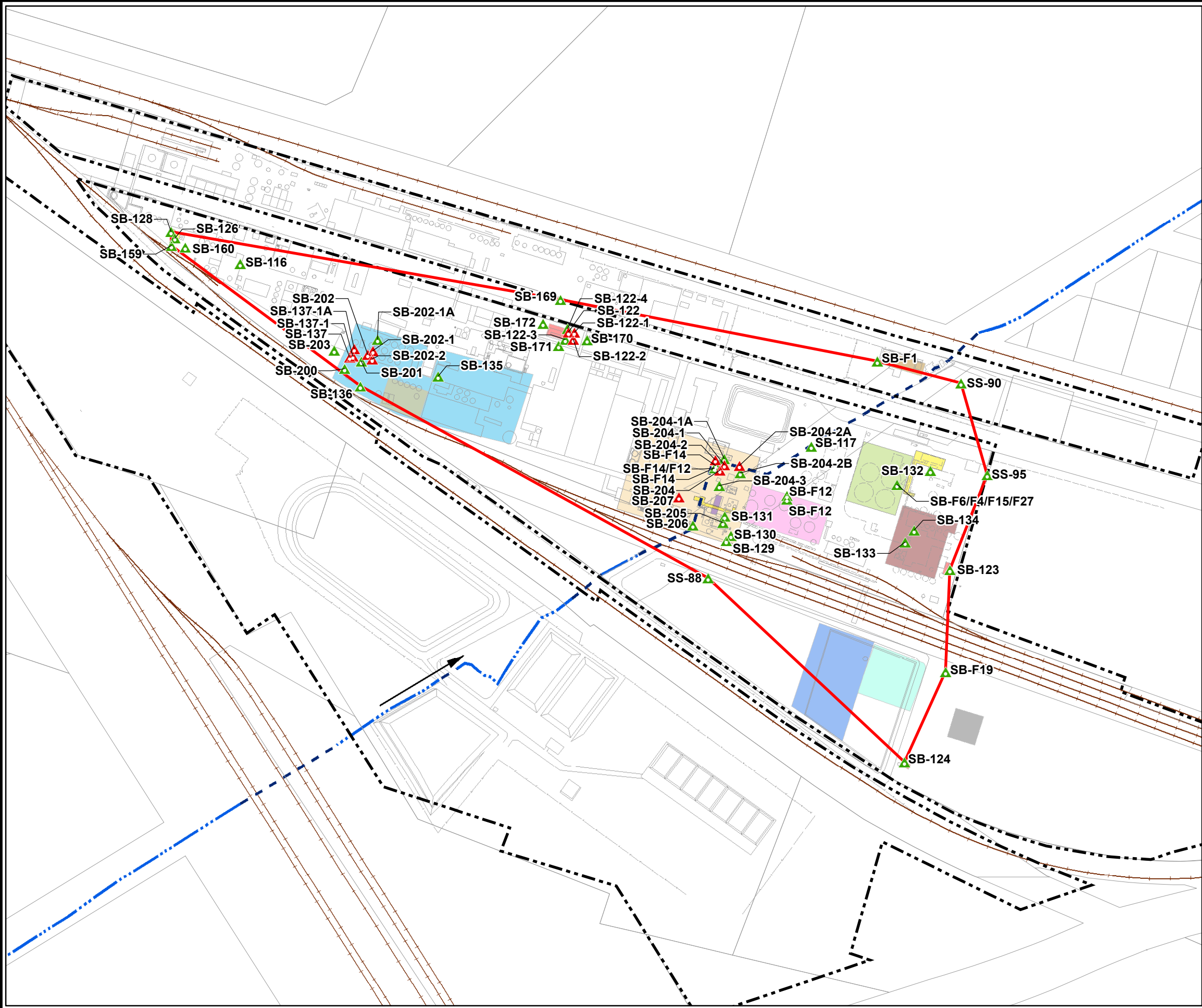
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FIGURE

**10c**



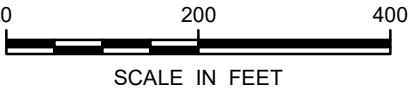
CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B. BAL TOM PIC: J. REID PM: D. WILDERMAN TM: C. MILLER BY: A. CARLONE PROJECT: OH009000.GA60  
PATH: Z:\GIS\PROJECTS\ENV\ASHLAND\HERCULES\GA SAVANNAH\MAPDOCS\2018\2018 COMPLIANCE STATUS REPORT\2018\F11 GA60 SOIL 201805 PCBs V3 ANALYZEDONLY.MXD SAVED: 10/12/2018



LEGEND

- Results  $\leq 1$  mg/kg
- Results  $\geq 1$  mg/kg
- Property Boundaries (Conner 2001)
- Contractor Yard
- Former Fatty Acid 60s Tank Area
- 30s Tank Area
- Former Fatty Acid 50s Tank Area Hard
- Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release)
- Dowtherm Release
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Dry Size Tank Area
- Type 1/4 RRS Delineation Area
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction

- NOTES:
- Location IDs and data boxes are provided only for soil sample locations where the target constituent was analyzed.
  - Composite samples were not included in the analytical data shown.
  - All concentrations reported in milligrams per kilogram (mg/kg) except Toxic Equivalency (TEQ) and the Total PCBs that are the sum of all Total Non-Dioxin-like PCBs which have been calculated in picograms per gram (pg/g).
  - The highest of the Type 1/2 RRS was used for delineation purposes.
  - Shaded represent results above the Type 2 RRS.



- SCALE IN FEET
- BASE REFERENCES:
- Ashland (baseplot.dwg and toplot.dwg).
  - SAGIS (2008).
  - Conner and Associates Survey (March 2001).
  - Ashland Savannahbase.dwg (March 2014).
- PROJECTION: NAD83 State Plane Georgia East Feet

HERCULES LLC / SOLENIS LLC  
SAVANNAH PLANT (HSI #10696)  
SAVANNAH, GEORGIA  
COMPLIANCE STATUS REPORT

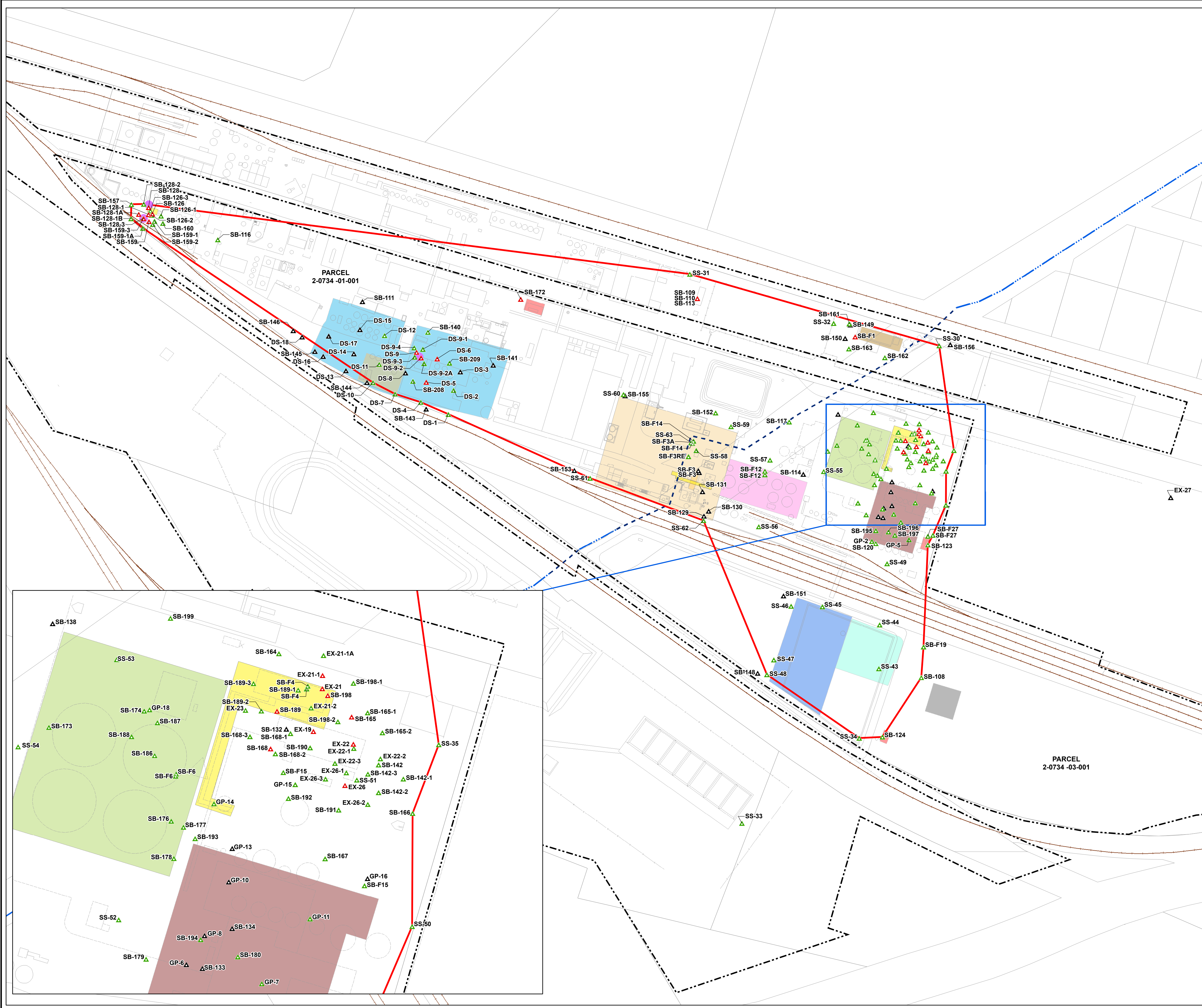
Comprehensive PCB Delineation in Soil



FIGURE

11

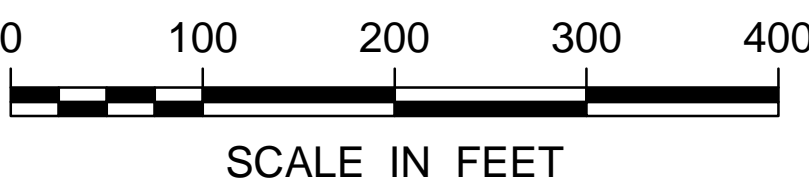




LEGEND

- △ Non-Detect above the Type 1/4 RRS
- △ Results  $\leq 1$  mg/kg
- △ Results  $\geq 1$  mg/kg
- Property Boundaries (Conner 2001)
- Contractor Yard
- Former Fatty Acid 60s Tank Area
- 30s Tank Area
- Former Fatty Acid 50s Tank Area
- Hard Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release) Dowtherm Release
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Dry Size Tank Area
- - - Dundee Canal (culverted section)
- - - Dundee Canal (open section)
- Canal Flow Direction
- Type 1/4 RRS Delineation Area

NOTES:  
1) All concentrations reported in milligrams per kilogram (mg/kg).  
2) Location of EX-27 is unknown.



BASE REFERENCES:  
1) Ashland (baseplot.dwg and toplot.dwg).  
2) SAGIS (2008).  
3) Conner and Associates Survey (March 2001).  
4) Ashland Savannahbase.dwg (March 2014).  
PROJECTION: NAD83 State Plane Georgia East Feet

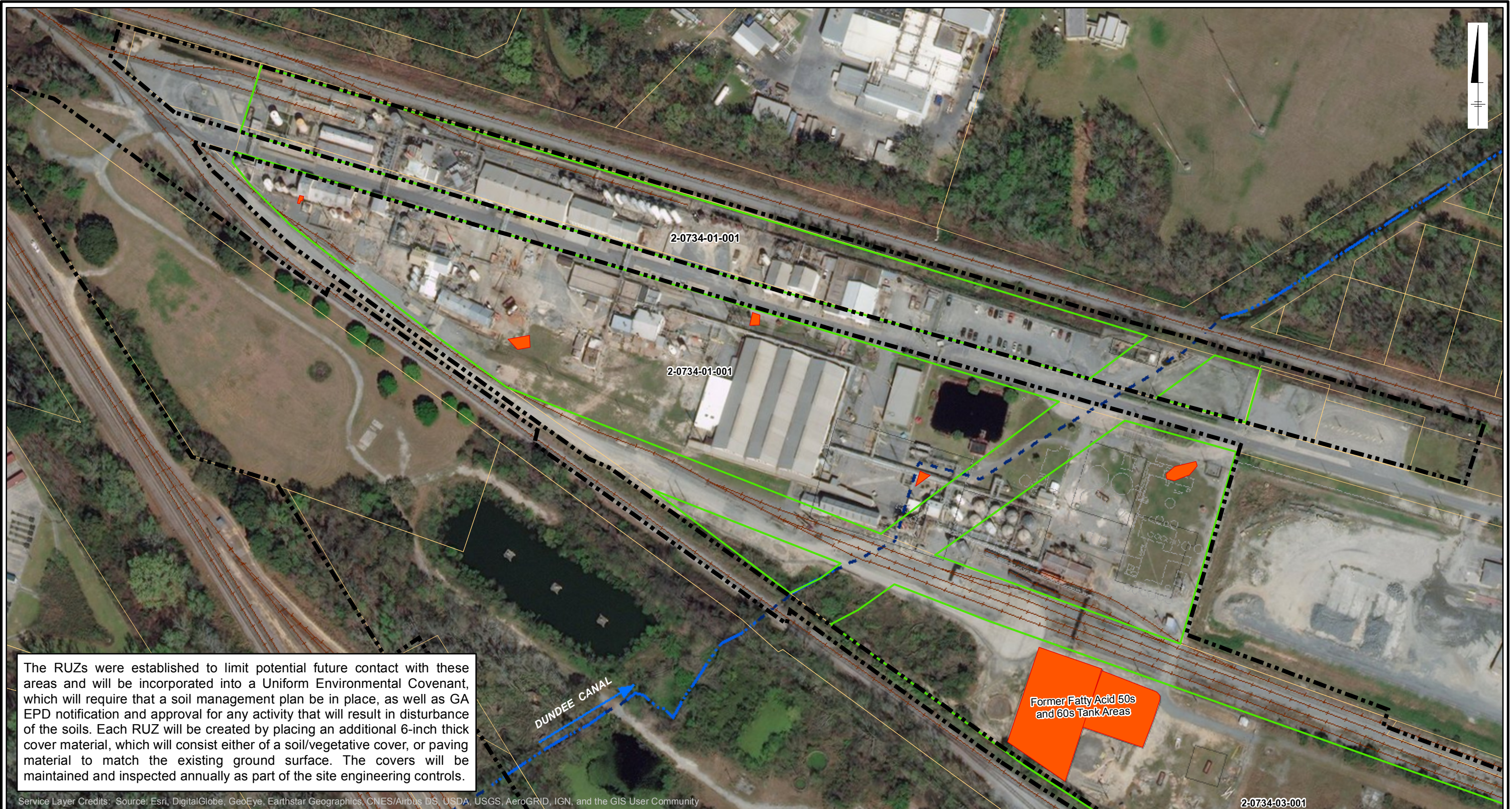
HERCULES LLC / SOLENIS LLC  
SAVANNAH PLANT (HSI #10696)  
SAVANNAH, GEORGIA  
COMPLIANCE STATUS REPORT

Comprehensive 1,1-Biphenyl  
Delineation in Soil





CITY: KNOXVILLE DIV/GRP: ENV/GIS LD: BALTOB PIC: J. REID PM: D. WILDERMAN TM: J. HANNA DBASE: T. WALL BY: AKENS  
PROJECT: OH08000.GA61 PATH: Z:\GIS\PROJECTS\ENV\ASHLAND\ASHLAND\_HERCULES.GA SAVANNAH\MAPDOCS\2018\2018 COMPLIANCE STATUS REPORT\2018\F13\_GA61\_RUZS\REVOC312018.MXD SAVED: 10/31/2018



Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

BASE REFERENCE:  
1) Ashland (baseplot.dwg and toplot.dwg).  
2) SAGIS parcels (2008).  
3) Ashland Savannahbase.dwg (March 2014).  
PROJECTION: NAD83 State Plane Georgia East Feet  
AERIAL SOURCE: ESRI Online Imagery (NAIP, August 2013)

#### LEGEND

- Hercules Property (Conner 2001)
- HSI 10696 Site Boundary (SAGIS)
- Surrounding Property (SAGIS)
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction
- Restricted Use Zone

\* As defined by the Connor and Associates, March 16, 2001, Boundary Survey of the Hercules Property for Parcels 2-0734-01-001 and 2-0734-03-001.



HERCULES LLC / SOLENIS LLC  
SAVANNAH PLANT (HSI #10696)  
SAVANNAH, GEORGIA  
**2018 COMPLIANCE STATUS REPORT**

#### Restricted Use Zones

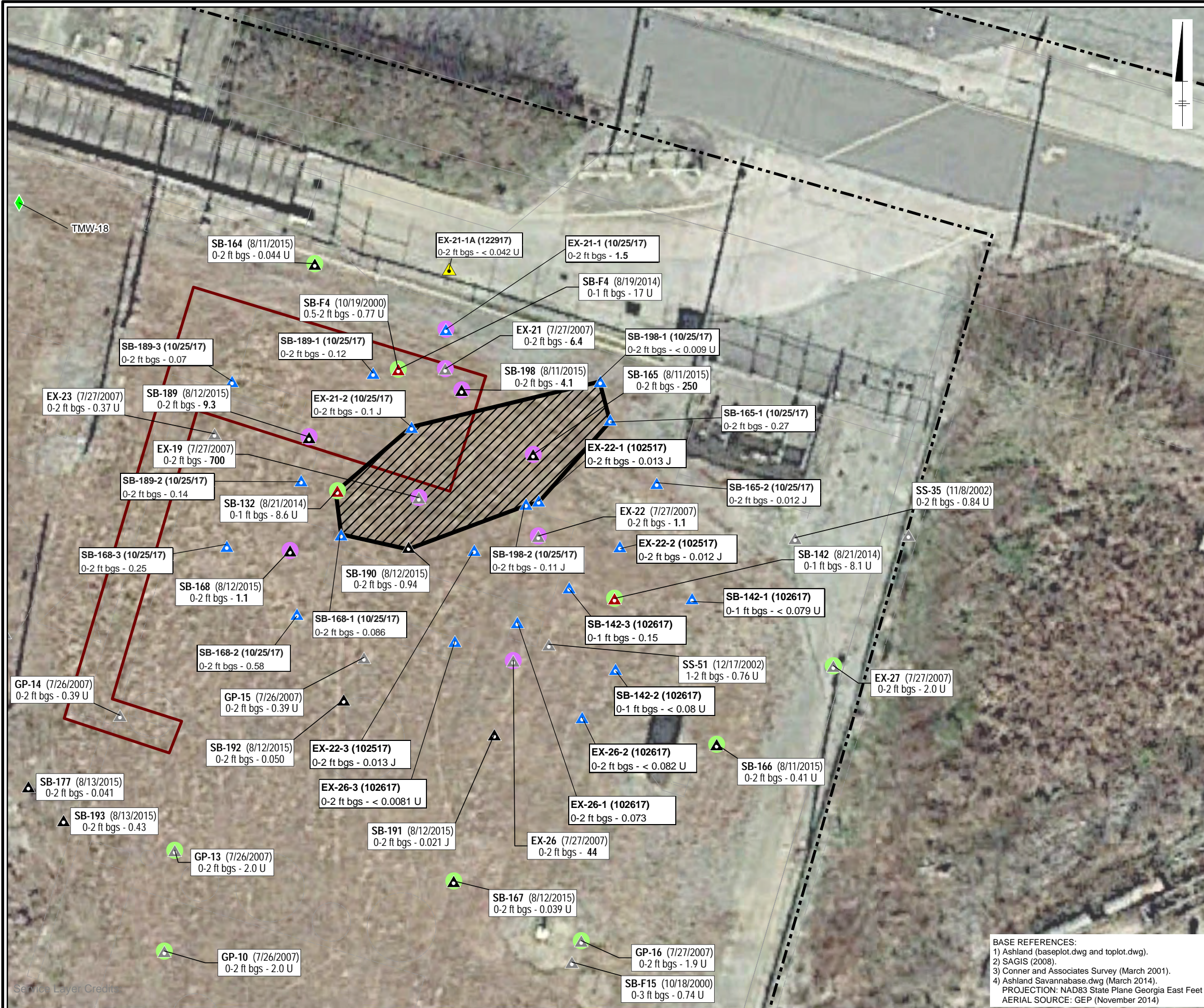
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FIGURE

**13**



CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: A.CARLONE PIC: J.REID PM: D.WILDERMAN TM: J.HANNA DBASE: T.WALL BY: ACARLONE  
PROJECT: OH008000.GA61  
PATH: Z:\GIS\PROJECTS\ENV\ASHLAND\ASHLAND\HERCULES\GA\_SAVANNAH\MAPDOCS\2018\2018 COMPLIANCE STATUS REPORT\2018\F13A\_GA61\_UJC\_SOIL\_BIPHENYL\_PLUME\_DOWNTHERM2028.MXD



LEGEND

- Soil Boring (2000-2008)
- Soil Boring (August 2014)
- Soil Boring (August 2015)
- Soil Boring (October 2017)
- Soil Boring (December 2017)
- Laboratory Reporting Limit above Type 1-4 RRS
- Result above Type 1-4 RRS (1.0 mg/kg)
- Temporary Monitoring Well (October 2017)
- Property Boundaries (Conner 2001)
- Downtherm Unit 2028
- Restricted Use Zone

**Proposed 1,1-Biphenyl Site-Specific Type 4 RRS: 214 mg/kg**  
**(Site-Specific Type 4 USEPA Industrial Soil Regional Screening Level based on a target hazard quotient of 1 [HQ = 1])**

- NOTES:
- All locations are approximate.
  - Location IDs and data boxes are provided only for soil sample locations where the target constituent was analyzed.
  - If a duplicate was taken, the highest value is shown.
  - Composite samples were not included in the analytical data shown.
  - All soil concentrations reported in milligrams per kilogram (mg/kg).
  - The highest of the Type 1-4 RRS was used for delineation purposes.
  - J - Result is less than the reporting limit but greater than or equal to the detection limit and the concentration is an approximate value.
- NA - Not Analyzed  
U - Indicates the analyte was analyzed for but not detected.  
RRS - Risk Reduction Standard  
RSL - Regional Screening Levels  
USEPA - United States Environmental Protection Agency



HERCULES LLC / SOLENIS LLC  
SAVANNAH PLANT (HSI #10696)  
SAVANNAH, GEORGIA  
COMPLIANCE STATUS REPORT

**Restricted Use Zone  
Downtherm Unit 2028**



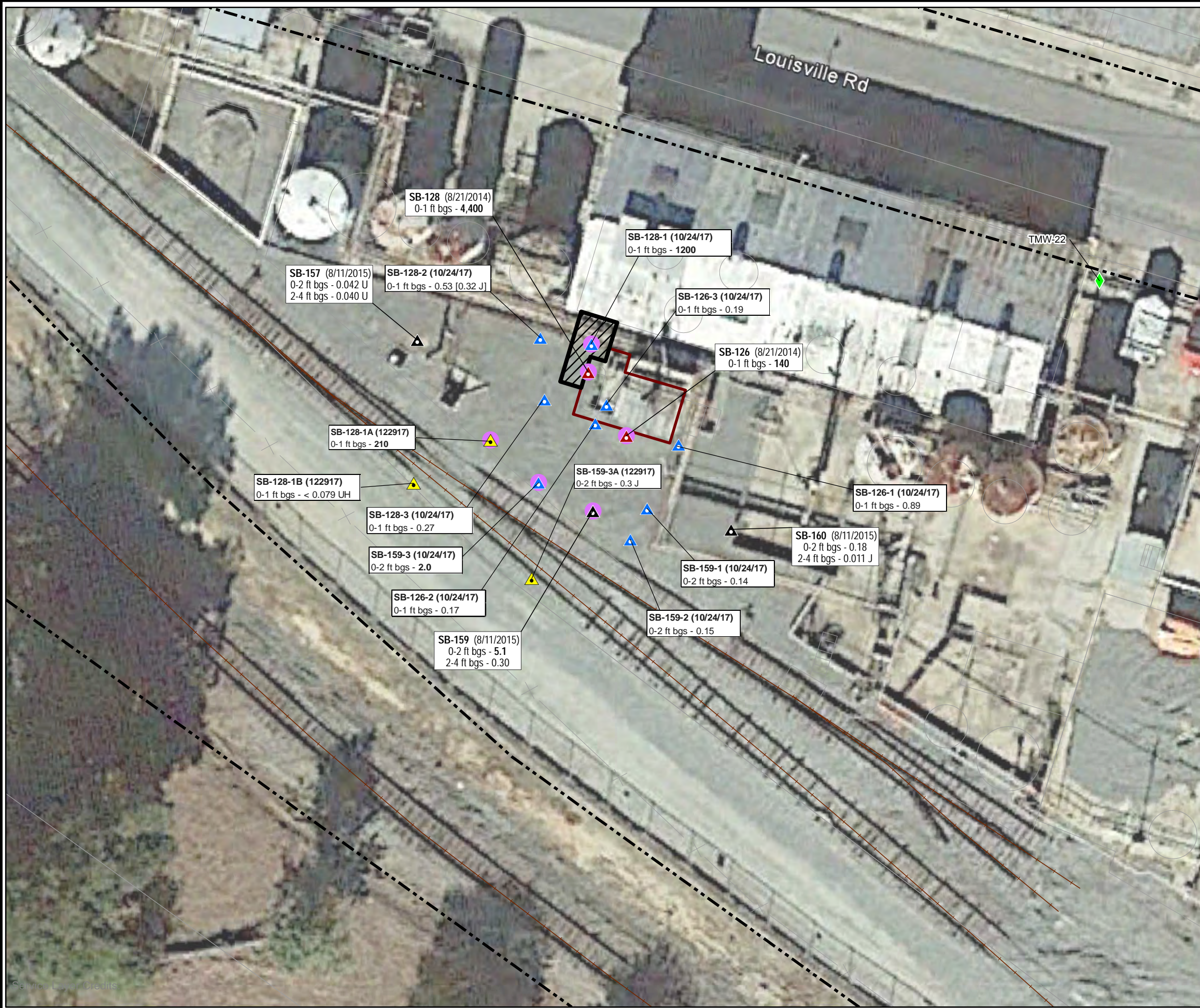
FIGURE

13a

BASE REFERENCES:  
1) Ashland (baseplot.dwg and toplot.dwg).  
2) SAGIS (2008).  
3) Conner and Associates Survey (March 2001).  
4) Ashland Savannahbase.dwg (March 2014).  
PROJECTION: NAD83 State Plane Georgia East Feet  
AERIAL SOURCE: GEP (November 2014)



CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: A.CARLONE PIC: J.REID PM: D.WILDERMAN TM: J.HANNA DBASE: T.WALL BY: ACARLONE SAVED: 10/15/2018  
PROJECT: OH008000.GA61  
PATH: Z:\GIS\PROJECTS\ENV\ASHLAND\ASHLAND\_HERCULES\GA\_SAVANNAH\MAPDOCS\2018\2018 COMPLIANCE STATUS REPORT\2018\F13B\_GA61\_UEC\_SOIL\_BIPHENYL\_PLUME\_DOWNTHERM2024.MXD



HERCULES LLC / SOLENIS LLC  
SAVANNAH PLANT (HSI #10696)  
SAVANNAH, GEORGIA  
**COMPLIANCE STATUS REPORT**

**Restricted Use Zone  
Dowtherm Unit 2024**

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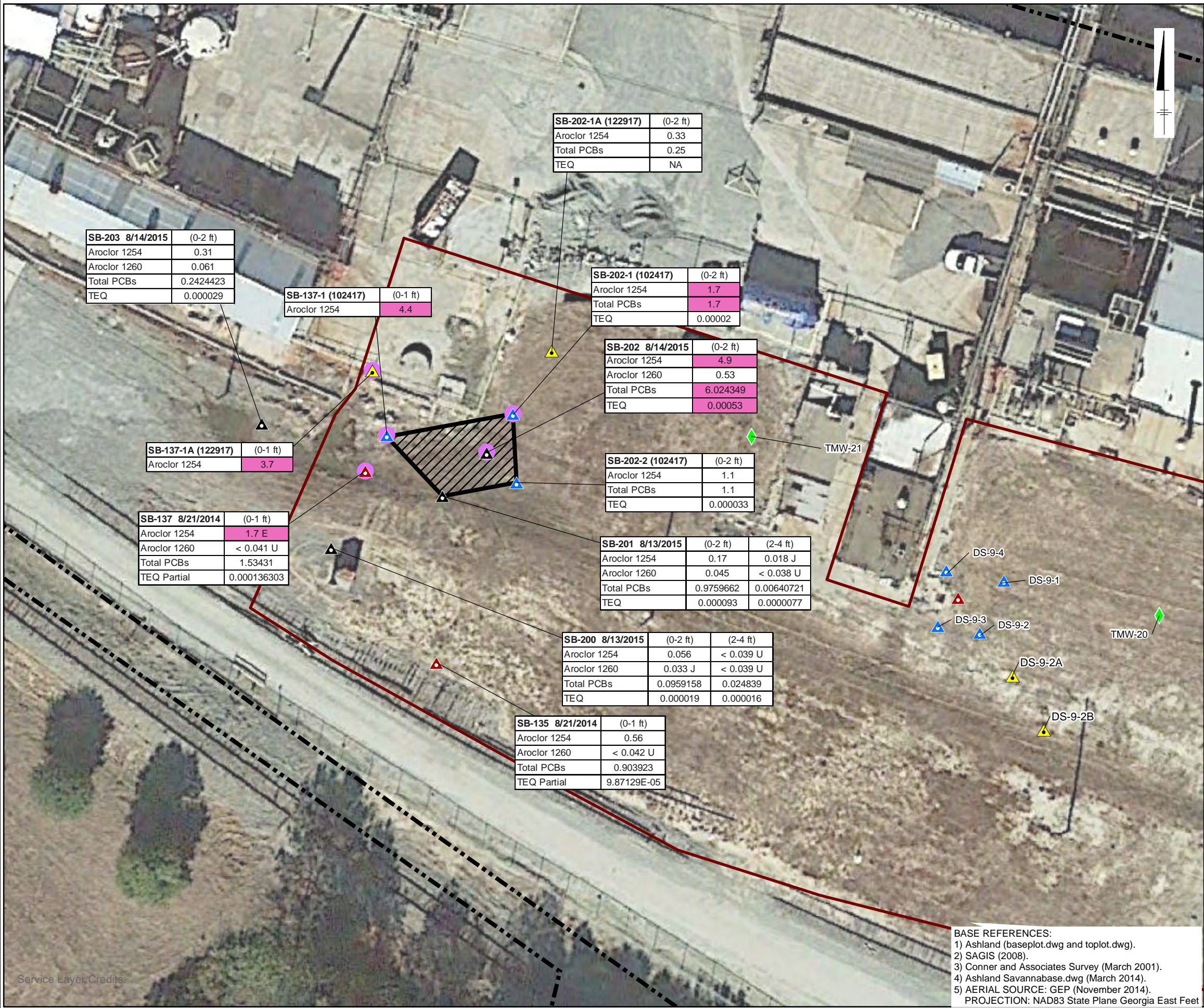
FIGURE

**13b**



CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: A.CARLONE PIC: J.REID PM: D.WILDERMAN TM: J.HANNA DBASE: T.WALL BY: ACARLONE SAVED: 10/15/2018  
PROJECT: OH008000.GA61  
PATH: Z:\GIS\PROJECTS\ENV\ASHLAND\ASHLAND\_HERCULES\GIGA\_SAVANNAH\MAPDOCS\2018\2018 COMPLIANCE STATUS REPORT\2018\F13C\_GA61\_UFC\_SOIL\_201712\_PCB\_PLUME.MXD

Service Layer Credits:



#### LEGEND

- ▲ Soil Boring (2000-2008)
- ▲ Soil Boring (August 2014)
- ▲ Soil Boring (August/September 2015)
- ▲ Soil Boring (October 2017)
- ▲ Soil Boring (December 2017)
- Result above Type 1-4 RRS
- ◆ Temporary Monitoring Well (October 2017)
- Property Boundaries (Conner 2001)
- ▭ Former Dry Size Area
- ▨ Restricted Use Zone

Constituent	Type 1-4 RRS
Aroclor 1254 (mg/kg)	1.55
Aroclor 1260 (mg/kg)	1.55
Total PCBs (mg/kg)	1.55
TEQ Partial (mg/kg)	---
TEQ (mg/kg)	0.000115

**Proposed Site-Specific Type 4 RRS:**  
**Aroclor 1254 = 7.3 mg/kg**  
**(Site-Specific Type 4 RRS derived based on the direct contact number, protection of groundwater)**  
**2,3,7,8 TCDD TEQ = 0.00044 mg/kg**  
**(Site-Specific Type 4 RRS derived based on the Type 4 RRS provided by GAEPD)**

- NOTES:
- 1) All locations are approximate.
  - 2) Location IDs and data boxes are provided only for soil sample locations where the target constituent was analyzed.
  - 3) If a duplicate was taken, the highest value is shown.
  - 4) Composite samples were not included in the analytical data shown.
  - 5) All soil concentrations reported in milligrams per kilogram (mg/kg).
  - 6) The highest of the Type 1-4 RRS was used for delineation purposes.
  - 7) **Shaded** represent results above the Type 2 RRS.
  - 8) A third step-out sample was not collected for SB-137-2, as the area is paved.
  - 9) NA - Not Analyzed
- E - Analyte exceeds the calibration range of equipment.  
J - Result is less than the reporting limit but greater than or equal to the detection limit and the concentration is an approximate value.  
U - Indicates the analyte was analyzed for but not detected.  
RRS - Risk Reduction Standard  
TEQ - Toxic Equivalency  
TEQ Partial - The summed TEF adjusted concentration of detected dioxin-like PCBs.

0 30 60  
SCALE IN FEET

HERCULES LLC / SOLENIS LLC  
SAVANNAH PLANT (HSI #10696)  
SAVANNAH, GEORGIA  
**COMPLIANCE STATUS REPORT**

**Restricted Use Zone**  
**Former Dry Size Area**

BASE REFERENCES:  
1) Ashland (baseplot.dwg and toplot.dwg).  
2) SAGIS (2008).  
3) Conner and Associates Survey (March 2001).  
4) Ashland Savannahbase.dwg (March 2014).  
5) AERIAL SOURCE: GEP (November 2014).  
PROJECTION: NAD83 State Plane Georgia East Feet

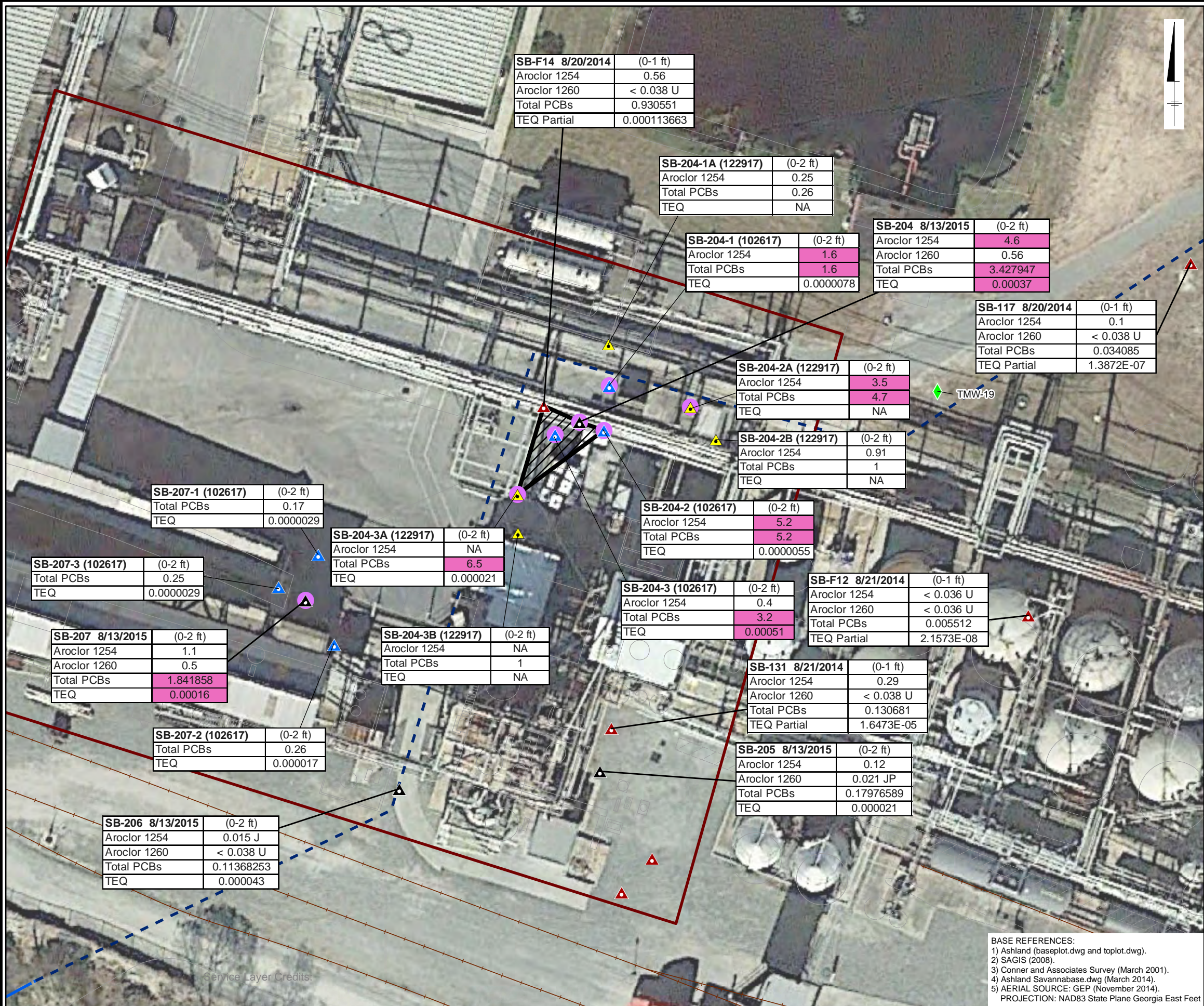
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FIGURE

**13c**



CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: A.CARLONE PIC: J.REID PM: D.WILDERMAN TM: J.HANNA DBASE: T.WALL BY: A.CARLONE SAVED: 10/16/2018  
PROJECT: OH008000.GA61  
PATH: Z:\GIS\PROJECTS\ENV\ASHLAND\ASHLAND\_HERCULES\_GA\_SAVANNAH\MAPDOCS\2018\2018 COMPLIANCE STATUS REPORT\2018\F13D\_GA61\_UEC\_SOIL\_POBPLUME\_HARDRESINAREA.MXD



HERCULES LLC / SOLENIS LLC  
SAVANNAH PLANT (HSI #10696)  
SAVANNAH, GEORGIA  
**COMPLIANCE STATUS REPORT**

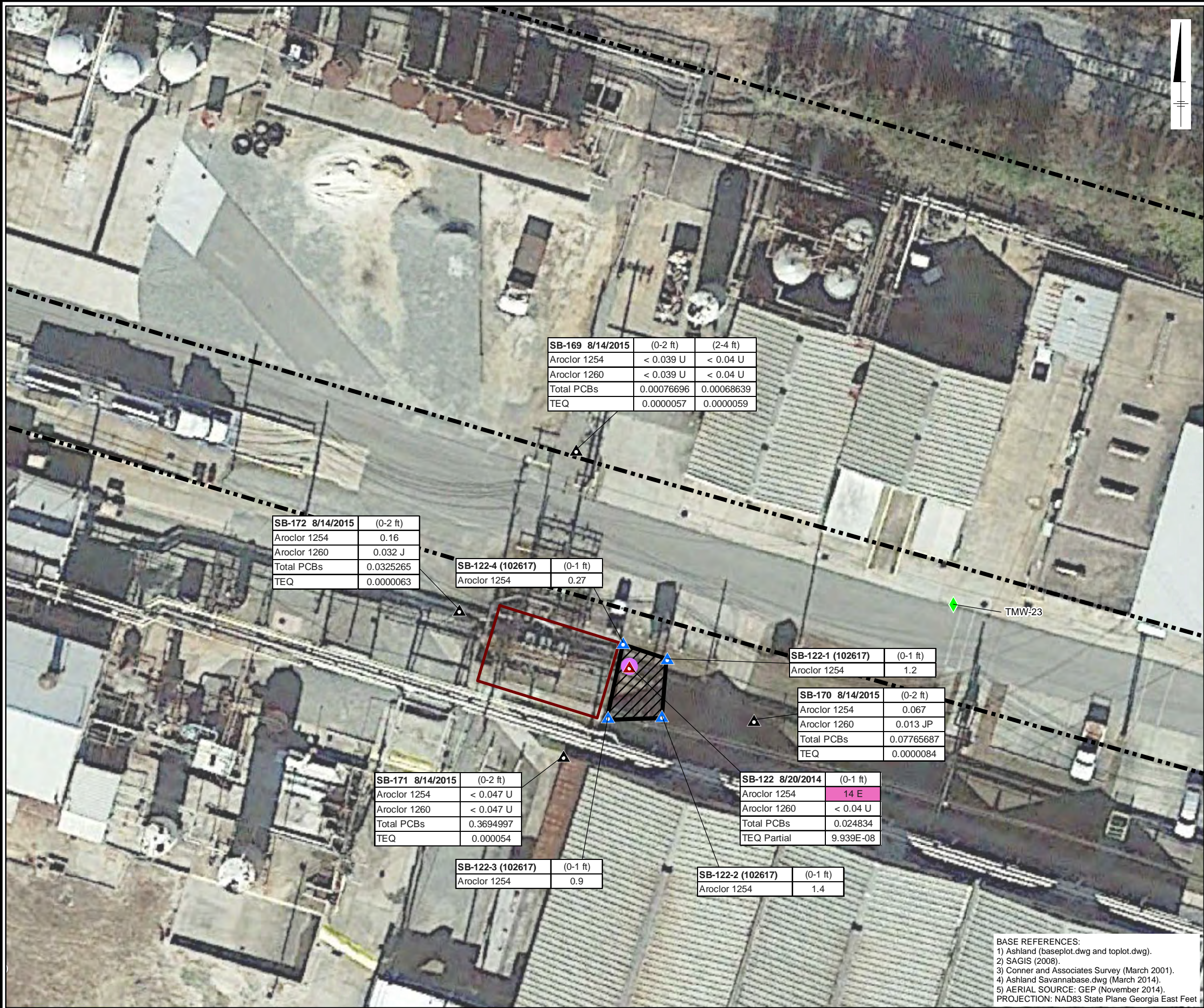
**Restricted Use Zone  
Hard Resins Area**

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FIGURE  
**13d**



CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: A.CARLONE PIC: J.REID PM: D.WILDERMAN TM: J.HANNA DBASE: T.WALL BY: A.CARLONE SAVED: 10/16/2018  
PROJECT: OH008000.GA61  
PATH: Z:\GIS\PROJECTS\ENV\ASHLAND\ASHLAND\_HERCULES.GA SAVANNAH\MAPDOCS\2018\2018 COMPLIANCE STATUS REPORT\2018\F13E\_GA61\_UEC\_SOIL\_POBPLUME\_SUBSTATION8526.MXD



## LEGEND

- ▲ Soil Boring (2000-2008)
- ▲ Soil Boring (August 2014)
- ▲ Soil Boring (August/September 2015)
- ▲ Soil Boring (October 2017)
- Result above Type 1-4 RRS
- ◆ Temporary Monitoring Well (October 2017)
- Property Boundaries (Conner 2001)
- Electrical Substation 8526
- Restricted Use Zone

Constituent	Type 1-4 RRS
Aroclor 1254 (mg/kg)	1.55
Aroclor 1260 (mg/kg)	1.55
Total PCBs (mg/kg)	1.55
TEQ Partial (mg/kg)	---
TEQ (mg/kg)	0.000115

**Proposed Site-Specific Type 4 RRS:**  
**Aroclor 1254 = 7.3 mg/kg**  
**(Site-Specific Type 4 RRS derived based on the direct contact number, protection of groundwater)**  
**2,3,7,8 TCDD TEQ = 0.00044 mg/kg**  
**(Site-Specific Type 4 RRS derived based on the Type 4 RRS provided by GAEPD)**

**NOTES:**  
1) All locations are approximate.  
2) Location IDs and data boxes are provided only for soil sample locations where the target constituent was analyzed.  
3) If a duplicate was taken, the highest value is shown.  
4) Composite samples were not included in the analytical data shown.  
5) All soil concentrations reported in milligrams per kilogram (mg/kg).  
6) The highest of the Type 1-4 RRS was used for delineation purposes.  
7) **Shaded** represent results above the Type 2 RRS.  
8) NA - Not Analyzed  
ND - Not Detected  
E - Analyte exceeds the calibration range of equipment.  
J - Result is less than the reporting limit but greater than or equal to the detection limit and the concentration is an approximate value.  
P - The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.  
U - Indicates the analyte was analyzed for but not detected.  
RRS - Risk Reduction Standard  
TEQ - Toxic Equivalency  
TEF - Toxic Equivalency Factor  
TEQ Partial - The summed TEF adjusted concentration of detected dioxin-like PCBs.

0 30 60  
SCALE IN FEET

HERCULES LLC / SOLENIS LLC  
SAVANNAH PLANT (HSI #10696)  
SAVANNAH, GEORGIA  
**COMPLIANCE STATUS REPORT**

**Restricted Use Zone**  
**Electrical Substation 8526**

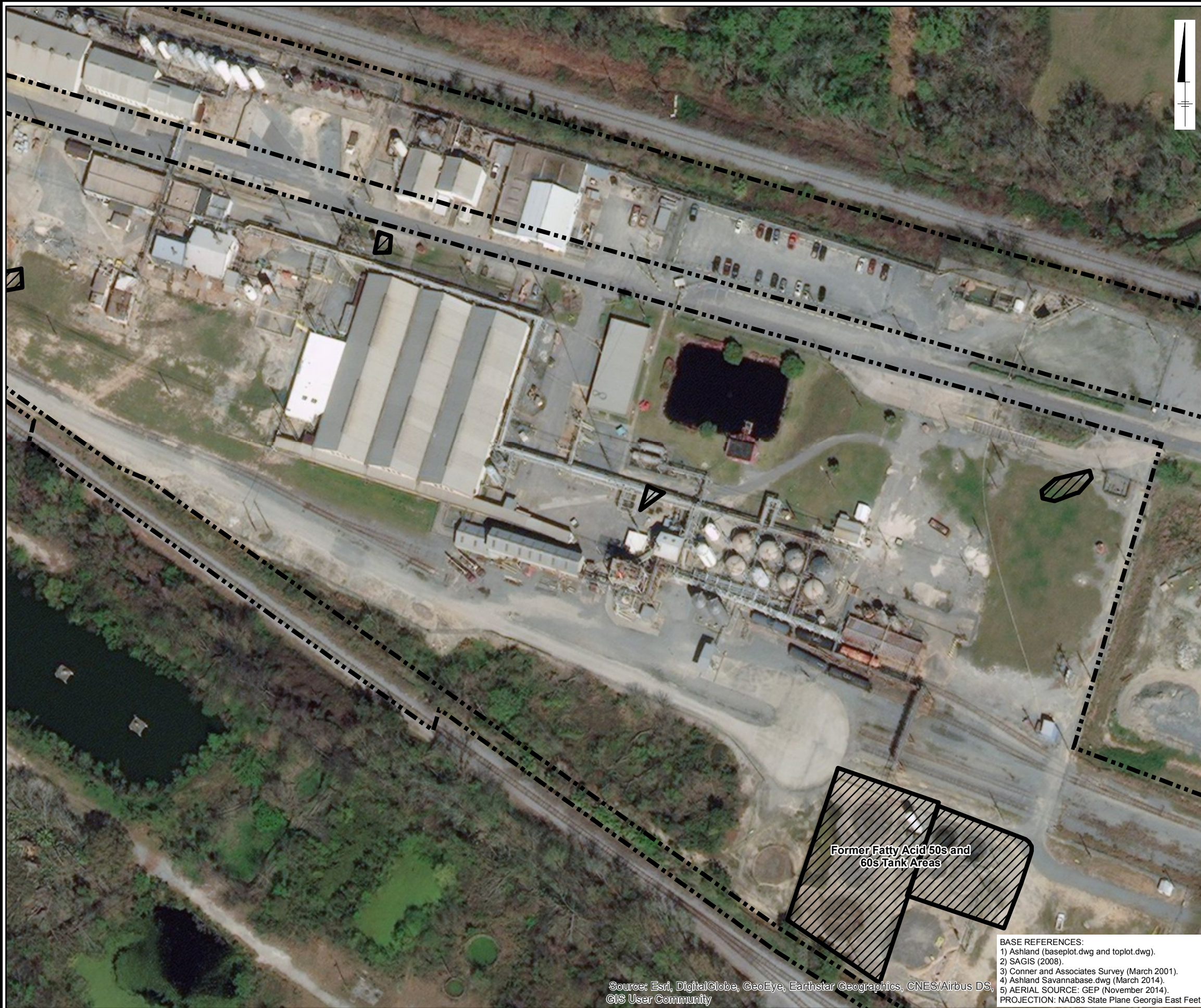
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FIGURE

**13e**





CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: A.CARLONE PIC: J.REID PM: D.WILDERMAN TM: J.HANNA DBASE: T.WALL BY: AKENS SAVED: 10/31/2018  
PROJECT: OH080000.GA61  
PATH: Z:\GIS\PROJECTS\ENV\ASHLAND\ASHLAND\_HERCULES\GA\_SAVANNAH\MAPDOCS\2018\2018 COMPLIANCE STATUS REPORT\2018\F13F\_GA61\_UEC\_SUBSTATION8528REVOC312018.MXD



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS,  
GIS User Community

BASE REFERENCES:  
1) Ashland (baseplot.dwg and toplot.dwg).  
2) SAGIS (2008).  
3) Conner and Associates Survey (March 2001).  
4) Ashland Savannahbase.dwg (March 2014).  
5) AERIAL SOURCE: GEP (November 2014).  
PROJECTION: NAD83 State Plane Georgia East Feet

## LEGEND

-  Hercules Property (Conner 2001)
-  Restricted Use Zone - Former Fatty Acid 50s and 60s Tank Area restricted use zone, as noted in the February 2011 GAEPD response submittal

NOTES:  
1) All locations are approximate.

0 100 200  
SCALE IN FEET

HERCULES LLC / SOLENIS LLC  
SAVANNAH PLANT (HSI #10696)  
SAVANNAH, GEORGIA  
2018 COMPLIANCE STATUS REPORT

**Restricted Use Zone**  
**Former Fatty Acid 50s and 60s Tank Areas**

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built assets

FIGURE

**13f**



# APPENDIX A

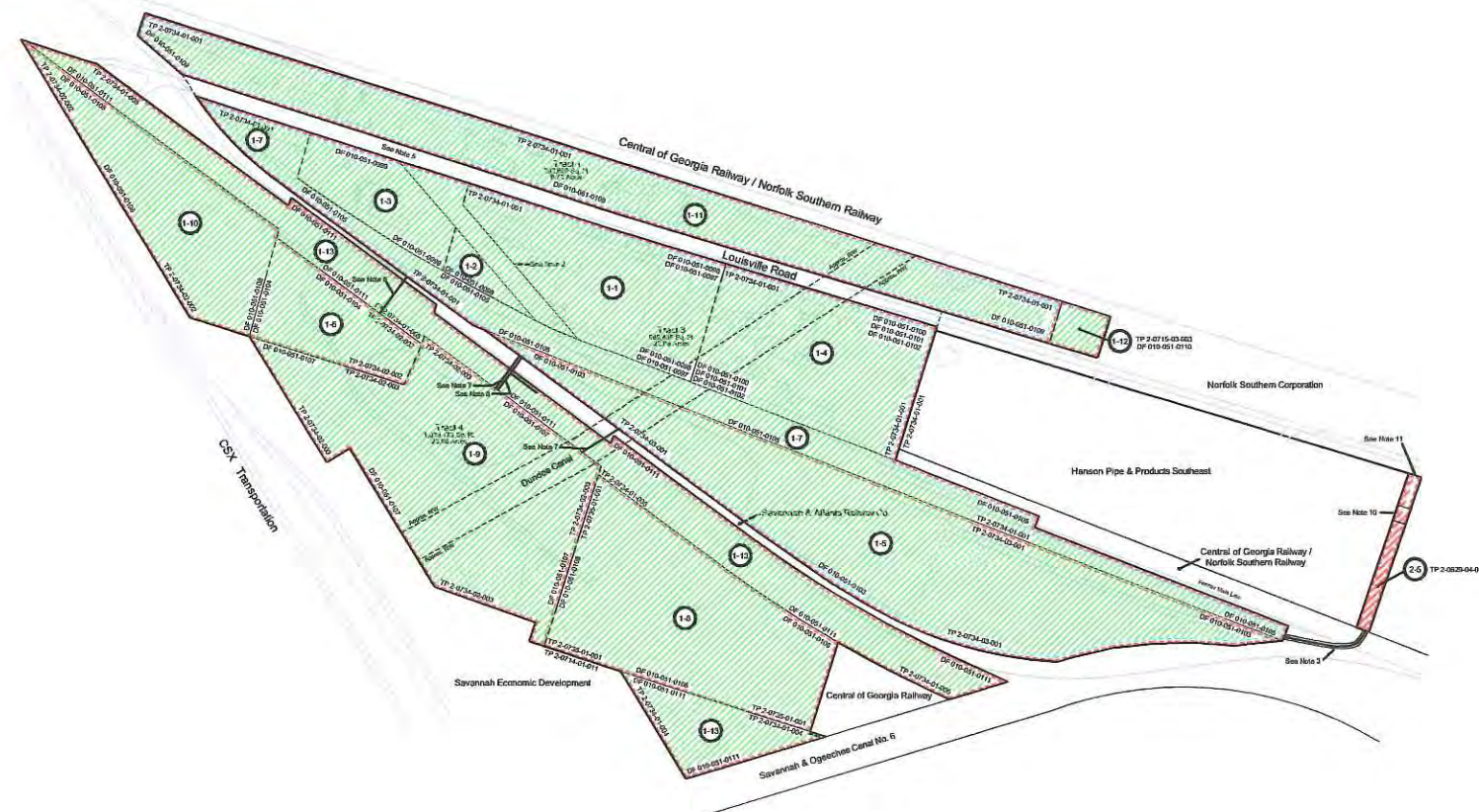
Tax Parcel Map and Connor Survey





# HERCULES INCORPORATED

3000 LOUISVILLE ROAD, SAVANNAH, CHATHAM COUNTY, GEORGIA



Parcels Currently Owned by Hercules Incorporated  
Approximately 53.27 Acres

Parcel	Deed File	Grantor	Deed Source	Area	Comments
1-1	010-051-0096	Western Paper Makers Chemical	Deed Book 31-Z, Folio 193	3.49 Acres	A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-2	010-051-0097	Paper Makers Chemical Corp.	Deed Book 31-X, Folio 353	0.33 Acres	A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-3	010-051-0098	Paper Makers Chemical Corp.	Deed Book 31-Y, Folio 032	1.42 Acres	A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-4	010-051-0100	James R. Sheldon, Executor	Deed Book 41-X, Folio 197	4.08 Acres	A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-5	010-051-0101	Emma W. Morell	Deed Book 41-Y, Folio 086		
1-6	010-051-0102	James R. Sheldon	Deed Book 41-X, Folio 214		
1-7	010-051-0103	Savannah & Atlanta Railway Co.	Deed Book 65-Q, Folio 441	8.47 Acres	A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-8	010-051-0104	R.F. Simmons	Deed Book 66-B, Folio 355	1.73 Acres	A part of Tract 4 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-9	010-051-0105	Savannah & Atlanta Railway Co.	Deed Book 97-D, Folio 645	4.22 Acres	A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-10	010-051-0106	Sidney L. Raskin, et al	Deed Book 99-A, Folio 253	5.33 Acres	A part of Tract 4 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-11	010-051-0107	Jack W. Shearouse	Deed Book 99-Q, Folio 017	7.02 Acres	A part of Tract 1 as shown on the Boundary and Site Survey for the Bank of America of
1-12	010-051-0108	Jewel Tuten Hoggan	Deed Book 118-Y, Folio 842	3.31 Acres	A part of Tract 4 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-13	010-051-0109	Central of Georgia Railroad Co.	Deed Book 121-C, Folio 218	6.41 Acres	A part of Tract 1 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-14	010-051-0110	Central of Georgia Railroad Co.	Deed Book 126-T, Folio 474	0.31 Acres	A part of Tract 1 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-15	010-051-0111	CSX Transportation Inc.	Deed Book 135-B, Folio 113	5.21 Acres	A part of Tract 4 on the Boundary Survey by Conner & Associates dated March 16, 2001.
N/A				1.26 Acres	A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
Total				53.27 Acres	

Parcels Formerly Owned by Hercules Incorporated

Parcel	Deed File	Grantor	Deed Source	Area	Comments
2-5	010-051-0103	Savannah & Atlanta Railway Co.	Deed Book 65-Q, Folio 441	0.31 Acres	Acreage shown is calculated from the deed plot.

## Tax Parcel Summary

Parcel	Tax Parcel	Deed Reference	Assessor Area	Survey/Calc. Area	Comments
1-1	2-0734-01-001	All of Deed Book 31-Z, Folio 193	14.43 Acres	3.49 Acres	
		All of Deed Book 31-X, Folio 353		0.33 Acres	
1-2		All of Deed Book 31-Y, Folio 032		1.42 Acres	
1-3		All of Deed Book 31-X, Folio 354		4.08 Acres	
1-4		All of Deed Book 41-X, Folio 197			
		All of Deed Book 41-Y, Folio 086			
		All of Deed Book 41-X, Folio 214			
1-7		All of Deed Book 97-D, Folio 645		4.22 Acres	
1-11		All of Deed Book 121-C, Folio 218		6.41 Acres	
N/A		N/A		0.68 Acres	
1-6	2-0734-03-001	Part of Deed Book 65-Q, Folio 441	7.86 Acres	8.47 Acres	
1-6	2-0734-02-002	All of Deed Book 66-B, Folio 355	6.24 Acres	1.73 Acres	
1-10		All of Deed Book 118-Y, Folio 842		3.31 Acres	
1-8	2-0735-01-001	All of Deed Book 99-A, Folio 253	7.85 Acres	5.33 Acres	
1-9	2-0734-02-003	All of Deed Book 99-D, Folio 017	7.19 Acres	7.02 Acres	
1-12	2-0716-03-003	All of Deed Book 126-T, Folio 474		0.31 Acres	
1-13	2-0734-01-004	Part of Deed Book 135-B, Folio 113	1.06 Acres	1.26 Acres	
1-13	2-0734-01-005	Part of Deed Book 135-B, Folio 113	8.11 Acres	5.21 Acres	
Total			53.07 Acres	53.27 Acres	



# **SURVEYOR'S NOTES**

- THE FOLLOWING DEEDS, PLATS AND DRAWINGS WERE USED IN PREPARING THIS SURVEY:
  - WARRANTY DEED BY AND BETWEEN EMMA W. MOREL AND HERCULES POWDER COMPANY DATED NOVEMBER 24, 1945, RECORDED IN DEED BOOK 417, PAGE 86, CHATHAM COUNTY, GEORGIA RECORDS.
  - EXECUTOR'S DEED BY AND BETWEEN JAMES R. SHELTON, EXECUTOR OF THE LAST WILL AND TESTAMENT OF BESSIE R. SHELTON AND HERCULES POWDER COMPANY DATED NOVEMBER 14, 1945, RECORDED IN DEED BOOK 41X, FOLIO 197, CHATHAM COUNTY, GEORGIA RECORDS.
  - WARRANTY DEED BY AND BETWEEN JAMES R. SHELTON AND HERCULES POWDER COMPANY DATED NOVEMBER 14, 1945, RECORDED IN DEED BOOK 41X, FOLIO 214, CHATHAM COUNTY, GEORGIA RECORDS.
  - WARRANTY DEED BY AND BETWEEN PAPER MAKERS CHEMICAL CORPORATION AND HERCULES POWDER COMPANY DATED NOVEMBER 2, 1936, RECORDED IN DEED BOOK 31Z, FOLIO 193, CHATHAM COUNTY, GEORGIA RECORDS.
  - WARRANTY DEED BY AND BETWEEN CENTRAL OF GEORGIA RAILROAD COMPANY AND HERCULES INCORPORATED DATED FEBRUARY 23, 1983, RECORDED IN DEED BOOK 121C, FOLIO 218, CHATHAM COUNTY, GEORGIA RECORDS.
  - WARRANTY DEED BY AND BETWEEN SAVANNAH & ATLANTA RAILWAY COMPANY AND HERCULES POWDER COMPANY DATED SEPTEMBER 29, 1956, RECORDED IN DEED BOOK 65Q, FOLIO 441, CHATHAM COUNTY, GEORGIA RECORDS.
  - WARRANTY DEED BY AND BETWEEN HERCULES INCORPORATED AND SAVANNAH & ATLANTA RAILWAY COMPANY DATED MARCH 12, 1969, RECORDED IN DEED BOOK 96K, FOLIO 549, CHATHAM COUNTY, GEORGIA RECORDS.
  - WARRANTY DEED BY AND BETWEEN SCOTT CONCRETE PIPE COMPANY AND SHERMAN INTERNATIONAL DATED OCTOBER 8, 1987, RECORDED IN DEED BOOK 136B, FOLIO 708, CHATHAM COUNTY, GEORGIA RECORDS.
  - SUBDIVISION MAP OF THE J.H. ROBERTS ESTATE BY W.F. BROWN DATED JULY 1915.
  - PLAT OF 1.22 ACRES OF LAND FOR THE WESTERN PAPER MAKERS CHEMICAL COMPANY BY PERCY SUDEN, C.E. DATED MARCH 25, 1925, RECORDED IN MAP BOOK 2, PAGE 35, CHATHAM COUNTY, GEORGIA RECORDS.
  - SOUTHERN RAILWAY SYSTEM PLAT BY JOSEPH D. SIMS, R.L.S. OF 6.412 ACRES OF PROPERTY RECORDED IN PLAT BOOK 4P, PAGE 189, CHATHAM COUNTY, GEORGIA RECORDS.
  - SAVANNAH & ATLANTA RAILWAY COMPANY PLAN A-19-S DATED NOVEMBER 1955, RECORDED IN PLAT BOOK H, PAGE 137, CHATHAM COUNTY, GEORGIA RECORDS.
  - SAVANNAH & ATLANTA RAILWAY COMPANY MAP OF 4.144 ACRES OF PROPERTY TO BE CONVEYED TO HERCULES POWDER COMPANY INC. DRAWING NO. 11-80 DATED MARCH 15, 1967.
  - SAVANNAH & ATLANTA RAILWAY COMPANY MAP SHOWING PROPERTY TO BE ACQUIRED FROM HERCULES POWDER COMPANY DRAWING NO. 4-292 DATED AUGUST 8, 1967, RECORDED IN PLAT BOOK T, PAGES 170 & 171, CHATHAM COUNTY, GEORGIA RECORDS.
  - WARRANTY DEED BETWEEN JACK W. SHEARHOUSE AND HERCULES INCORPORATED DATED AUGUST 24, 1971, RECORDED IN DEED BOOK 99Q, FOLIO 17, CHATHAM COUNTY, GEORGIA RECORDS.
  - DEED BETWEEN SIDNEY L. RASKIN AND SAVANNAH JEWISH COUNCIL, INC. AND HERCULES INCORPORATED DATED 1971, RECORDED IN DEED BOOK 99A, FOLIO 253, CHATHAM COUNTY, GEORGIA RECORDS.
  - DEED BETWEEN SAVANNAH & ATLANTA RAILWAY COMPANY AND HERCULES, INCORPORATED DATED AUGUST 29, 1969, RECORDED IN DEED BOOK 97D, FOLIO 645, CHATHAM COUNTY, GEORGIA RECORDS.
  - DEED BETWEEN R.F. SIMMONS AND HERCULES POWDER COMPANY DATED DECEMBER 14, 1956, RECORDED IN DEED BOOK 66B, FOLIO 355, CHATHAM COUNTY, GEORGIA RECORDS.
  - WARRANTY DEED BETWEEN JEWELL TUTEN HOGGAN AND HERCULES INCORPORATED DATED JULY 29, 1982, RECORDED IN DEED BOOK 118Y, FOLIO 842, CHATHAM COUNTY, GEORGIA RECORDS.
  - DEED BETWEEN CENTRAL OF GEORGIA RAILROAD COMPANY AND HERCULES INCORPORATED DATED DECEMBER 26, 1984, RECORDED IN DEED BOOK 126T, FOLIO 474, CHATHAM COUNTY, GEORGIA RECORDS.
  - DEED BETWEEN CSX TRANSPORTATION, INC. AND HERCULES INCORPORATED DATED JUNE 17, 1987, RECORDED IN DEED BOOK 135B, FOLIO 113, CHATHAM COUNTY, GEORGIA RECORDS.
  - EASEMENT DEED BETWEEN SEABOARD AIRLINE RAILROAD AND SAVANNAH & ATLANTA RAILWAY COMPANY DATED SEPTEMBER 22, 1961.
- THE FIELD DATA UPON WHICH THIS PLAT IS BASED HAS A CLOSURE PRECISION OF ONE FOOT IN 106,634, AND AN ANGULAR ERROR OF LESS THAN A SECOND PER ANGLE POINT, AND WAS ADJUSTED USING LEAST SQUARES.
- THIS PLAT HAS BEEN CALCULATED FOR CLOSURE AND IS FOUND TO BE ACCURATE WITHIN ONE FOOT IN 187,706 FEET.
- PER CLIENT REQUEST, IMPROVEMENTS ON THE PROPERTY HAVE NOT BEEN LOCATED.
- HORIZONTAL AND ANGULAR MEASUREMENTS FOR THIS SURVEY WERE MADE WITH A SOKKIA POWERSET TOTAL STATION.
- FIELD WORK FOR THIS SURVEY WAS PERFORMED ON JANUARY 14, 15, FEBRUARY 8 - 28 AND MARCH 13, 2001.
- FLOOD ZONE LINES PLOTTED ACCORDING TO FIRM PANEL NO. 130030 0080C, DATED MAY 19, 1987 AND ARE APPROXIMATE.
- 'o' ARE 1/2" RE-BAR SET AT CORNER SHOWN EXCEPT AS NOTED.
- THE BASIS FOR THE BEARINGS SHOWN ON THIS SURVEY PLAT IS THE MAP IN NOTE 11.
- THIS SITE IS ZONED I-H, INDUSTRIAL - HEAVY, PER CHATHAM COUNTY ZONING.

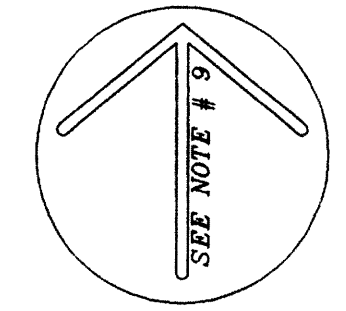
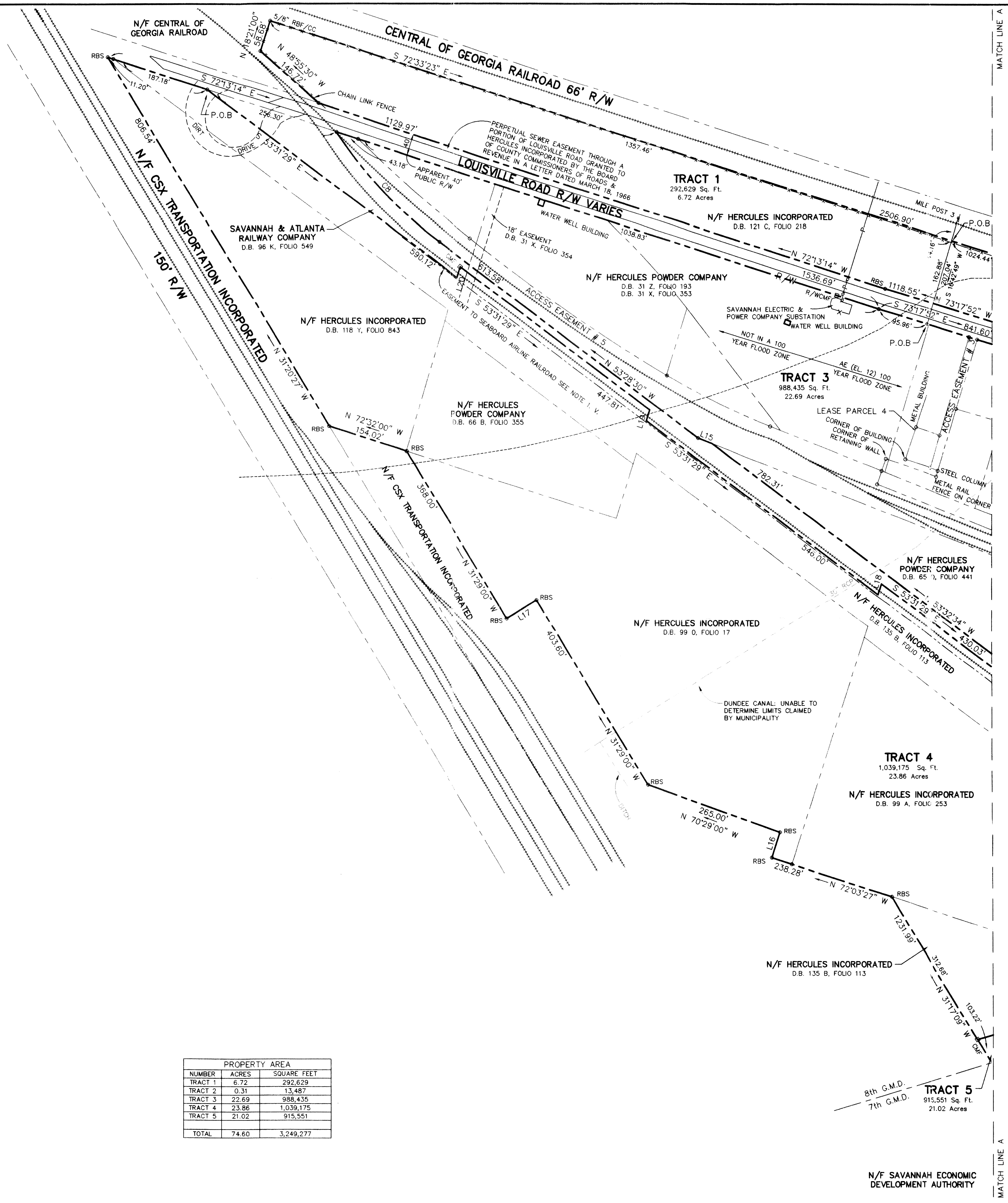
## **SURVEYOR'S CERTIFICATION**

- THE UNDERSIGNED HEREBY CERTIFIES TO EASTMAN CHEMICAL RESINS, INC., HERCULES INCORPORATED, AND LAWYERS TITLE INSURANCE CORPORATION AS FOLLOWS:
- THE UNDERSIGNED IS A DULY LICENSED AND REGISTERED LAND SURVEYOR FOR THE STATE OF GEORGIA.
  - THE UNDERSIGNED PREPARED THE PLAT OF SURVEY ENTITLED "BOUNDARY SURVEY OF THE HERCULES INCORPORATED PROPERTY, SAVANNAH GEORGIA PLANT", DATED MARCH 16, 2001. THE SURVEY DEPICTS: (A) THE POINT OF REFERENCE FROM WHICH THE SURVEY WAS PREPARED; (B) THE BOUNDARIES OF THE SUBJECT PROPERTY; AND THE COURSES AND DISTANCES OF SUCH BOUNDARIES; (C) THE AREA OF THE PROPERTY IN ACRES; (D) THE LOCATION OF RIGHTS-OF-WAY, EASEMENTS AND OTHER MATTERS OF RECORD AS CONTAINED IN THAT CERTAIN LAWYERS TITLE INSURANCE CORPORATION TITLE COMMITMENT CASE NO. 378-34/LMD AFFECTING THE PROPERTY; NOTE: SCHEDULE B-SECTION 2 EXCEPTIONS 7-11 WERE NOT SUPPLIED TO THE UNDERSIGNED AND ARE NOT DEPICTED ON THE SURVEY. THE UNDERSIGNED IS ALSO UNABLE TO DETERMINE THE LOCATION OF THE FORMER RIGHTS OF WAY OF THE MIDLAND RAILWAY COMPANY; (E) DEDICATED PUBLIC RIGHTS-OF-WAY ABUTTING THE PROPERTY, TOGETHER WITH THE WIDTH OF THE RIGHTS-OF-WAY AND NAMES THEREOF; (F) LOCATION OF THE DUNDEE CANAL AND WATER WELLS LOCATED UPON OR ABUTTING THE PROPERTY.
  - EXCEPT AS SHOWN ON THE SURVEY, THERE ARE NO VISIBLE: (A) ENCROACHMENTS UPON THE PROPERTY BY IMPROVEMENTS ON ADJACENT PROPERTY; OR (B) ENCROACHMENTS ON ADJACENT PROPERTY, PUBLIC OR PRIVATE RIGHTS-OF-WAY, OR EASEMENTS BY IMPROVEMENTS ON THE PROPERTY.
  - LOUISVILLE ROAD IS A PAVED, DEDICATED PUBLIC RIGHT-OF-WAY BUT DOES NOT APPEAR TO BE MAINTAINED BY GOVERNMENTAL AUTHORITY WITHIN THE PLANT BOUNDARY.
  - THE UNDERSIGNED HAS REVIEWED FIRM PANEL NO. 130030 0080C, DATED MAY 19, 1987 AND HAS DETERMINED THAT PORTIONS OF THAT PROPERTY DEPICTED ON THE SURVEY ARE LOCATED IN A SPECIAL FLOOD HAZARD AREA, AS DEFINED UNDER THE NATIONAL FLOOD INSURANCE PROGRAM ADMINISTERED BY THE FEDERAL INSURANCE ADMINISTRATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

THE UNDERSIGNED MAKES THE FOREGOING CERTIFICATION KNOWING THAT EASTMAN CHEMICAL RESINS, INC., HERCULES INCORPORATED, AND LAWYERS TITLE INSURANCE CORPORATION WILL RELY THEREON. THIS CERTIFICATION IS MADE AS OF MARCH 16, 2001.

*W.C. Powers* 3-16-01  
WRIGHT C. POWERS, JR., GA RLS 2612

PROPERTY AREA			
NUMBER	ACRES	SQUARE FEET	
TRACT 1	6.72	292,629	
TRACT 2	0.31	13,487	
TRACT 3	22.69	988,435	
TRACT 4	23.86	1,039,175	
TRACT 5	21.02	915,551	
TOTAL	74.60	3,249,277	



CONNOR AND ASSOCIATES, INC.  
engineers • planners • surveyors  
P.O. BOX 10091  
SAVANNAH, GEORGIA 31412  
PH (912) 887-5460 / FAX (912) 887-4631

BOUNDARY SURVEY OF HERCULES INCORPORATED PROPERTY  
SAVANNAH GEORGIA PLANT  
LOCATED NEAR CENTRAL JUNCTION

3000 LOUISVILLE ROAD

7th & 8th G.M.D., SAVANNAH, CHATHAM COUNTY, GEORGIA

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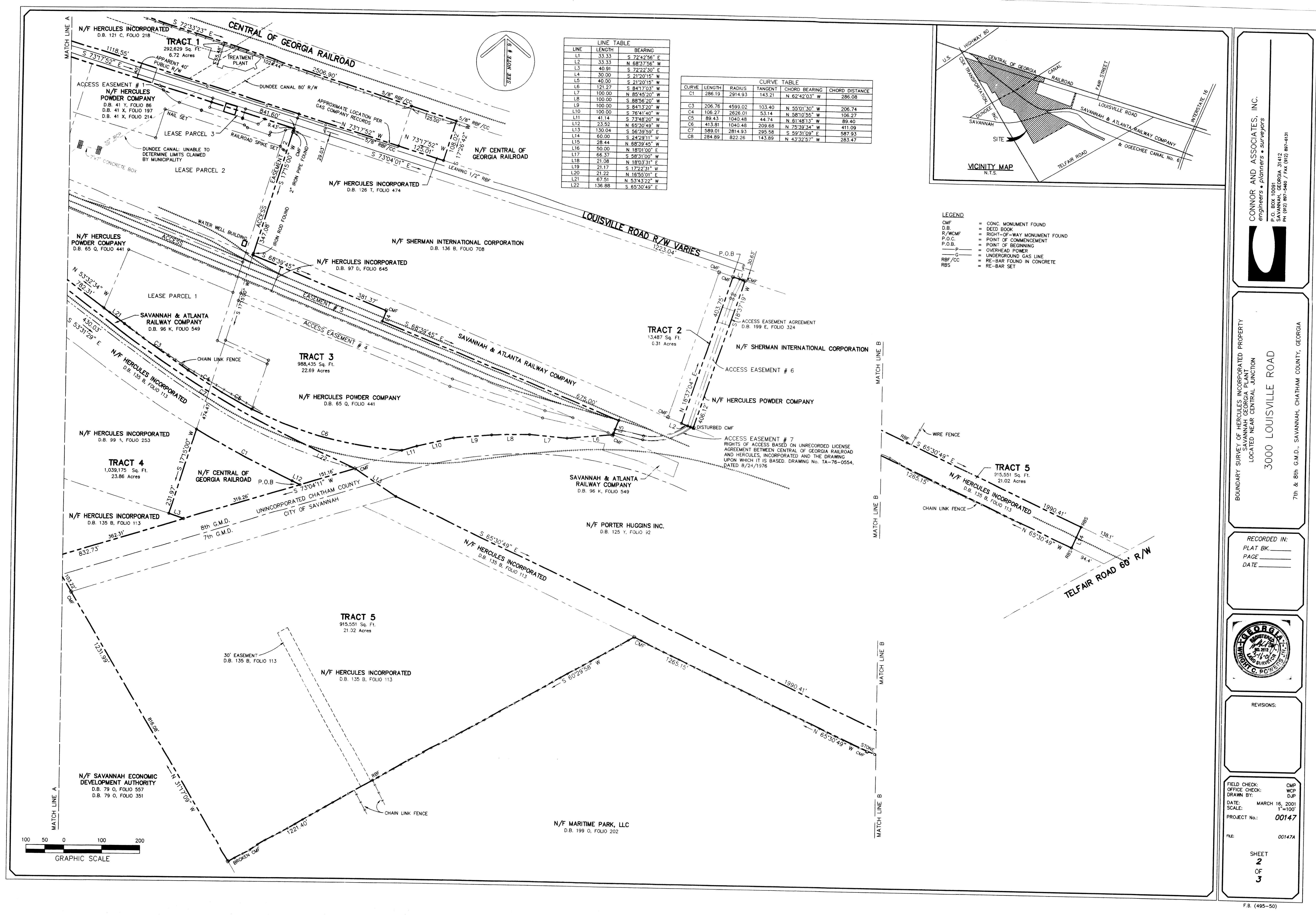
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FIELD CHECK: CMP  
OFFICE CHECK: WCP  
DRAWN BY: DJP  
DATE: MARCH 16, 2001  
SCALE: 1"=100'  
PROJECT No.: 00147

FILE: 00147A

SHEET  
1  
OF  
3





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BOUNDARY SURVEY OF HERCULES INCORPORATED PROPERTY  
SAVANNAH GEORGIA PLANT  
LOCATED NEAR CENTRAL JUNCTION  
3000 LOUISVILLE ROAD  
7th & 8th G.M.D., SAVANNAH, CHATHAM COUNTY, GEORGIA

RECORDED IN:  
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FIELD CHECK:	CMP
OFFICE CHECK:	WCP
DRAWN BY:	DJP
DATE:	MARCH 16, 2001
SCALE:	1"=100'
PROJECT No.:	00147
FILE:	00147A

SHEET  
2  
OF  
3

F.B. (495-50)



PROPERTY DESCRIPTION TRACT 1

ALL THAT CERTAIN TRACT OR PARCEL OF LAND LYING AND BEING IN THE 8th G.M.D., CHATHAM COUNTY, GEORGIA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

TO FIND THE TRUE POINT OF BEGINNING, COMMENCE AT MILE POST 3 ALONG THE CENTRAL OF GEORGIA RAILROAD FROM THE STATION IN SAVANNAH; THENCE SOUTH 16°42'49" WEST, 44.16 FEET TO A POINT ON THE SOUTHERN RIGHT-OF-WAY LINE OF THE CENTRAL OF GEORGIA RAILROAD, SAID POINT BEING THE POINT OF BEGINNING; THENCE, LEAVING THE AFORESAID POINT OF BEGINNING AND CONTINUING ALONG THE AFORESAID SOUTHERN RIGHT-OF-WAY LINE OF THE CENTRAL OF GEORGIA RAILROAD

SOUTH 72°33'23" EAST, 1,149.44 FEET TO A 5/8" RE-BAR IN CONCRETE; THENCE, LEAVING THE SOUTHERN RIGHT-OF-WAY LINE OF THE CENTRAL OF GEORGIA RAILROAD

SOUTH 17°26'42" WEST, 108.02 FEET TO A 5/8" RE-BAR IN CONCRETE ON THE NORTHERN RIGHT-OF-WAY LINE OF LOUISVILLE ROAD (VARIABLE R/W); THENCE, CONTINUING ALONG THE AFORESAID NORTHERN RIGHT-OF-WAY LINE OF LOUISVILLE ROAD

NORTH 73°17'52" WEST, 1,243.56 FEET TO A POINT; THENCE,

NORTH 72°13'14" WEST, 1,129.97 FEET TO A POINT; THENCE, LEAVING THE NORTHERN RIGHT-OF-WAY LINE OF LOUISVILLE ROAD

NORTH 48°55'30" WEST, 146.72 FEET TO A POINT; THENCE,

NORTH 18°21'00" EAST, 58.68 FEET TO A 5/8" RE-BAR IN CONCRETE ON THE SOUTHERN RIGHT-OF-WAY LINE OF THE CENTRAL OF GEORGIA RAILROAD; THENCE, CONTINUING ALONG THE AFORESAID SOUTHERN RIGHT-OF-WAY LINE OF THE CENTRAL OF GEORGIA RAILROAD

SOUTH 72°33'23" EAST, 1,357.46 FEET TO THE POINT OF BEGINNING,

CONTAINING 292,629 SQUARE FEET OR 6.72 ACRES.

PROPERTY DESCRIPTION TRACT 4

ALL THAT CERTAIN TRACT OR PARCEL OF LAND LYING AND BEING IN THE 8th G.M.D., CHATHAM COUNTY, GEORGIA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

TO FIND THE TRUE POINT OF BEGINNING, COMMENCE AT MILE POST THREE ALONG THE CENTRAL OF GEORGIA RAILROAD FROM THE STATION IN SAVANNAH; THENCE, SOUTH 16°42'49" WEST, 207.04 FEET TO A POINT ON THE SOUTHERN RIGHT-OF-WAY LINE OF LOUISVILLE ROAD (APPARENT 40' R/W AT THIS POINT); THENCE, RUNNING WITH THE AFORESAID RIGHT-OF-WAY LINE OF LOUISVILLE ROAD NORTH 73°17'52" WEST, 95.96 FEET TO A POINT; THENCE, NORTH 72°13'14" WEST, 1,338.31 FEET TO THE POINT OF BEGINNING; THENCE, LEAVING AFORESAID POINT OF BEGINNING AND THE AFORESAID RIGHT-OF-WAY LINE OF LOUISVILLE ROAD

SOUTH 53°31'29" EAST, 590.12 FEET TO A POINT; THENCE, NORTH 16°55'01" EAST, 21.22 FEET TO A POINT; THENCE, SOUTH 53°31'29" EAST, 447.81 FEET TO A POINT; THENCE, SOUTH 17°22'31" WEST, 21.17 FEET TO A POINT; THENCE, SOUTH 53°31'29" EAST, 546.00 FEET TO A POINT; THENCE, NORTH 18°03'31" EAST, 21.08 FEET TO A POINT; THENCE, SOUTH 53°31'29" EAST, 430.03 FEET TO A POINT; THENCE,

589.01 FEET ALONG THE ARC OF A CURVE DEFLECTING TO THE LEFT HAVING A RADIUS OF 2,814.93 FEET AND A CHORD OF SOUTH 59°31'09" EAST, 587.93 FEET TO A POINT; THENCE,

SOUTH 65°30'49" EAST, 136.88 FEET TO A POINT; THENCE, SOUTH 73°04'11" WEST, 151.16 FEET TO A POINT; THENCE, NORTH 65°30'49" WEST, 23.52 FEET TO A POINT; THENCE,

286.19 FEET ALONG THE ARC OF A CURVE DEFLECTING TO THE LEFT HAVING A RADIUS OF 2914.93 FEET AND A CHORD OF NORTH 62°42'03" WEST, 286.08 FEET TO A POINT; THENCE,

SOUTH 17°15'00" WEST, 231.97 FEET TO A POINT; THENCE, SOUTH 72°22'30" EAST, 40.91 FEET TO A POINT; THENCE, SOUTH 73°04'11" WEST, 362.31 FEET TO A POINT; THENCE, NORTH 31°17'09" WEST, 312.68 FEET TO A POINT; THENCE, NORTH 72°03'27" WEST, 238.28 FEET TO A POINT; THENCE, NORTH 18°01'00" EAST, 50.00 FEET TO A POINT; THENCE, NORTH 70°29'00" WEST, 265.00 FEET TO A POINT; THENCE, NORTH 31°29'00" WEST, 403.60 FEET TO A POINT; THENCE, SOUTH 58°31'00" WEST, 66.37 FEET TO A POINT; THENCE, NORTH 31°29'00" WEST, 368.00 FEET TO A POINT; THENCE, NORTH 72°32'00" WEST, 154.02 FEET TO A POINT; THENCE, NORTH 31°20'27" WEST, 806.54 FEET TO A POINT; THENCE, SOUTH 72°13'14" EAST, 198.38 FEET TO THE POINT OF BEGINNING,

CONTAINING 1,039,175 SQUARE FEET OR 23.86 ACRES.

PROPERTY DESCRIPTION TRACT 2

ALL THAT CERTAIN TRACT OR PARCEL OF LAND LYING AND BEING IN THE 8th G.M.D., CHATHAM COUNTY, GEORGIA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

TO FIND THE TRUE POINT OF BEGINNING, COMMENCE AT MILE POST THREE ALONG THE CENTRAL OF GEORGIA RAILROAD FROM THE STATION IN SAVANNAH; THENCE, SOUTH 16°42'49" WEST, 207.04 FEET TO A POINT ON THE SOUTHERN RIGHT-OF-WAY LINE OF LOUISVILLE ROAD (APPARENT 40' R/W AT THIS POINT); THENCE, RUNNING WITH THE AFORESAID RIGHT-OF-WAY LINE OF LOUISVILLE ROAD SOUTH 73°17'52" EAST, 745.64 FEET TO A POINT; THENCE, SOUTH 17°15'00" WEST, 9.43 FEET TO A CONCRETE MONUMENT FOUND; THENCE, SOUTH 73°04'01" EAST, 1,223.04 FEET TO A CONCRETE MONUMENT FOUND AT THE POINT OF BEGINNING; THENCE, LEAVING THE AFORESAID POINT OF BEGINNING AND CONTINUING ALONG THE AFORESAID RIGHT-OF-WAY LINE OF LOUISVILLE ROAD

SOUTH 72°42'56" EAST, 33.33 FEET TO A CONCRETE MONUMENT FOUND; THENCE, LEAVING THE AFORESAID RIGHT-OF-WAY LINE OF LOUISVILLE ROAD

SOUTH 18°37'19" WEST, 406.12 FEET TO A DISTURBED CONCRETE MONUMENT FOUND ON THE RIGHT-OF-WAY LINE OF THE SAVANNAH & ATLANTA RAILROAD; THENCE, CONTINUING ALONG THE AFORESAID RIGHT-OF-WAY LINE OF THE SAVANNAH & ATLANTA RAILROAD

NORTH 68°37'56" WEST, 33.33 FEET TO A POINT; THENCE, LEAVING THE AFORESAID RIGHT-OF-WAY LINE OF THE SAVANNAH & ATLANTA RAILROAD

NORTH 18°37'04" EAST, 403.75 FEET TO THE POINT OF BEGINNING,

CONTAINING 13,487 SQUARE FEET OR 0.31 ACRES.

LEGAL DESCRIPTION TRACT 5

ALL THAT CERTAIN TRACT OR PARCEL OF LAND LYING AND BEING IN THE 7th & 8th G.M.D., SAVANNAH, CHATHAM COUNTY, GEORGIA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

TO FIND THE TRUE POINT OF BEGINNING, COMMENCE AT MILE POST THREE ALONG THE CENTRAL OF GEORGIA RAILROAD FROM THE STATION IN SAVANNAH; THENCE, SOUTH 16°42'49" WEST, 207.04 FEET TO A POINT ON THE SOUTHERN RIGHT-OF-WAY LINE OF LOUISVILLE ROAD (APPARENT 40' R/W AT THIS POINT); THENCE, RUNNING WITH THE AFORESAID RIGHT-OF-WAY LINE OF LOUISVILLE ROAD SOUTH 73°17'52" EAST, 745.64 FEET TO A POINT; THENCE, LEAVING AFORESAID RIGHT-OF-WAY LINE OF LOUISVILLE ROAD SOUTH 17°15'00" WEST, 821.55 FEET TO A POINT; THENCE, 286.19 FEET ALONG THE ARC OF A CURVE DEFLECTING TO THE LEFT HAVING A RADIUS OF 2,914.93 FEET AND A CHORD OF SOUTH 62°42'04" EAST, 286.08 FEET TO A POINT; THENCE, SOUTH 65°30'49" EAST, 23.52 FEET TO THE POINT OF BEGINNING; THENCE, LEAVING THE AFORESAID POINT OF BEGINNING

NORTH 73°04'11" EAST, 151.16 FEET TO A CONCRETE MONUMENT FOUND; THENCE,

SOUTH 56°39'59" EAST, 130.04 FEET TO A POINT; THENCE, SOUTH 65°30'49" EAST, 1,990.41 FEET TO A POINT; THENCE, SOUTH 24°29'11" WEST, 60.00 FEET TO A POINT; THENCE, NORTH 65°30'49" WEST, 1,265.15 FEET TO A POINT; THENCE, SOUTH 60°29'58" WEST, 1,221.40 FEET TO A BROKEN CONCRETE MONUMENT FOUND; THENCE,

NORTH 31°17'09" WEST, 919.30 FEET TO A POINT; THENCE, NORTH 73°04'11" EAST, 681.57 FEET TO THE POINT OF BEGINNING,

CONTAINING 915,551 SQUARE FEET OR 21.02 ACRES.

LEGAL DESCRIPTION - TRACT 3

ALL THAT CERTAIN TRACT OR PARCEL OF LAND LYING AND BEING IN THE 8th G.M.D., CHATHAM COUNTY, GEORGIA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

TO FIND THE TRUE POINT OF BEGINNING, COMMENCE AT MILE POST THREE ALONG THE CENTRAL OF GEORGIA RAILROAD FROM THE STATION IN SAVANNAH; THENCE, SOUTH 16°42'49" WEST, 207.04 FEET TO A POINT ON THE SOUTHERN RIGHT-OF-WAY LINE OF LOUISVILLE ROAD (APPARENT 40' R/W AT THIS POINT) BEING THE POINT OF BEGINNING; THENCE, LEAVING AFORESAID POINT OF BEGINNING AND RUNNING WITH THE AFORESAID RIGHT-OF-WAY LINE OF LOUISVILLE ROAD

SOUTH 73°17'52" EAST, 745.64 FEET TO A POINT; THENCE, LEAVING AFORESAID RIGHT-OF-WAY LINE OF LOUISVILLE ROAD

SOUTH 17°15'00" WEST, 347.08 FEET TO A POINT; THENCE,

SOUTH 68°39'45" EAST, 381.37 FEET TO A CONCRETE MONUMENT FOUND; THENCE,

SOUTH 21°20'15" WEST, 30.00 FEET TO A POINT; THENCE, SOUTH 68°39'45" EAST, 675.00 FEET TO A POINT; THENCE, SOUTH 21°20'15" WEST, 40.00 FEET TO A POINT; THENCE, SOUTH 84°17'03" WEST, 121.27 FEET TO A POINT; THENCE, NORTH 85°45'20" WEST, 100.00 FEET TO A POINT; THENCE, SOUTH 88°56'20" WEST, 100.00 FEET TO A POINT; THENCE, SOUTH 84°13'20" WEST, 100.00 FEET TO A POINT; THENCE, SOUTH 76°41'40" WEST, 100.00 FEET TO A POINT; THENCE, SOUTH 73°48'20" WEST, 41.14 FEET TO A POINT; THENCE,

413.81 FEET ALONG THE ARC OF A CURVE DEFLECTING TO THE RIGHT HAVING A RADIUS OF 1,040.48 FEET AND A CHORD OF NORTH 75°39'34" WEST, 411.09 FEET TO A POINT; THENCE,

89.43 FEET ALONG THE ARC OF A CURVE DEFLECTING TO THE RIGHT HAVING A RADIUS OF 1,040.48 FEET AND A CHORD OF NORTH 61°48'13" WEST, 89.40 FEET TO A POINT; THENCE,

106.27 FEET ALONG THE ARC OF A CURVE DEFLECTING TO THE RIGHT HAVING A RADIUS OF 2,626.01 FEET AND A CHORD OF NORTH 58°10'55" WEST, 106.27 FEET TO A POINT; THENCE,

206.76 FEET ALONG THE ARC OF A CURVE DEFLECTING TO THE RIGHT HAVING A RADIUS OF 4,599.02 FEET AND A CHORD OF NORTH 55°01'30" WEST, 206.74 FEET TO A POINT; THENCE,

NORTH 53°43'22" WEST, 67.51 FEET TO A POINT; THENCE, NORTH 53°32'34" WEST, 782.31 FEET TO A POINT; THENCE, NORTH 68°39'45" WEST, 28.44 FEET TO A POINT; THENCE, NORTH 53°28'30" WEST, 613.58 FEET TO A POINT; THENCE,

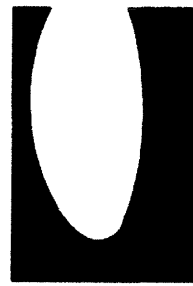
284.89 FEET ALONG THE ARC OF A CURVE DEFLECTING TO THE RIGHT HAVING A RADIUS OF 822.26 FEET AND A CHORD OF NORTH 43°32'57" WEST, 283.47 FEET TO A POINT; THENCE,

SOUTH 72°13'14" EAST, 1,082.01 FEET TO A POINT; THENCE, SOUTH 73°17'52" EAST, 95.96 FEET TO THE POINT OF BEGINNING,

CONTAINING 988,435 SQUARE FEET OR 22.69 ACRES.



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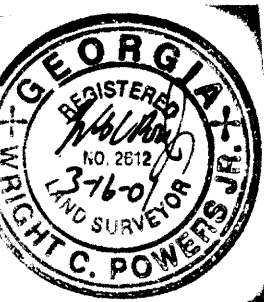


BOUNDARY SURVEY OF HERCULES INCORPORATED PROPERTY  
SAVANNAH GEORGIA PLANT  
LOCATED NEAR CENTRAL JUNCTION

3000 LOUISVILLE ROAD

7th & 8th G.M.D., SAVANNAH, CHATHAM COUNTY, GEORGIA

RECORDED IN:  
PLAT BK. \_\_\_\_\_  
PAGE \_\_\_\_\_  
DATE \_\_\_\_\_



REVISIONS:

FIELD CHECK: \_\_\_\_\_ CMP  
OFFICE CHECK: \_\_\_\_\_ WCP  
DRAWN BY: \_\_\_\_\_ DWP  
DATE: MARCH 15, 2001  
SCALE: 1"=100'  
PROJECT No.: 00147

FILE: 00147A

SHEET  
3  
OF  
3



# APPENDIX B

## Historical Groundwater Elevations





Appendix B  
Historical Groundwater Elevation Data  
2018 Compliance Status Report  
Hercules Inc. - Savannah, GA

Well ID	Date of Measurement	Ground Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Depth to Water (ft btoc)	GW Elevation (ft amsl)	Depth to Water Table (ft bgs)
MWA	10/23/2000	NM	NM	5.71	NM	NM
MWB	10/23/2000	NM	NM	5.06	NM	NM
MWC	10/23/2000	NM	NM	5.53	NM	NM
MWD	10/23/2000	NM	NM	7.00	NM	NM
MW-F1	10/23/2000	8.10	10.62	4.94	5.68	2.42
	11/1/2000	8.10	10.62	4.98	5.64	2.46
	6/30/2004	8.10	10.62	4.35	6.27	1.83
	1/26/2011	8.10	10.62	4.14	6.48	1.62
	7/21/2011	7.13	9.55	4.39	5.16	1.97
	11/11/2013	7.13	9.55	5.11	4.44	2.69
	5/22/2014	7.13	9.55	4.56	4.99	2.14
	11/4/2014	7.13	9.55	4.16	5.39	1.74
	5/4/2015	7.13	9.55	3.85	5.70	1.43
	11/2/2015	7.13	9.55	4.45	5.10	2.03
	5/2/2016	7.13	9.55	4.29	5.26	1.87
	12/27/2017	7.13	9.55	4.06	5.49	1.64
MW-F2	11/1/2000	8.89	8.58	5.62	2.96	5.93
	6/30/2004	8.89	8.58	5.55	3.03	5.86
	11/19/2008	8.89	8.58	5.46	3.12	5.77
	1/26/2011	8.89	8.58	NM	NM	NM
	7/21/2011	7.70	7.51	5.46	2.05	5.65
	11/11/2013	7.70	7.51	6.13	1.38	6.32
	5/22/2014	7.70	7.51	5.59	1.92	5.78
	11/4/2014	7.70	7.51	NM	NM	NM
	5/4/2015	7.70	7.51	5.14	2.37	5.33
	11/2/2015	7.70	7.51	5.56	1.95	5.75
	5/2/2016	7.70	7.51	4.95	2.56	5.14
	12/27/2017	7.70	7.51	4.90	2.61	5.09
MW-F3	10/23/2000	10.00	9.94	2.51	7.43	2.57
	11/1/2000	10.00	9.94	2.53	7.41	2.59
	7/3/2004	10.00	9.94	1.42	8.52	1.48
	8/16/2006	10.00	9.94	2.04	7.90	2.10
MW-F3R	11/19/2008	9.36	13.63	6.76	6.87	2.49
	1/26/2011	9.36	13.63	6.60	7.03	2.33
	7/21/2011	8.32	12.53	6.80	5.73	2.59
	11/11/2013	8.32	12.53	7.75	4.78	3.54
	5/22/2014	8.32	12.53	7.38	5.15	3.17
	11/4/2014	8.32	12.53	7.61	4.92	3.40
	5/4/2015	8.32	12.53	6.63	5.90	2.42
	11/2/2015	8.32	12.53	6.99	5.54	2.78
	5/2/2016	8.32	12.53	6.18	6.35	1.97
	12/27/2017	8.32	12.53	6.82	5.71	2.61
MW-F4	10/23/2000	9.60	12.09	5.99	6.10	3.50
	11/1/2000	9.60	12.09	6.04	6.05	3.55



Well ID	Date of Measurement	Ground Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Depth to Water (ft btoc)	GW Elevation (ft amsl)	Depth to Water Table (ft bgs)
MW-F5	10/23/2000	10.01	12.62	6.47	6.15	3.86
	11/1/2000	10.01	12.62	6.61	6.01	4.00
	7/2/2004	10.01	12.62	6.00	6.62	3.39
	8/16/2006	10.01	12.62	6.36	6.26	3.75
	7/30/2008	10.01	12.62	5.73	6.89	3.12
	11/19/2008	10.01	12.62	5.79	6.83	3.18
	1/26/2011	10.01	12.62	5.61	7.01	3.00
	7/21/2011	9.07	11.49	5.59	5.90	3.17
	11/11/2013	9.07	11.49	6.88	4.61	4.46
	5/22/2014	9.07	11.49	6.53	4.96	4.11
	11/4/2014	9.07	11.49	6.76	4.73	4.34
	5/4/2015	9.07	11.49	5.86	5.63	3.44
	11/2/2015	9.07	11.49	6.10	5.39	3.68
	5/2/2016	9.07	11.49	6.18	5.31	3.76
	12/27/2017	9.07	11.49	5.69	5.80	3.27
MW-F6	10/23/2000	10.10	10.03	3.89	6.14	3.96
	11/1/2000	10.10	10.03	3.99	6.04	4.06
	7/2/2004	10.10	10.03	3.40	6.63	3.47
	1/26/2011	10.10	10.03	2.79	7.24	2.86
	7/21/2011	8.97	8.59	2.91	5.68	3.29
	11/27/2013	8.97	8.59	3.80	4.79	4.18
	5/22/2014	8.97	8.59	NM	NM	NM
	11/4/2014	8.97	8.59	5.11	3.48	5.49
	5/4/2015	8.97	8.59	3.06	5.53	3.44
	11/2/2015	8.97	8.59	3.90	4.69	4.28
	5/2/2016	8.97	8.59	3.23	5.36	3.61
	12/27/2017	8.97	8.59	3.00	5.59	3.38
MW-F7	10/23/2000	11.59	14.03	6.18	7.85	3.74
	11/1/2000	11.59	14.03	6.29	7.74	3.85
	8/16/2006	11.59	14.03	6.00	8.03	3.56
	7/30/2008	11.59	14.03	5.58	8.45	3.14
	11/19/2008	11.59	14.03	4.76	9.27	2.32
	1/26/2011	11.59	14.03	4.65	9.38	2.21
	7/21/2011	10.70	13.23	5.16	8.07	2.63
	11/11/2013	10.70	13.23	6.61	6.62	4.08
	5/22/2014	10.70	13.23	5.57	7.66	3.04
	11/4/2014	10.70	13.23	3.56	9.67	1.03
	5/4/2015	10.70	13.23	4.70	8.53	2.17
	11/2/2015	10.70	13.23	5.48	7.75	2.95
	5/2/2016	10.70	13.23	5.45	7.78	2.92
	12/27/2017	10.70	13.23	5.27	7.96	2.74
MW-F8	10/23/2000	12.25	12.50	4.78	7.72	4.53
	11/1/2000	12.25	12.50	5.06	7.44	4.81
	1/26/2011	12.25	12.50	4.21	8.29	3.96
	7/21/2011	11.22	12.59	4.63	7.96	3.26
	11/11/2013	11.22	12.59	6.19	6.40	4.82
	5/22/2014	11.22	12.59	5.01	7.58	3.64
	11/4/2014	11.22	12.59	6.50	6.09	5.13
	5/4/2015	11.22	12.59	4.11	8.48	2.74
	11/2/2015	11.22	12.59	5.14	7.45	3.77
	5/2/2016	11.22	12.59	4.97	7.62	3.60
	12/27/2017	11.22	12.59	4.76	7.83	3.39



Well ID	Date of Measurement	Ground Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Depth to Water (ft btoc)	GW Elevation (ft amsl)	Depth to Water Table (ft bgs)
MW-F9	10/23/2000	13.00	12.84	4.72	8.12	4.88
	11/1/2000	13.00	12.84	4.85	7.99	5.01
	1/26/2011	13.00	12.84	NM	NM	NM
	7/21/2011	12.00	11.78	3.64	8.14	3.86
	11/11/2013	12.00	11.78	4.89	6.89	5.11
	5/22/2014	12.00	11.78	3.82	7.96	4.04
	11/4/2014	12.00	11.78	4.67	7.11	4.89
	5/4/2015	12.00	11.78	2.71	9.07	2.93
	11/2/2015	12.00	11.78	3.64	8.14	3.86
	5/2/2016	12.00	11.78	3.13	8.65	3.35
	12/27/2017	12.00	11.78	3.54	8.24	3.76
MW-F10	10/23/2000	10.56	10.50	4.32	6.18	4.38
	11/1/2000	10.56	10.50	4.39	6.11	4.45
	1/26/2011	10.56	10.50	NM	NM	NM
MW-F11	10/23/2000	9.83	9.30	3.19	6.11	3.72
	11/1/2000	9.83	9.30	3.23	6.07	3.76
	1/26/2011	9.83	9.30	2.32	6.98	2.85
	7/21/2011	8.80	8.58	2.22	6.36	2.44
	11/11/2013	8.80	8.58	2.97	5.61	3.19
	5/22/2014	8.80	8.58	2.27	6.31	2.49
	11/4/2014	8.80	8.58	2.91	5.67	3.13
	5/4/2015	8.80	8.58	1.47	7.11	1.69
	11/2/2015	8.80	8.58	2.00	6.58	2.22
	5/2/2016	8.80	8.58	2.08	6.50	2.30
	12/27/2017	8.80	8.58	2.35	6.23	2.57
MW-F12	10/23/2000	10.54	10.10	4.40	5.70	4.84
	11/1/2000	10.54	10.10	4.16	5.94	4.60
	7/3/2004	10.54	10.10	2.98	7.12	3.42
	1/26/2011	10.54	10.10	3.67	6.43	4.11
	7/21/2011	9.47	9.34	3.15	6.19	3.28
	11/11/2013	9.47	9.34	3.70	5.64	3.83
	5/22/2014	9.47	9.34	2.13	7.21	2.26
	11/4/2014	9.47	9.34	3.73	5.61	3.86
	5/4/2015	9.47	9.34	2.05	7.29	2.18
	11/2/2015	9.47	9.34	2.97	6.37	3.10
	5/2/2016	9.47	9.34	2.55	6.79	2.68
	12/27/2017	9.47	9.34	2.70	6.64	2.83
MW-F13	10/23/2000	16.34	19.46	10.35	9.11	7.23
	11/1/2000	16.34	19.46	10.82	8.64	7.70
	7/1/2004	16.34	19.46	12.45	7.01	9.33
	1/26/2011	16.34	19.46	10.30	9.16	7.18
	7/21/2011	15.66	18.47	11.09	7.38	8.28
	11/11/2013	15.66	18.47	11.88	6.59	9.07
	5/22/2014	15.66	18.47	10.25	8.22	7.44
	11/4/2014	15.66	18.47	7.67	10.80	4.86
	5/4/2015	15.66	18.47	9.09	9.38	6.28
	11/2/2015	15.66	18.47	10.31	8.16	7.50
	5/2/2016	15.66	18.47	9.38	9.09	6.57
	12/27/2017	15.66	18.47	9.73	8.74	6.92



Well ID	Date of Measurement	Ground Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Depth to Water (ft btoc)	GW Elevation (ft amsl)	Depth to Water Table (ft bgs)
MW-F14	10/23/2000	6.93	9.33	4.80	4.53	2.40
	11/1/2000	6.93	9.33	4.72	4.61	2.32
	7/1/2004	6.93	9.33	4.20	5.13	1.80
	8/16/2006	6.93	9.33	4.56	4.77	2.16
	1/26/2011	6.93	9.33	2.51	6.82	0.11
	7/21/2011	6.05	8.38	2.91	5.47	0.58
	11/11/2014	6.05	8.38	3.21	5.17	0.88
	5/22/2014	6.05	8.38	3.21	5.17	0.88
	11/4/2014	6.05	8.38	3.24	5.14	0.91
	5/4/2015	6.05	8.38	2.14	6.24	-0.19
	11/2/2015	6.05	8.38	2.40	5.98	0.07
	5/2/2016	6.05	8.38	2.81	5.57	0.48
	12/27/2017	6.05	8.38	2.42	5.96	0.09
MW-F15	10/23/2000	10.61	10.70	4.94	5.76	4.85
	11/1/2000	10.61	10.70	5.11	5.59	5.02
	1/26/2011	10.61	10.70	4.38	6.32	4.29
	7/21/2011	9.87	9.79	4.43	5.36	4.51
	11/11/2013	9.87	9.79	4.65	5.14	4.73
	5/22/2014	9.87	9.79	4.55	5.24	4.63
	11/4/2014	9.87	9.79	5.04	4.75	5.12
	5/4/2015	9.87	9.79	4.35	5.44	4.43
	11/2/2015	9.87	9.79	4.32	5.47	4.40
	5/2/2016	9.87	9.79	4.66	5.13	4.74
	12/27/2017	9.87	9.79	4.13	5.66	4.21
MW-F16	10/23/2000	6.83	9.46	4.17	5.29	1.54
	11/1/2000	6.83	9.46	4.50	4.96	1.87
	7/1/2004	6.83	9.46	3.15	6.31	0.52
	1/26/2011	6.83	9.46	2.19	7.27	-0.44
	7/21/2011	6.03	8.51	2.73	5.78	0.25
	11/11/2013	6.03	8.51	4.06	4.45	1.58
	5/22/2014	6.03	8.51	3.44	5.07	0.96
	11/4/2014	6.03	8.51	5.35	3.16	2.87
	5/4/2015	6.03	8.51	2.20	6.31	-0.28
	11/2/2015	6.03	8.51	2.52	5.99	0.04
	5/2/2016	6.03	8.51	2.85	5.66	0.37
	12/27/2017	6.03	8.51	2.11	6.40	-0.37
MW-F17	10/23/2000	9.59	12.34	6.45	5.89	3.70
	11/1/2000	9.59	12.34	6.54	5.80	3.79
	1/26/2011	9.59	12.34	5.46	6.88	2.71
	7/21/2011	8.93	11.36	5.68	5.68	3.25
	11/11/2013	8.93	11.36	6.42	4.94	3.99
	5/22/2014	8.93	11.36	6.00	5.36	3.57
	11/4/2014	8.93	11.36	6.40	4.96	3.97
	5/4/2015	8.93	11.36	5.31	6.05	2.88
	11/2/2015	8.93	11.36	5.72	5.64	3.29
	5/2/2016	8.93	11.36	5.77	5.59	3.34
	12/27/2017	8.93	11.36	5.51	5.85	3.08



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Well ID	Date of Measurement	Ground Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Depth to Water (ft btoc)	GW Elevation (ft amsl)	Depth to Water Table (ft bgs)
MW-F19	10/23/2000	8.60	11.46	5.17	6.29	2.31
	11/1/2000	8.60	11.46	5.50	5.96	2.64
	6/30/2004	8.60	11.46	4.59	6.87	1.73
	1/26/2011	8.60	11.46	4.61	6.85	1.75
	7/21/2011	7.68	10.47	4.75	5.72	1.96
	11/11/2013	7.68	10.47	5.38	5.09	2.59
	5/22/2014	7.68	10.47	4.62	5.85	1.83
	11/4/2014	7.68	10.47	5.28	5.19	2.49
	5/4/2015	7.68	10.47	3.75	6.72	0.96
	11/2/2015	7.68	10.47	5.05	5.42	2.26
MW-F20	5/2/2016	7.68	10.47	4.42	6.05	1.63
	12/27/2017	7.68	10.47	4.18	6.29	1.39
MW-F21	11/1/2000	10.07	9.89	3.90	5.99	4.08
	8/17/2006	10.07	9.89	3.71	6.18	3.89
	1/26/2011	10.07	9.89	NM	NM	NM
	11/1/2000	11.11	13.54	7.02	6.52	4.59
	8/16/2006	11.11	13.54	6.27	7.27	3.84
	7/30/2008	11.11	13.54	5.94	7.60	3.51
	11/19/2008	11.11	13.54	5.67	7.87	3.24
	1/26/2011	11.11	13.54	5.77	7.77	3.34
	7/21/2011	9.96	12.46	5.68	6.78	3.18
	11/11/2013	9.96	12.46	7.08	5.38	4.58
	5/22/2014	9.96	12.46	6.27	6.19	3.77
	11/4/2014	9.96	12.46	6.82	5.64	4.32
	5/4/2015	9.96	12.46	5.51	6.95	3.01
	11/2/2015	9.96	12.46	6.89	5.57	4.39
	5/2/2016	9.96	12.46	5.98	6.48	3.48
	12/27/2017	9.96	12.46	5.90	6.56	3.40
MW-22	7/1/2004	8.69	7.80	3.15	4.65	4.04
	1/26/2011	8.69	7.80	2.24	5.56	3.13
	7/21/2011	7.36	10.06	2.90	7.16	0.20
	11/11/2013	7.36	10.06	9.35	0.71	6.65
	5/22/2014	7.36	10.06	3.60	6.46	0.90
	11/4/2014	7.36	10.06	3.97	6.09	1.27
	5/4/2015	7.36	10.06	2.23	7.83	-0.47
	11/2/2015	7.36	10.06	3.10	6.96	0.40
	5/2/2016	7.36	10.06	5.21	4.85	2.51
MW-23	12/27/2017	7.36	10.06	2.67	7.39	-0.03
	7/1/2004	7.31	9.64	6.30	3.34	3.97
	1/26/2011	7.31	9.64	5.70	3.94	3.37
	7/21/2011	7.08	9.40	6.12	3.28	3.80
	11/11/2013	7.08	9.40	6.89	2.51	4.57
	5/22/2014	7.08	9.40	7.40	2.00	5.08
	11/4/2014	7.08	9.40	8.03	1.37	5.71
	5/4/2015	7.08	9.40	6.61	2.79	4.29
	11/2/2015	7.08	9.40	5.66	3.74	3.34
	5/2/2016	7.08	9.40	5.62	3.78	3.30
	12/27/2017	7.08	9.40	5.82	3.58	3.50



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Well ID	Date of Measurement	Ground Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Depth to Water (ft btoc)	GW Elevation (ft amsl)	Depth to Water Table (ft bgs)
MW-24	6/30/2004	8.02	10.52	4.80	5.72	2.30
	1/26/2011	8.02	10.52	4.62	5.90	2.12
	7/21/2011	7.71	10.23	4.85	5.38	2.33
	11/11/2013	7.71	10.23	5.55	4.68	3.03
	5/22/2014	7.71	10.23	4.67	5.56	2.15
	11/4/2014	7.71	10.23	5.26	4.97	2.74
	5/4/2015	7.71	10.23	3.70	6.53	1.18
	11/2/2015	7.71	10.23	4.69	5.54	2.17
	5/2/2016	7.71	10.23	4.80	5.43	2.28
	12/27/2017	7.71	10.23	4.38	5.85	1.86
MW-25	7/1/2004	10.99	13.17	7.10	6.07	4.92
	1/26/2011	10.99	13.17	5.76	7.41	3.58
	7/21/2011	10.32	12.72	6.63	6.09	4.23
	11/11/2013	10.32	12.72	6.51	6.21	4.11
	5/22/2014	10.32	12.72	5.75	6.97	3.35
	11/4/2014	10.32	12.72	5.13	7.59	2.73
	5/4/2015	10.32	12.72	4.80	7.92	2.40
	11/2/2015	10.32	12.72	5.62	7.10	3.22
	5/2/2016	10.32	12.72	5.56	7.16	3.16
	12/27/2017	10.32	12.72	5.30	7.42	2.90
MW-26	1/26/2011	13.40	15.98	7.81	8.17	5.23
	7/21/2011	13.69	15.69	7.73	7.96	5.73
	12/27/2017	13.69	15.69	8.45	7.24	6.45
MW-27	8/16/2006	11.39	10.52	2.85	7.67	3.72
	11/19/2008	11.39	10.52	1.58	8.94	2.45
	1/26/2011	11.39	10.52	1.41	9.11	2.28
	7/21/2011	10.36	10.23	2.02	8.21	2.15
	11/11/2013	10.36	10.23	3.39	6.84	3.52
	5/22/2014	10.36	10.23	2.44	7.79	2.57
	11/4/2014	10.36	10.23	3.05	7.18	3.18
	5/4/2015	10.36	10.23	1.25	8.98	1.38
	11/2/2015	10.36	10.23	2.34	7.89	2.47
MW-28	5/2/2016	10.36	10.23	2.36	7.87	2.49
	12/27/2017	10.36	10.23	2.13	8.10	2.26
	1/26/2011	7.90	10.80	6.15	4.65	3.25
	7/21/2011	7.60	10.50	6.96	3.54	4.06
MW-29	11/11/2013	7.60	10.50	7.75	2.75	4.85
	5/2/2016	7.60	10.50	6.23	4.27	3.33
	11/19/2008	10.65	13.85	4.22	9.63	1.02
	1/26/2011	10.65	13.85	4.38	9.47	1.18
	7/21/2011	9.58	12.80	4.77	8.03	1.55
	11/11/2013	9.58	12.80	6.04	6.76	2.82
	5/22/2014	9.58	12.80	5.25	7.55	2.03
	11/4/2014	9.58	12.80	5.73	7.07	2.51
	5/4/2015	9.58	12.80	4.20	8.60	0.98
	11/2/2015	9.58	12.80	5.09	7.71	1.87
	5/2/2016	9.58	12.80	5.14	7.66	1.92
	12/27/2017	9.58	12.80	4.90	7.90	1.68



Well ID	Date of Measurement	Ground Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Depth to Water (ft btoc)	GW Elevation (ft amsl)	Depth to Water Table (ft bgs)
MW-32	11/19/2008	5.72	7.90	2.87	5.03	0.69
	1/26/2011	5.72	7.90	2.55	5.35	0.37
	7/21/2011	5.30	7.05	3.19	3.86	1.44
	11/11/2013	5.30	7.05	4.81	2.24	3.06
	5/22/2014	5.30	7.05	4.50	2.55	2.75
	11/4/2014	5.30	7.05	4.59	2.46	2.84
	5/5/2015	5.30	7.05	3.00	4.05	1.25
	11/2/2015	5.30	7.05	3.45	3.60	1.70
	5/2/2016	5.30	7.05	3.64	3.41	1.89
	12/27/2017	5.30	7.05	2.63	4.42	0.88
MWD-F1	10/23/2000	7.99	10.39	49.58	-39.19	47.18
	11/1/2000	7.99	10.39	41.98	-31.59	39.58
	6/30/2004	7.99	10.39	36.06	-25.67	33.66
	1/26/2011	7.99	10.39	33.00	-22.61	30.60
	7/21/2011	6.92	9.25	33.50	-24.25	31.17
	11/11/2013	6.92	9.25	31.82	-22.57	29.49
	5/22/2014	6.92	9.25	31.28	-22.03	28.95
	11/4/2014	6.92	9.25	31.14	-21.89	28.81
	5/4/2015	6.92	9.25	30.36	-21.11	28.03
	11/2/2015	6.92	9.25	30.11	-20.86	27.78
	5/2/2016	6.92	9.25	29.72	-20.47	27.39
	12/27/2017	6.92	9.25	29.92	-20.67	27.59
MWD-F2	10/23/2000	8.70	11.50	33.09	-21.59	30.29
	11/1/2000	8.70	11.50	28.30	-16.80	25.50
	6/30/2004	8.70	11.50	25.19	-13.69	22.39
	1/26/2011	8.70	11.50	23.40	-11.90	20.60
	7/21/2011	7.80	10.52	23.00	-12.48	20.28
	11/11/2013	7.80	10.52	22.45	-11.93	19.73
	5/22/2014	7.80	10.52	21.81	-11.29	19.09
	11/4/2014	7.80	10.52	22.06	-11.54	19.34
	5/4/2015	7.80	10.52	8.45	2.07	5.73
	11/2/2015	7.80	10.52	21.11	-10.59	18.39
	5/2/2016	7.80	10.52	20.80	-10.28	18.08
	12/27/2017	7.80	10.52	21.14	-10.62	18.42
MWD-F3	10/23/2000	9.58	12.21	23.78	-11.57	21.15
	11/1/2000	9.58	12.21	21.87	-9.66	19.24
	1/26/2011	9.58	12.21	18.65	-6.44	16.02
	7/21/2011	8.77	11.23	18.55	-7.32	16.09
	11/11/2013	8.77	11.23	18.11	-6.88	15.65
	5/22/2014	8.77	11.23	17.52	-6.29	15.06
	11/4/2014	8.77	11.23	17.63	-6.40	15.17
	5/4/2015	8.77	11.23	16.95	-5.72	14.49
	11/2/2015	8.77	11.23	16.95	-5.72	14.49
	5/2/2016	8.77	11.23	17.06	-5.83	14.60
	12/27/2017	8.77	11.23	16.96	-5.73	14.50



Well ID	Date of Measurement	Ground Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Depth to Water (ft btoc)	GW Elevation (ft amsl)	Depth to Water Table (ft bgs)
MWD-22	7/1/2004	7.80	10.15	3.43	6.72	1.08
	1/26/2011	7.80	10.15	2.56	7.59	0.21
	7/21/2011	7.71	10.05	3.26	6.79	0.92
	11/11/2013	7.71	10.05	4.55	5.50	2.21
	5/22/2014	7.71	10.05	2.91	7.14	0.57
	11/4/2014	7.71	10.05	4.22	5.83	1.88
	5/4/2015	7.71	10.05	2.52	7.53	0.18
	11/2/2015	7.71	10.05	4.30	5.75	1.96
	5/22/2016	7.71	10.05	3.51	6.54	1.17
	12/27/2017	7.71	10.05	2.97	7.08	0.63
MWD-23	6/30/2004	7.13	9.46	7.10	2.36	4.77
	1/26/2011	7.13	9.46	6.60	2.86	4.27
	7/21/2011	6.83	9.27	7.04	2.23	4.60
	11/11/2013	6.83	9.27	8.23	1.04	5.79
	5/22/2014	6.83	9.27	6.17	3.10	3.73
	11/4/2014	6.83	9.27	8.05	1.22	5.61
	5/4/2015	6.83	9.27	5.65	3.62	3.21
	11/2/2015	6.83	9.27	7.29	1.98	4.85
	5/2/2016	6.83	9.27	7.13	2.14	4.69
	12/27/2017	6.83	9.27	6.99	2.28	4.55
MWD-24	1/26/2011	8.05	10.60	4.47	6.13	1.92
	7/21/2011	7.67	10.34	4.69	5.65	2.02
	11/11/2013	7.67	10.34	5.49	4.85	2.82
	5/22/2014	7.67	10.34	4.96	5.38	2.29
	11/4/2014	7.67	10.34	5.40	4.94	2.73
	5/4/2015	7.67	10.34	4.02	6.32	1.35
	11/2/2015	7.67	10.34	4.53	5.81	1.86
	5/2/2016	7.67	10.34	4.56	5.78	1.89
	12/27/2017	7.67	10.34	4.19	6.15	1.52
MWD-25	7/1/2004	10.89	8.11	6.05	2.06	8.83
	1/26/2011	10.89	8.11	5.44	2.67	8.22
	7/21/2011	10.26	12.58	5.64	6.94	3.32
	11/11/2013	10.26	12.58	7.35	5.23	5.03
	5/22/2014	10.26	12.58	6.57	6.01	4.25
	11/4/2014	10.26	12.58	6.25	6.33	3.93
	5/4/2015	10.26	12.58	5.16	7.42	2.84
	11/2/2015	10.26	12.58	6.09	6.49	3.77
	5/2/2016	10.26	12.58	6.26	6.32	3.94
	12/27/2017	10.26	12.58	5.17	7.41	2.85
MWD-27	8/16/2006	NM	10.40	3.74	6.66	NM
	1/26/2011	NM	10.40	2.55	7.85	NM
	7/21/2011	10.25	10.09	3.00	7.09	3.16
	11/11/2013	10.25	10.09	4.23	5.86	4.39
	5/22/2014	10.25	10.09	3.40	6.69	3.56
	11/4/2014	10.25	10.09	4.60	5.49	4.76
	5/4/2015	10.25	10.09	2.40	7.69	2.56
	11/2/2015	10.25	10.09	3.22	6.87	3.38
	5/2/2016	10.25	10.09	3.21	6.88	3.37
	12/27/2017	10.25	10.09	2.90	7.19	3.06



Well ID	Date of Measurement	Ground Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Depth to Water (ft btoc)	GW Elevation (ft amsl)	Depth to Water Table (ft bgs)
MWD-28	7/1/2004	8.22	11.09	6.60	4.49	3.73
	1/26/2011	8.22	11.09	5.15	5.94	2.28
	7/21/2011	7.27	10.66	5.54	5.12	2.15
	5/22/2014	7.27	10.66	11.01	-0.35	7.62
	11/4/2014	7.27	10.66	7.59	3.07	4.20
	5/4/2015	7.27	10.66	6.12	4.54	2.73
	11/2/2015	7.27	10.66	6.84	3.82	3.45
MWD-29	11/19/2008	10.65	14.59	6.48	8.11	2.54
	1/26/2011	10.65	14.59	6.22	8.37	2.28
	7/21/2011	9.51	13.56	6.72	6.84	2.67
	11/11/2013	9.51	13.56	8.13	5.43	4.08
	5/22/2014	9.51	13.56	7.14	6.42	3.09
	11/4/2014	9.51	13.56	4.77	8.79	0.72
	5/4/2015	9.51	13.56	6.13	7.43	2.08
	11/2/2015	9.51	13.56	6.92	6.64	2.87
	5/2/2016	9.51	13.56	6.92	6.64	2.87
	12/27/2017	9.51	13.56	6.59	6.97	2.54
MWD-30	11/19/2008	11.11	14.48	7.75	6.73	4.38
	1/26/2011	11.11	14.48	7.85	6.63	4.48
	7/21/2011	10.06	13.41	8.11	5.30	4.76
	11/11/2013	10.06	13.41	9.21	4.20	5.86
	5/22/2014	10.06	13.41	8.48	4.93	5.13
	11/4/2014	10.06	13.41	9.56	3.85	6.21
	5/4/2015	10.06	13.41	7.60	5.81	4.25
	11/2/2015	10.06	13.41	8.34	5.07	4.99
	5/2/2016	10.06	13.41	8.29	5.12	4.94
	12/27/2017	10.06	13.41	7.96	5.45	4.61

**Acronyms:**

amsl = above mean sea level  
ft bgs = feet below ground surface  
btoc = below top of casing  
ID = identification  
NM = not measured



# APPENDIX C

Hydraulic Testing – 2014





**Table 1**  
**Hydraulic Slug Test Summary**  
**Ashland - Hercules**  
**3000 Louisville Road**  
**Savannah, Georgia**

Well/Test ID	HSU	Primary K Result (ft/day)		Well Average
MW-22_1	Shallow	9.8E-01	Bouwer-Rice (1976)	1.5E+00
MW-22_2	Shallow	2.1E+00	Bouwer-Rice (1976)	
MW-24_1	Shallow	8.3E-01	Bouwer-Rice (1976)	8.3E-01
MWD-22_1	Intermediate	3.9E-01	Bouwer-Rice (1976)	3.9E-01
MWD-24_1	Intermediate	9.6E-02	Bouwer-Rice (1976)	9.6E-02
MWD-29_1	Intermediate	6.0E-02	Bouwer-Rice (1976)	6.0E-02
MWD-F3_1	Deep	8.1E-03	Bouwer-Rice (1976)	8.1E-03
MW-F1_1	Shallow	9.2E-01	Bouwer-Rice (1976)	9.3E-01
MW-F1_2	Shallow	9.3E-01	Bouwer-Rice (1976)	
MW-F9_1	Shallow	7.2E-01	Bouwer-Rice (1976)	7.2E-01
MW-F13_1	Shallow	3.3E-02	Dagan (1978)	3.3E-02
MW-F15_1	Shallow	3.6E-01	Bouwer-Rice (1976)	3.6E-01

**Acronyms and Abbreviations:**

ft/day = feet per day

HSU = hydrostratigraphic unit

ID = identification

K = hydraulic conductivity

**References:**

Bouwer, H. and R.C. Rice. 1976. A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells, Water Resources Research, vol. 12, no. 3, pp. 423-428. June.

Dagan, G. 1978. A note on packer, slug, and recovery tests in unconfined aquifers, Water Resources Research, vol. 14, no. 5. pp. 929-934.

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**Shallow (7 wells)**

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Range (ft/day)    3.3E-02 to    1.5E+00

Geometric Mean (ft/day)    4.7E-01

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**Intermediate (3 wells)**

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Range (ft/day)    9.60E-02 to    3.9E-01

Geometric Mean (ft/day)    1.3E-01

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**Deep (1 well)**

---

Range (ft/day)    8.1E-03



Table 2  
Hydraulic Slug Calculations  
Ashland - Hercules  
3000 Louisville Road  
Savannah, Georgia

Well/Test ID	Screened Interval	HSU	Test #	H(o)*	H(o)	H(o)/H(o)* difference (ft)	H	b	Kv/Kh	d	L	T	r(c)	r(eq)	r(p)	r(w)	r(sk)	Effective Casing Radius Correction	Frictional Well Loss Correction	S Cooper (1967)	Ss KGS (1994)	K1 (ft/d)	K2 (ft/d)	K3 (ft/d)
MW-22	10-20	Shallow	1	1.605	1.988	0.383 ~20%	17.88	85 Water table to confining layer	1	7.88	10 Entire Screen Length	14.88	0.086	0.011	0	0.354	0.354	Yes, Butler (1998) eq (3.1)	Yes, default	6.8E-04 Plausible	-- --	9.8E-01 Bouwer-Rice (1976)	1.3E+00 Hvorslev (1951)	3.4E-02 Bouwer-Rice (1976)
MW-22	10-20	Shallow	2	1.605	1.697	0.092 <10%	17.88	85 Water table to confining layer	1	7.88	10 Entire Screen Length	14.88	0.086	0.011	0	0.354	0.354	No	Yes, default	5.6E-06 Plausible	-- --	2.1E+00 Bouwer-Rice (1976)	3.0E+00 Hvorslev (1951)	
MW-24	10-20	Shallow	1	1.605	1.734	0.129 <10%	18.56	85 Water table to confining layer	1	8.56	10 Entire Screen Length	14.92	0.086	0.011	0	0.354	0.354	No	Yes, default	3.1E-05 Plausible	-- --	8.3E-01 Bouwer-Rice (1976)	1.2E+00 Hvorslev (1951)	
MWD-22	40-50	Intermediate	1	1.605	1.607	0.002 <10%	38.81	85 Water table to confining layer	1	28.81	10 Entire Screen Length	14.94	0.086	0.011	0	0.354	0.354	No	Yes, default	4.1E-07 Implausibly Low	8.9E-06 Plausible	3.9E-01 Bouwer-Rice (1976)	4.7E-01 Hvorslev (1951)	
MWD-24	40-50	Intermediate	1	1.605	1.861	0.256 ~20%	42.59	85 Water table to confining layer	1	32.59	10 Entire Screen Length	14.75	0.086	0.011	0	0.354	0.354	Yes, Butler (1998) eq (3.1)	Yes, default	1.2E-06 Plausible	-- --	9.6E-02 Bouwer-Rice (1976)	1.2E-01 Hvorslev (1951)	
MWD-29	40-50	Intermediate	1	1.605	1.884	0.279 15-20%	44.11	85 Water table to confining layer	1	34.11	10 Entire Screen Length	14.86	0.086	0.011	0	0.354	0.354	Yes, Butler (1998) eq (3.1)	Yes, default	3.2E-06 Plausible	-- --	6.0E-02 Bouwer-Rice (1976)	7.7E-02 Hvorslev (1951)	
MWD-F3	67-87	Deep	1	1.605	1.864	0.259 10-15%	74.01	85 Water table to confining layer	1	54.01	20 Entire Screen Length	14.86	0.086	0.011	0	0.354	0.354	Yes, Butler (1998) eq (3.1)	Yes, default	2.6E-06 Plausible	-- --	8.1E-03 Bouwer-Rice (1976)	8.8E-03 Hvorslev (1951)	
MW-F1	10-20	Shallow	1	1.605	1.721	0.116 <10%	18.21	85 Water table to confining layer	1	8.21	10 Entire Screen Length	14.90	0.086	0.011	0	0.354	0.354	No	Yes, default	2.0E-04 Plausible	-- --	9.2E-01 Bouwer-Rice (1976)	1.3E+00 Hvorslev (1951)	
MW-F1	10-20	Shallow	2	1.605	1.597	-0.008 <10%	18.21	85 Water table to confining layer	1	8.21	10 Entire Screen Length	14.90	0.086	0.011	0	0.354	0.354	No	Yes, default	4.3E-07 Implausibly Low	7.7E-06 Plausible	9.3E-01 Bouwer-Rice (1976)	1.3E+00 Hvorslev (1951)	
MW-F9	10-20	Shallow	1	1.605	1.731	0.126 <10%	15.72	85 Water table to confining layer	1	5.72	10 Entire Screen Length	14.89	0.086	0.011	0	0.354	0.354	No	Yes, default	3.8E-08 Implausibly Low	4.2E-06 Plausible	7.2E-01 Bouwer-Rice (1976)	1.1E+00 Hvorslev (1951)	
MW-F13	10-20	Shallow	1	1.605	1.27	-0.335 ~20%	12.03	85 Water table to confining layer	1	2.03	10 Entire Screen Length	8.97	0.086	0.011	0	0.354	0.354	Yes, Butler (1998) eq (3.1)	Yes, default	4.7E-02 Plausible	-- --	3.3E-02 Dagan (1978)	3.4E-02 Hvorslev (1951)	
MW-F15	10-20	Shallow	1	1.605	1.408	-0.197 10-15%	16.81	85 Water table to confining layer	1	6.81	10 Entire Screen Length	9.86	0.086	0.011	0	0.354	0.354	Yes, Butler (1998) eq (3.1)	Yes, default	7.2E-05 Plausible	-- --	3.6E-01 Bouwer-Rice (1976)	4.8E-01 Hvorslev (1951)	

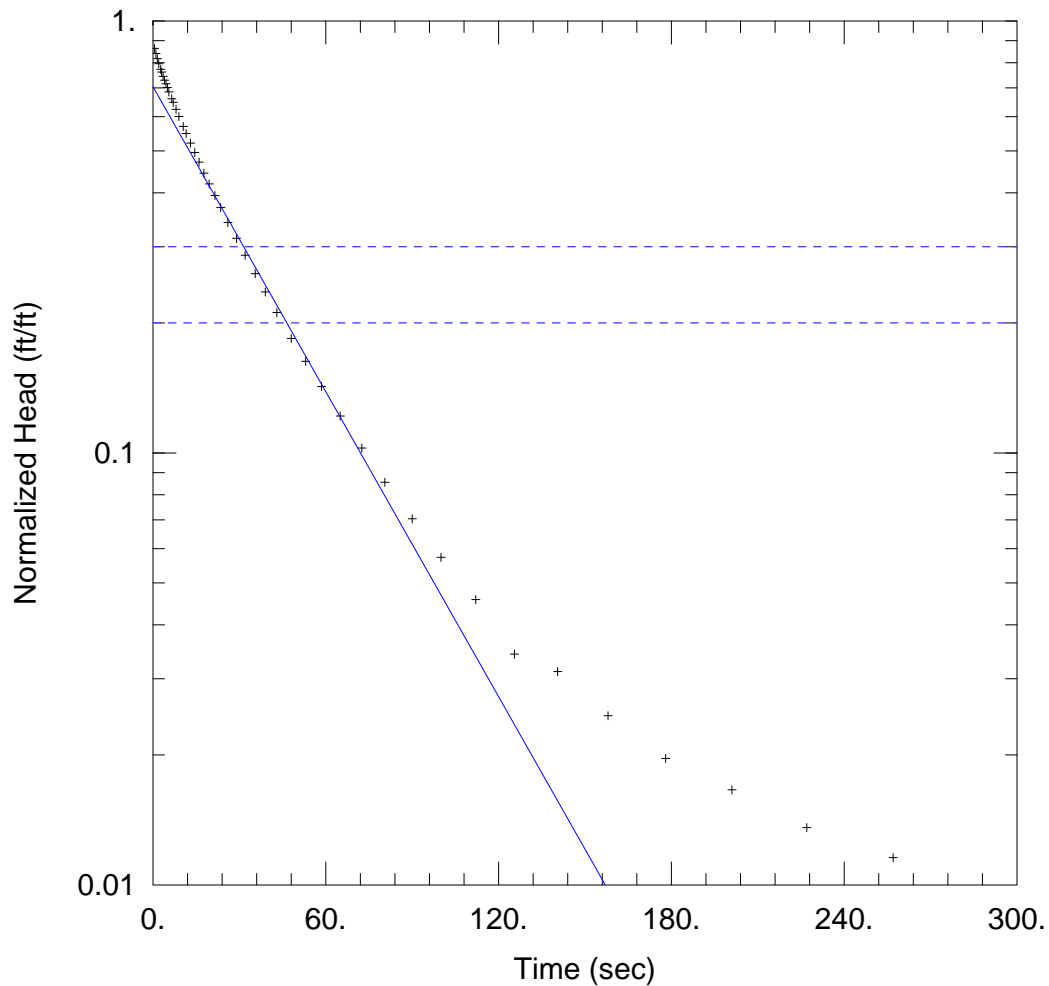
Acronyms and Abbreviations:

- HSU Hydrostratigraphic Unit  
H(o) Measured initial displacement  
H(o)\* Theoretical/expected initial displacement; the expected displacement based on the volume of the slug/bailer and inner diameter of the well.  
H Static water column height  
b Saturated aquifer thickness  
Kv/Kh Vertical-to-horizontal hydraulic conductivity anisotropy.  
d Depth to top of well screen from static water level or aquifer top  
L Effective length of well screen  
T Transducer depth  
r(c) Inside radius of well casing; 0.086 ft for a 2-inch Schedule 40 PVC well casing.  
r(eq) Radius of downhole equipment. The measured diameter of the transducer cable is 0.011 ft.  
r(p) Inside radius of packer (0 if none present)  
r(w) Effective radius of well. If the well is constructed with a filter pack, r(w) is best represented by the borehole diameter. A borehole drilled with a 4.25-inch ID hollow-stem auger has an approximate borehole diameter of 0.354 ft.  
r(sk) Outer radius of well skin (disturbed zone enveloping filter pack). If it is assumed that no skin is present, then this value should be equal to r(w)  
S Storativity. Calculation of storativity using the Cooper et al. (1967) is used as a diagnostic tool. If a type curve with a plausible S ( $\geq 10^{-7}$ ) can be fit to the data, then one can assume the vertical component of hydraulic conductivity is much less than the radial component, i.e. flow is constrained to the interval of the formation intersected by the screen.  
Ss Specific storage. Calculation of Ss using the KGS Model (1994) is used as a diagnostic tool to evaluate potential well skin effects. If a type curve with plausible Ss ( $\geq 10^{-6}$ ) can be fit to the data than one can assume that skin effects will not have a major impact on the analysis.  
K Hydraulic conductivity

References:

Bouwer, H. and R.C. Rice. 1976. A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells, Water Resources Research, vol. 12, no. 3, pp. 423-428. June.  
Butler, J.J., Jr. 1998. The Design, Performance, and Analysis of Slug Tests, Lewis Publishers, New York, 252p.  
Dagan, G. 1978. A note on packer, slug, and recovery tests in unconfined aquifers, Water Resources Research, vol. 14, no. 5. pp. 929-934.  
Hvorslev, M.J. 1951. Time Lag and Soil Permeability in Ground-Water Observations, Bull. No. 36, Waterways Exper. Sta. Corps of Engrs, U.S. Army, Vicksburg, Mississippi, pp. 1-50.





### WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MW-22\MW-22\_1.aqt  
 Date: 09/16/14 Time: 09:46:00

### PROJECT INFORMATION

Company: Arcadis  
 Client: Ashland Inc.  
 Project: OH007000.GA60  
 Location: Savannah, GA  
 Test Well: MW-22

### AQUIFER DATA

Saturated Thickness: 85. ft Anisotropy Ratio ( $K_z/K_r$ ): 1.

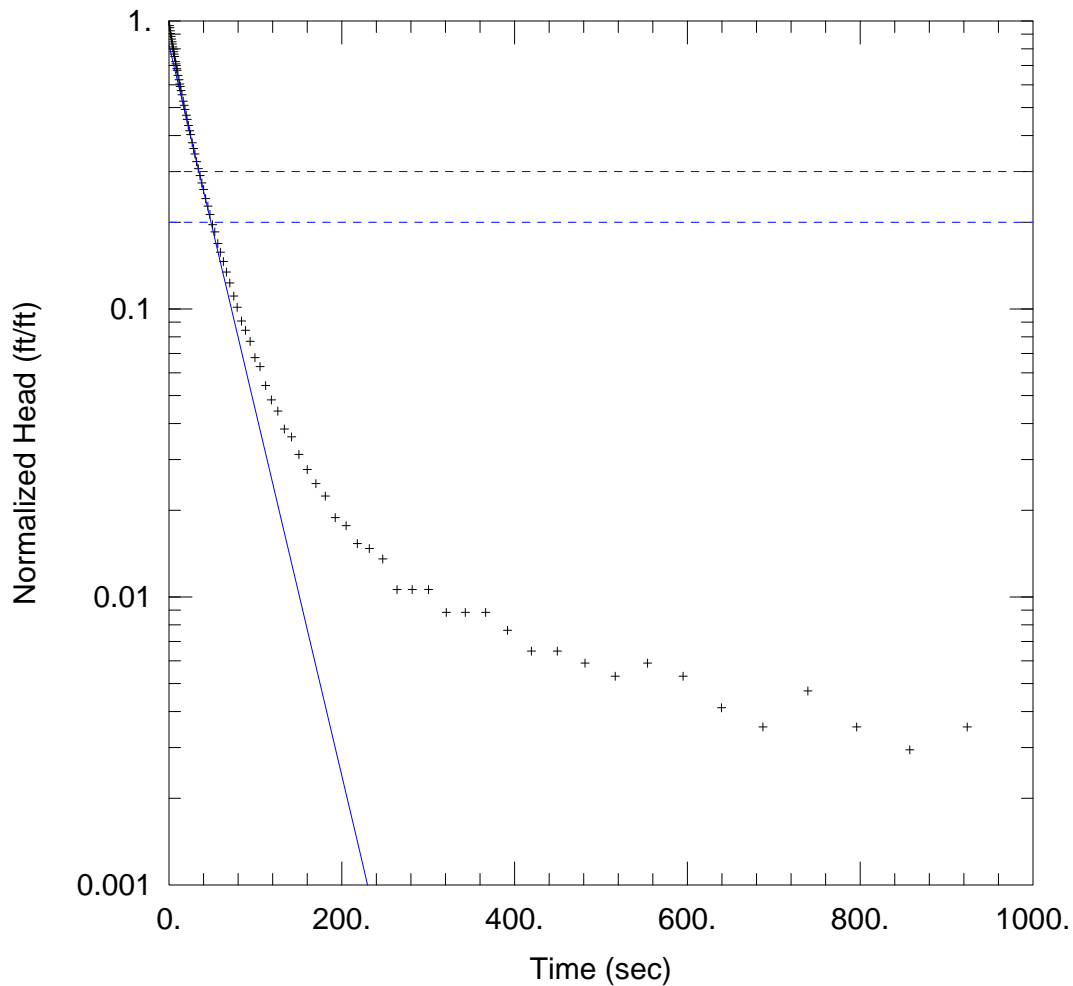
### WELL DATA (MW-22)

Initial Displacement: 1.988 ft Static Water Column Height: 17.88 ft  
 Total Well Penetration Depth: 17.88 ft Screen Length: 10. ft  
 Casing Radius: 0.086 ft Well Radius: 0.354 ft  
 Gravel Pack Porosity: 0.

### SOLUTION

Aquifer Model: Confined Solution Method: Bouwer-Rice  
 $K = 0.98$  ft/day  $y_0 = 1.4$  ft





### WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MW-22\_MW-22\_2.aqt  
 Date: 09/16/14 Time: 09:47:06

### PROJECT INFORMATION

Company: Arcadis  
 Client: Ashland Inc.  
 Project: OH007000.GA60  
 Location: Savannah, GA  
 Test Well: MW-22

### AQUIFER DATA

Saturated Thickness: 85. ft Anisotropy Ratio ( $K_z/K_r$ ): 1.

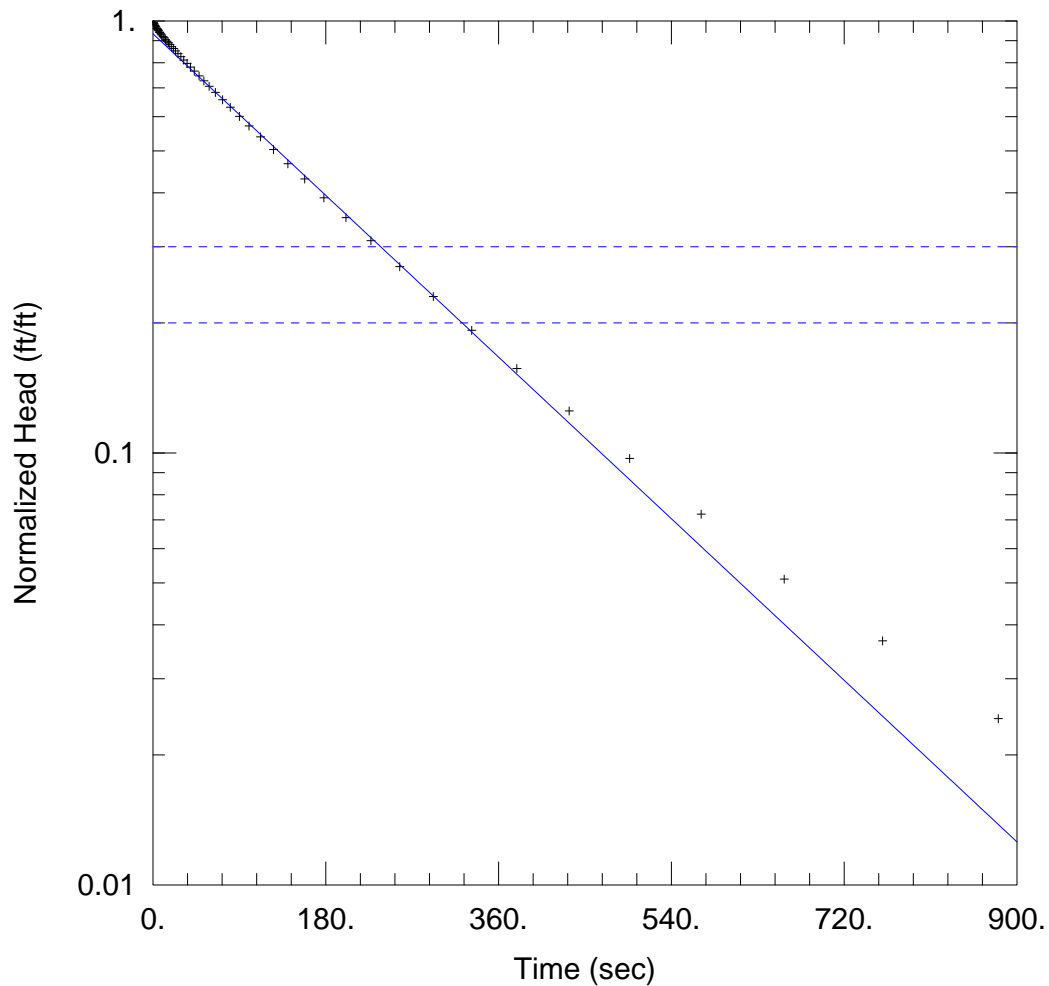
### WELL DATA (MW-22)

Initial Displacement: 1.697 ft Static Water Column Height: 17.88 ft  
 Total Well Penetration Depth: 17.88 ft Screen Length: 10. ft  
 Casing Radius: 0.086 ft Well Radius: 0.354 ft

### SOLUTION

Aquifer Model: Confined Solution Method: Bouwer-Rice  
 $K = 2.1$  ft/day  $y_0 = 1.4$  ft





### WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MWD-22\_MWD-22\_1.aqt  
 Date: 09/16/14 Time: 09:49:23

### PROJECT INFORMATION

Company: Arcadis  
 Client: Ashland Inc.  
 Project: OH007000.GA60  
 Location: Savannah, GA  
 Test Well: MWD-22

### AQUIFER DATA

Saturated Thickness: 85. ft Anisotropy Ratio ( $K_z/K_r$ ): 1.

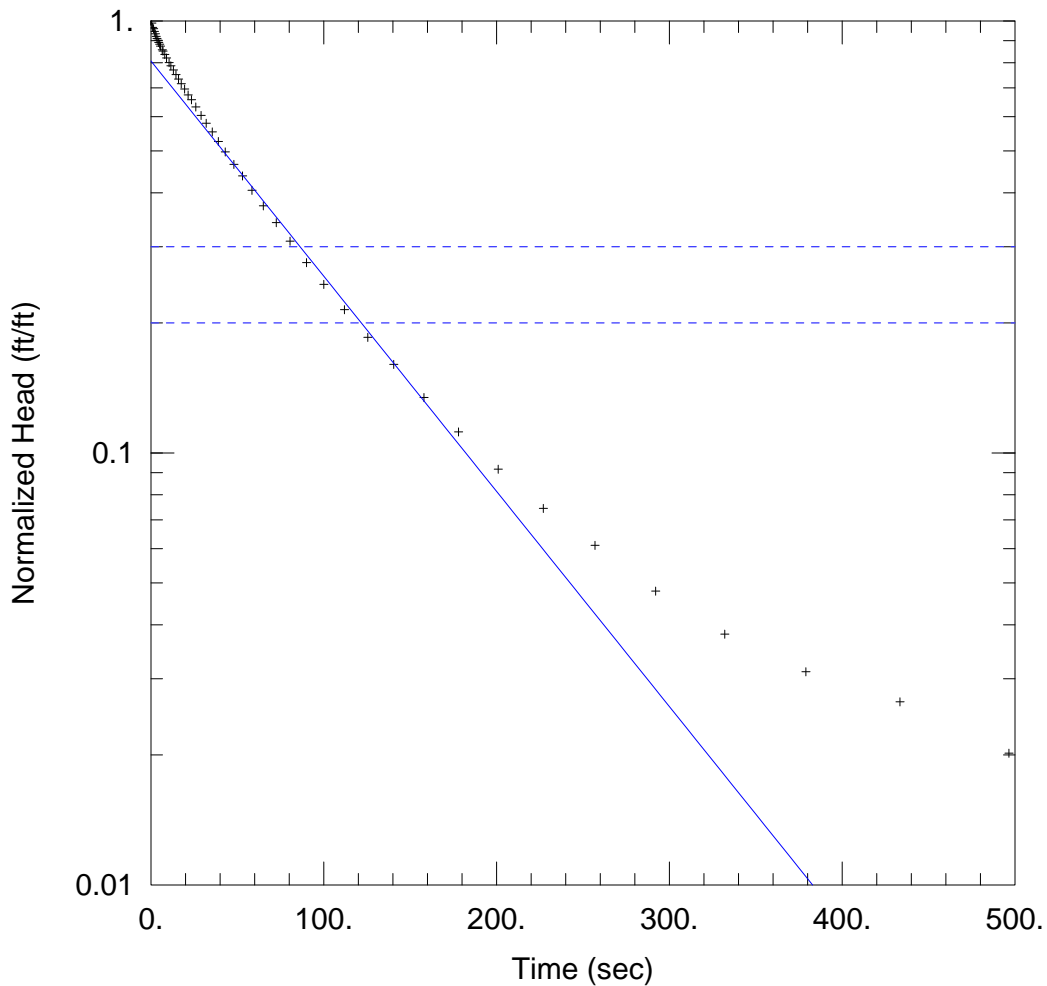
### WELL DATA (MWD-22)

Initial Displacement: 1.607 ft Static Water Column Height: 38.81 ft  
 Total Well Penetration Depth: 38.81 ft Screen Length: 10. ft  
 Casing Radius: 0.086 ft Well Radius: 0.354 ft

### SOLUTION

Aquifer Model: Confined Solution Method: Bouwer-Rice  
 $K = 0.39$  ft/day  $y_0 = 1.5$  ft





### WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MW-24\_MW-24\_1.aqt  
 Date: 09/16/14 Time: 09:48:49

### PROJECT INFORMATION

Company: Arcadis  
 Client: Ashland Inc.  
 Project: OH007000.GA60  
 Location: Savannah, GA  
 Test Well: MW-24

### AQUIFER DATA

Saturated Thickness: 85. ft Anisotropy Ratio ( $K_z/K_r$ ): 1.

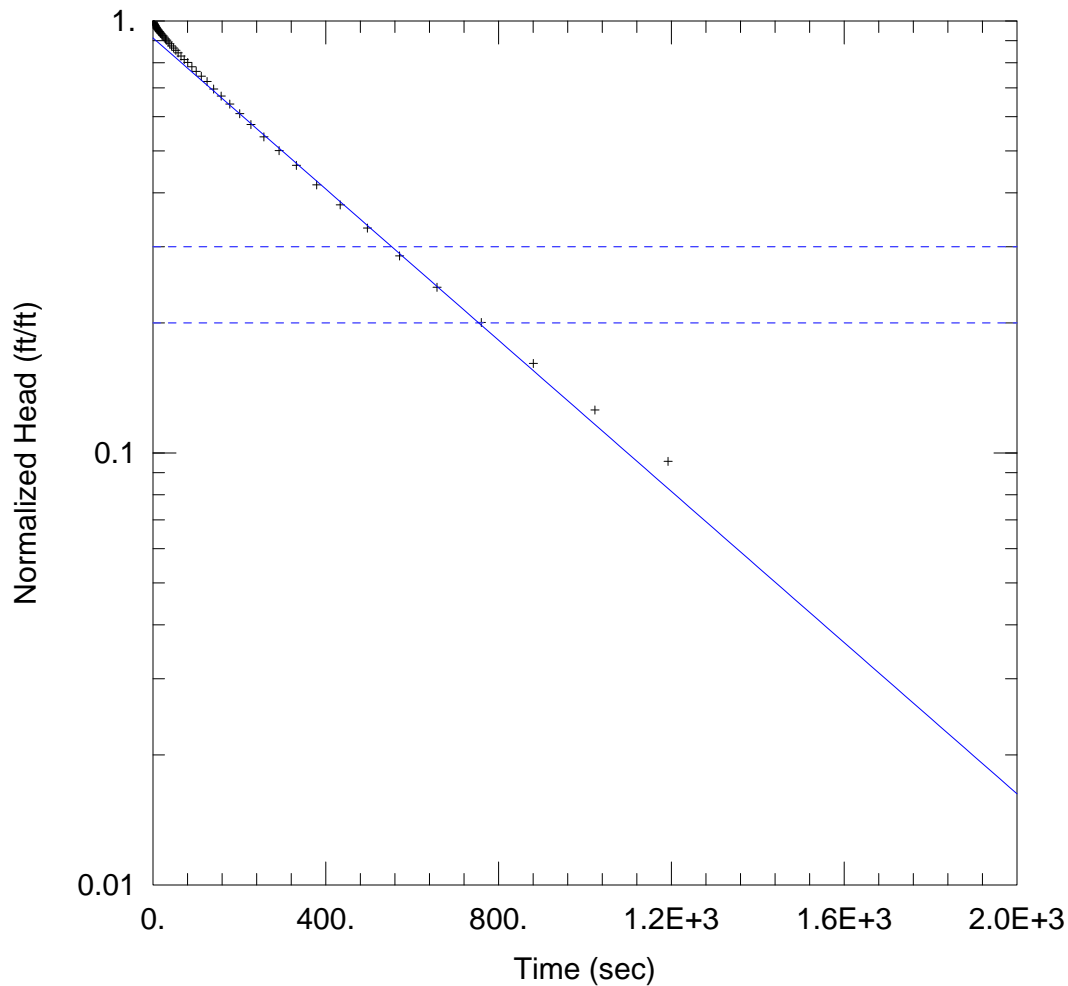
### WELL DATA (MW-24)

Initial Displacement: 1.734 ft Static Water Column Height: 18.56 ft  
 Total Well Penetration Depth: 18.56 ft Screen Length: 10. ft  
 Casing Radius: 0.086 ft Well Radius: 0.354 ft

### SOLUTION

Aquifer Model: Confined Solution Method: Bouwer-Rice  
 $K = 0.83$  ft/day  $y_0 = 1.4$  ft





### WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MWD-24\_MWD-24\_1.aqt  
 Date: 09/16/14 Time: 09:51:28

### PROJECT INFORMATION

Company: Arcadis  
 Client: Ashland Inc.  
 Project: OH007000.GA60  
 Location: Savannah, GA  
 Test Well: MWD-24

### AQUIFER DATA

Saturated Thickness: 85. ft Anisotropy Ratio ( $K_z/K_r$ ): 1.

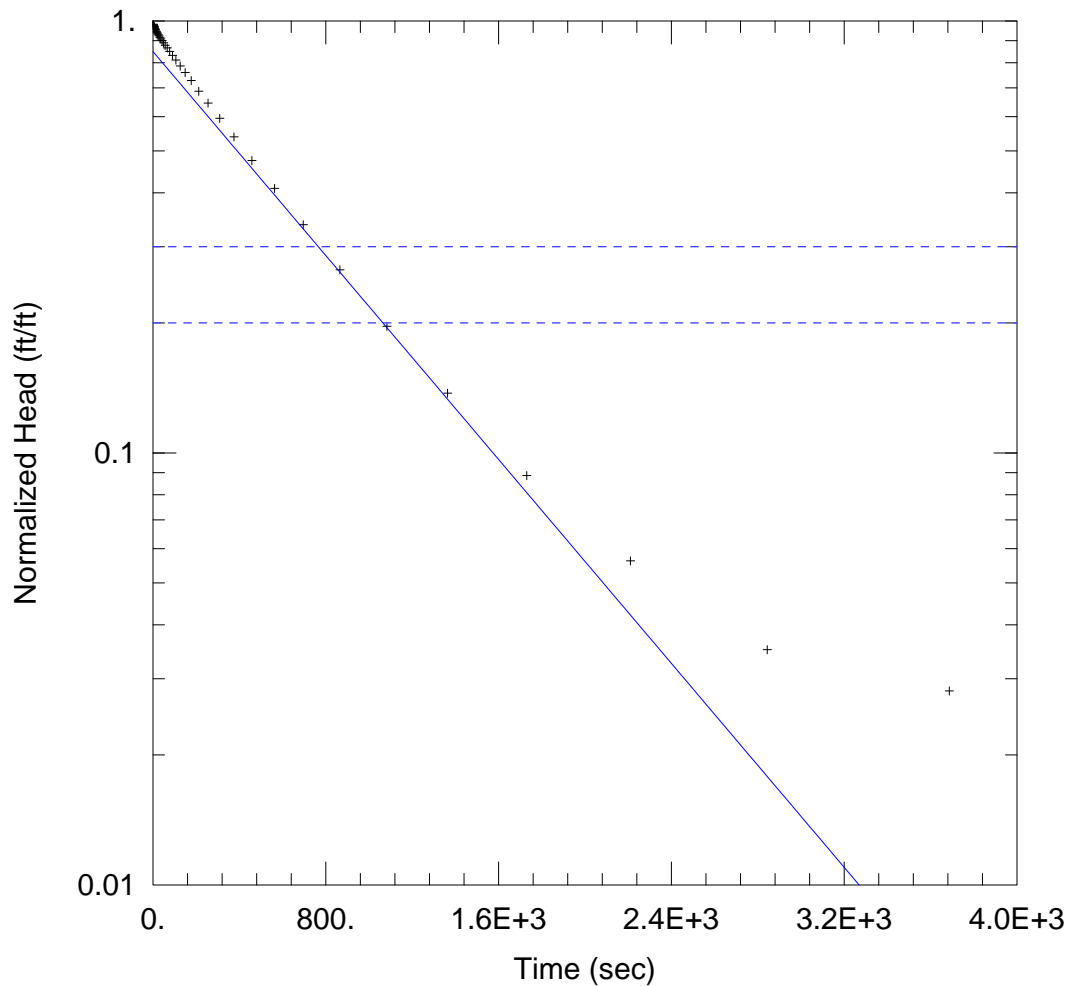
### WELL DATA (MWD-24)

Initial Displacement: 1.861 ft Static Water Column Height: 42.59 ft  
 Total Well Penetration Depth: 42.59 ft Screen Length: 10. ft  
 Casing Radius: 0.089 ft Well Radius: 0.354 ft  
 Gravel Pack Porosity: 0.

### SOLUTION

Aquifer Model: Confined Solution Method: Bouwer-Rice  
 $K = 0.096$  ft/day  $y_0 = 1.7$  ft





### WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MWD-29\_MWD-29\_1.aqt  
 Date: 09/16/14 Time: 09:53:10

### PROJECT INFORMATION

Company: Arcadis  
 Client: Ashland Inc.  
 Project: OH007000.GA60  
 Location: Savannah, GA  
 Test Well: MWD-29

### AQUIFER DATA

Saturated Thickness: 85. ft Anisotropy Ratio (Kz/Kr): 1.

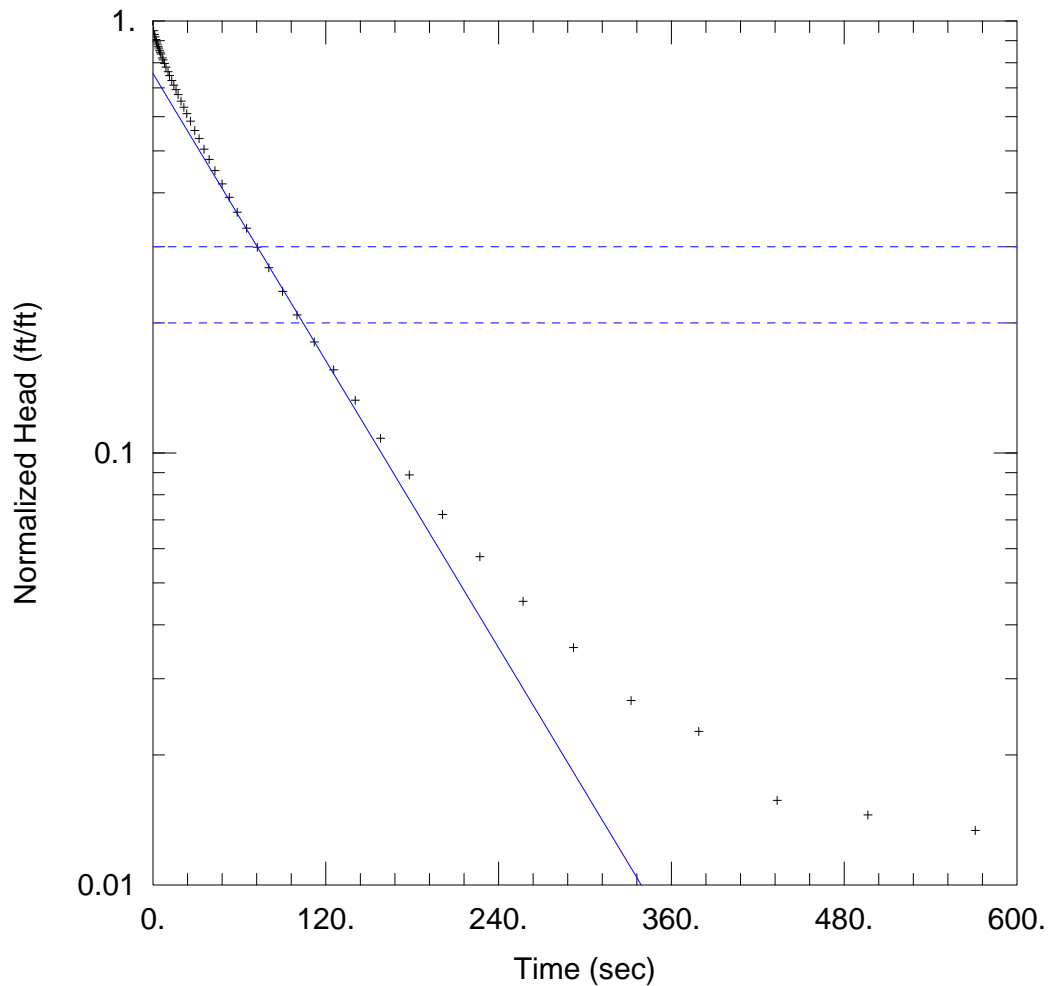
### WELL DATA (MWD-29)

Initial Displacement: 1.884 ft Static Water Column Height: 44.11 ft  
 Total Well Penetration Depth: 44.11 ft Screen Length: 10. ft  
 Casing Radius: 0.086 ft Well Radius: 0.354 ft  
 Gravel Pack Porosity: 0.

### SOLUTION

Aquifer Model: Confined Solution Method: Bouwer-Rice  
 K = 0.06 ft/day y0 = 1.6 ft





### WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MW-F1\_\MW-F1\_1.aqt  
 Date: 09/16/14 Time: 09:55:42

### PROJECT INFORMATION

Company: Arcadis  
 Client: Ashland Inc.  
 Project: OH007000.GA60  
 Location: Savannah, GA  
 Test Well: MW-F1

### AQUIFER DATA

Saturated Thickness: 85. ft Anisotropy Ratio ( $K_z/K_r$ ): 1.

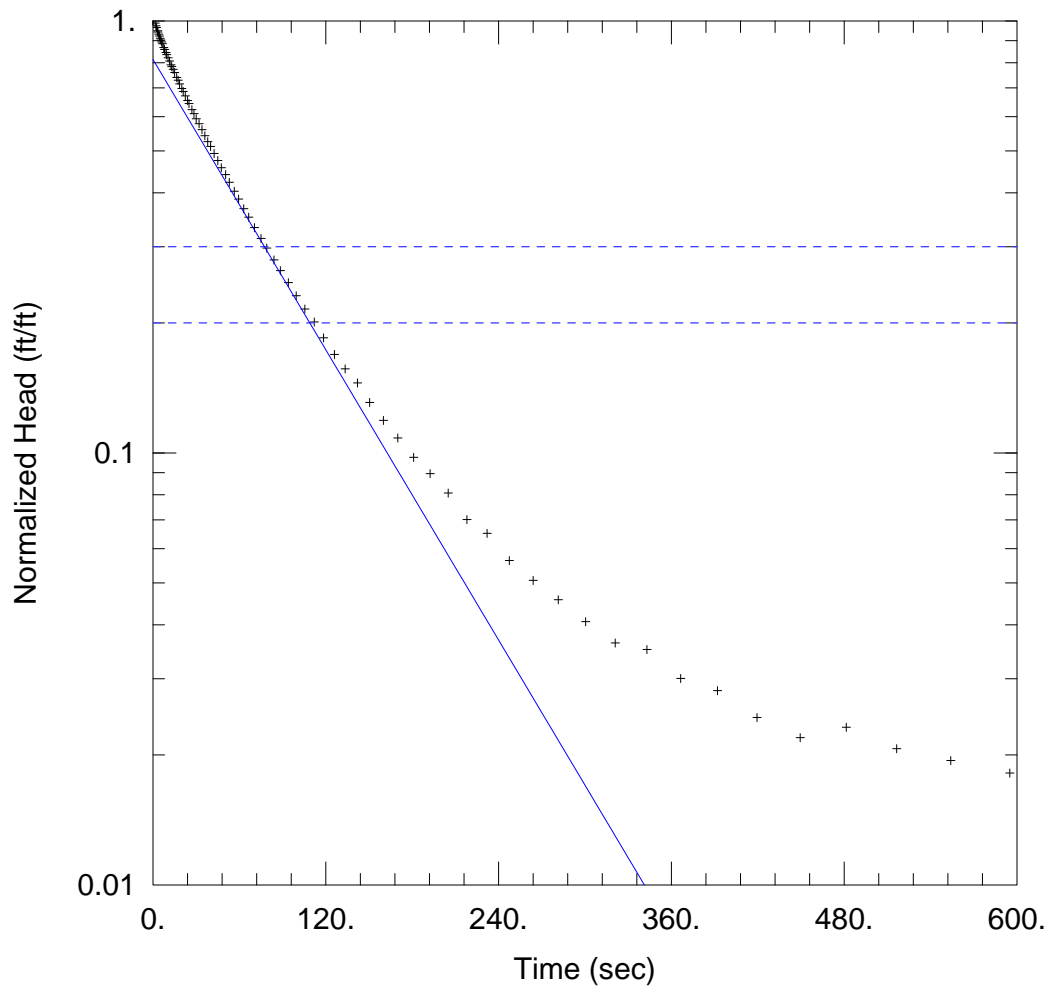
### WELL DATA (MW-F1)

Initial Displacement: 1.721 ft Static Water Column Height: 18.21 ft  
 Total Well Penetration Depth: 18.21 ft Screen Length: 10. ft  
 Casing Radius: 0.086 ft Well Radius: 0.354 ft

### SOLUTION

Aquifer Model: Confined Solution Method: Bouwer-Rice  
 $K = 0.92$  ft/day  $y_0 = 1.3$  ft





### WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MW-F1\_\MW-F1\_2.aqt  
 Date: 09/16/14 Time: 09:56:36

### PROJECT INFORMATION

Company: Arcadis  
 Client: Ashland Inc.  
 Project: OH007000.GA60  
 Location: Savannah, GA  
 Test Well: MW-F1

### AQUIFER DATA

Saturated Thickness: 85. ft Anisotropy Ratio ( $K_z/K_r$ ): 1.

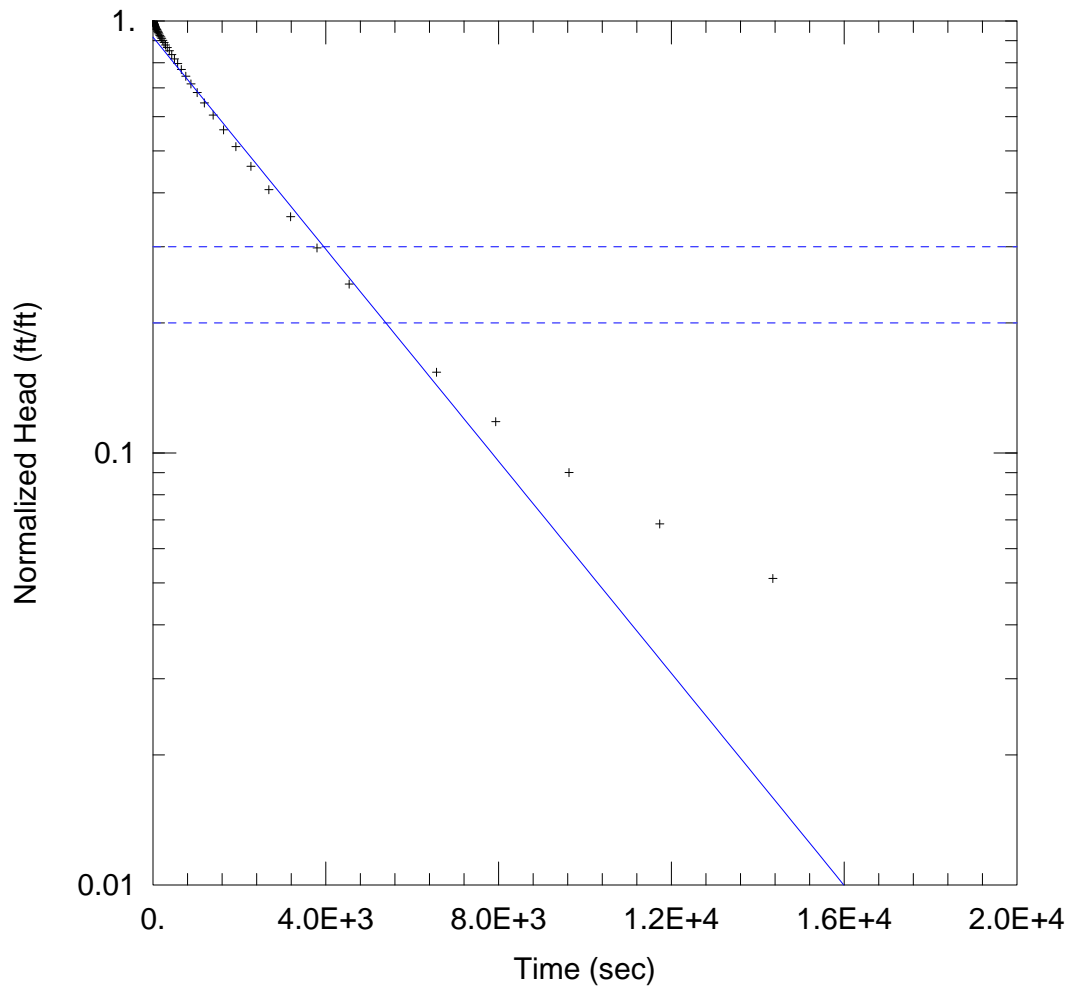
### WELL DATA (MW-F1)

Initial Displacement: 1.597 ft Static Water Column Height: 18.21 ft  
 Total Well Penetration Depth: 18.21 ft Screen Length: 10. ft  
 Casing Radius: 0.086 ft Well Radius: 0.354 ft

### SOLUTION

Aquifer Model: Confined Solution Method: Bouwer-Rice  
 $K = 0.93$  ft/day  $y_0 = 1.3$  ft





### WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MWD-F3\_MWD-F3\_1.aqt  
 Date: 09/16/14 Time: 09:54:38

### PROJECT INFORMATION

Company: Arcadis  
 Client: Ashland Inc.  
 Project: OH007000.GA60  
 Location: Savannah, GA  
 Test Well: MWD-F3

### AQUIFER DATA

Saturated Thickness: 85. ft Anisotropy Ratio ( $K_z/K_r$ ): 1.

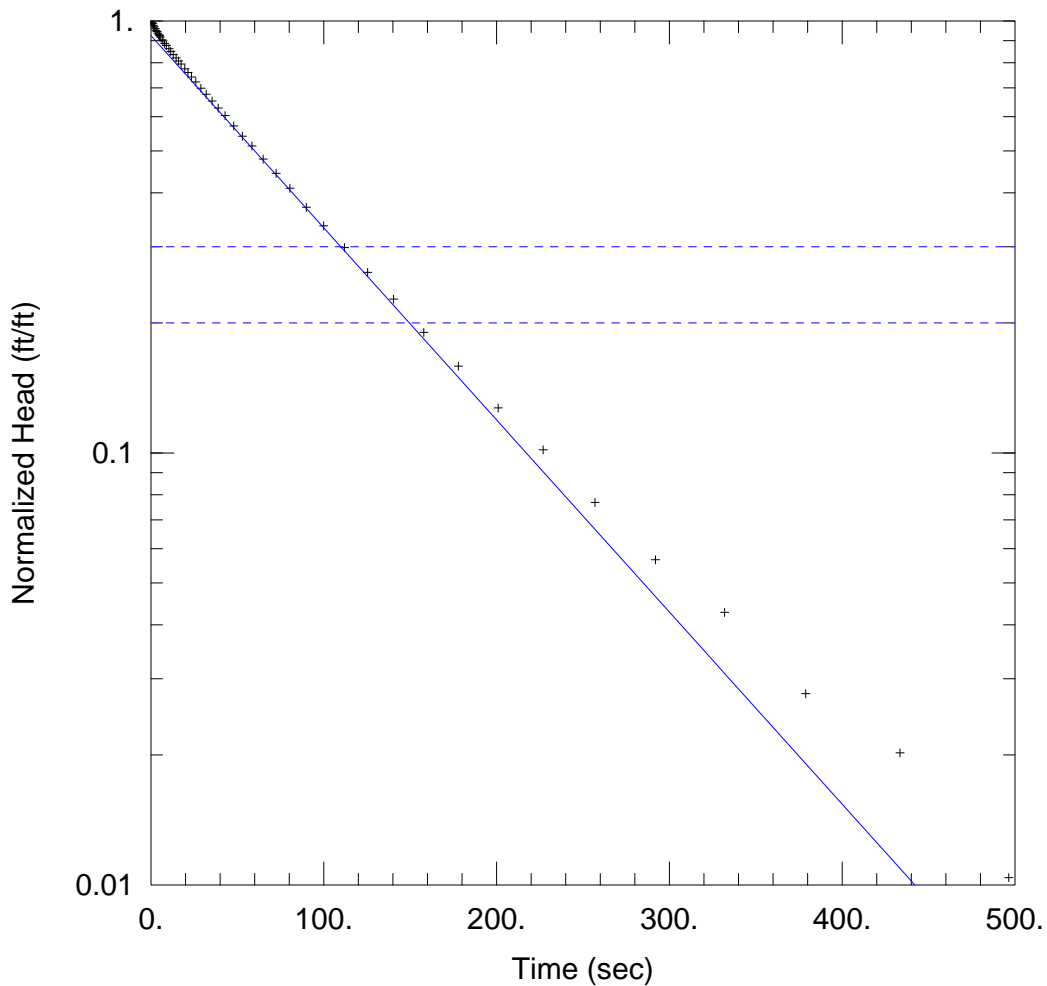
### WELL DATA (MWD-F3)

Initial Displacement: <u>1.854 ft</u>	Static Water Column Height: <u>74.01 ft</u>
Total Well Penetration Depth: <u>74.01 ft</u>	Screen Length: <u>20. ft</u>
Casing Radius: <u>0.086 ft</u>	Well Radius: <u>0.354 ft</u>
	Gravel Pack Porosity: <u>0.</u>

### SOLUTION

Aquifer Model: <u>Confined</u>	Solution Method: <u>Bouwer-Rice</u>
$K = 0.0081$ ft/day	$y_0 = 1.7$ ft





### WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MW-F9\_\MW-F9\_1.aqt  
 Date: 09/16/14 Time: 09:57:39

### PROJECT INFORMATION

Company: Arcadis  
 Client: Ashland Inc.  
 Project: OH007000.GA60  
 Location: Savannah, GA  
 Test Well: MW-F9

### AQUIFER DATA

Saturated Thickness: 85. ft Anisotropy Ratio ( $K_z/K_r$ ): 1.

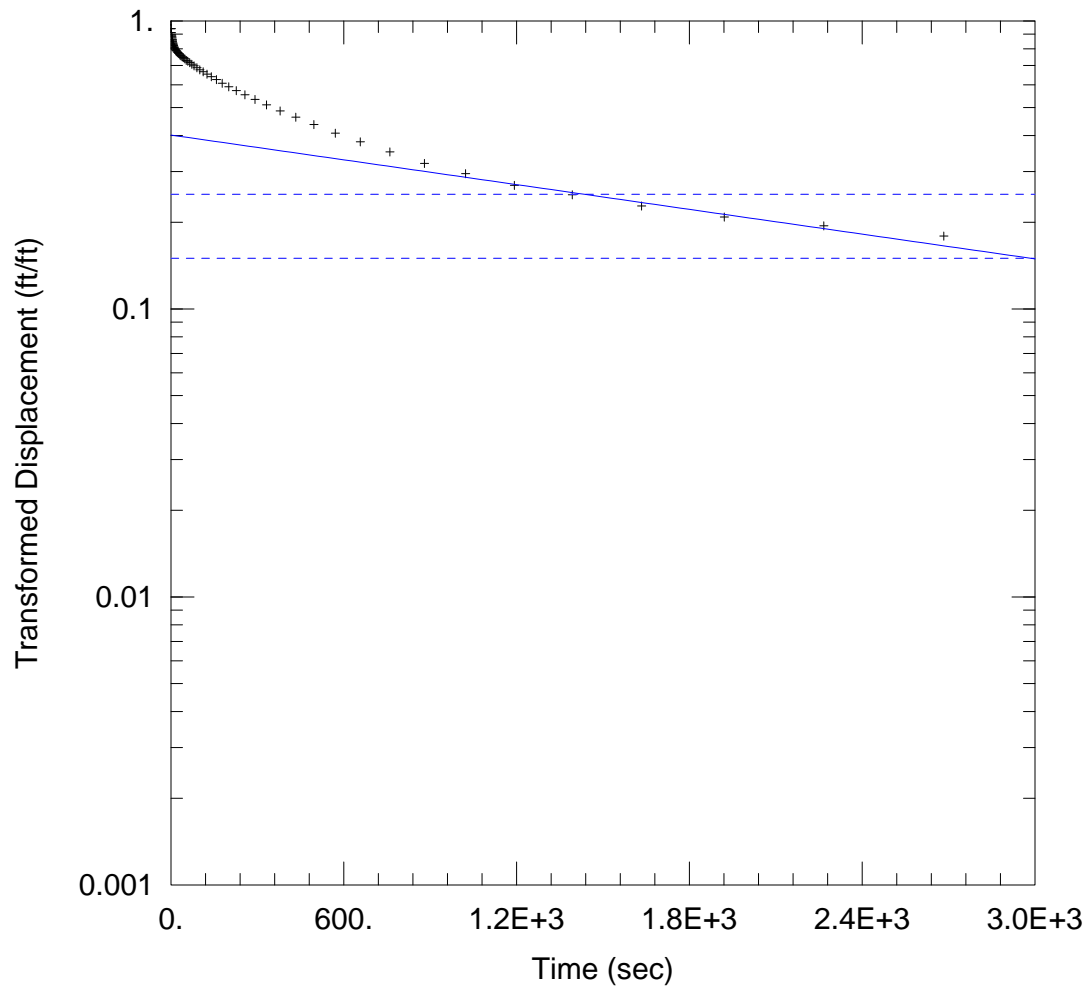
### WELL DATA (MW-F9)

Initial Displacement: 1.731 ft Static Water Column Height: 15.72 ft  
 Total Well Penetration Depth: 15.72 ft Screen Length: 10. ft  
 Casing Radius: 0.086 ft Well Radius: 0.354 ft

### SOLUTION

Aquifer Model: Confined Solution Method: Bouwer-Rice  
 $K = 0.72$  ft/day  $y_0 = 1.6$  ft





### WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MW-F13\_\MW-F13\_mw.aqt  
 Date: 09/16/14 Time: 10:00:04

### PROJECT INFORMATION

Company: Arcadis  
 Client: Ashland Inc.  
 Project: OH007000.GA60  
 Location: Savannah, GA  
 Test Well: MW-F13

### AQUIFER DATA

Saturated Thickness: 85. ft Anisotropy Ratio (Kz/Kr): 1.

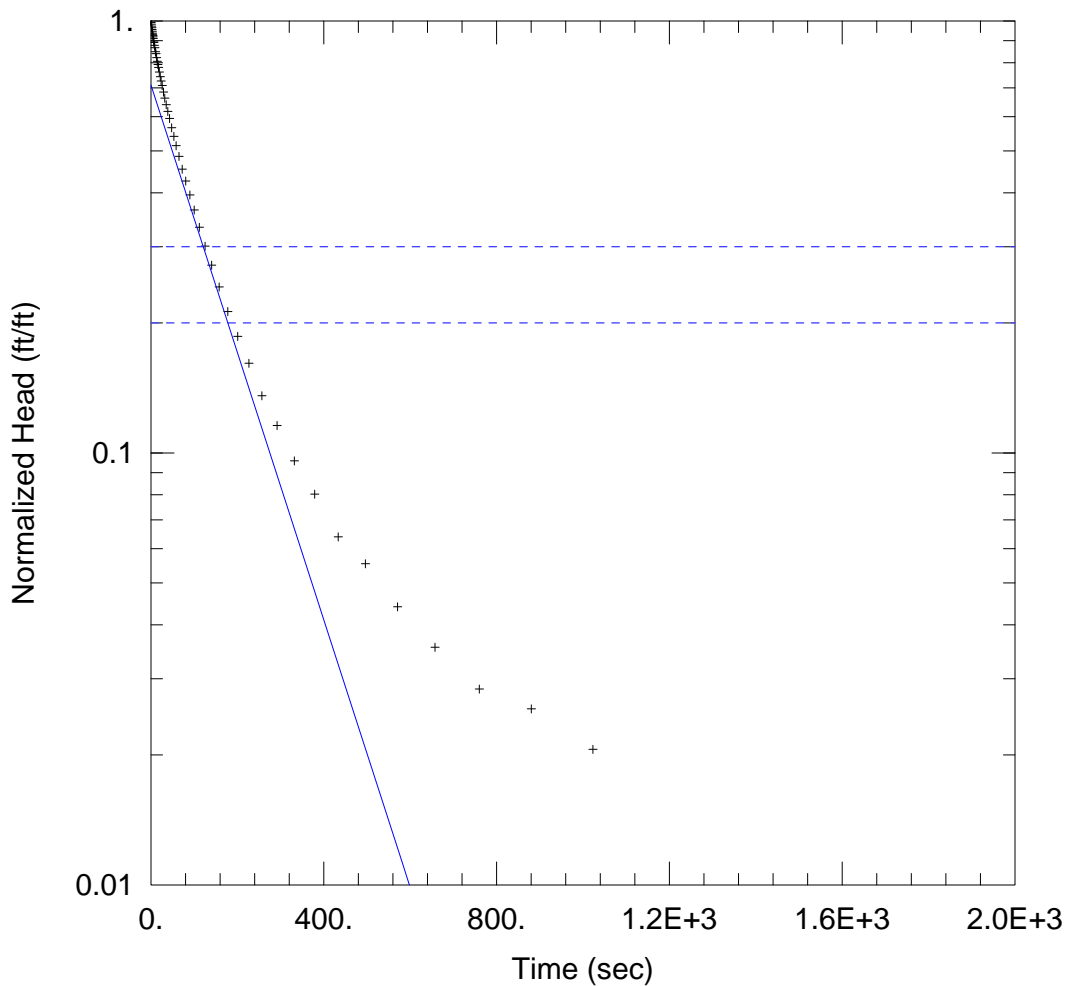
### WELL DATA (MW-F13)

Initial Displacement: 1.27 ft Static Water Column Height: 12.03 ft  
 Total Well Penetration Depth: 12.03 ft Screen Length: 10. ft  
 Casing Radius: 0.086 ft Well Radius: 0.354 ft  
 Gravel Pack Porosity: 0.

### SOLUTION

Aquifer Model: Unconfined Solution Method: Dagan  
 K = 0.033 ft/day y0 = 0.53 ft





### WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MW-F15\_\MW-F15\_1.aqt  
 Date: 09/16/14 Time: 10:01:12

### PROJECT INFORMATION

Company: Arcadis  
 Client: Ashland Inc.  
 Project: OH007000.GA60  
 Location: Savannah, GA  
 Test Well: MW-F15

### AQUIFER DATA

Saturated Thickness: 85. ft Anisotropy Ratio ( $K_z/K_r$ ): 1.

### WELL DATA (MW-F15)

Initial Displacement: 1.408 ft Static Water Column Height: 16.81 ft  
 Total Well Penetration Depth: 16.81 ft Screen Length: 10. ft  
 Casing Radius: 0.086 ft Well Radius: 0.354 ft  
 Gravel Pack Porosity: 0.

### SOLUTION

Aquifer Model: Confined Solution Method: Bouwer-Rice  
 $K = 0.36$  ft/day  $y_0 = 1.$  ft



# ARCADIS

## Slug Test Log

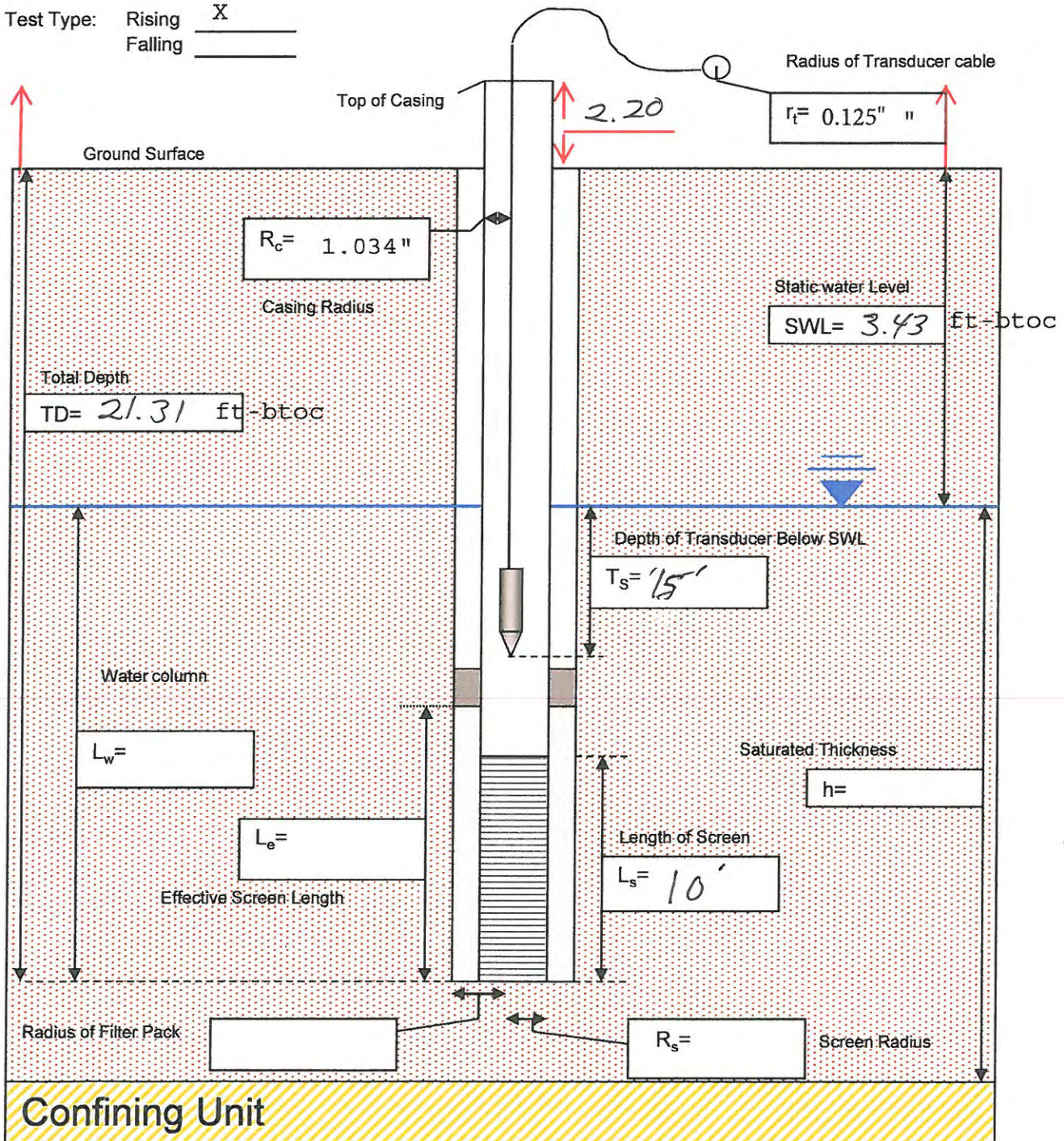
Site Name: Ashland Savannah

Project No: OH007000.GA06.00300 Page: 1 of 2

Well No: MW-22 Prepared By: Robby Shealy Date: 8/29/14 Time: 1145

Completed By: Robby Shealy

Test Type: Rising X  
Falling       





**ARCADIS**

## Slug Test Log

Site Name: Ashland SavannahProject No: OH007000.GA60Page: 2 of 2**TESTS**3' bailer 1,000 ft

Number of Tests: 2 Data File Name: MW-22 Data File Location: \_\_\_\_\_

Input Pressure: \_\_\_\_\_ Pressure Transducer SN: \_\_\_\_\_  $r_t$ : \_\_\_\_\_

Test ID: \_\_\_\_\_  $T_s$  Baseline: 14.875 Pressure Reading: \_\_\_\_\_

\_\_\_\_\_  $H_o$ : \_\_\_\_\_ Test Start 1154 Test End 1200

Test ID: \_\_\_\_\_  $T_s$  Baseline: 14.879 Pressure Reading: \_\_\_\_\_

\_\_\_\_\_  $H_o$ : \_\_\_\_\_ Test Start 1208 Test End 1223

Test ID: \_\_\_\_\_  $T_s$  Baseline: \_\_\_\_\_ Pressure Reading: \_\_\_\_\_

\_\_\_\_\_  $H_o$ : \_\_\_\_\_ Test Start \_\_\_\_\_ Test End \_\_\_\_\_

**Notes:**

$H_o$  Initial change in head at instant the slug test is started

$r_t$  Radius of transducer cable

$T_s$  Depth of transducer below static water level

**Theoretical Change in Head - 2.307 feet = 1 psi**

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

**Well Parameters Required for Calculating Hydraulic Conductivity**

$L_e$	Effective screen length, including the sand pack
$L_s$	True screen length
$L_w$	Length of water column in Well (TD-SWL)
$R_s$	Screen radius
$R_b$	Radius of filter Pack or borehole
$R_c$	Casing radius
$r_t$	Radius of the transducer cable
$T_s$	Depth the transducer is submerged below the SWL
SWL	Static water level
TD	Total depth of well/screen from reference point
$h$	Saturated thickness of aquifer
$H_o$	Initial head change at instant the slug test is started.
Aquifer Type	Confined or unconfined



# ARCADIS

## Slug Test Log

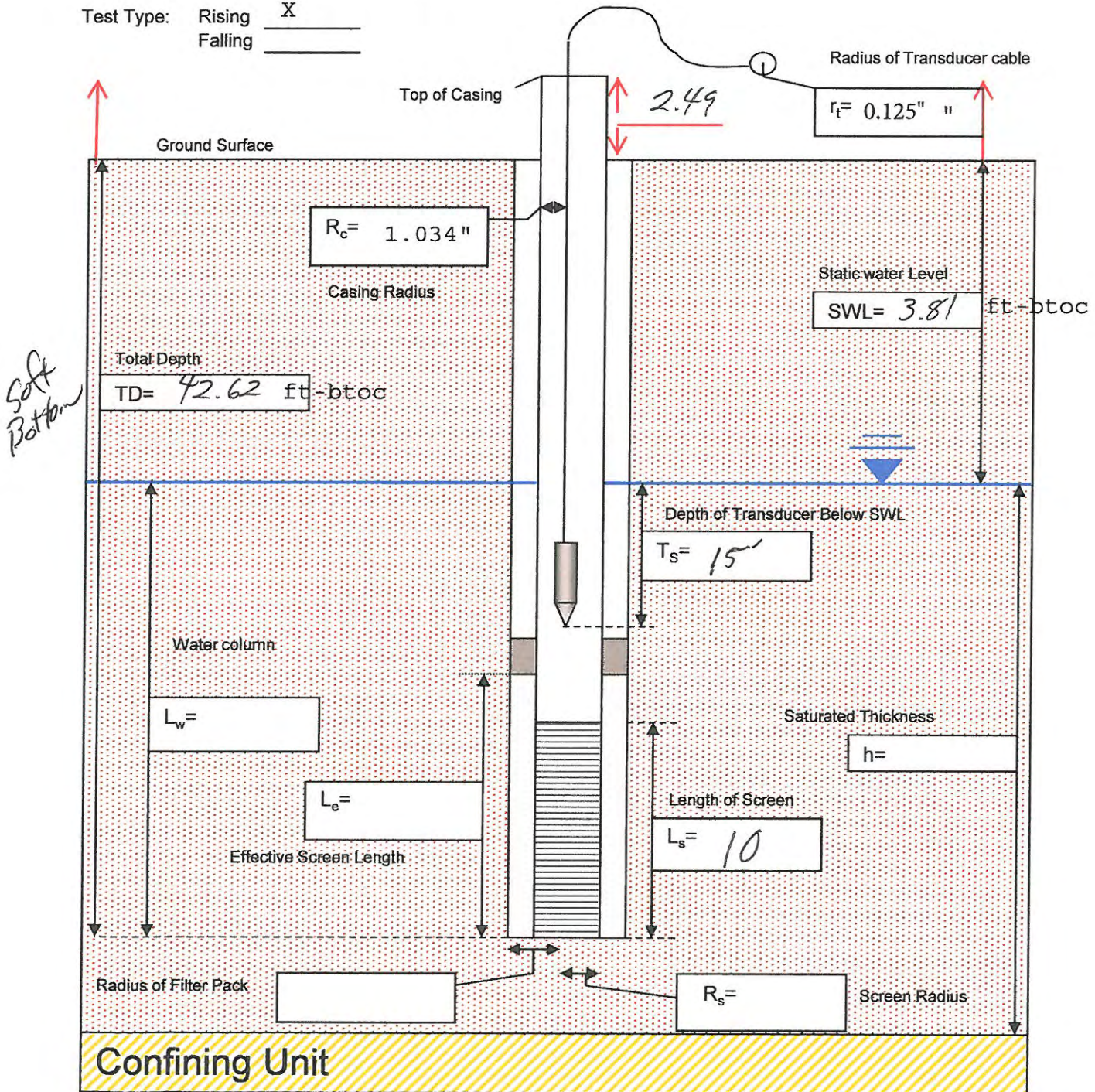
Site Name: Ashland Savannah

Project No: OH007000.GA06.00300 Page: 1 of 2

Well No: MWP-22 Prepared By: Robby Shealy Date: 8/29/14 Time: 1130

Completed By: Robby Shealy

Test Type: Rising X  
Falling       





**ARCADIS**

## Slug Test Log

Site Name: Ashland SavannahProject No: OH007000.GA60Page: 2 of 2**TESTS**3' boiler 1,000ml removed
 Number of Tests: 2 Data File Name: MWP-22 Data File Location: Level Tr 11700

 Input Pressure: \_\_\_\_\_ Pressure Transducer SN: 116803  $r_t$ : \_\_\_\_\_

 Test ID: \_\_\_\_\_  $T_s$  Baseline: 14.934 Pressure Reading: \_\_\_\_\_

 \_\_\_\_\_  $H_o$ : \_\_\_\_\_ Test Start 1147 Test End 1206

 Test ID: \_\_\_\_\_  $T_s$  Baseline: ~~14.934~~ Pressure Reading: \_\_\_\_\_

 \_\_\_\_\_  $H_o$ : \_\_\_\_\_ Test Start \_\_\_\_\_ Test End \_\_\_\_\_

 Test ID: \_\_\_\_\_  $T_s$  Baseline: 14.931 Pressure Reading: \_\_\_\_\_

 \_\_\_\_\_  $H_o$ : \_\_\_\_\_ Test Start 1227 Test End 1247
**Notes:**

$H_o$  Initial change in head at instant the slug test is started  
 $r_t$  Radius of transducer cable  
 $T_s$  Depth of transducer below static water level

**Theoretical Change in Head - 2.307 feet = 1 psi**

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

**Well Parameters Required for Calculating Hydraulic Conductivity**

$L_e$  Effective screen length, including the sand pack  
 $L_s$  True screen length  
 $L_w$  Length of water column in Well (TD-SWL)  
 $R_s$  Screen radius  
 $R_b$  Radius of filter Pack or borehole  
 $R_c$  Casing radius  
 $r_t$  Radius of the transducer cable  
 $T_s$  Depth the transducer is submerged below the SWL  
 SWL Static water level  
 TD Total depth of well/screen from reference point  
 h Saturated thickness of aquifer  
 $H_o$  Initial head change at instant the slug test is started.  
 Aquifer Type Confined or unconfined



# ARCADIS

Slug Test Log

*Actually Did MW-24 instead of MWD-24*

Site Name: Ashland Savannah

Project No: OH007000.GA06.00300

Page: 1 of 2

Well No: ~~MWD-24~~ MW-24 changed file name

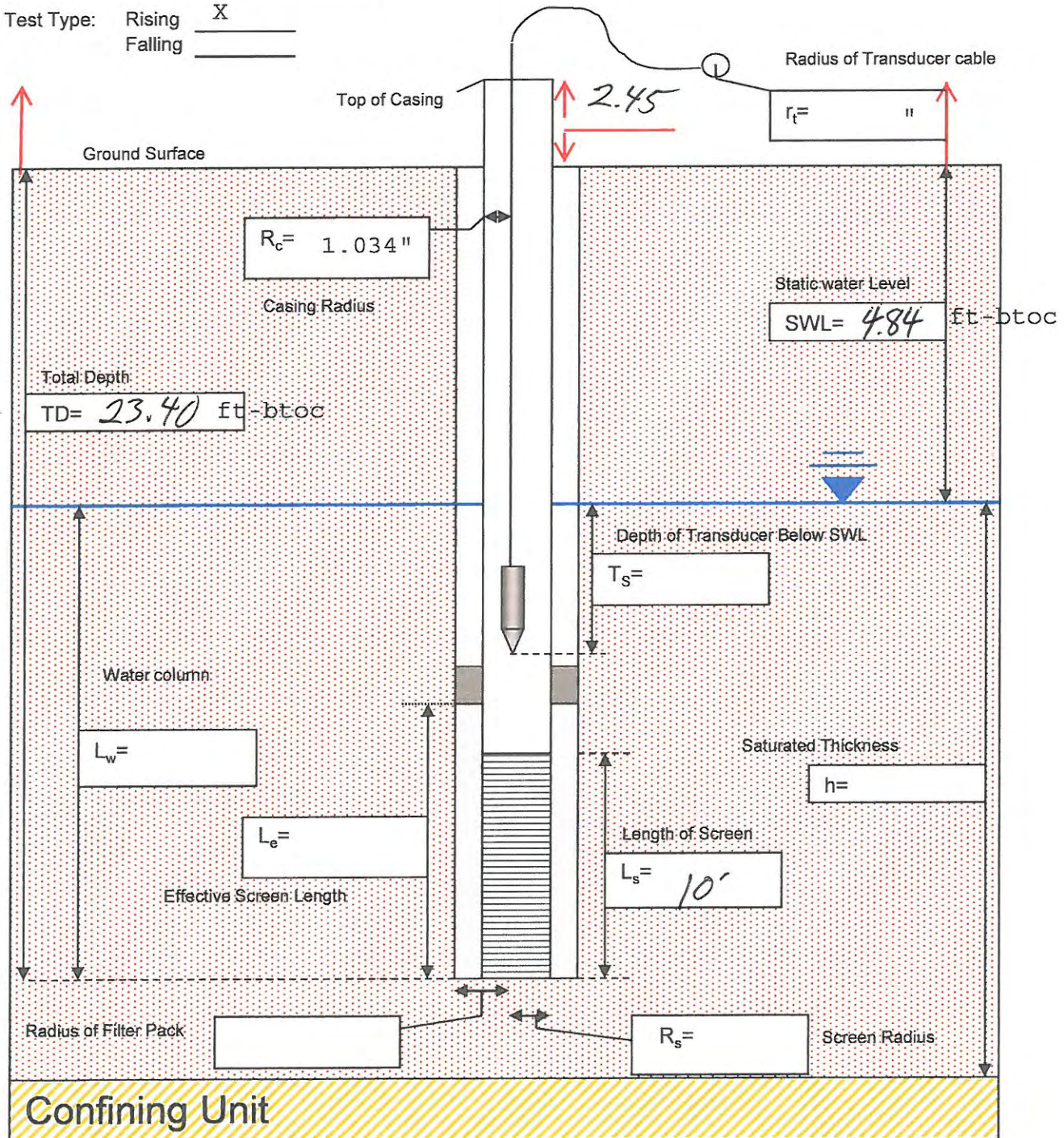
Prepared By: Robby Shealy

Date: 8/27/14

Time: \_\_\_\_\_

Completed By: Robby Shealy

Test Type: Rising X  
Falling \_\_\_\_\_





**ARCADIS**

## Slug Test Log

Site Name: Ashland SavannahProject No: OH007000.GA60Page: 2 of 2**TESTS**

Number of Tests: \_\_\_\_\_ Data MW-24 changed file name Data MWD 24  
 File Name: \_\_\_\_\_ File Location: \_\_\_\_\_

Input Pressure: \_\_\_\_\_ Pressure Transducer SN: \_\_\_\_\_  $r_t$ : \_\_\_\_\_

Test ID: \_\_\_\_\_  $T_s$  Baseline: 14.911 Pressure Reading: \_\_\_\_\_

\_\_\_\_\_  $H_o$ : \_\_\_\_\_ Test Start \_\_\_\_\_ Test End \_\_\_\_\_

Test ID: \_\_\_\_\_  $T_s$  Baseline: 14.890 Pressure Reading: \_\_\_\_\_

\_\_\_\_\_  $H_o$ : \_\_\_\_\_ Test Start \_\_\_\_\_ Test End \_\_\_\_\_

Test ID: \_\_\_\_\_  $T_s$  Baseline: 14.886 Pressure Reading: \_\_\_\_\_

\_\_\_\_\_  $H_o$ : \_\_\_\_\_ Test Start \_\_\_\_\_ Test End \_\_\_\_\_

**Notes:**

$H_o$  Initial change in head at instant the slug test is started

$r_t$  Radius of transducer cable

$T_s$  Depth of transducer below static water level

**Theoretical Change in Head - 2.307 feet = 1 psi**

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

**Well Parameters Required for Calculating Hydraulic Conductivity**

$L_e$	Effective screen length, including the sand pack
$L_s$	True screen length
$L_w$	Length of water column in Well (TD-SWL)
$R_s$	Screen radius
$R_b$	Radius of filter Pack or borehole
$R_c$	Casing radius
$r_t$	Radius of the transducer cable
$T_s$	Depth the transducer is submerged below the SWL
SWL	Static water level
TD	Total depth of well/screen from reference point
$h$	Saturated thickness of aquifer
$H_o$	Initial head change at instant the slug test is started.
Aquifer Type	Confined or unconfined



# ARCADIS

## Slug Test Log

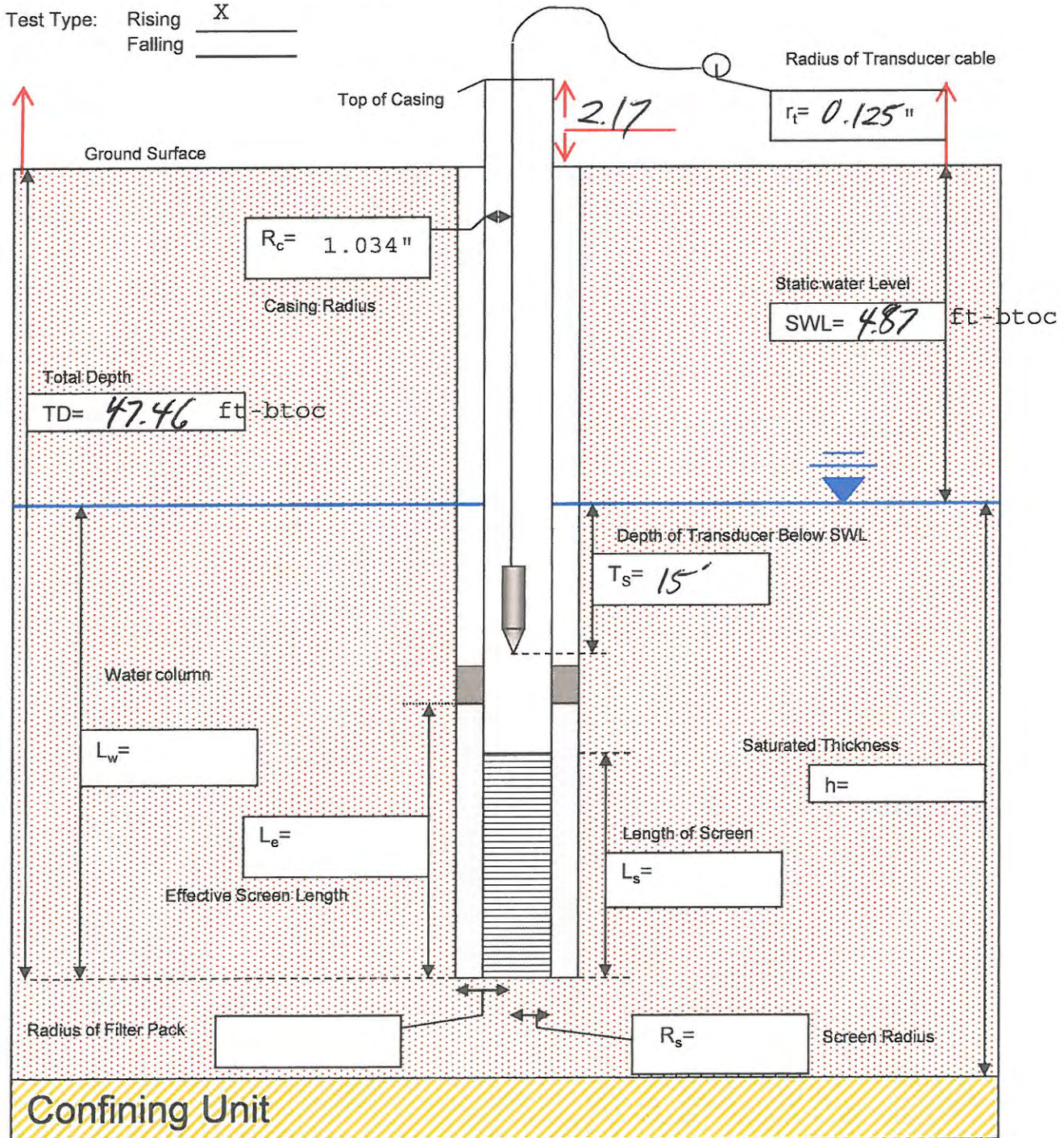
Site Name: Ashland Savannah

Project No: OH007000.GA06.00300 Page: 1 of 2

Well No: MWD-24 Prepared By: Robby Shealy Date: 8/29/14 Time: \_\_\_\_\_

Completed By: Robby Shealy

Test Type: Rising X  
Falling \_\_\_\_\_





**ARCADIS**

## Slug Test Log

Site Name: Ashland SavannahProject No: OH007000.GA60Page: 2 of 2**TESTS**3' Barker Fall @ 1,000-1Number of Tests: \_\_\_\_\_ Data File Name: MWD-24 Data File Location: \_\_\_\_\_Input Pressure: \_\_\_\_\_ Pressure Transducer SN: \_\_\_\_\_  $r_t$ : \_\_\_\_\_Test ID: \_\_\_\_\_  $T_s$  Baseline: 14.750 Pressure Reading: \_\_\_\_\_\_\_\_\_\_  $H_o$ : \_\_\_\_\_ Test Start 1724 Test End \_\_\_\_\_Test ID: \_\_\_\_\_  $T_s$  Baseline: \_\_\_\_\_ Pressure Reading: \_\_\_\_\_\_\_\_\_\_  $H_o$ : \_\_\_\_\_ Test Start \_\_\_\_\_ Test End \_\_\_\_\_Test ID: \_\_\_\_\_  $T_s$  Baseline: \_\_\_\_\_ Pressure Reading: \_\_\_\_\_\_\_\_\_\_  $H_o$ : \_\_\_\_\_ Test Start \_\_\_\_\_ Test End \_\_\_\_\_**Notes:** $H_o$  Initial change in head at instant the slug test is started $r_t$  Radius of transducer cable $T_s$  Depth of transducer below static water level**Theoretical Change in Head - 2.307 feet = 1 psi**

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

**Well Parameters Required for Calculating Hydraulic Conductivity**

$L_e$	Effective screen length, including the sand pack
$L_s$	True screen length
$L_w$	Length of water column in Well (TD-SWL)
$R_s$	Screen radius
$R_b$	Radius of filter Pack or borehole
$R_c$	Casing radius
$r_t$	Radius of the transducer cable
$T_s$	Depth the transducer is submerged below the SWL
SWL	Static water level
TD	Total depth of well/screen from reference point
$h$	Saturated thickness of aquifer
$H_o$	Initial head change at instant the slug test is started.
Aquifer Type	Confined or unconfined



# ARCADIS

## Slug Test Log

*Cannot get bailer in well well is damaged*

Site Name: Ashland Savannah

Project No: OH007000.GA06.00300 Page: 1 of 2

Well No: NW-28

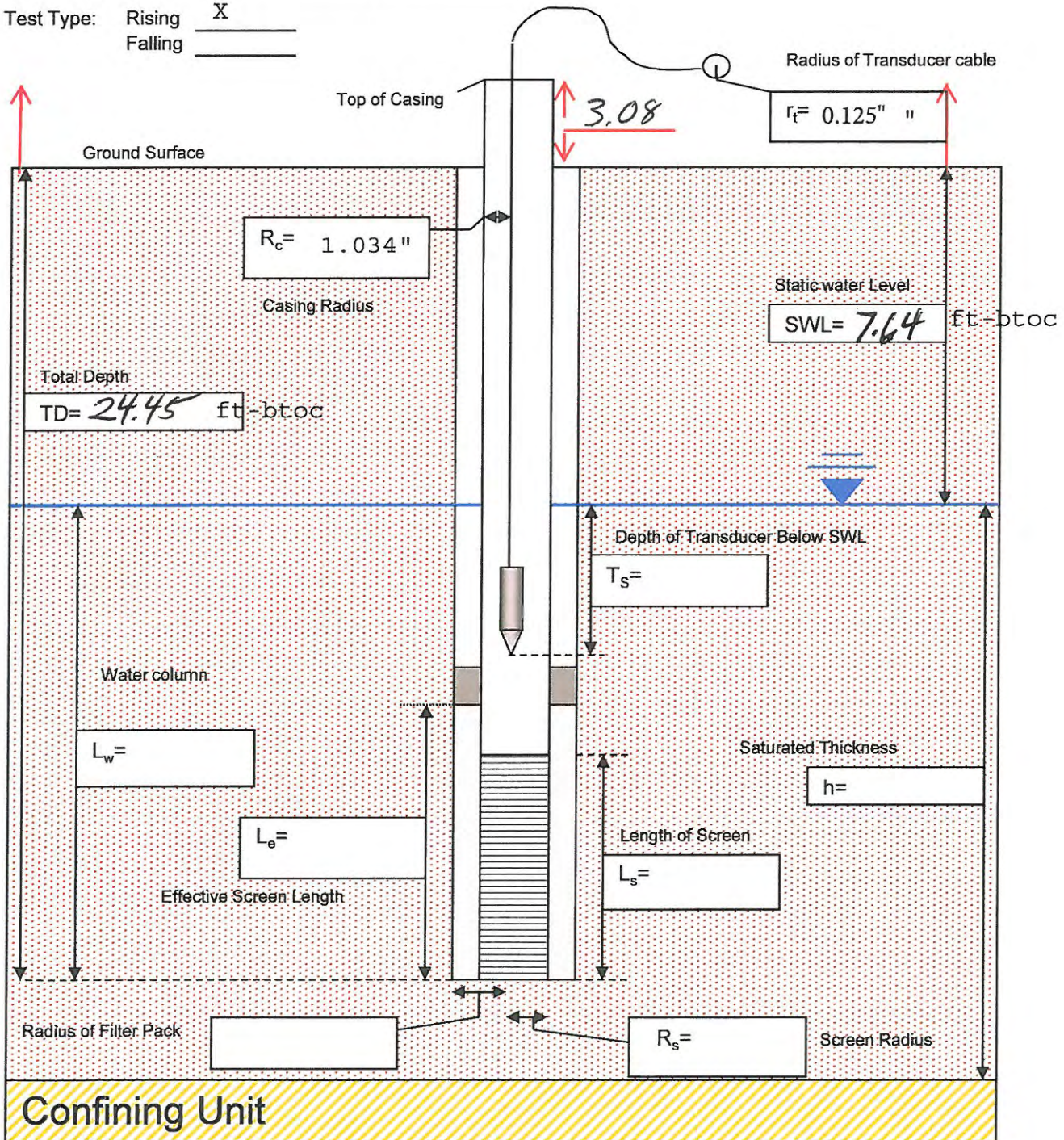
Prepared By: Robby Shealy

Date: 8/29/14

Time: \_\_\_\_\_

Completed By: Robby Shealy

Test Type: Rising X  
Falling \_\_\_\_\_





**ARCADIS**

## Slug Test Log

Site Name: Ashland SavannahProject No: OH007000.GA60Page: 2 of 2**TESTS**

Number of Tests:	_____	Data File Name:	_____	Data File Location:	_____
Input Pressure:	_____	Pressure Transducer SN:	_____	$r_t$ :	_____
Test ID:	$T_s$ Baseline:	_____	Pressure Reading:	_____	
_____	$H_o$ :	_____	Test Start	_____	Test End _____
Test ID:	$T_s$ Baseline:	_____	Pressure Reading:	_____	
_____	$H_o$ :	_____	Test Start	_____	Test End _____
Test ID:	$T_s$ Baseline:	_____	Pressure Reading:	_____	
_____	$H_o$ :	_____	Test Start	_____	Test End _____

**Notes:**

$H_o$  Initial change in head at instant the slug test is started  
 $r_t$  Radius of transducer cable  
 $T_s$  Depth of transducer below static water level

**Theoretical Change in Head - 2.307 feet = 1 psi**

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

**Well Parameters Required for Calculating Hydraulic Conductivity**

$L_e$  Effective screen length, including the sand pack  
 $L_s$  True screen length  
 $L_w$  Length of water column in Well (TD-SWL)  
 $R_s$  Screen radius  
 $R_b$  Radius of filter Pack or borehole  
 $R_c$  Casing radius  
 $r_t$  Radius of the transducer cable  
 $T_s$  Depth the transducer is submerged below the SWL  
SWL Static water level  
TD Total depth of well/screen from reference point  
 $h$  Saturated thickness of aquifer  
 $H_o$  Initial head change at instant the slug test is started.  
Aquifer Type Confined or unconfined



# ARCADIS

## Slug Test Log

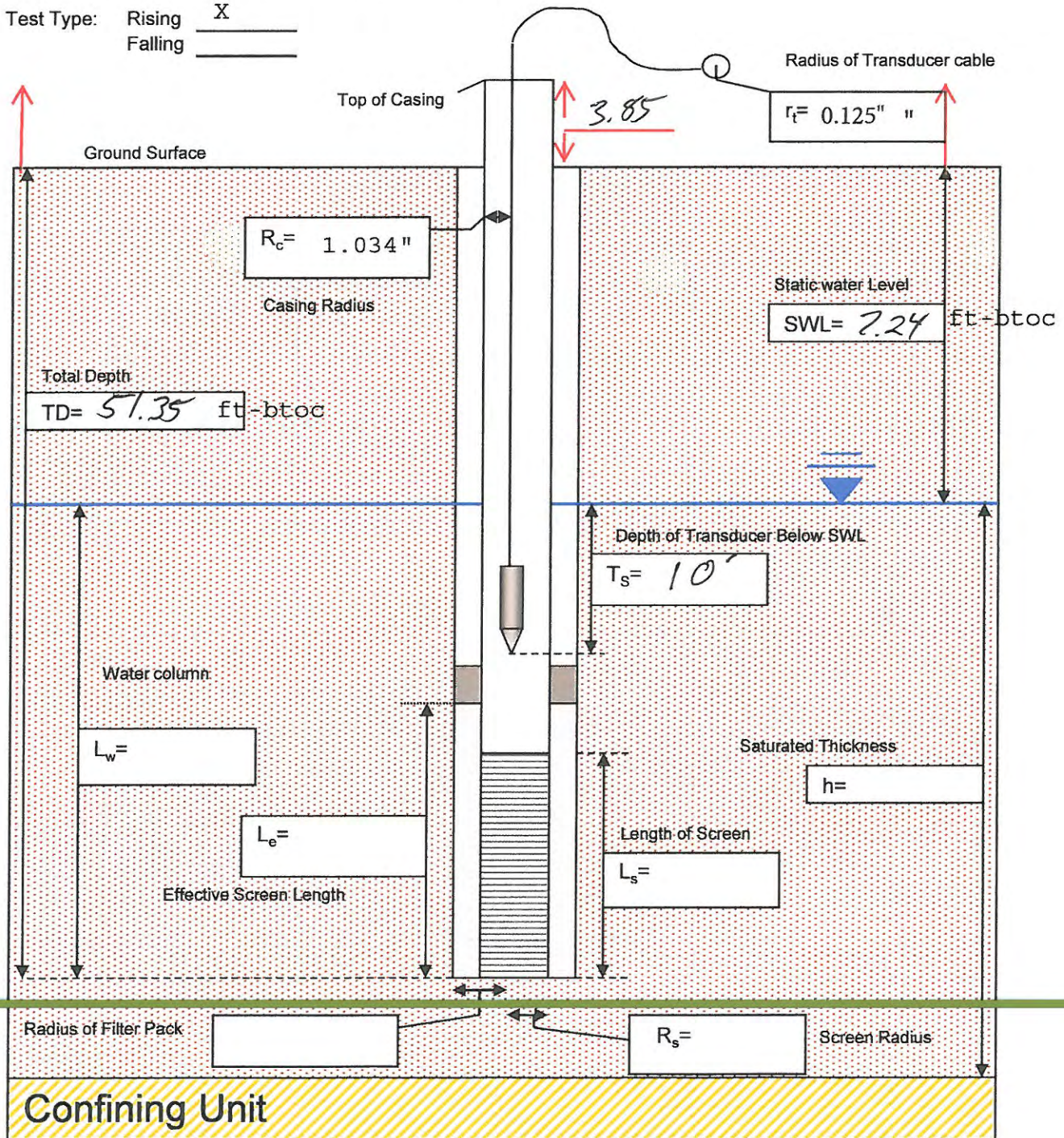
Site Name: Ashland Savannah

Project No: OH007000.GA06.00300 Page: 1 of 2

Well No: MWD-29 Prepared By: Robby Shealy Date: 8/29/14 Time: 1030

Completed By: Robby Shealy

Test Type: Rising X  
Falling     





**ARCADIS**

## Slug Test Log

Site Name: Ashland SavannahProject No: OH007000.GA60Page: 2 of 2**TESTS**3' boiler 1000ml

Number of Tests: \_\_\_\_\_ Data File Name: MWD-29 Data File Location: Level T111700

Input Pressure: \_\_\_\_\_ Pressure Transducer SN: 327622  $r_t$ : \_\_\_\_\_

Test ID: \_\_\_\_\_  $T_s$  Baseline: 14.833 Pressure Reading: \_\_\_\_\_  
14.807 finish Test Start 1041 Test End 1315

Test ID: \_\_\_\_\_  $T_s$  Baseline: 14.818 Pressure Reading: \_\_\_\_\_  
14.807 finish Test Start 1332 Test End \_\_\_\_\_

Test ID: \_\_\_\_\_  $T_s$  Baseline: \_\_\_\_\_ Pressure Reading: \_\_\_\_\_  
14.807 finish Test Start \_\_\_\_\_ Test End \_\_\_\_\_

**Notes:**

$H_o$  Initial change in head at instant the slug test is started  
 $r_t$  Radius of transducer cable  
 $T_s$  Depth of transducer below static water level

**Theoretical Change in Head - 2.307 feet = 1 psi**

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

**Well Parameters Required for Calculating Hydraulic Conductivity**

$L_e$  Effective screen length, including the sand pack  
 $L_s$  True screen length  
 $L_w$  Length of water column in Well (TD-SWL)  
 $R_s$  Screen radius  
 $R_b$  Radius of filter Pack or borehole  
 $R_c$  Casing radius  
 $r_t$  Radius of the transducer cable  
 $T_s$  Depth the transducer is submerged below the SWL  
SWL Static water level  
TD Total depth of well/screen from reference point  
 $h$  Saturated thickness of aquifer  
 $H_o$  Initial head change at instant the slug test is started.  
Aquifer Type Confined or unconfined



# ARCADIS

## Slug Test Log

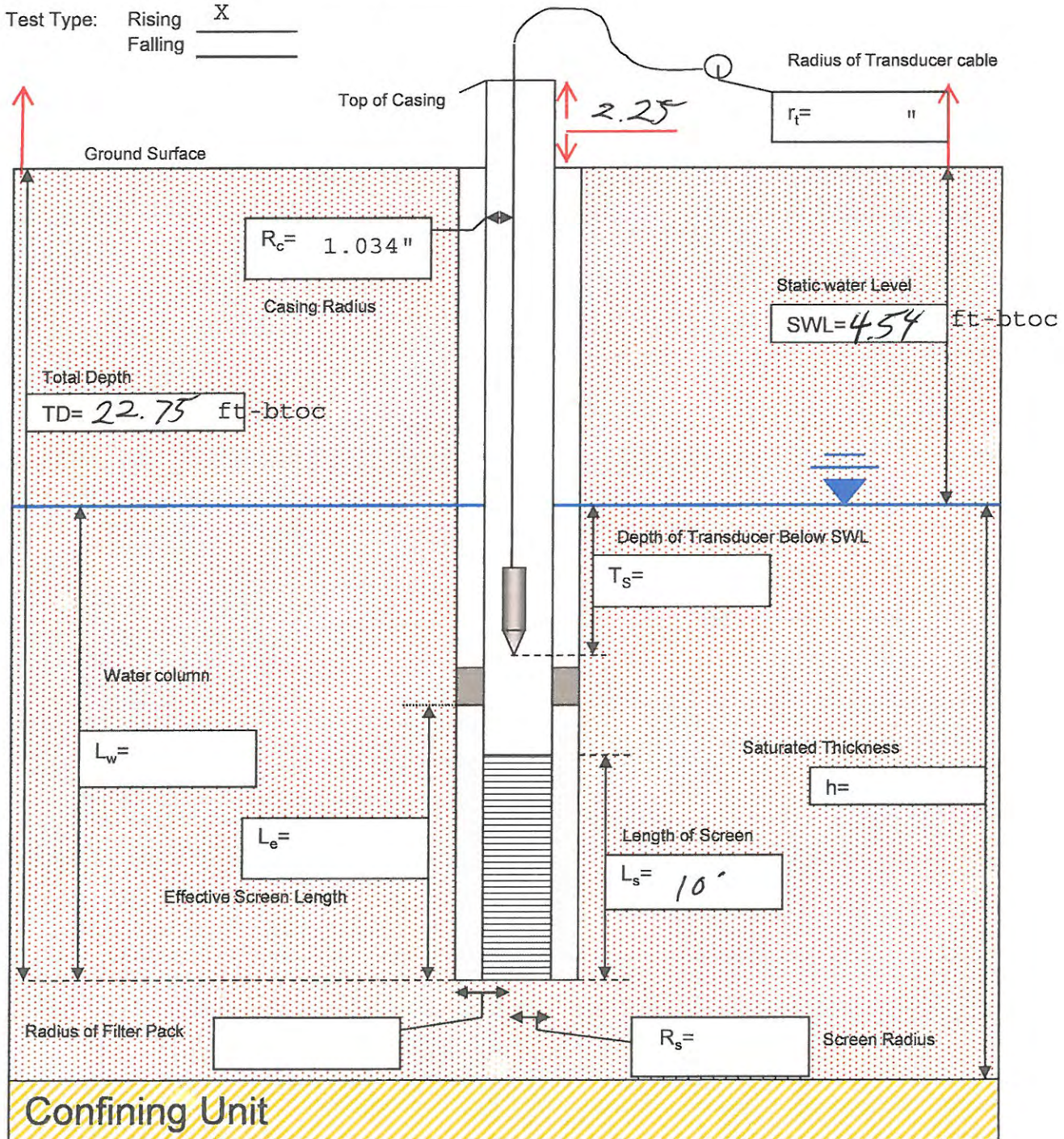
Site Name: Ashland Savannah

Project No: OH007000.GA06.00300 Page: 1 of 2

Well No: MW-F1 Prepared By: Robby Shealy Date: 8/27/14 Time: \_\_\_\_\_

Completed By: Robby Shealy

Test Type: Rising X  
Falling \_\_\_\_\_





**ARCADIS**

## Slug Test Log

Site Name: Ashland SavannahProject No: OH007000.GA60Page: 2 of 2**TESTS**3' bailer 1,000 ml

Number of Tests: 2 Data File Name: MW-F1 Data File Location: \_\_\_\_\_

Input Pressure: \_\_\_\_\_ Pressure Transducer SN: \_\_\_\_\_  $r_t$ : \_\_\_\_\_

Test ID: \_\_\_\_\_  $T_s$  Baseline: 14.886 Pressure Reading: \_\_\_\_\_

\_\_\_\_\_  $H_0$ : \_\_\_\_\_ Test Start \_\_\_\_\_ Test End \_\_\_\_\_

Test ID: \_\_\_\_\_  $T_s$  Baseline: 14.881 Pressure Reading: \_\_\_\_\_

\_\_\_\_\_  $H_0$ : \_\_\_\_\_ Test Start \_\_\_\_\_ Test End \_\_\_\_\_

Test ID: \_\_\_\_\_  $T_s$  Baseline: \_\_\_\_\_ Pressure Reading: \_\_\_\_\_

\_\_\_\_\_  $H_0$ : \_\_\_\_\_ Test Start \_\_\_\_\_ Test End \_\_\_\_\_

**Notes:**

$H_0$  Initial change in head at instant the slug test is started  
 $r_t$  Radius of transducer cable  
 $T_s$  Depth of transducer below static water level

**Theoretical Change in Head - 2.307 feet = 1 psi**

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

**Well Parameters Required for Calculating Hydraulic Conductivity**

$L_e$  Effective screen length, including the sand pack  
 $L_s$  True screen length  
 $L_w$  Length of water column in Well (TD-SWL)  
 $R_s$  Screen radius  
 $R_b$  Radius of filter Pack or borehole  
 $R_c$  Casing radius  
 $r_t$  Radius of the transducer cable  
 $T_s$  Depth the transducer is submerged below the SWL  
SWL Static water level  
TD Total depth of well/screen from reference point  
 $h$  Saturated thickness of aquifer  
 $H_0$  Initial head change at instant the slug test is started.  
Aquifer Type Confined or unconfined



# ARCADIS

## Slug Test Log

Site Name: Ashland Savannah

Project No: OH007000.GA06.00300 Page: 1 of 2

Well No: MWD-F3

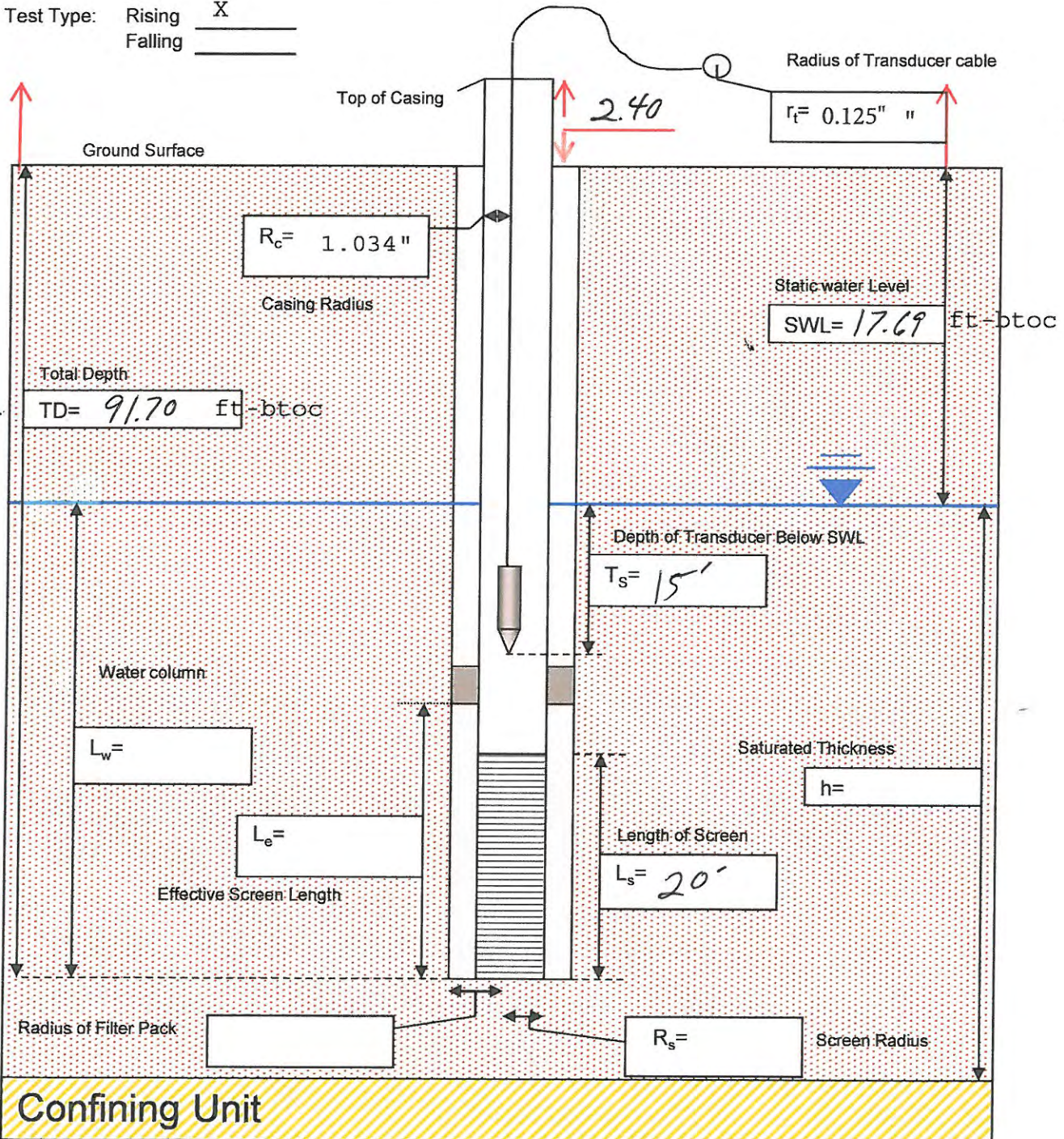
Prepared By: Robby Shealy

Date: 8/29/14

Time: 0820

Completed By: Robby Shealy

Test Type: Rising X  
Falling       





# ARCADIS

## Slug Test Log

Site Name: Ashland Savannah

Project No: OH007000.GA60

Page: 2 of 2

### TESTS

*3' bailer 1,000 ft*

Number of Tests: _____		Data File Name: <u>MWD-F3</u>	Data File Location: _____
Input Pressure: _____		Pressure Transducer SN: <u>315825</u>	<i>Level Trans 700</i>
Test ID: _____	T <sub>s</sub> Baseline: <u>14.858</u>	Pressure Reading: _____	
	H <sub>0</sub> : _____	Test Start <u>0955</u>	Test End _____
Test ID: _____	T <sub>s</sub> Baseline: _____	Pressure Reading: _____	
	H <sub>0</sub> : _____	Test Start _____	Test End _____
Test ID: _____	T <sub>s</sub> Baseline: _____	Pressure Reading: _____	
	H <sub>0</sub> : _____	Test Start _____	Test End _____

### Notes:

H<sub>0</sub> Initial change in head at instant the slug test is started  
 r<sub>t</sub> Radius of transducer cable  
 T<sub>s</sub> Depth of transducer below static water level

### Theoretical Change in Head - 2.307 feet = 1 psi

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

### Well Parameters Required for Calculating Hydraulic Conductivity

*15.189*

L <sub>e</sub>	Effective screen length, including the sand pack
L <sub>s</sub>	True screen length
L <sub>w</sub>	Length of water column in Well (TD-SWL)
R <sub>s</sub>	Screen radius
R <sub>b</sub>	Radius of filter Pack or borehole
R <sub>c</sub>	Casing radius
r <sub>t</sub>	Radius of the transducer cable
T <sub>s</sub>	Depth the transducer is submerged below the SWL
SWL	Static water level
TD	Total depth of well/screen from reference point
h	Saturated thickness of aquifer
H <sub>0</sub>	Initial head change at instant the slug test is started.
Aquifer Type	Confined or unconfined



**ARCADIS**  
Slug Test Log

*No Well Tag MW-F9*

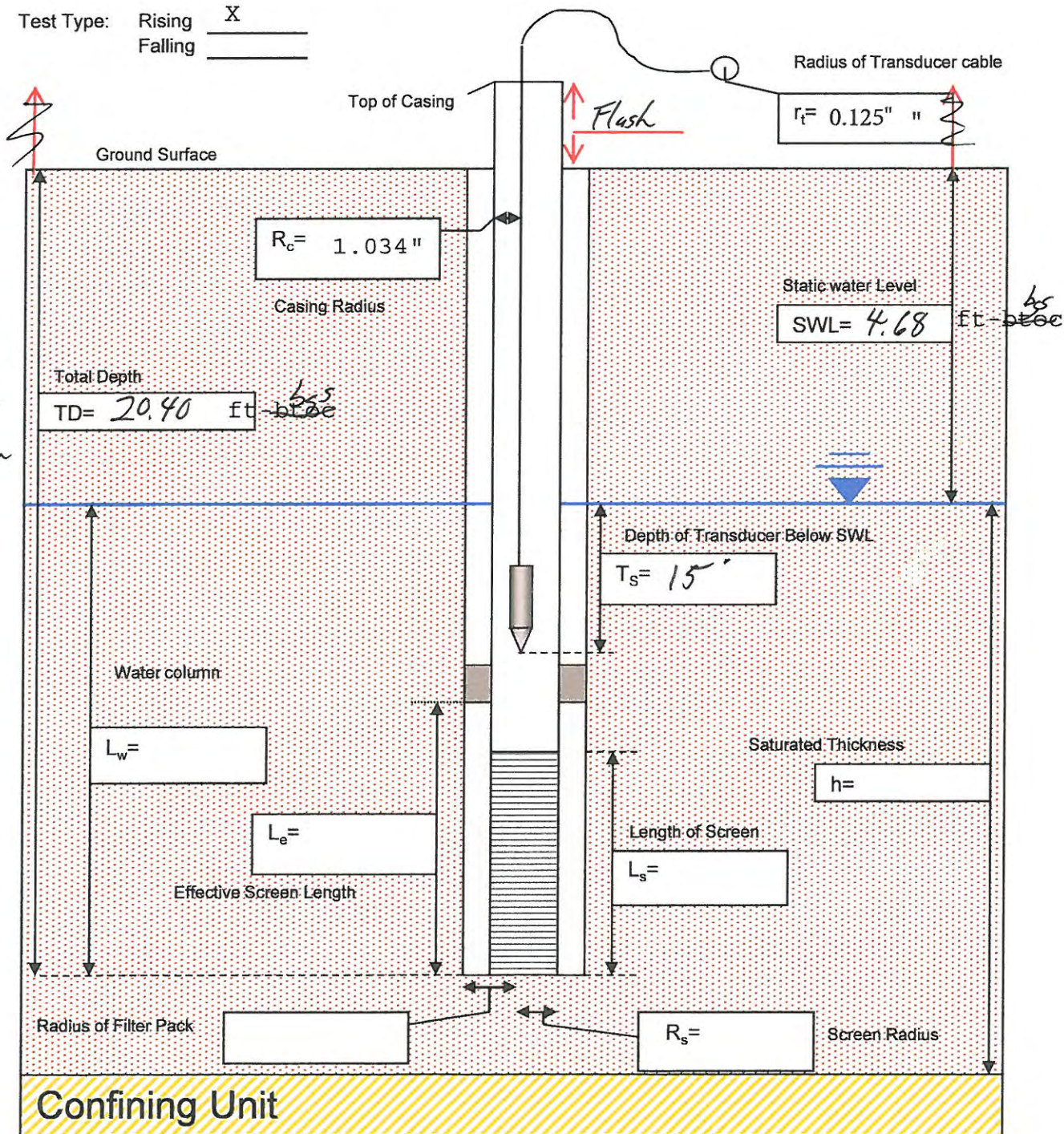
Site Name: Ashland Savannah

Project No: OH007000.GA06.00300 Page: 1 of 2

Well No: MW-F9 Prepared By: Robby Shealy Date: 8/29/14 Time: 0900

Completed By: Robby Shealy

Test Type: Rising X  
Falling       





**ARCADIS**

## Slug Test Log

Site Name: Ashland SavannahProject No: OH007000.GA60Page: 2 of 2TESTS using 3' barker requiring full 1000ml out each timeNumber of Tests: \_\_\_\_\_ Data File Name: MW-F9 Data File Location: \_\_\_\_\_Input Pressure: \_\_\_\_\_ Pressure Transducer SN: \_\_\_\_\_  $r_t$ : \_\_\_\_\_Test ID: \_\_\_\_\_  $T_s$  Baseline: 14.888 Pressure Reading: \_\_\_\_\_\_\_\_\_\_  $H_o$ : \_\_\_\_\_ Test Start 0857 Test End 0907Test ID: \_\_\_\_\_  $T_s$  Baseline: 14.888 Pressure Reading: \_\_\_\_\_\_\_\_\_\_  $H_o$ : \_\_\_\_\_ Test Start 0921 Test End 0934Test ID: \_\_\_\_\_  $T_s$  Baseline: \_\_\_\_\_ Pressure Reading: \_\_\_\_\_\_\_\_\_\_  $H_o$ : \_\_\_\_\_ Test Start \_\_\_\_\_ Test End \_\_\_\_\_Notes: $H_o$  Initial change in head at instant the slug test is started $r_t$  Radius of transducer cable $T_s$  Depth of transducer below static water level**Theoretical Change in Head - 2.307 feet = 1 psi**

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

**Well Parameters Required for Calculating Hydraulic Conductivity**

$L_e$	Effective screen length, including the sand pack
$L_s$	True screen length
$L_w$	Length of water column in Well (TD-SWL)
$R_s$	Screen radius
$R_b$	Radius of filter Pack or borehole
$R_c$	Casing radius
$r_t$	Radius of the transducer cable
$T_s$	Depth the transducer is submerged below the SWL
SWL	Static water level
TD	Total depth of well/screen from reference point
$h$	Saturated thickness of aquifer
$H_o$	Initial head change at instant the slug test is started.
Aquifer Type	Confined or unconfined



# ARCADIS

## Slug Test Log

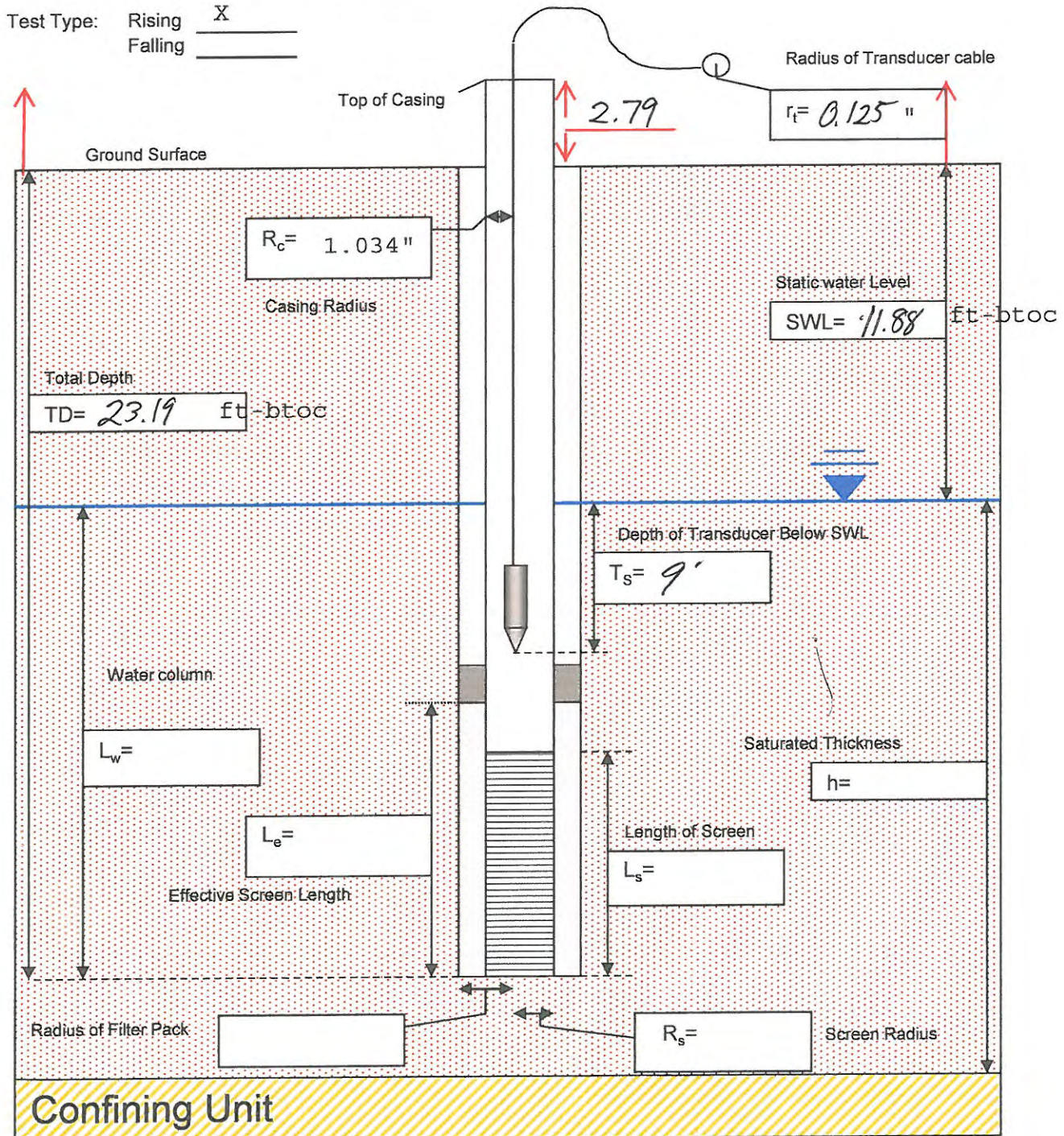
Site Name: Ashland Savannah

Project No: OH007000.GA06.00300 Page: 1 of 2

Well No: MW-F13 Prepared By: Robby Shealy Date: 8/29/14 Time: 1520

Completed By: Robby Shealy

Test Type: Rising X  
Falling       





**ARCADIS**

## Slug Test Log

Site Name: Ashland SavannahProject No: OH007000.GA60Page: 2 of 2**TESTS**3' boiler 1,000 ml

Number of Tests: 1 Data File Name: NW-F13 Data File Location: \_\_\_\_\_

Input Pressure: \_\_\_\_\_ Pressure Transducer SN: 116803  $r_t$ : \_\_\_\_\_

Test ID: \_\_\_\_\_  $T_s$  Baseline: 8.971 Pressure Reading: \_\_\_\_\_  
 \_\_\_\_\_  $H_o$ : \_\_\_\_\_ Test Start 1552 Test End 1642

Test ID: \_\_\_\_\_  $T_s$  Baseline: \_\_\_\_\_ Pressure Reading: \_\_\_\_\_

\_\_\_\_\_  $H_o$ : \_\_\_\_\_ Test Start \_\_\_\_\_ Test End \_\_\_\_\_

Test ID: \_\_\_\_\_  $T_s$  Baseline: \_\_\_\_\_ Pressure Reading: \_\_\_\_\_

\_\_\_\_\_  $H_o$ : \_\_\_\_\_ Test Start \_\_\_\_\_ Test End \_\_\_\_\_

**Notes:**

$H_o$  Initial change in head at instant the slug test is started  
 $r_t$  Radius of transducer cable  
 $T_s$  Depth of transducer below static water level

**Theoretical Change in Head - 2.307 feet = 1 psi**

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

**Well Parameters Required for Calculating Hydraulic Conductivity**

$L_e$  Effective screen length, including the sand pack  
 $L_s$  True screen length  
 $L_w$  Length of water column in Well (TD-SWL)  
 $R_s$  Screen radius  
 $R_b$  Radius of filter Pack or borehole  
 $R_c$  Casing radius  
 $r_t$  Radius of the transducer cable  
 $T_s$  Depth the transducer is submerged below the SWL  
 SWL Static water level  
 TD Total depth of well/screen from reference point  
 h Saturated thickness of aquifer  
 $H_o$  Initial head change at instant the slug test is started.  
 Aquifer Type Confined or unconfined



# ARCADIS

## Slug Test Log

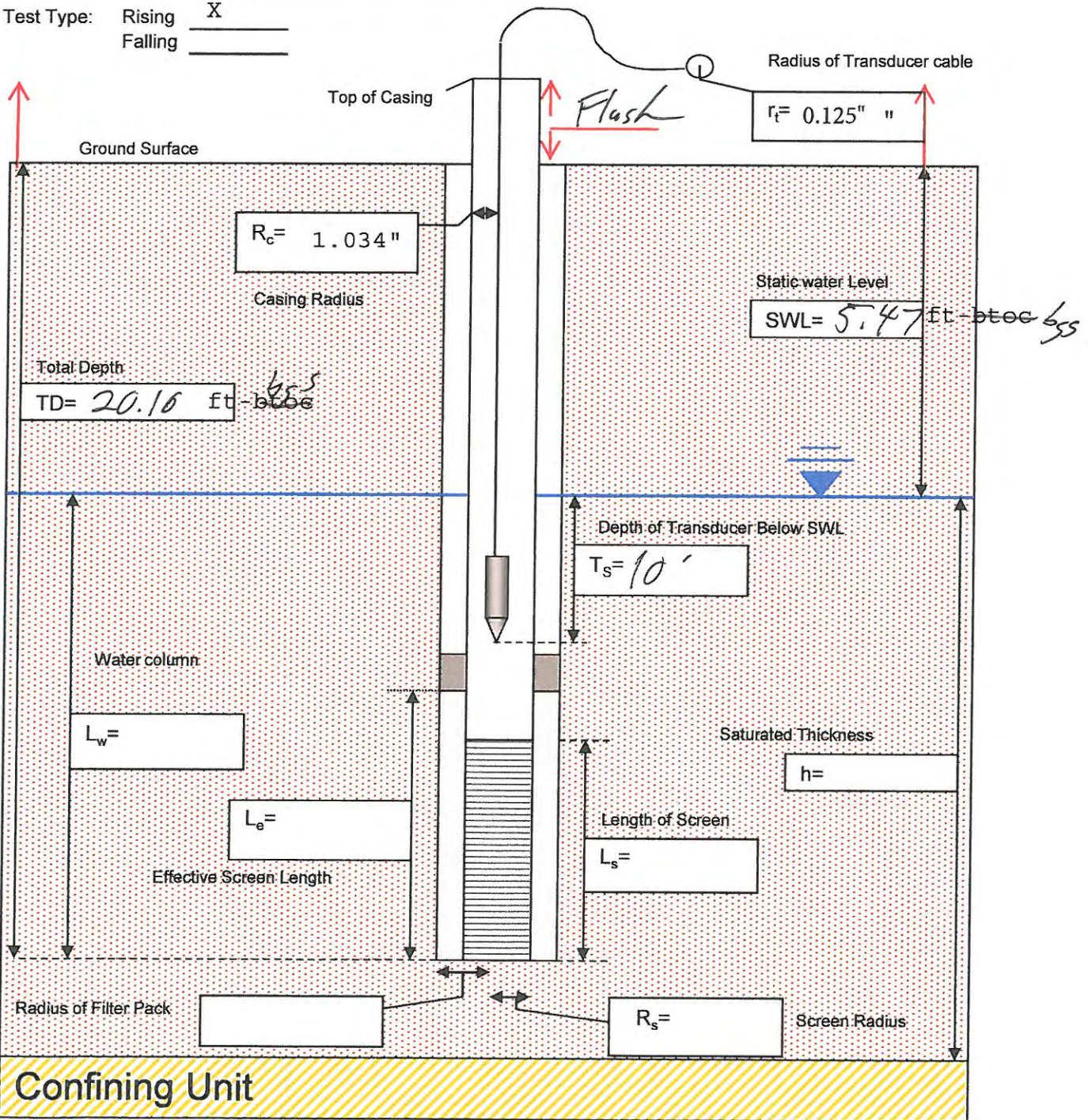
Site Name: Ashland Savannah

Project No: OH007000.GA06.00300 Page: 1 of 2

Well No: MW-F15 Prepared By: Robby Shealy Date: 8/29/14 Time: 1400

Completed By: Robby Shealy

Test Type: Rising X  
Falling     





## Slug Test Log

Page: 2 of 2

3' barker fall @ 1,000 ft

Input Pressure: \_\_\_\_\_ Pressure Transducer SN: \_\_\_\_\_

	H <sub>0</sub> :	Test Stat	Test End
--	------------------	-----------	----------

$H_0$	Initial change in head at instant the slug test is started
$r_t$	Radius of transducer cable
$T_s$	Depth of transducer below static water level

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

$L_e$	Effective screen length, including the sand pack
$L_s$	True screen length
$L_w$	Length of water column in Well (TD-SWL)
$R_s$	Screen radius
$R_b$	Radius of filter Pack or borehole
$R_c$	Casing radius
$r_t$	Radius of the transducer cable
$T_s$	Depth the transducer is submerged below the SWL
SWL	Static water level
TD	Total depth of well/screen from reference point
$h$	Saturated thickness of aquifer
$H_0$	Initial head change at instant the slug test is started.
Aquifer Type	Confined or unconfined



# APPENDIX D

Groundwater Model – 2018





## Appendix D

### Soil Leaching and Groundwater Advective Transport Calculations

Site: Hercules  
 Location: Savannah, GA  
 Chemical(s): See below

Calculated By: Chris Shepherd  
 Checked By: Mike Kladas  
 Date: 9/4/2018

Parameters:	1,1-Biphenyl	Aroclor 1254	Total PCBs	Units	Source
<b>1) Soil-Water Partitioning and Leachate Concentrations</b> $K_d = K_{oc} \cdot f_{oc} \quad P_w = K_d + \frac{\theta_w + (\theta_a \cdot H')}{\rho_b} \quad C_l = \frac{C_{tmax}}{P_w} \quad (\text{USEPA 1996})^*$					
soil organic carbon/water partition coefficient $K_{oc}$	5.1E+03	1.3E+05	7.8E+04	L/kg	a
fraction of organic carbon $f_{oc}$	0.002	0.002	0.002	g/g	b
<b>organic soil-water partition coefficient <math>K_d</math></b>	<b>10.3</b>	<b>261.0</b>	<b>156.2</b>	<b>L/kg</b>	
water-filled soil porosity $\theta_w$	0.3	0.3	0.3	dimensionless	b
air-filled soil porosity $\theta_a$	0.13	0.13	0.13	dimensionless	b
dry soil bulk density $\rho_b$	1.50	1.50	1.50	kg/L	b
soil porosity (total) $n$	0.43	0.43	0.43	dimensionless	b
Henry's Law constant $H'$	0.013	0.012	0.017	dimensionless	a
<b>Soil-Water Partition <math>P_w</math></b>	<b>10.5</b>	<b>261.2</b>	<b>156.4</b>	<b>L/kg</b>	
Maximum site soil concentration $C_t$	4400	14	6.5	mg/kg	k
Maximum site leachate concentration $C_l$	<b>420.7</b>	<b>3.0</b>	<b>1.8</b>	<b>mg/L</b>	
<b>2) Dilution Attenuation Factor and Mixed Groundwater Concentration</b> $DAF = 1 + \frac{K \cdot i \cdot d}{I \cdot L} \quad C_{gw} = \frac{C_l}{DAF} \quad (\text{USEPA 1996})$					
USEPA/GA EPD Default DAF (<1/2 acre source) $DAF$	20	20	20	dimensionless	b
Mixed, initial groundwater concentration $C_{gw}$	<b>21.03</b>	<b>0.15</b>	<b>0.09</b>	<b>mg/L</b>	
<b>3) Average Seepage Velocity:</b> $V_s = \frac{K \cdot i}{\theta_e} \quad (\text{Fetter 1993})$					
Aquifer hydraulic conductivity $K$	1.5	1.5	1.5	ft/day	c
Groundwater gradient $i$	0.008	0.008	0.008	ft/ft	d
Effective porosity $\theta_e$	0.1	0.1	0.1	dimensionless	e
<b>Seepage velocity <math>V_s</math></b>	<b>0.12</b>	<b>0.12</b>	<b>0.12</b>	<b>ft/day</b>	
<b>4) Retardation Factor and Chemical Transport Rate</b> $r_f = 1 + K_d \frac{(1-n)\rho_s}{\theta_w} \quad V_c = \frac{V_s}{r_f} \quad (\text{Bouwer 1991})$					
soil-water partition coefficient $K_d$	1.0E+01	2.6E+02	1.6E+02	L/kg	
water-filled soil porosity $\theta_w$	0.43	0.43	0.43	dimensionless	b
soil particle density $\rho_s$	2.65	2.65	2.65	kg/L	b
soil porosity (total) $n$	0.43	0.43	0.43	dimensionless	b
<b>Retardation factor <math>r_f</math></b>	<b>3.7E+01</b>	<b>9.2E+02</b>	<b>5.5E+02</b>	<b>dimensionless</b>	
Seepage velocity $V_s$	0.12	0.12	0.12	ft/day	see above
Chemical velocity (retarded) $V_c$	3.2E-03	1.3E-04	2.2E-04	ft/day	
<b>Chemical velocity (retarded) <math>V_c</math></b>	<b>1.18</b>	<b>0.048</b>	<b>0.08</b>	<b>ft/year</b>	



## Appendix D

### Soil Leaching and Groundwater Advective Transport Calculations

Site: Hercules  
 Location: Savannah, GA  
 Chemical(s): See below

Calculated By: Chris Shepherd  
 Checked By: Mike Kladias  
 Date: 9/4/2018

Parameters:	1,1-Biphenyl	Aroclor 1254	Total PCBs	Units	Source
$k = \frac{\ln(2)}{\lambda} \quad t = \frac{\ln\left(\frac{C}{C_0}\right)}{k}$					
5) Degradation Rate and Time (1st Order Decay)					(Fetter 1993)*
Chemical half-life $\lambda$	28	2610	3103	days	f,g,h
Target groundwater concentration $C$	1.0E-02	5.0E-04	6.4E-05	mg/L	i
Initial groundwater concentration $C_{0gw}$	2.1E+01	2.7E-03	2.1E-03	mg/L	see above
Chemical degradation constant $k$	2.5E-02	2.7E-04	2.2E-04	days <sup>-1</sup>	
time to reach $C$ $t$	309	6,322	15,578	days	
time to reach $C$ $t$	1	17	43	years	
$d_c = v_c \cdot t$					
6) Maximum Chemical Transport Distance and Time					(Fetter 1993)*
Chemical velocity $v_c$	3.2E-03	1.3E-04	2.2E-04	ft/day	see above
time to reach $C$ $t$	309	6,322	15,578	days	see above
$C_0$ transport distance downgradient $d_c$	1.0	0.8	3.4	ft	

#### Notes:

Calculations conservatively assumes an infinite source, no dispersion, and no diffusion

  = input value (site- or chemical-specific)  
  = USEPA default value  
  = calculated cell

a = USEPA 2017

b = USEPA 1996 default value (conservative for foc)

c = Site maximum shallow groundwater hydraulic conductivity (Arcadis 2015)

d = Site average shallow groundwater gradient, rounded

e = Based on silts and sands with fines (GAEPD 2016; USEPA 1989)

f = 1,1-Biphenyl largest reported numerical half-life from Howard 1991

g = Aroclor 1254 largest reported numerical half-life from USEPA 1998

h = PCBs largest reported numerical half-life from ASTDR 2000

i = Lowest of the GA EPD in-stream surface water criterion (average or high flow) or Type 1/2 RRS, as applicable

k = Maximum observed site soil concentration (Arcadis 2016)

\* = Equation rearranged to solve for variable (e.g., time [t])

#### Acronyms

ft = feet

ft/ft = feet per foot

ft/day = feet per day

ft/yr = feet per year

g = grams

GA EPD = Georgia Environmental Protection Division

kg = kilogram

kg/L = kilogram per liter

L = liter

mg/kg = milligram per kilogram

mg/L = milligram per liter

PCB = polychlorinated biphenyl

RRS = risk reduction standard

USEPA = United States Environmental Protection Agency

#### References:

Arcadis. 2015. Voluntary Investigation and Remediation Plan Progress Report #4. March.

Arcadis. 2016. Voluntary Investigation and Remediation Plan, Semiannual Progress Report #7, Hercules Savannah Facility, HSI Site No. 10696, Hercules LLC., 3000 Louisville Road, Savannah, Georgia. September 30.

ASTDR 2000. U.S. Department of Health Services Agency for Toxic Substances and Disease Registry (ASTDR). Toxicological Profile for Polychlorinated Biphenyls (PCBs). November.

Bouwer, H.. 1991. Simple Derivation of the Retardation Equation and Application to Preferential Flow and Macrodispersion. Vol. 29, No. 1 Ground Water. January-February.

Fetter, C.W. 1993. Contaminant Hydrogeology. Macmillan Publishing, New York.

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USEPA 1996. Soil Screening Guidance: Technical Background Document. July.

USEPA 1998. Chemical Fate Half-Lives for Toxics Release Inventory (TRI) Chemicals. July



# APPENDIX E

Field Forms and Soil Boring/Well Construction Logs – 2017 through 2018





SOIL BORING LOG						Boring No. DS-9	
						Sheet 1 of	
Project Name: AGH AND			Date Started: 10/24/17		Logger: M. STEEL		
Project Number: 04010000			Date Completed: 10/24/17		Editor:		
Project Location: SAVANNAH, GA			Weather Conditions: 104°F, 75°F				
Depth (feet)	Blow Counts	Sample ID & Time	Recovery (in.)	PID (ppm)	USCS Class.	Description	Construction Details
DS-9-1	0-4	1530				0-0.2' BG: GRASS / DEBRIS MATERIAL 0.2-2' BG: SILT W/ SOME F.M. SAND, LITTLE CLAY, DARK BROWN, MOIST SOFT * REFUSAL @ 2' BG	
DS-9-2	0-4	1540				0-0.2' : GRASS 0.2-2' : SILT W/ SOME F.M. SAND, LITTLE CLAY 2-4' : VF SAND W/ SOME SILT, TAN TO BROWN, MOIST SOFT	
DS-9-3	0-4	1550				0-0.2' : GRASS & DEBRIS MATERIAL 0.2-2' : SILT & CLAY W/ FINE SAND, RED/BROWN 2'-4' : VF SAND & SILT W/ SOME CLAY, LIGHT BROWN & TAN	
DS-9-4	0-4	1600				0-0.2' : GRASS 0.2-2' : SILT W/ SOME FINE SAND, TRACE CLAY, BROWN 2'-4' : SAA W/ LVS CLAY, BROWN W/ ORANGE	



SOIL BORING LOG						Boring No.: EX-21	
						Sheet: 1 of	
Project Name: ASH AND			Date Started: 10/25/17		Logger: M. LEE		
Project Number: 04010000			Date Completed: 10/25/17		Editor:		
Project Location: SAVANNAH, GA			Weather Conditions: CLEAR, 68°F				
Depth (feet)	Blow Counts	Sample ID & Time	Recovery (in.)	PID (ppm)	USCS Class.	Description	Construction Details
0-2		1215				SILT W/ SOME V.F.F SAND, LITTLE CLAY, BROWN, MOIST, SOFT	
0-2		1225				0-0.2' SGS: GRASS / ORGANIC MATERIAL 0.2-2' SGS: SILT W/ LITTLE CLAY AND LITTLE V.F.F SAND, BROWN, LOW PLASTICITY, MOIST, SOFT	
0-2		1600				0-0.2' SGS: GRASS / ORGANIC MATERIAL 0.2-2' SGS: F.C SAND, LITTLE SILT, TRACE CLAY, L. BROWN, MOIST,	
0-2		1610				0-0.2' SGS: GRASS / ORGANIC MATERIAL 0.2-2' SGS: SILT W/ SOME CLAY AND SOME F.V.I SAND, BROWN, MED. PLASTICITY, MOIST, SOFT	
0-2		1620				SOME AS EX-22-1	

Sheet : 1 of

Project Name:	ASHLAND
Project Number:	ON010000
Project Location:	SAVANNAH GA

Date Started:	10/25/17
Date Completed:	10/25/17

Logger: M. LEE

Editor:

Weather Conditions: CLEAR, 68°F

EX-21-1

EX-21-2

EX-22-1

Ex-22-2

EX-22-3

EX-22



SOIL BORING LOG						Boring No.: <b>EX-26</b>	
						Sheet: <b>1</b> of <b>1</b>	
Project Name: <b>Ashland</b>			Date Started: <b>10/26/17</b>		Logger: <b>B. Maynard</b>		
Project Number: <b>07010060</b>			Date Completed: <b>10/26/17</b>		Editor:		
Project Location: <b>Savannah, GA</b>			Weather Conditions: <b>Clear 75°</b>				
Depth (feet)	Blow Counts	Sample ID & Time	Recovery (in.)	PID (ppm)	USCS Class.	Description	Construction Details
0-2'		1000	DUP-2			0-0.2' organic material 0.2-0.5' silt w/ VF sand, dark brown 0.5-2' medium grained sand, moist, tan	
0-2'		1010				0-0.2' organic material 0.2-2' silt w/ VF sand, mostly low plasticity, dark brown	
0-2'		1020				0-0.2' organic material 0.2-1' clay w/ little sand, med plasticity, dark brown 1-2' med sand, moist, tan	

Sheet : 1 of

Date Started: 10/26/17

Logger: *B. Mayers*

Date Completed: 10/26/17

Editor:

Project Location: Savannah, GA

Weather Conditions: Clear 70°

Depth  
(feet)

Blow
Counts

Sample ID & Time	Temperature [°C]	Humidity [%]	Pressure [kPa]	Light Intensity [lux]	Vibration Level [mm/s²]	Noise Level [dB]	Air Quality Index [AQI]	Soil Moisture [%]	Plant Growth Rate [cm/day]	Water Usage [L/day]	Fertilizer Application [g/L]	Pest Detection [Yes/No]	Disease Incidence [0-100%]	Harvest Yield [kg/m²]	Overall Health Score [1-5]
S001-T001	25.0	65.0	101.3	120.0	0.5	45.0	85.0	70.0	0.5	1.0	0.5	No	0	1.5	4.5
S001-T002	25.5	66.0	101.5	125.0	0.6	46.0	86.0	71.0	0.6	1.1	0.6	No	0	1.6	4.6
S001-T003	26.0	67.0	101.7	130.0	0.7	47.0	87.0	72.0	0.7	1.2	0.7	No	0	1.7	4.7
S001-T004	26.5	68.0	101.9	135.0	0.8	48.0	88.0	73.0	0.8	1.3	0.8	No	0	1.8	4.8
S001-T005	27.0	69.0	102.1	140.0	0.9	49.0	89.0	74.0	0.9	1.4	0.9	No	0	1.9	4.9
S001-T006	27.5	70.0	102.3	145.0	1.0	50.0	90.0	75.0	1.0	1.5	1.0	No	0	2.0	5.0
S001-T007	28.0	71.0	102.5	150.0	1.1	51.0	91.0	76.0	1.1	1.6	1.1	No	0	2.1	5.1
S001-T008	28.5	72.0	102.7	155.0	1.2	52.0	92.0	77.0	1.2	1.7	1.2	No	0	2.2	5.2
S001-T009	29.0	73.0	102.9	160.0	1.3	53.0	93.0	78.0	1.3	1.8	1.3	No	0	2.3	5.3
S001-T010	29.5	74.0	103.1	165.0	1.4	54.0	94.0	79.0	1.4	1.9	1.4	No	0	2.4	5.4
S001-T011	30.0	75.0	103.3	170.0	1.5	55.0	95.0	80.0	1.5	2.0	1.5	No	0	2.5	5.5
S001-T012	30.5	76.0	103.5	175.0	1.6	56.0	96.0	81.0	1.6	2.1	1.6	No	0	2.6	5.6
S001-T013	31.0	77.0	103.7	180.0	1.7	57.0	97.0	82.0	1.7	2.2	1.7	No	0	2.7	5.7
S001-T014	31.5	78.0	103.9	185.0	1.8	58.0	98.0	83.0	1.8	2.3	1.8	No	0	2.8	5.8
S001-T015	32.0	79.0	104.1	190.0	1.9	59.0	99.0	84.0	1.9	2.4	1.9	No	0	2.9	5.9
S001-T016	32.5	80.0	104.3	195.0	2.0	60.0	100.0	85.0	2.0	2.5	2.0	No	0	3.0	6.0
S001-T017	33.0	81.0	104.5	200.0	2.1	61.0	101.0	86.0	2.1	2.6	2.1	No	0	3.1	6.1
S001-T018	33.5	82.0	104.7	205.0	2.2	62.0	102.0	87.0	2.2	2.7	2.2	No	0	3.2	6.2
S001-T019	34.0	83.0	104.9	210.0	2.3	63.0	103.0	88.0	2.3	2.8	2.3	No	0	3.3	6.3
S001-T020	34.5	84.0	105.1	215.0	2.4	64.0	104.0	89.0	2.4	2.9	2.4	No	0	3.4	6.4
S001-T021	35.0	85.0	105.3	220.0	2.5	65.0	105.0	90.0	2.5	3.0	2.5	No	0	3.5	6.5
S001-T022	35.5	86.0	105.5	225.0	2.6	66.0	106.0	91.0	2.6	3.1	2.6	No	0	3.6	6.6
S001-T023	36.0	87.0	105.7	230.0	2.7	67.0	107.0	92.0	2.7	3.2	2.7	No	0	3.7	6.7
S001-T024	36.5	88.0	105.9	235.0	2.8	68.0	108.0	93.0	2.8	3.3	2.8	No	0	3.8	6.8
S001-T025	37.0	89.0	106.1	240.0	2.9	69.0	109.0	94.0	2.9	3.4	2.9	No	0	3.9	6.9
S001-T026	37.5	90.0	106.3	245.0	3.0	70.0	110.0	95.0	3.0	3.5	3.0	No	0	4.0	7.0
S001-T027	38.0	91.0	106.5	250.0	3.1	71.0	111.0	96.0	3.1	3.6	3.1	No	0	4.1	7.1
S001-T028	38.5	92.0	10												

Recovery	
(in.)	

PID  
.....  
(ppm)

USCS  
.....  
Class.

--	--

### Description

Construction Details
----------------------

EX-26-1

1000

DUP-2

0-0.2' organic material  
0.2-0.5' silt w/ v. fine sand, dark brown  
0.5-2' medium grained sand, resist.  
tan

Ex-26-2

$$(y^2)$$

1010

0-0.2' organic material  
0.2-2' Silt w/ VF Sand, mo. clay,  
low plasticity, drk brown

Ex-26-3

21

1020

0-0.2'	Organic Material
0.2-1'	Clay w little sand, med plasticity, dark brown
1-2'	Med sand, med st, fair



SOIL BORING LOG						Boring No. SB-122	
Project Name: Ashland			Date Started: 10/26/17		Logger: B. Mayes		
Project Number: 04010000			Date Completed: 10/26/17		Editor:		
Project Location: Savannah, GA			Weather Conditions:		Clear 70°C		
Depth (feet)	Blow Counts	Sample ID & Time	Recovery (in.)	PID (ppm)	USCS Class.	Description	Construction Details
0-1		1230				0-0.2' Grass 0.2-1' Silt w/ F sand, low plasticity, moist, dark brown	
0-1		1240				0-0.2' Grass 0.2-1' Silt w/ F sand, low plasticity, moist, dark brown	
0-1		1250				0-0.2' Grass 0.2-1' Silt w/ F sand, low plasticity, moist, dark brown	
0-1		1300				0-0.2' Grass 0.2-1' Silt w/ F sand, low plasticity, moist, dark brown	

SB-122-1

SB-122-2

SB-122-3

SB-122-4



SOIL BORING LOG							Boring No.	SB-126
							Sheet	1 of
Project Name:			Date Started:		Logger:			
Project Number:			Date Completed:		Editor:			
Project Location:			Weather Conditions:					
Depth (feet)	Blow Counts	Sample ID & Time	Recovery (in.)	PID (ppm)	USCS Class.	Description	Construction Details	
SB-126-1	0-1	1050				0-0.4' BGS: GRAVEL 0.4-1' BGS: SILT W/ LITTLE CLAY D. BROWN, LOW PLASTICITY, MOIST, SOFT		
SB-126-2	0-1	1100				0-0.2' BGS: GRAVEL 0.2-1' BGS: SILT W/ SOME CLAY, D. BROWN MED. PLASTICITY, MOIST, SOFT		
SB-126-3	0-1	1110				0-0.2' BGS: GRAVEL 0.2-1' BGS: SILT W/ SOME CLAY, LITTLE W/ SAND, DARK AND LIGHT BROWN, MED. PLASTICITY, MOIST, SOFT		



SOIL BORING LOG						Boring No.: SB-128	
						Sheet: 1 of	
Project Name: ASHLAND			Date Started: 10/24/17		Logger: M. CREEL		
Project Number: 04010000			Date Completed: 10/24/17		Editor:		
Project Location: SAVANNAH, GA			Weather Conditions: CLEAR, 65°F				
Depth (feet)	Blow Counts	Sample ID & Time	Recovery (in.)	PID (ppm)	USCS Class.	Description	Construction Details
0-1		0930				SILT W/ LITTLE CLAY TRACE VF SAND, D. BROWN, LOW PLASTICITY, MOIST, SOFT	
0-1		0940	* DUFF-3 (10/24/17)			SAME AS ABOVE (SAA)	
0-1		0950				SILT W/ SOME CLAY, D. BROWN, MED. PLASTICITY, MOIST, SOFT	

Sheet : 1 of

Project Name: ASEKANT  
Project Number: 00010000  
Project Location: SEVENHILL, GA

Date Started:	10/24/17
Date Completed:	10/24/17

Logger: M. GREEN

Editor: \_\_\_\_\_  
Conditions: CLEAR, 65°F

Weather Conditions: CLEAR, 65°F

SB-128-1

SB-128-2

SB-128-3



[illegible]

SB-137-1



## SOIL BORING LOG

Boring No. **SB-142**Sheet **1** ofProject Name: **Ashtan?**Date Started: **10/26/17**Logger: **B. Meyer**Project Number: **0H016000**Date Completed: **10/26/17**

Editor:

Project Location: **Savannah, GA**Weather Conditions: **clear, 58°F**

Depth (feet)	Blow Counts	Sample ID & Time	Recovery (in.)	PID (ppm)	USCS Class.	Description	Construction Details
0-1		043P				0-0.2' Organic Material 0.2-1' silt w/ little very fine gravel Sand, dark brown, low plasticity, moist, soft	
0-1		044P				0-0.2' Organic Material 0.2-1' silt w/ little very fine gravel Sand, dark brown, low plasticity, moist, soft	
0-1		045P				0-0.2' Organic Material 0.2-0.5' med. grained sand w/ little silt, light brown, moist 0.5-1' silt w/ vf. grained sand, dark brown	

SB-142-1

SB-142-2

SB-142-3



# SOIL BORING LOG

Boring No.: **SB-159**

Sheet: 1 of 1

Project Name: **ASCLAND**

Date Started: **10/24/17**

Logger: **M. REEL**

Project Number: **DN010006**

Date Completed: **10/24/17**

Editor:

Project Location: **SAVANNAH, GA**

Weather Conditions: **CLEAR 65°F**

Depth (feet)	Blow Counts	Sample ID & Time	Recovery (in.)	PID (ppm)	USCS Class.	Description	Construction Details
0-2		1000				SILT W/ LITTLE CLAY, TRACE VF SAND D. BROWN, LOW PLASTICITY, MOIST SOFT	
0-2		1010				0-1' BS: GRAVEL 1-2' BS: SILT W/ LITTLE CLAY, TRACE VF SAND, D. BROWN, LOW PLASTICITY, MOIST SOFT	
0-2		1020				0-1' BS: GRAVEL 1-2' : SILT W/ LITTLE CLAY, TRACE VF SAND, D. BROWN, MOIST/WET, SOFT	

SB-159-1

SB-159-2

SB-159-3

0-0.4': GRAVEL



SOIL BORING LOG						Boring No. <u>SB-165</u>	
Project Name: <u>ASUEAND</u>						Date Started: <u>10/25/17</u>	
Project Number: <u>00000000</u>						Date Completed: <u>10/25/17</u>	
Project Location: <u>SALAMANCA, GA</u>						Weather Conditions: <u>CLEAR, CLOUD</u>	
Depth (feet)	Blow Counts	Sample ID & Time	Recovery (in.)	PID (ppm)	USCS Class.	Description	Construction Details
0-2		1510				0-1.5' TSS: SILT w/ SOME FINE SAND, D. GREY, MOIST, SOFT	
0-2		1520				1.5-2' SILT: CLAY w/ LITTLE SILT, TRACE F. SAND, BROWN MOIST, SOFT	
						SAME AS ABOVE	

Sheet : 1 of

Date Started: 10/25/17

Logger: M. K. FEL

Date Completed: 10/25/12

Editor:

Weather Conditions: CLEAR, COOL

SB-165-1

SB-165-Z

1510

Q. 2

1520

0-1.5' TGS; Silt w/ some F.M. sand

D. GREY, moist, soft

1.5-2" S.S.: GRAY W/ LITTLE S.S.T, TRACE  
F-SAND, BROWN MUDST, COF

SAME AS ABOVE



SOIL BORING LOG						Boring No.: SB-168	
Project Name: ASHLAND						Date Started: 10/25/17	
Project Number: 0N010000						Date Completed: 10/29/17	
Project Location: SAVANNAH, GA						Weather Conditions: CLEAR, 63°F	
Depth (feet)	Blow Counts	Sample ID & Time	Recovery (in.)	PID (ppm)	USCS Class.	Description	Construction Details
0-2		1040				0-0.2' BGS: GRASS / ORGANIC MATERIAL 0.2-2' BGS: SILT AND SOME CLAY, TRACE VF SAND, D. BROWN, LOW PLASTICITY, MOIST, SOFT	
0-2		1050				0-0.2' BGS: GRASS / ORGANIC MATERIAL 0.2-2' BGS: CLAY W/ SOME SILT, TRACE VF SAND, D. BROWN, MOD PLASTICITY, MOIST, SOFT	
0-2		1100				0-0.2' BGS: GRASS / ORGANIC MATERIAL 0.2-2' BGS: CLAY W/ SILT AND SOME VF SAND, MOD/LOW PLASTICITY, BROWN/GRAY, MOIST, SOFT	

Sheet : 1 of

Date Started: 10/25/13

Logger: M. CREEL

Date Completed: 10/25/17

Editor:

Weather Conditions: CLEAR 63°F

SB-168-1

SB-168-2

SB-168-3



SOIL BORING LOG						Boring No.: <u>SB-189</u>	
Project Name: <u>ASHLAND</u>			Date Started: <u>10/25/12</u>		Logger: <u>M. C. REEL</u>		
Project Number: <u>040000</u>			Date Completed: <u>10/25/12</u>		Editor:		
Project Location: <u>SAVENHILL, GA</u>			Weather Conditions: <u>CFWZ, 63°F</u>				
Depth (feet)	Blow Counts	Sample ID & Time	Recovery (in.)	PID (ppm)	USCS Class.	Description	Construction Details
0-2		1110				0.0-2' BSS: GRASS / ORGANIC MATERIAL 0.2-2' BSS: SILT W/ LITTLE COPI AND LITTLE VF SAND, L. BROWN, MOIST, SOFT	
0-2		1120				SAME AS ABOVE (SAA) GROUNDWATER ENCOUNTERED @ 21.5' BGL	
0-2		1130				SAA	

Sheet : 1 of

Date Started: 10/25/13

Logger: M. CREE

Date Completed: 10/25/12

Editor:

Weather Conditions: Clear 63°F

503-189-1

SB-189-2

SB-189-3



SOIL BORING LOG						Boring No. <b>SB-178</b>	
						Sheet <b>1</b> of <b>1</b>	
Project Name: <b>ASHLAND</b>			Date Started: <b>10/25/17</b>		Logger: <b>M. STEEL</b>		
Project Number: <b>OND0000</b>			Date Completed: <b>10/25/17</b>		Editor:		
Project Location: <b>SAVANNAH, GA</b>			Weather Conditions: <b>CLEAR, 70°F</b>				
Depth (feet)	Blow Counts	Sample ID & Time	Recovery (in.)	PID (ppm)	USCS Class.	Description	Construction Details
<b>0-1'</b>		<b>1446</b>				<b>0-1' BGS: SILT W/ LITTLE CLAY, TRACE V.F. SAND, D. GREY, MOIST, SOFT</b>	
<b>1-2'</b>						<b>1-2' BGS: CLAY W/ LITTLE SILT, TRACE V.F. SAND, BROWN/GREY, MOIST, SOFT</b>	
<b>0-1'</b>		<b>1450</b>				<b>0-1' BGS: SILT W/ LITTLE CLAY, TRACE V.F. SAND, D. GREY, MOIST, SOFT</b>	
<b>1-2'</b>						<b>1-2' BGS: M.C. SAND, LITTLE SILT, L.B. BROWN, MOIST, SOFT</b>	

Sheet : 1 of

Date Started: 10/25/17

Logger: M. LEE

Date Completed: 10/25/17

Editor:

Weather Conditions: CLEAR 78°F

Depth  
(feet)

Blow
Counts

Sample ID	Time
-----------	------

Recovery	
(in )	

PID
(ppm)

USCS
Class

### Description

Construction Details	
-------------------------	--

SB-198-1

Handwritten '0-1' on a grid.

1446

0-1' FSS: SILT W/ LITTLE CLAY, TRACE  
VF.F SAND D. GREY, MOIST SOFT  
1-2' 2W: CLAY W/ LITTLE SILT, TRACE VF SAND,  
BROWN/ GREY MOIST SOFT

5B-198-2

1450

0-1' BGS: SILT w/ LITTLE SAND, TRACE VF-F  
SAND, D. GREY MIST, SOFT  
1-2' BGS: M.C SAND, LITTLE SILT, L. BROWN  
MIST, SOFT



SOIL BORING LOG						Boring No.: SB-207	
						Sheet: 1 of	
Project Name: ASHLAND			Date Started: 10/24/17		Logger: M. GRIEL		
Project Number: 04010000			Date Completed: 10/24/17		Editor:		
Project Location: SAVANNAH, GA			Weather Conditions:		CLEAR 70°F		
Depth (feet)	Blow Counts	Sample ID & Time	Recovery (in.)	PID (ppm)	USCS Class.	Description	Construction Details
0-2		1425	DUP-1			0-0.2' BGS: GRASS / ORGANIC MATERIAL 0.2-2' BGS: SILT W/ SOME CLAY, D. BROWN, MED. PLASTICITY, MOIST, SOFT	
0-2		1435				0-0.2' BGS: GRASS / ORGANIC MATERIAL 0.2-2' BGS: SILT W/ SOME FINE SAND, LITTLE CLAY, LOW PLASTICITY, MOIST, SOFT, D. BROWN / GREY	

SB-208-1

SB-202-2



## SOIL BORING LOG

Boring No. SB-204

Sheet 1 of

Project Name: ASHLAND

Date Started: 10/26/17

Logger: M. CREECH

Project Number: 04010000

Date Completed: 10/26/17

Editor:

Project Location: SAVANNAH, GA

Weather Conditions: CLEAR 75°F

	Depth (feet)	Blow Counts	Sample ID & Time	Recovery (in.)	PID (ppm)	USCS Class.	Description	Construction Details
SB-204-1	0-2		1500	15/10/5D			0-1' 2" S: SILT W/ SOME V.F. SAND, D. BROWN, MOIST, SOFT 1-2' 2" S: V.F. SAND, LITTLE SILT, L. BROWN, MOIST, SOFT SILT W/ SOME F.M. SAND, LITTLE CLAY, D. BROWN, MOIST, SOFT	
SB-204-2	0-2		1510					
SB-204-3	0-2		1520				M-C SAND, LITTLE SILT, LITTLE CLAY, BROWN, MOIST, LOOSE	
SB-207-1	0-2		1530				0-0.5' 2" S: ASPHALT 0.5-2' 2" S: SILT W/ SOME F.M. SAND, LITTLE CLAY, D. BROWN, MOIST, SOFT SILT W/ SOME F.M. SAND, LITTLE CLAY, D. BROWN, MOIST, SOFT	
SB-207-2	0-2		1540					
SB-207-3	0-2		1550				SAME AS ABOVE	



# SOIL BORING LOG

Boring No.:

Sheet: 1 of 2

Project Name: ASHLAND SAVANNAH Date Started: 12/29/17 Logger: M. UTSEL  
Project Number: 0401000:GAL1 Date Completed: 12/29/17 Editor:  
Project Location: SAVANNAH, GA Weather Conditions: CLEAR, WINDY

Depth (feet)	Blow Counts	Sample ID & Time	Recovery (in.)	PID (ppm)	USCS Class.	Description	Construction Details
<u>SB-204-1A</u>	<u>0-2</u>	<u>1210</u>				<u>SILT W/ SOME FINE SAND, LITTLE CLAY, BROWN, MOIST, SOFT</u>	<u>W41 W42</u>
<u>SB-204-1B</u>	<u>0-2</u>	<u>1155</u>				<u>SILT W/ LITTLE CLAY, LITTLE FINE SAND, D. BROWN, MOIST, SOFT</u>	
<u>SB-204-2A</u>	<u>0-2</u>	<u>1220</u> <u>1200</u>					<u>DUP-1</u>
<u>SB-202-1B</u> <u>SB-202-2B</u>	<u>0-2</u>	<u>1045</u>				<u>SILT W/ SOME CLAY, BROWN, MED. PLASTICITY, MOIST</u>	
<u>SB-204-3A</u>	<u>0-2</u>	<u>1200</u>				<u>SAME AS 204-1B</u>	
<u>SB-204-3B</u>	<u>0-2</u>	<u>1215</u>				<u>SILT W/ SOME FINE SAND, LITTLE CLAY, D. BROWN</u>	
<u>SB-132-1A</u>	<u>0-1</u>	<u>1050</u>				<u>SILT W/ CLAY, RED/BROWN, MOIST, WET, SOFT</u>	
<u>SB-132-1B</u>	<u>0-1</u>					<u>NO POTENTIAL LOCATIONS</u>	
<u>SB-202-1A</u>	<u>0-2</u>	<u>1105</u>				<u>CLAY W/ SOME SILT, LITTLE FINE SAND, D. BROWN, MOIST, SOFT</u> <u>REFUSAL @ 1' BGS</u>	<u>REF-1</u>
<u>SB-204-2B</u> <u>SB-202-1B</u>	<u>0-2</u>	<u>1200</u>					

Drilling Co.:  
Driller:  
Drilling Method:  
Drilling Fluid:  
Remarks:

Sampling Method:  
Sampling Interval:  
Water Level Start:  
Water Level Finish:  
Converted to Well: ☐ Yes ☐ No  
Surface Elev.:  
North Coord.:  
East Coord.:







Sampling Method:	
Sampling Interval:	
Water Level Start:	
Water Level Finish:	
Converted to Well:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Surface Elev:	
North Coordinate:	760873.66
East Coordinate:	972077.41



Drilling Co.:	Cascade Drilling	Sampling Method:	
Driller:	Ray Whitt	Sampling Interval:	
Drilling Method:	Sonic Coring	Water Level Start:	
Drilling Fluid:		Water Level Finish:	
Remarks:	Well was developed on 10/27/17	Converted to Well:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Surface Elev:	
		North Coordinate:	760825.42
		East Coordinate:	971826.08







Drilling Co.:	Cascade Drilling	Sampling Method:	
Driller:	Ray Whitt	Sampling Interval:	
Drilling Method:	Sonic Coring	Water Level Start:	
Drilling Fluid:		Water Level Finish:	
Remarks:	Well was developed on 10/27/17	Converted to Well:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Surface Elev:	
		North Coordinate:	761053.26
		East Coordinate:	971090.31





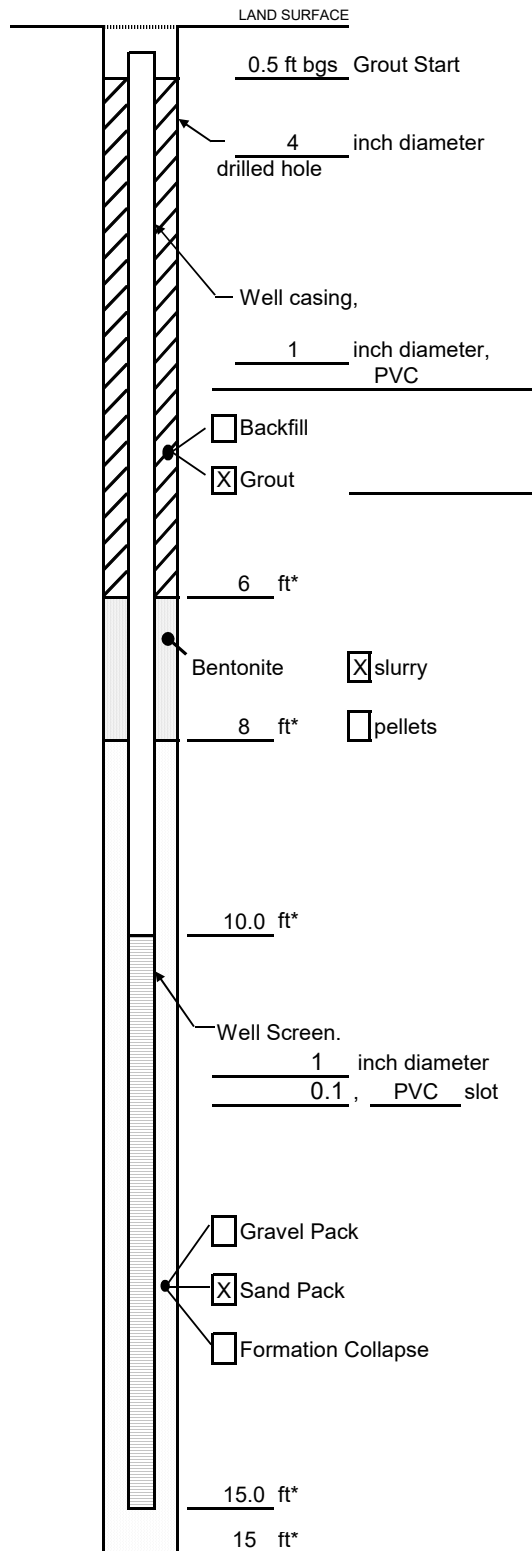






# WELL CONSTRUCTION LOG

(Unconsolidated)



Measuring Point is  
Top of Well Casing  
Unless Otherwise Noted.  
\* Depth Below Land Surface

Project Hercules Savannah Resins Plant Well TMW-18

Town/City Savannah

County Chatham State GA

Permit No. \_\_\_\_\_

Land-Surface (LS) Elevation and Datum:

\_\_\_\_\_ feet ☐ Surveyed

☐ Estimated

Installation Date(s) 10/26/2017

Drilling Method Sonic Coring

Drilling Contractor Cascade Drilling

Drilling Fluid \_\_\_\_\_

Development Technique(s) and Date(s)

10/27/2017

Fluid Loss During Drilling \_\_\_\_\_ gallons

Water Removed During Development \_\_\_\_\_ gallons

Static Depth to Water \_\_\_\_\_ feet below M.P.

Pumping Depth to Water \_\_\_\_\_ feet below M.P.

Pumping Duration \_\_\_\_\_ hours

Yield \_\_\_\_\_ gpm Date \_\_\_\_\_

Specific Capacity \_\_\_\_\_ gpm/ft

Well Purpose Temporary well

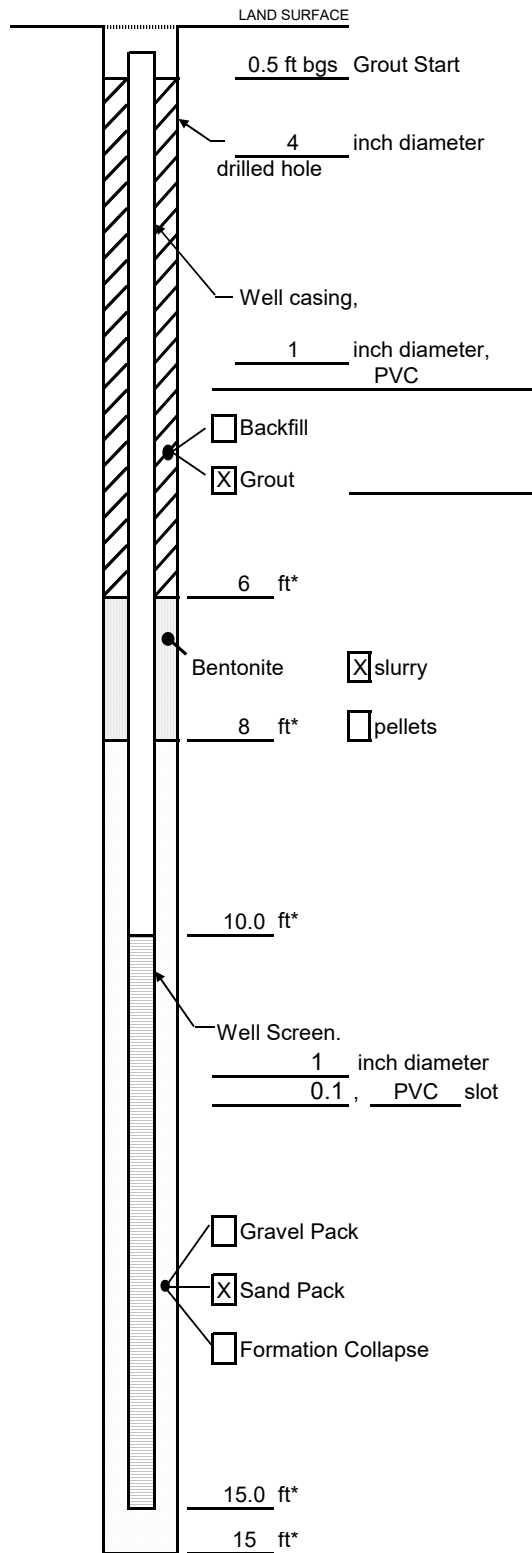
Remarks Flush mount

Prepared by M. Creel



# WELL CONSTRUCTION LOG

(Unconsolidated)



Measuring Point is  
Top of Well Casing  
Unless Otherwise Noted.  
\* Depth Below Land Surface

Project Hercules Savannah Resins Plant Well TMW-19

Town/City Savannah

County Chatham State GA

Permit No. \_\_\_\_\_

Land-Surface (LS) Elevation and Datum:

\_\_\_\_\_ feet ☐ Surveyed

☐ Estimated

Installation Date(s) 10/26/2017

Drilling Method Sonic Coring

Drilling Contractor Cascade Drilling

Drilling Fluid \_\_\_\_\_

Development Technique(s) and Date(s)

10/27/2017

Fluid Loss During Drilling \_\_\_\_\_ gallons

Water Removed During Development \_\_\_\_\_ gallons

Static Depth to Water \_\_\_\_\_ feet below M.P.

Pumping Depth to Water \_\_\_\_\_ feet below M.P.

Pumping Duration \_\_\_\_\_ hours

Yield \_\_\_\_\_ gpm Date \_\_\_\_\_

Specific Capacity \_\_\_\_\_ gpm/ft

Well Purpose Temporary well

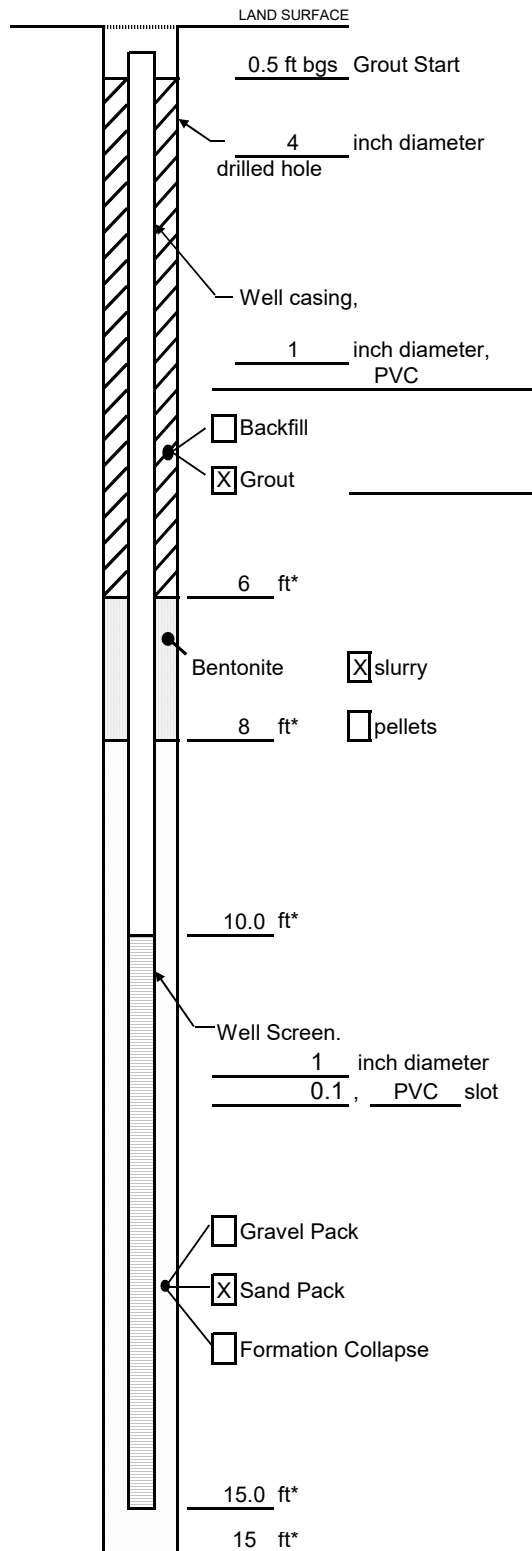
Remarks Flush mount

Prepared by M. Creel



# WELL CONSTRUCTION LOG

(Unconsolidated)



Measuring Point is  
Top of Well Casing  
Unless Otherwise Noted.  
\* Depth Below Land Surface

Project Hercules Savannah Resins Plant Well TMW-20

Town/City Savannah

County Chatham State GA

Permit No. \_\_\_\_\_

Land-Surface (LS) Elevation and Datum:

\_\_\_\_\_ feet ☐ Surveyed

☐ Estimated

Installation Date(s) 10/26/2017

Drilling Method Sonic Coring

Drilling Contractor Cascade Drilling

Drilling Fluid \_\_\_\_\_

Development Technique(s) and Date(s)

10/27/2017

Fluid Loss During Drilling \_\_\_\_\_ gallons

Water Removed During Development \_\_\_\_\_ gallons

Static Depth to Water \_\_\_\_\_ feet below M.P.

Pumping Depth to Water \_\_\_\_\_ feet below M.P.

Pumping Duration \_\_\_\_\_ hours

Yield \_\_\_\_\_ gpm Date \_\_\_\_\_

Specific Capacity \_\_\_\_\_ gpm/ft

Well Purpose Temporary well

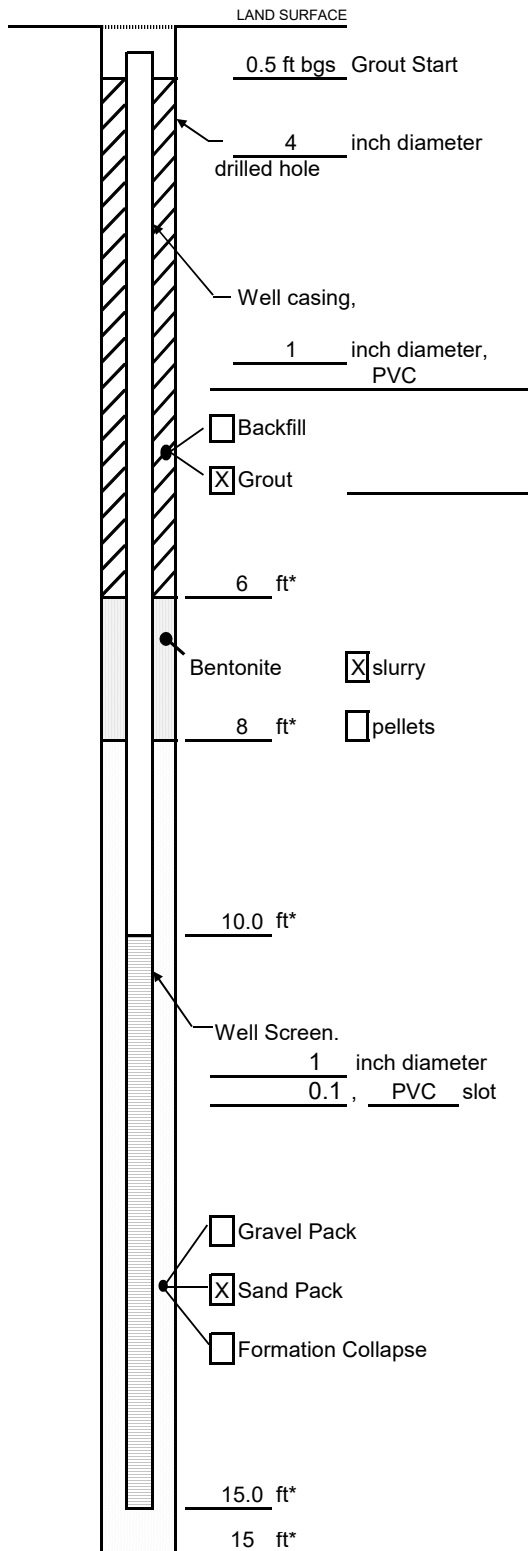
Remarks Flush mount

Prepared by M. Creel



# WELL CONSTRUCTION LOG

(Unconsolidated)



Measuring Point is  
Top of Well Casing  
Unless Otherwise Noted.  
\* Depth Below Land Surface

Project Hercules Savannah Resins Plant Well TMW-21

Town/City Savannah

County Chatham State GA

Permit No. \_\_\_\_\_

Land-Surface (LS) Elevation and Datum:

\_\_\_\_\_ feet ☐ Surveyed

☐ Estimated

Installation Date(s) 10/26/2017

Drilling Method Sonic Coring

Drilling Contractor Cascade Drilling

Drilling Fluid \_\_\_\_\_

Development Technique(s) and Date(s)

10/27/2017

Fluid Loss During Drilling \_\_\_\_\_ gallons

Water Removed During Development \_\_\_\_\_ gallons

Static Depth to Water \_\_\_\_\_ feet below M.P.

Pumping Depth to Water \_\_\_\_\_ feet below M.P.

Pumping Duration \_\_\_\_\_ hours

Yield \_\_\_\_\_ gpm Date \_\_\_\_\_

Specific Capacity \_\_\_\_\_ gpm/ft

Well Purpose Temporary well

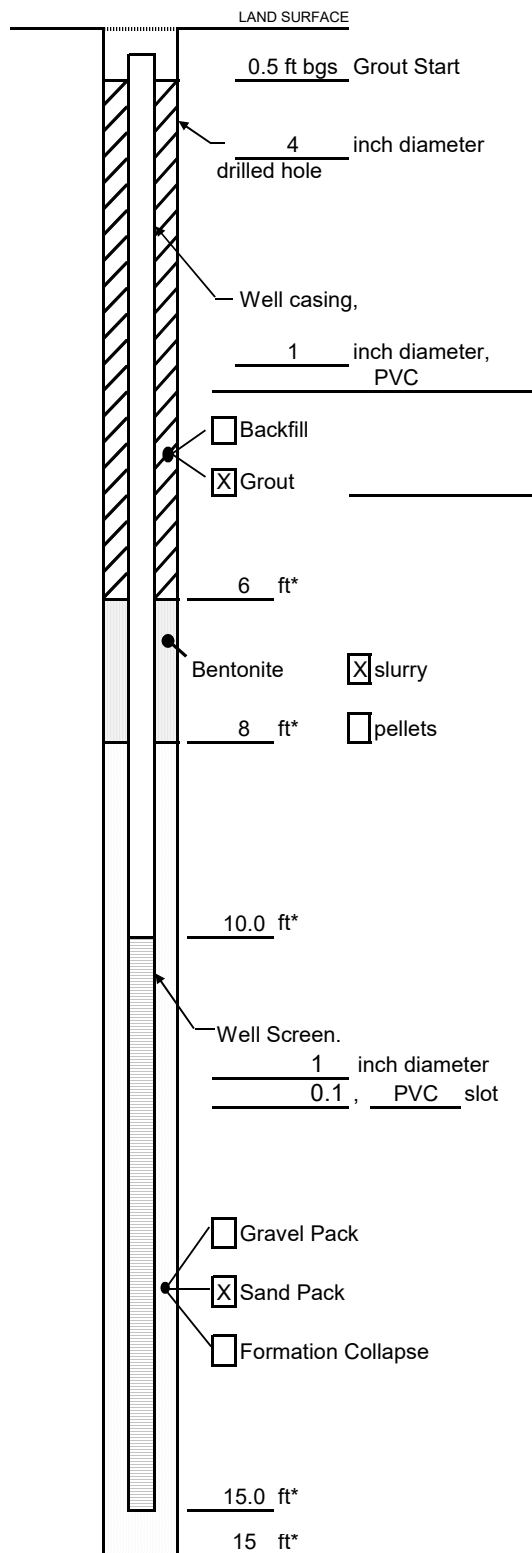
Remarks Flush mount

Prepared by M. Creel



# WELL CONSTRUCTION LOG

(Unconsolidated)



Measuring Point is  
Top of Well Casing  
Unless Otherwise Noted.  
\* Depth Below Land Surface

Project Hercules Savannah Resins Plant Well TMW-22

Town/City Savannah

County Chatham State GA

Permit No. \_\_\_\_\_

Land-Surface (LS) Elevation and Datum:

\_\_\_\_\_ feet ☐ Surveyed

☐ Estimated

Installation Date(s) 10/26/2017

Drilling Method Sonic Coring

Drilling Contractor Cascade Drilling

Drilling Fluid \_\_\_\_\_

Development Technique(s) and Date(s)

10/27/2017

Fluid Loss During Drilling \_\_\_\_\_ gallons

Water Removed During Development \_\_\_\_\_ gallons

Static Depth to Water \_\_\_\_\_ feet below M.P.

Pumping Depth to Water \_\_\_\_\_ feet below M.P.

Pumping Duration \_\_\_\_\_ hours

Yield \_\_\_\_\_ gpm Date \_\_\_\_\_

Specific Capacity \_\_\_\_\_ gpm/ft

Well Purpose Temporary well

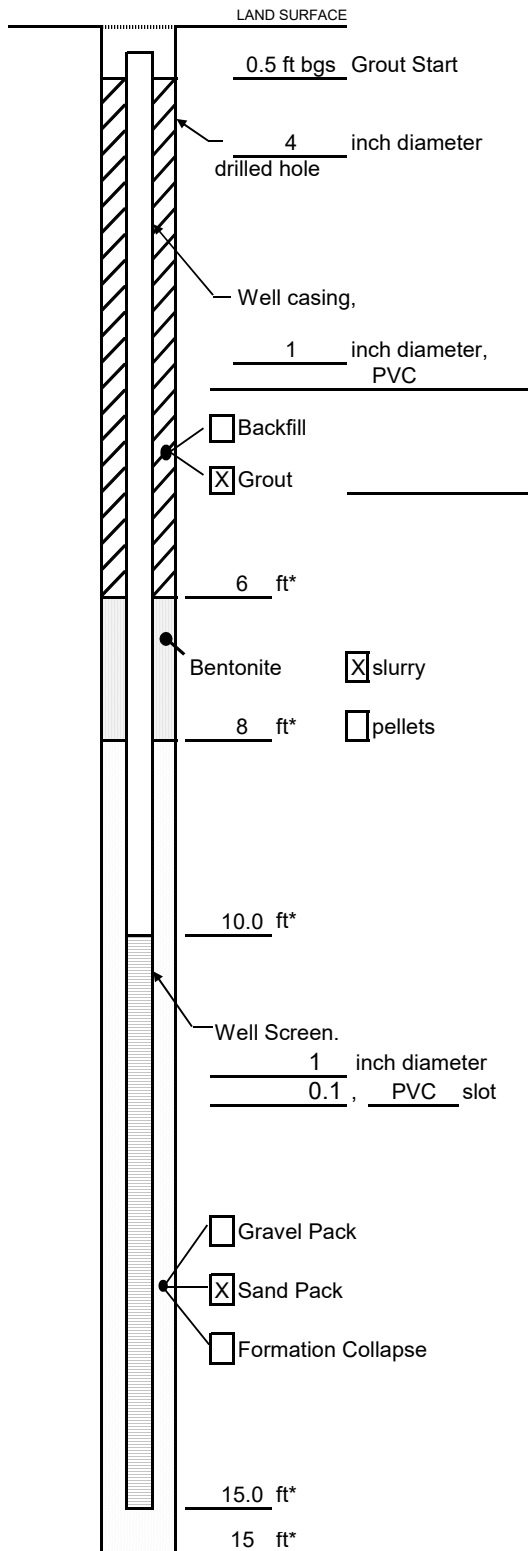
Remarks Flush mount

Prepared by M. Creel



# WELL CONSTRUCTION LOG

(Unconsolidated)



Measuring Point is  
Top of Well Casing  
Unless Otherwise Noted.  
\* Depth Below Land Surface

Project Hercules Savannah Resins Plant Well TMW-23

Town/City Savannah

County Chatham State GA

Permit No. \_\_\_\_\_

Land-Surface (LS) Elevation and Datum:

\_\_\_\_\_ feet ☐ Surveyed

☐ Estimated

Installation Date(s) 10/26/2017

Drilling Method Sonic Coring

Drilling Contractor Cascade Drilling

Drilling Fluid \_\_\_\_\_

Development Technique(s) and Date(s)

10/27/2017

Fluid Loss During Drilling \_\_\_\_\_ gallons

Water Removed During Development \_\_\_\_\_ gallons

Static Depth to Water \_\_\_\_\_ feet below M.P.

Pumping Depth to Water \_\_\_\_\_ feet below M.P.

Pumping Duration \_\_\_\_\_ hours

Yield \_\_\_\_\_ gpm Date \_\_\_\_\_

Specific Capacity \_\_\_\_\_ gpm/ft

Well Purpose Temporary well

Remarks Flush mount

Prepared by M. Creel



GROUNDWATER LEVEL MEASUREMENTS  
Hercules Savannah Facility

Completed by: M. CTEEL

Weather: SCATTERED SHOWERS 40-50°F

Well ID	Screened Interval (ft bgs)	Well Completion	Date	Time	Protective Casing Damaged Yes (Y) / No (N)	Well Locked Yes (Y) / No (N)	Water Level Measurement (ft btoc)	Comments
MW-F1	10-20	Stick-up	12/27/17	1502	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	4.66	
MW-F2	5-10	FLUSH		1525	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	4.90	
MW-F3R	10-20	Stick-up		1014	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	6.82	
MW-F5	10-20	Stick-up		1140	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	5.69	
MW-F6	10-20	Flush		1142	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	3.00	
MW-F7	10-20	Stick-up		1005	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	5.27	
MW-F8	10-20	Stick-up		1025	<input checked="" type="radio"/> Y / <input type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	4.72	HINGE ON LID BROKEN
MW-F9	10-20	FLUSH		1258	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	3.54	
MW-F11	10-20	Flush		1220	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	2.35	
MW-F12	10-20	Flush		1267	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	2.70	
MW-F13	10-20	Stick-up		1333	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	9.73	
MW-F14	10-20	Stick-up		1317	<input checked="" type="radio"/> Y / <input type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	2.42	HINGE ON LID BROKEN
MW-F15	10-20	Flush		1255	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	4.13	
MW-F16	10-20	Stick-up		1320	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	2.11	
MW-F17	10-20	Stick-up		1030	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	5.51	
MW-F19	10-20	Stick-up		1416	<input checked="" type="radio"/> Y / <input type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	4.18	HINGE ON LID BROKEN
MW-F21	10-20	Stick-up		1016	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	5.90	
MW-22	10-20	Stick-up		1508	<input checked="" type="radio"/> Y / <input type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	2.67	HINGE ON LID BROKEN
MW-23	10-20	Stick-up		1500	<input checked="" type="radio"/> Y / <input type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	5.82	HINGE ON LID BROKEN
MW-24	10-20	Stick-up		1456	<input checked="" type="radio"/> Y / <input type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	4.38	HINGE ON LID BROKEN
MW-25	10-20	Stick-up		1325	<input checked="" type="radio"/> Y / <input type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	5.30	HINGE ON LID BROKEN
MW-26	10-20	Stick-up		1041	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	8.45	
MW-27	10-20	Flush		0934	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	2.13	
MW-29	10-20	Stick-up		1011	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	4.90	
MW-32	10-20	Stick-up	12/28/17	1025	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	2.63	
TMW-18 (TW-1)	10-15	FLUSH	12/27/17	0940	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	2.57	
TMW-19 (TW-2)	10-15	FLUSH		0946	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	3.46	
TMW-20 (TW-3)	10-15	FLUSH		1058	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	5.27	
TMW-21 (TW-4)	10-15	FLUSH		1045	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	5.95	
TMW-22 (TW-5)	10-15	FLUSH		1049	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	7.58	
TMW-23 (TW-6)	10-15	FLUSH		1054	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	2.56	
Deep Monitoring Wells								
MWD-22	40-50	Stick-up		1510	<input checked="" type="radio"/> Y / <input type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	2.97	HINGE ON LID BROKEN
MWD-23	40-50	Stick-up		1504	<input checked="" type="radio"/> Y / <input type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	6.99	HINGE ON LID BROKEN
MWD-24	40-50	Stick-up		1456	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	4.19	
MWD-25	40-50	Stick-up		1324	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	5.17	
MWD-26	40-50	Flush		2970	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	2.90	
MWD-29	40-50	Stick-up		1009	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	6.59	
MWD-30	40-50	Stick-up		1016	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	7.96	
MWD-F1	80-100	Stick-up		1512	<input checked="" type="radio"/> Y / <input type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	29.92	HINGE ON LID BROKEN
MWD-F2	80-100	Stick-up		1453	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	21.14	
MWD-F3	67-87	Stick-up		1033	Y / <input checked="" type="radio"/> N	<input checked="" type="radio"/> Y / <input type="radio"/> N	16.96	

ft btoc = feet below top of casing



Page 1 of 1

Well ID MW-F3R

Date 12/28/17

Project Name/Location Ashland Savannah

Weather CLOUDY, 45°

Measuring Pt.	Screen
Description <u>TVC</u>	Setting (ft-bmp) 10-20

Casing  
Diameter (in.) 7

Well Material      X PVC  
                              SS

Static Water Level (ft-bmp) 60.84 Total Depth (ft-bmp) 20

Water Column/ 13.16 Ft  
Gallons in Well 2.11 GAL

MP Elevation Pump Intake (ft-bmp) 15

Purge Method:

Centrifugal	
Submersible	
Other	
Peristaltic	X

Sample Method Low Flow

Pump On/Off 1230/1402 Volumes Purged

Sample Time: Label 1400 Replicate/  
Start 1357 Code No. N/A  
End 1402

Sampled by M. EIBL

Well Location:		Well Locked at Arrival:	<u>Yes</u>	/	No
Condition of Well:	<u>Good</u>	Well Locked at Departure:	<u>Yes</u>	/	No
Well Completion:	Flush Mount / <u>Stick Up</u>	Key Number To Well:			



Project No. OH010000.GA61.00300

Well ID MW-F5

Page 1 of 1

Date 12-27-17

Weather 50°F / Cloud

Well Material X PVC  
SS

Sample Method Low Flow

Sampled by J. Ketchum

Project Name/Location Ashland Savannah

Measuring Pt. Description	TOC	Screen Setting (ft-bmp)	10-20	Casing Diameter (in.)	2
---------------------------	-----	-------------------------	-------	-----------------------	---

Static Water Level (ft-bmp)	5.94	Total Depth (ft-bmp)		Water Column/ Gallons in Well	NA
-----------------------------	------	----------------------	--	-------------------------------	----

MP Elevation **NA** Pump Intake (ft-bmp) **15** Purge Method:

Pump On/Off 1600 / 1635 Volumes Purged NA

Sample Time: Label 1630 Replicate/ Other  
Start 1626 Code No. NA Peristaltic  
End 1632

[illegible]

Constituents Sampled	Container	Number	Preservative
VOCs (8260B)	40 mL VOA Vial	3	HCl
SVOCs (8270C)	1 L Amber	2	None
Notes: * Bits of orange (tiny) floating through tubing every few mins.			

### Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

## Well Information

Well Location:		Well Locked at Arrival:	Yes	/	No
Condition of Well:	Good	Well Locked at Departure:	Yes	/	No
Well Completion:	Flush Mount / Stick Up	Key Number To Well:			



Sampled by J. Ketchum

Well Location:		Well Locked at Arrival:	Yes	/	No
Condition of Well:	Good	Well Locked at Departure:	Yes	/	No
Well Completion:	Flush Mount / Stick Up	Key Number To Well:			



## Project No. OH010000.GA61.00300

Well ID MW-F15

Page 1 of 1

Date 12-28-17

Weather 45°F / cloudy

Well Material   X   PVC  
                                  SS

Measuring Pt.	Screen
Description	Setting (ft-bmp) 10-20

Static Water Level (ft-bmp) 4.27 Total Depth (ft-bmp) \_\_\_\_\_

Water Column/  
Gallons in Well NA

MP Elevation NA Pump Intake (ft-bmp) 15

Purge Method: \_\_\_\_\_

Sample Method Low Flow

Pump On/Off 1310/1340 Volumes Purged NA

Centrifugal	
Submersible	

Sample Time: Label 1335 Replicate/

Other	
Peristaltic	X

Sampled by J. Ketchum

Start	1331
End	1336

[illegible]

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Location:	Fenced in area behind plant / Locked,	Well Locked at Arrival:	Yes	/	No
Condition of Well:	Good	Well Locked at Departure:	Yes	/	No
Well Completion:	Flush Mount / Stick Up	Key Number To Well:			



# GROUNDWATER SAMPLING LOG

Project No. OH010000.GA61.00300

Well ID MW-F21

Page 1 of     

Date 12-27-17

Project Name/Location Ashland Savannah

Weather 45°F cloudy

Measuring Pt. TOC Screen Setting (ft-bmp) 10-20 Casing Diameter (in.) 2

Well Material X PVC      SS

Static Water Level (ft-bmp) 5.96 Total Depth (ft-bmp)      Water Column/ Gallons in Well NA

MP Elevation NA Pump Intake (ft-bmp) 15 Purge Method:     

Sample Method Low Flow

Pump On/Off 1425/1500 Volumes Purged NA Centrifugal Submersible     

Sample Time: Label 1455 Replicate/ Code No. NA Other Peristaltic X

Sampled by J. Ketchum

Start 1451 End 1456

Time	Minutes Elapsed	Purge Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
1435	10	200	6.67	0.8	5.91	0.312	2.70	0.18	20.6	-47.8	clear	No
1440	15	↓	6.70	1.1	5.91	0.311	1.71	0.13	20.5	-54.4	clear	No
1445	20	↓	6.70	1.3	5.91	0.312	1.42	0.13	20.6	-55.5	clear	No
1450	25	↓	6.71	1.6	5.90	0.310	1.06	0.12	20.5	-57.2	clear	No

Constituents Sampled	Container	Number	Preservative
VOCs (8260B)	40 mL vial	3	HCl
SVOCs (8270C)	1 L Amber	2	None

Well Casing Volumes					
Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Location: <u>Good</u>	Well Locked at Arrival: <u>Yes</u> / No
Condition of Well: <u>Good</u>	Well Locked at Departure: <u>Yes</u> / No
Well Completion: <u>Flush Mount</u> / <u>Stick Up</u>	Key Number To Well: <u>    </u>



## GROUNDWATER SAMPLING LOG

Page 1 of 1Project No. OH010000.GA61.00300Well ID MW-27Date 12-27-17Project Name/Location Ashland SavannahWeather 47°F/RainyMeasuring Pt. Description TOC Screen Setting (ft-bmp) 10-20Casing Diameter (in.) 2Well Material X PVC  
SSStatic Water Level (ft-bmp) 2.22 Total Depth (ft-bmp) 19.9Water Column/  
Gallons in Well NAMP Elevation NA Pump Intake (ft-bmp) 15

Purge Method:

Sample Method Low FlowPump On/Off 0955/1100 Volumes Purged NACentrifugal  
SubmersibleSample Time: Label 1055 Replicate/  
Start 1051 Code No. PUP-01  
End 1056Other  
PeristalticXSampled by J. Ketchum

Time	Minutes Elapsed	Purge Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
1000	5	340	2.28	0.3	4.65	0.129	*OR	1.78	20.9	295.3	Brown	YES
1005	10		2.34	0.7	4.66	0.129	OR	1.50	21.0	316.7	"	"
1010	15		2.35	1.1	4.67	0.131	OR	1.33	20.9	320.9	"	"
1015	20		2.34	1.5	4.68	0.133	600	1.24	20.7	326.2	"	"
1020	25		2.34	2.0	4.68	0.132	583	1.17	20.8	328.5	"	"
1025	30		2.34	2.4	4.67	0.131	231	1.17	20.2	333.4	"	"
1030	35		2.34	2.8	4.68	0.134	163	1.22	20.3	334.0	"	"
1035	40		2.37	3.3	4.67	0.131	374	1.18	21.3	338.0	"	"
1040	45		2.34	3.8	4.67	0.133	OR	1.18	20.5	339.4	"	"
1045	50		2.34	4.3	4.68	0.134	OR	1.18	20.3	339.5	"	"
1050	55		2.30	4.8	4.67	0.134	455	1.22	20.2	338.8	"	"

## Constituents Sampled

VOCs (8260B)

SVOCs (8270C)

## Container

40 mL VOA Vial

1 L Amber

## Number

3

2

## Preservative

HCl

None

Notes: 80% overrange

## Well Casing Volumes

Gallons/Foot

1" = 0.04

1.25" = 0.06

1.5" = 0.09

2" = 0.16

2.5" = 0.26

3" = 0.37

3.5" = 0.50

4" = 0.65

6" = 1.47

## Well Information

Well Location:

Well Locked at Arrival:

Yes

/

No

Condition of Well:

Good

Well Locked at Departure:

Yes

/

No

Well Completion:

Flush Mount

/

Stick Up

Key Number To Well:



# GROUNDWATER SAMPLING LOG

Page 1 of 1

Project No. OH010000.GA61.00300

Well ID MW-29

Date 12-27-17

Project Name/Location Ashland Savannah

Weather 48°F/Rainy

Measuring Pt. Description TDC

Screen Setting (ft-bmp) 10-20

Casing Diameter (in.) 2

Well Material X PVC  
SS

Static Water Level (ft-bmp) 4.93

Total Depth (ft-bmp)

Water Column/ Gallons in Well NA

MP Elevation NA

Pump Intake (ft-bmp) 15

Purge Method:

Sample Method Low Flow

Pump On/Off 1215/1310

Volumes Purged NA

Centrifugal  
Submersible

Sample Time: Label 1305  
Start 1301  
End 1306

Replicate/  
Code No. NA

Other  
Peristaltic X

Sampled by J. Ketchum

Time	Minutes Elapsed	Purge Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
1225	10	280	5.14	0.8	4.83	0.179	58.2	0.58	20.1	321.5	clear	slight
1230	15		5.10	1.3	4.81	0.178	15.4	0.46	19.9	321.6	"	"
1235	20		5.10	1.5	4.82	0.178	33.4	0.43	20.1	320.8	"	"
1240	25		5.10	1.8	4.81	0.178	30.4	0.37	20.1	321.4	"	"
1245	30		5.10	2.1	4.81	0.174	91.1	0.34	20.7	316.6	"	"
1250	35		5.12	2.5	4.81	0.175	37.5	0.33	20.7	312.8	"	"
1255	40		5.11	3.6	4.80	0.174	15.1	0.27	20.9	306.8	"	"
1300	45		5.11	3.4	4.80	0.174	9.2	0.26	20.8	304.7	"	"

Constituents Sampled	Container	Number	Preservative
VOCs (8260B)	40 mL vial	2	HCl
SVOCs (8270C)	1 L Amber	2	None

Well Casing Volumes					
Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

## Well Information

Well Location:		Well Locked at Arrival:	<u>Yes</u>	/	No
Condition of Well:	<u>Good</u>	Well Locked at Departure:	<u>Yes</u>	/	No
Well Completion:	Flush Mount / <u>Stick Up</u>	Key Number To Well:			







Page 1 of 1

Well ID TW-18

Date 12/28/17

Weather cloudy, 40°F

Casing  
Diameter (in.) 1

Well Material       $\frac{X}{SS}$  PVC

Water Column/ 12.42 Ft  
Gallons in Well 0.49 GAL

Purge Method: \_\_\_\_\_

Sample Method Low Flow

Centrifugal
Submersible

Sample Time: Label 1300 Replicate/  
Start 1259 Code No. N/A  
End 1315

Other	
Peristaltic	X

Sampled by M. EIBL

Constituents Sampled	Container	Number	Preservative
PCB (Aroclor 1254) - 8082	1 L AMBER	2	NONE
Total PCBs - 1668	<del>1 L AMBER</del>	2	NONE
Dioxins/Furans - 8290	1 L AMBER	2	NONE

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.85	

Well Location:	Dowtherm Unit 2028	Well Locked at Arrival:	<u>Yes</u>	/	No
Condition of Well:	<u>Good</u>	Well Locked at Departure:	<u>Yes</u>	/	No
Well Completion:	<u>(Flush Mount)</u> / Stick Up	Key Number To Well:			



# GROUNDWATER SAMPLING LOG

Page 1 of 1

Project No. OH010000.GA61.00300

Well ID TW-19

Date 12/28/17

Project Name/Location Ashland Savannah

Weather CLOUDY, 45°F

Measuring Pt. Description TDC Screen Setting (ft-bmp) 10-15

Casing Diameter (in.) 1

Well Material ☒ PVC ☐ SS

Static Water Level (ft-bmp) 3.47 Total Depth (ft-bmp) 15

Water Column/ Gallons in Well 11.53 Ft  
0.46 GAL

MP Elevation 1420/1448 Pump Intake (ft-bmp) 13

Purge Method: ☐ Centrifugal ☐ Submersible

Sample Method Low Flow

Pump On/Off 1420/1448 Volumes Purged 0.9

Other Peristaltic ☒

Sample Time: Label 1440 Replicate/ Code No. N/A  
Start 1437  
End 1448

Sampled by M. EIBL

Time	Minutes Elapsed	Purge Rate (mL/min)	Depth to Water (ft)	Gallons Purged	pH	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
1421	1	225	3.50	0.1	7.23	0.640	9.88	0.55	16.6	-115.4	NONE	SLIGHT
1425	5	↓	3.50	0.3	7.04	0.580	2.61	0.26	17.1	-121.7	↓	↓
1430	10	↓	3.50	0.6	7.03	0.580	1.71	0.18	17.5	-122.6	↓	↓
1435	15	↓	3.50	0.9	7.02	0.579	1.16	0.19	17.7	-124.1	↓	↓

Constituents Sampled	Container	Number	Preservative
PCB (Aroclor 1254) - 8082	<u>1 L AMBER</u>	<u>2</u>	<u>NONE</u>

Well Casing Volumes				
Gallons/Foot	1" = 0.04 1.26" = 0.06	1.5" = 0.09 2" = 0.16	2.5" = 0.26 3" = 0.37	3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information			
Well Location:	<u>Hard Resins Area</u>	Well Locked at Arrival:	<input checked="" type="checkbox"/> Yes / <input type="checkbox"/> No
Condition of Well:	<u>GOOD</u>	Well Locked at Departure:	<input checked="" type="checkbox"/> Yes / <input type="checkbox"/> No
Well Completion:	<u>Flush Mount</u> / <u>Stick Up</u>	Key Number To Well:	



## 0

Page 1 of 1

Well ID TW-20

Date 12/29/17  
Weather CLOUDY, 35°F

Well Material  $\frac{X}{SS}$  PVC

Measuring Pt.	Screen
Description	Setting (ft-bmp) 10-15

Static Water Level (ft-bmp) 4.80 Total Depth (ft-bmp) 15

MP Elevation Pump Intake (ft-bmp) 13

Pump On/Off 0900/1137 Volumes Purged 0.3

Sample Time: Label 0920 Replicate/  
Start 0917 Code No. N/A  
End 1137

Sample Method Low Flow

Sampled by M. EBL

[illegible]

Constituents Sampled	Container	Number	Preservative
PCB (Aroclor 1254) - 8082	1 L AMBER	2	NONE
Total PCBs - 1668	1 L AMBER	2	NONE
Dioxins/Furans - 8290	1 L AMBER	2	NONE
NOTES:			
PUMPED DRY @ 1015 / LGT RECHARGE			
PUMP BACK on @ 1120			

Well Casing Volumes					
Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information			
Well Location:	Former Dry Size Area	Well Locked at Arrival:	<u>Yes</u> / No
Condition of Well:	<u>Good</u>	Well Locked at Departure:	<u>Yes</u> / No
Well Completion:	<u>Flush Mount</u> / Stick Up	Key Number To Well:	





# GROUNDWATER SAMPLING LOG

Project No. 0H010000.GA61.00300  
~~GS028928.0004.00005~~

Well ID TMW-21

Page 1 of 1

Date 1/31/18

Project Name/Location: ~~Georgia-Pacific Russellville~~ Ashland Savannah

Weather Sunny, 50°F

Measuring Pt.	Screen	Casing
Description <u>TOC</u>	Setting (ft-bmp) <u>10-15</u>	Diameter (in.) <u>1</u>

Well Material SS PVC  
SS

Static Water Level (ft-bmp) 5.68 Total Depth (ft-bmp) 10 15 Water Column/  
Gallons in Well 0.37

MP Elevation N/A Pump Intake (ft-bmp) 17.5 Purge Method:

Sample Method low-flow

Pump On/Off 1218 Volumes Purged -

Centrifugal  
Submersible  
Other *peri-mmp*

Sample Time: Label 1305 Replicate/  
Start 1303 Code No. N/A  
End -

Sampled by *BM*

[illegible]

### Constituents Sampled

**Container**

Number

Preservative

8081B 8082A (MOD) Routine PCBs

1 L Amber Glass

2

None

16686 - Full (1) + (209 comb / comb)

1 L Amber Glass

4

more

8290A - 17 130ms & Total

### Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

### Well Information

Well Location: See map

Well Locked at Arrival: Yes / No

Condition of Well: Good

Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up

Key Number To Well:



## Page 1 of 1

Well ID TW-22

Date 12-28-17

Project Name/Location Ashland Savannah

Weather 40°F / Cloudy

Measuring Pt.	Description
	TDC

Screen  
Setting (ft-bmp) 10-15

Casing  
Diameter (in.) 1

Well Material       $\frac{X}{SS}$  PVC

Static Water Level (ft-bmp) 7.67

Total Depth (ft-bmp)

Water Column/  
Gallons in Well NA

MP Elevation

Pump Intake (ft-bmp) 13

**Purge Method:**

Sample  
Method      Low Flow

Pump On/Off 1125/1205

Volumes Purged NA

Centrifugal  
Submersible

Sample Time: Label 1200

Replicate/

Other	
Peristaltic	X

Start 1156

Code No. NA

Sampled by J. Ketchum

End 1207

Well Location:	Dowtherm Unit 2024	Well Locked at Arrival:	Yes	/	No
Condition of Well:	Good	Well Locked at Departure:	Yes	/	No
Well Completion:	Flush Mount / Stick Up	Key Number To Well:			







## Project No. OH010000.GA61.00300

Well ID TW-23

Page 1 of 1  
Date 12-28-17

Weather 43°F / Cloudy

Well Material      X PVC  
                              SS

Measuring Pt. Description	TBC	Screen Setting (ft-bmp)	10-15	Casing Diameter (in.)	1
---------------------------	-----	-------------------------	-------	-----------------------	---

Static Water Level (ft-bmp)	2.58	Total Depth (ft-bmp)		Water Column/ Gallons in Well	NA
-----------------------------	------	----------------------	--	----------------------------------	----

MP Elevation N/A Pump Intake (ft-bmp) 13 Purge Method:

Pump On/Off 1350/1440 Volumes Purged NA Centrifugal  
Submersible

Sample Time: Label 1435 Replicate/ 1 Other Peristaltic —

Start 1411 Code No. NA  
End 1437

Sample Method Low Flow

Sampled by J. Ketchum

[illegible]

Constituents Sampled	Container	Number	Preservative
1,1-Biphenyl - 8270	1 L Amber	2	None
Notes: * <del>1/2</del> <sup>1/4</sup> pump rate is already very low; turned down a little more to almost a drip. ** Well Dry, wait to recharge & sample			

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Location:	Electrical Substation 8526	Well Locked at Arrival:	Yes	/	No
Condition of Well:	Good	Well Locked at Departure:	Yes	/	No
Well Completion:	Flush Mount / Stick Up	Key Number To Well:			



# APPENDIX F

Laboratory Analytical Reports – December 2017 through May 2018  
(on attached CD)





# 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: 680-144745-1

Client Project/Site: Savannah Resins Plant

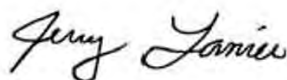
For:

ARCADIS U.S., Inc.

10 Patewood Drive, Suite 375

Greenville, South Carolina 29615

Attn: Andrew Davis



Authorized for release by:

11/9/2017 10:47:15 PM

Jerry Lanier, Project Manager I

(912)354-7858 e.3410

[jerry.lanier@testamericainc.com](mailto:jerry.lanier@testamericainc.com)

### LINKS

Review your project  
results through

**TotalAccess**

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Job ID: 680-144745-1**

**Laboratory: TestAmerica Savannah**

## Narrative

### CASE NARRATIVE

**Client: ARCADIS U.S., Inc.**

**Project: Savannah Resins Plant**

**Report Number: 680-144745-1**

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 10/25/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.9° C, 3.7° C and 7.5° C.

#### SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) - LOW LEVEL

Samples SB-128-1 (0-1) (102417) (680-144745-1), SB-128-2 (0-1) (102417) (680-144745-2), SB-128-3 (0-1) (102417) (680-144745-3), DUP-3 (102417) (680-144745-4), SB-159-1 (0-2) (102417) (680-144745-5), SB-159-2 (0-2) (102417) (680-144745-6), SB-159-3 (0-2) (102417) (680-144745-7), SB-126-1 (0-1) (102417) (680-144745-8), SB-126-2 (0-1) (102417) (680-144745-9), SB-126-3 (0-1) (102417) (680-144745-10), DS-9-1 (0-2) (102417) (680-144745-15), DS-9-2 (0-4) (102417) (680-144745-16), DS-9-3 (0-4) (102417) (680-144745-17), DS-9-4 (0-4) (102417) (680-144745-18), SB-168-1 (0-2) (102517) (680-144745-19), SB-168-2 (0-2) (102517) (680-144745-20), SB-168-3 (0-2) (102517) (680-144745-21), SB-189-1 (0-2) (102517) (680-144745-22), SB-189-2 (0-2) (102517) (680-144745-23), SB-189-3 (0-2) (102517) (680-144745-24), EX-21-1 (0-2) (102517) (680-144745-25), EX-21-2 (0-2) (102517) (680-144745-26), SB-198-1 (0-2) (102517) (680-144745-27), SB-198-2 (0-2) (102517) (680-144745-28), SB-165-1 (0-2) (102517) (680-144745-29), SB-165-2 (0-2) (102517) (680-144745-30), EX-22-1 (0-2) (102517) (680-144745-31), EX-22-2 (0-2) (102517) (680-144745-32) and EX-22-3 (0-2) (102517) (680-144745-33) were analyzed for Semivolatile Organic Compounds (GC/MS) - Low level in accordance with EPA SW846 Method 8270D. The samples were prepared on 10/27/2017 and 10/31/2017 and analyzed on 10/29/2017, 10/30/2017, 11/01/2017, 11/02/2017 and 11/06/2017.

Surrogate recovery was outside acceptance limits for the following matrix spike duplicate (MSD) sample: SB-168-1 (0-2) (102517) (680-144745-19[MSD]). The parent sample's surrogate recovery was within limits. The MS/MSD sample has been qualified and reported.

Surrogate recovery for the following samples was outside control limits: SB-128-3 (0-1) (102417) (680-144745-3), SB-159-1 (0-2) (102417) (680-144745-5), SB-159-2 (0-2) (102417) (680-144745-6), SB-159-2 (0-2) (102417) (680-144745-6[MS]), SB-159-2 (0-2) (102417) (680-144745-6[MSD]), SB-126-2 (0-1) (102417) (680-144745-9), SB-126-3 (0-1) (102417) (680-144745-10), DS-9-3 (0-4) (102417) (680-144745-17), SB-168-2 (0-2) (102517) (680-144745-20), SB-168-3 (0-2) (102517) (680-144745-21), SB-189-1 (0-2) (102517) (680-144745-22) and SB-189-3 (0-2) (102517) (680-144745-24). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

The following sample was diluted due to abundance of target analytes : SB-128-1 (0-1) (102417) (680-144745-1). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

The following samples was diluted due to the nature of the sample matrix: EX-21-2 (0-2) (102517) (680-144745-26) and SB-198-2 (0-2) (102517) (680-144745-28). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

The following samples was diluted due to the nature of the sample matrix: SB-128-2 (0-1) (102417) (680-144745-2), DUP-3 (102417) (680-144745-4) and SB-126-1 (0-1) (102417) (680-144745-8). As such, surrogate recoveries are below the calibration range or are not



# Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

## Job ID: 680-144745-1 (Continued)

### Laboratory: TestAmerica Savannah (Continued)

reported, and elevated reporting limits (RLs) are provided.

Internal standard (ISTD) response for Chrysene-d12 and/or Perylene-d12 for the following samples were outside acceptance criteria: SB-128-3 (0-1) (102417) (680-144745-3), SB-159-1 (0-2) (102417) (680-144745-5), SB-159-2 (0-2) (102417) (680-144745-6), SB-159-2 (0-2) (102417) (680-144745-6[MS]), SB-159-2 (0-2) (102417) (680-144745-6[MSD]), SB-126-2 (0-1) (102417) (680-144745-9), SB-126-3 (0-1) (102417) (680-144745-10), DS-9-1 (0-2) (102417) (680-144745-15), DS-9-3 (0-4) (102417) (680-144745-17), DS-9-4 (0-4) (102417) (680-144745-18), SB-168-2 (0-2) (102517) (680-144745-20), SB-168-3 (0-2) (102517) (680-144745-21), SB-189-1 (0-2) (102517) (680-144745-22), SB-189-2 (0-2) (102517) (680-144745-23) and SB-189-3 (0-2) (102517) (680-144745-24). These ISTD do not correspond to any of the requested target compounds; therefore, the data have been reported.

Internal standard (ISTD) response for Perylene-d12 for the following samples was outside acceptance criteria: SB-128-2 (0-1) (102417) (680-144745-2) and DUP-3 (102417) (680-144745-4). This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

1,1'-Biphenyl failed the recovery criteria low for the MSD of sample SB-168-1 (0-2) (102517)MSD (680-144745-19) in batch 680-500446. 1,1'-Biphenyl exceeded the RPD limit.

Refer to the QC report for details.

Samples SB-128-1 (0-1) (102417) (680-144745-1)[2000X], SB-128-2 (0-1) (102417) (680-144745-2)[10X], DUP-3 (102417) (680-144745-4)[10X], SB-159-3 (0-2) (102417) (680-144745-7)[5X], SB-126-1 (0-1) (102417) (680-144745-8)[10X], DS-9-2 (0-4) (102417) (680-144745-16)[5X], EX-21-1 (0-2) (102517) (680-144745-25)[5X], EX-21-2 (0-2) (102517) (680-144745-26)[10X] and SB-198-2 (0-2) (102517) (680-144745-28)[10X] 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.

### SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) - LOW LEVEL

Sample EB-2 (102517) (680-144745-35) was analyzed for Semivolatile Organic Compounds (GC/MS) - Low level in accordance with EPA SW-846 Method 8270D. The samples were prepared on 10/31/2017 and analyzed on 11/03/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### PESTICIDES AND PCBs

Samples SB-202-1 (0-2) (102417) (680-144745-11), DUP-1 (102417) (680-144745-12), SB-202-2 (0-2) (102417) (680-144745-13) and SB-137-1 (0-1) (102417) (680-144745-14) were analyzed for Pesticides and PCBs in accordance with EPA SW-846 Method 8081B\_8082A. The samples were prepared on 10/31/2017 and analyzed on 10/31/2017 and 11/01/2017.

This method incorporates 2nd column confirmation. Corrective action is not taken for surrogate/spike compounds unless results from both columns are unacceptable. Results outside criteria are qualified.

Two surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: SB-202-1 (0-2) (102417) (680-144745-11), DUP-1 (102417) (680-144745-12), SB-202-2 (0-2) (102417) (680-144745-13) and SB-137-1 (0-1) (102417) (680-144745-14). These results have been reported and qualified.

Samples SB-202-1 (0-2) (102417) (680-144745-11)[4X] and SB-137-1 (0-1) (102417) (680-144745-14)[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.

### PESTICIDES AND PCBs

Sample EB-1 (102517) (680-144745-34) was analyzed for Pesticides and PCBs in accordance with EPA SW-846 Method 8081B\_8082A. The samples were prepared on 10/30/2017 and analyzed on 11/01/2017.

This method incorporates 2nd column confirmation. Corrective action is not taken for surrogate/spike compounds unless results from



## Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

### Job ID: 680-144745-1 (Continued)

#### Laboratory: TestAmerica Savannah (Continued)

both columns are unacceptable. Results outside criteria are qualified.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### PERCENT SOLIDS/MOISTURE

Samples SB-128-1 (0-1) (102417) (680-144745-1), SB-128-2 (0-1) (102417) (680-144745-2), SB-128-3 (0-1) (102417) (680-144745-3), DUP-3 (102417) (680-144745-4), SB-159-1 (0-2) (102417) (680-144745-5), SB-159-2 (0-2) (102417) (680-144745-6), SB-159-3 (0-2) (102417) (680-144745-7), SB-126-1 (0-1) (102417) (680-144745-8), SB-126-2 (0-1) (102417) (680-144745-9), SB-126-3 (0-1) (102417) (680-144745-10), SB-202-1 (0-2) (102417) (680-144745-11), DUP-1 (102417) (680-144745-12), SB-202-2 (0-2) (102417) (680-144745-13), SB-137-1 (0-1) (102417) (680-144745-14), DS-9-1 (0-2) (102417) (680-144745-15), DS-9-2 (0-4) (102417) (680-144745-16), DS-9-3 (0-4) (102417) (680-144745-17), DS-9-4 (0-4) (102417) (680-144745-18), SB-168-1 (0-2) (102517) (680-144745-19), SB-168-2 (0-2) (102517) (680-144745-20), SB-168-3 (0-2) (102517) (680-144745-21), SB-189-1 (0-2) (102517) (680-144745-22), SB-189-2 (0-2) (102517) (680-144745-23), SB-189-3 (0-2) (102517) (680-144745-24), EX-21-1 (0-2) (102517) (680-144745-25), EX-21-2 (0-2) (102517) (680-144745-26), SB-198-1 (0-2) (102517) (680-144745-27), SB-198-2 (0-2) (102517) (680-144745-28), SB-165-1 (0-2) (102517) (680-144745-29), SB-165-2 (0-2) (102517) (680-144745-30), EX-22-1 (0-2) (102517) (680-144745-31), EX-22-2 (0-2) (102517) (680-144745-32) and EX-22-3 (0-2) (102517) (680-144745-33) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 10/27/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



# Sample Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-144745-1	SB-128-1 (0-1) (102417)	Solid	10/24/17 09:30	10/25/17 17:30
680-144745-2	SB-128-2 (0-1) (102417)	Solid	10/24/17 09:40	10/25/17 17:30
680-144745-3	SB-128-3 (0-1) (102417)	Solid	10/24/17 09:50	10/25/17 17:30
680-144745-4	DUP-3 (102417)	Solid	10/24/17 00:00	10/25/17 17:30
680-144745-5	SB-159-1 (0-2) (102417)	Solid	10/24/17 10:00	10/25/17 17:30
680-144745-6	SB-159-2 (0-2) (102417)	Solid	10/24/17 10:10	10/25/17 17:30
680-144745-7	SB-159-3 (0-2) (102417)	Solid	10/24/17 10:20	10/25/17 17:30
680-144745-8	SB-126-1 (0-1) (102417)	Solid	10/24/17 10:50	10/25/17 17:30
680-144745-9	SB-126-2 (0-1) (102417)	Solid	10/24/17 11:00	10/25/17 17:30
680-144745-10	SB-126-3 (0-1) (102417)	Solid	10/24/17 11:10	10/25/17 17:30
680-144745-11	SB-202-1 (0-2) (102417)	Solid	10/24/17 14:25	10/25/17 17:30
680-144745-12	DUP-1 (102417)	Solid	10/24/17 00:00	10/25/17 17:30
680-144745-13	SB-202-2 (0-2) (102417)	Solid	10/24/17 14:35	10/25/17 17:30
680-144745-14	SB-137-1 (0-1) (102417)	Solid	10/24/17 14:50	10/25/17 17:30
680-144745-15	DS-9-1 (0-2) (102417)	Solid	10/24/17 15:30	10/25/17 17:30
680-144745-16	DS-9-2 (0-4) (102417)	Solid	10/24/17 15:40	10/25/17 17:30
680-144745-17	DS-9-3 (0-4) (102417)	Solid	10/24/17 15:50	10/25/17 17:30
680-144745-18	DS-9-4 (0-4) (102417)	Solid	10/24/17 16:00	10/25/17 17:30
680-144745-19	SB-168-1 (0-2) (102517)	Solid	10/25/17 10:40	10/25/17 17:30
680-144745-20	SB-168-2 (0-2) (102517)	Solid	10/25/17 10:50	10/25/17 17:30
680-144745-21	SB-168-3 (0-2) (102517)	Solid	10/25/17 11:00	10/25/17 17:30
680-144745-22	SB-189-1 (0-2) (102517)	Solid	10/25/17 11:10	10/25/17 17:30
680-144745-23	SB-189-2 (0-2) (102517)	Solid	10/25/17 11:20	10/25/17 17:30
680-144745-24	SB-189-3 (0-2) (102517)	Solid	10/25/17 11:30	10/25/17 17:30
680-144745-25	EX-21-1 (0-2) (102517)	Solid	10/25/17 12:15	10/25/17 17:30
680-144745-26	EX-21-2 (0-2) (102517)	Solid	10/25/17 12:25	10/25/17 17:30
680-144745-27	SB-198-1 (0-2) (102517)	Solid	10/25/17 14:40	10/25/17 17:30
680-144745-28	SB-198-2 (0-2) (102517)	Solid	10/25/17 14:50	10/25/17 17:30
680-144745-29	SB-165-1 (0-2) (102517)	Solid	10/25/17 15:10	10/25/17 17:30
680-144745-30	SB-165-2 (0-2) (102517)	Solid	10/25/17 15:20	10/25/17 17:30
680-144745-31	EX-22-1 (0-2) (102517)	Solid	10/25/17 16:00	10/25/17 17:30
680-144745-32	EX-22-2 (0-2) (102517)	Solid	10/25/17 16:10	10/25/17 17:30
680-144745-33	EX-22-3 (0-2) (102517)	Solid	10/25/17 16:20	10/25/17 17:30
680-144745-34	EB-1 (102517)	Water	10/25/17 16:30	10/25/17 17:30
680-144745-35	EB-2 (102517)	Water	10/25/17 16:40	10/25/17 17:30



## Method Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

Method	Method Description	Protocol	Laboratory
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL SAV
8081B/8082A	Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography	SW846	TAL SAV
8082A	Polychlorinated Biphenyls (PCBs) by GC	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



## Definitions/Glossary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

### 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.
X	Surrogate is outside control limits
*	ISTD response or retention time outside acceptable limits
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control 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.

#### GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

### 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)



## Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

### Client Sample ID: SB-128-1 (0-1) (102417)

Lab Sample ID: 680-144745-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	1200		75	16	mg/Kg	2000	☼	8270D LL	Total/NA

### Client Sample ID: SB-128-2 (0-1) (102417)

Lab Sample ID: 680-144745-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.53		0.36	0.078	mg/Kg	10	☼	8270D LL	Total/NA

### Client Sample ID: SB-128-3 (0-1) (102417)

Lab Sample ID: 680-144745-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.27		0.038	0.0083	mg/Kg	1	☼	8270D LL	Total/NA

### Client Sample ID: DUP-3 (102417)

Lab Sample ID: 680-144745-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.32	J	0.35	0.077	mg/Kg	10	☼	8270D LL	Total/NA

### Client Sample ID: SB-159-1 (0-2) (102417)

Lab Sample ID: 680-144745-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.14		0.036	0.0079	mg/Kg	1	☼	8270D LL	Total/NA

### Client Sample ID: SB-159-2 (0-2) (102417)

Lab Sample ID: 680-144745-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.15		0.036	0.0079	mg/Kg	1	☼	8270D LL	Total/NA

### Client Sample ID: SB-159-3 (0-2) (102417)

Lab Sample ID: 680-144745-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	2.0		0.19	0.042	mg/Kg	5	☼	8270D LL	Total/NA

### Client Sample ID: SB-126-1 (0-1) (102417)

Lab Sample ID: 680-144745-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.89		0.38	0.082	mg/Kg	10	☼	8270D LL	Total/NA

### Client Sample ID: SB-126-2 (0-1) (102417)

Lab Sample ID: 680-144745-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.17		0.039	0.0084	mg/Kg	1	☼	8270D LL	Total/NA

### Client Sample ID: SB-126-3 (0-1) (102417)

Lab Sample ID: 680-144745-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.19		0.038	0.0083	mg/Kg	1	☼	8270D LL	Total/NA

### Client Sample ID: SB-202-1 (0-2) (102417)

Lab Sample ID: 680-144745-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl									

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



## Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

### Client Sample ID: SB-202-1 (0-2) (102417) (Continued)

Lab Sample ID: 680-144745-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	1.7		0.15	0.046	mg/Kg	4	☼	8081B/8082A	Total/NA
Total PCB	1700		150	23	ug/Kg	4	☼	8081B/8082A	Total/NA

### Client Sample ID: DUP-1 (102417)

Lab Sample ID: 680-144745-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	0.77		0.037	0.011	mg/Kg	1	☼	8081B/8082A	Total/NA
Total PCB	770		37	5.6	ug/Kg	1	☼	8081B/8082A	Total/NA

### Client Sample ID: SB-202-2 (0-2) (102417)

Lab Sample ID: 680-144745-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	1.1		0.036	0.011	mg/Kg	1	☼	8081B/8082A	Total/NA
Total PCB	1100		36	5.5	ug/Kg	1	☼	8081B/8082A	Total/NA

### Client Sample ID: SB-137-1 (0-1) (102417)

Lab Sample ID: 680-144745-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	4.4		0.20	0.059	mg/Kg	5	☼	8081B/8082A	Total/NA
Total PCB	4400		200	30	ug/Kg	5	☼	8081B/8082A	Total/NA

### Client Sample ID: DS-9-1 (0-2) (102417)

Lab Sample ID: 680-144745-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.091		0.036	0.0079	mg/Kg	1	☼	8270D LL	Total/NA

### Client Sample ID: DS-9-2 (0-4) (102417)

Lab Sample ID: 680-144745-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	2.5		0.18	0.039	mg/Kg	5	☼	8270D LL	Total/NA

### Client Sample ID: DS-9-3 (0-4) (102417)

Lab Sample ID: 680-144745-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.16		0.037	0.0081	mg/Kg	1	☼	8270D LL	Total/NA

### Client Sample ID: DS-9-4 (0-4) (102417)

Lab Sample ID: 680-144745-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.13		0.036	0.0079	mg/Kg	1	☼	8270D LL	Total/NA

### Client Sample ID: SB-168-1 (0-2) (102517)

Lab Sample ID: 680-144745-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.086	F2 F1	0.040	0.0087	mg/Kg	1	☼	8270D LL	Total/NA

### Client Sample ID: SB-168-2 (0-2) (102517)

Lab Sample ID: 680-144745-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.58		0.040	0.0087	mg/Kg	1	☼	8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



## Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

### Client Sample ID: SB-168-3 (0-2) (102517)

### Lab Sample ID: 680-144745-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.25		0.039	0.0086	mg/Kg	1	☼	8270D LL	Total/NA

### Client Sample ID: SB-189-1 (0-2) (102517)

### Lab Sample ID: 680-144745-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.12		0.037	0.0081	mg/Kg	1	☼	8270D LL	Total/NA

### Client Sample ID: SB-189-2 (0-2) (102517)

### Lab Sample ID: 680-144745-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.14		0.039	0.0086	mg/Kg	1	☼	8270D LL	Total/NA

### Client Sample ID: SB-189-3 (0-2) (102517)

### Lab Sample ID: 680-144745-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.070		0.040	0.0087	mg/Kg	1	☼	8270D LL	Total/NA

### Client Sample ID: EX-21-1 (0-2) (102517)

### Lab Sample ID: 680-144745-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	1.5		0.18	0.038	mg/Kg	5	☼	8270D LL	Total/NA

### Client Sample ID: EX-21-2 (0-2) (102517)

### Lab Sample ID: 680-144745-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.10	J	0.40	0.087	mg/Kg	10	☼	8270D LL	Total/NA

### Client Sample ID: SB-198-1 (0-2) (102517)

### Lab Sample ID: 680-144745-27

No Detections.

### Client Sample ID: SB-198-2 (0-2) (102517)

### Lab Sample ID: 680-144745-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.11	J	0.36	0.079	mg/Kg	10	☼	8270D LL	Total/NA

### Client Sample ID: SB-165-1 (0-2) (102517)

### Lab Sample ID: 680-144745-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.27		0.039	0.0085	mg/Kg	1	☼	8270D LL	Total/NA

### Client Sample ID: SB-165-2 (0-2) (102517)

### Lab Sample ID: 680-144745-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.012	J	0.037	0.0080	mg/Kg	1	☼	8270D LL	Total/NA

### Client Sample ID: EX-22-1 (0-2) (102517)

### Lab Sample ID: 680-144745-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.013	J	0.037	0.0080	mg/Kg	1	☼	8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



## Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

### Client Sample ID: EX-22-2 (0-2) (102517)

Lab Sample ID: 680-144745-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.012	J	0.037	0.0081	mg/Kg	1	☼	8270D LL	Total/NA

### Client Sample ID: EX-22-3 (0-2) (102517)

Lab Sample ID: 680-144745-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.013	J	0.037	0.0081	mg/Kg	1	☼	8270D LL	Total/NA

### Client Sample ID: EB-1 (102517)

Lab Sample ID: 680-144745-34

No Detections.

### Client Sample ID: EB-2 (102517)

Lab Sample ID: 680-144745-35

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-128-1 (0-1) (102417)**

**Lab Sample ID: 680-144745-1**

**Date Collected: 10/24/17 09:30**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**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
1,1'-Biphenyl	1200		75	16	mg/Kg	☼	10/31/17 17:53	11/06/17 16:35	2000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	0	D	11 - 130				10/31/17 17:53	11/06/17 16:35	2000
2-Fluorophenol (Surr)	0	D	10 - 130				10/31/17 17:53	11/06/17 16:35	2000
Nitrobenzene-d5 (Surr)	0	D	18 - 130				10/31/17 17:53	11/06/17 16:35	2000
Phenol-d5 (Surr)	0	D	10 - 130				10/31/17 17:53	11/06/17 16:35	2000
Terphenyl-d14 (Surr)	0	D	27 - 130				10/31/17 17:53	11/06/17 16:35	2000
2,4,6-Tribromophenol (Surr)	0	D	24 - 130				10/31/17 17:53	11/06/17 16:35	2000



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-128-2 (0-1) (102417)**

**Lab Sample ID: 680-144745-2**

**Date Collected: 10/24/17 09:40**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 89.6**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.53		0.36	0.078	mg/Kg	☼	10/31/17 17:53	11/02/17 18:09	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	0	D	11 - 130				10/31/17 17:53	11/02/17 18:09	10
2-Fluorophenol (Surr)	0	D	10 - 130				10/31/17 17:53	11/02/17 18:09	10
Nitrobenzene-d5 (Surr)	0	D	18 - 130				10/31/17 17:53	11/02/17 18:09	10
Phenol-d5 (Surr)	0	D	10 - 130				10/31/17 17:53	11/02/17 18:09	10
Terphenyl-d14 (Surr)	0	D	27 - 130				10/31/17 17:53	11/02/17 18:09	10
2,4,6-Tribromophenol (Surr)	0	D	24 - 130				10/31/17 17:53	11/02/17 18:09	10



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-128-3 (0-1) (102417)**

**Lab Sample ID: 680-144745-3**

**Date Collected: 10/24/17 09:50**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**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
1,1'-Biphenyl	0.27		0.038	0.0083	mg/Kg	☆	10/31/17 17:53	11/01/17 17:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	86		11 - 130				10/31/17 17:53	11/01/17 17:12	1
2-Fluorophenol (Surr)	83		10 - 130				10/31/17 17:53	11/01/17 17:12	1
Nitrobenzene-d5 (Surr)	63		18 - 130				10/31/17 17:53	11/01/17 17:12	1
Phenol-d5 (Surr)	81		10 - 130				10/31/17 17:53	11/01/17 17:12	1
Terphenyl-d14 (Surr)	163	X	27 - 130				10/31/17 17:53	11/01/17 17:12	1
2,4,6-Tribromophenol (Surr)	87		24 - 130				10/31/17 17:53	11/01/17 17:12	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: DUP-3 (102417)**

**Lab Sample ID: 680-144745-4**

**Date Collected: 10/24/17 00:00**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**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
1,1'-Biphenyl	0.32	J	0.35	0.077	mg/Kg	☼	10/31/17 17:53	11/02/17 18:32	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	0	D	11 - 130				10/31/17 17:53	11/02/17 18:32	10
2-Fluorophenol (Surr)	0	D	10 - 130				10/31/17 17:53	11/02/17 18:32	10
Nitrobenzene-d5 (Surr)	0	D	18 - 130				10/31/17 17:53	11/02/17 18:32	10
Phenol-d5 (Surr)	0	D	10 - 130				10/31/17 17:53	11/02/17 18:32	10
Terphenyl-d14 (Surr)	0	D	27 - 130				10/31/17 17:53	11/02/17 18:32	10
2,4,6-Tribromophenol (Surr)	0	D	24 - 130				10/31/17 17:53	11/02/17 18:32	10



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-159-1 (0-2) (102417)**

**Lab Sample ID: 680-144745-5**

**Date Collected: 10/24/17 10:00**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 88.3**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.14		0.036	0.0079	mg/Kg	☆	10/31/17 17:53	11/01/17 18:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	86		11 - 130				10/31/17 17:53	11/01/17 18:01	1
2-Fluorophenol (Surr)	79		10 - 130				10/31/17 17:53	11/01/17 18:01	1
Nitrobenzene-d5 (Surr)	52		18 - 130				10/31/17 17:53	11/01/17 18:01	1
Phenol-d5 (Surr)	77		10 - 130				10/31/17 17:53	11/01/17 18:01	1
Terphenyl-d14 (Surr)	159	X	27 - 130				10/31/17 17:53	11/01/17 18:01	1
2,4,6-Tribromophenol (Surr)	92		24 - 130				10/31/17 17:53	11/01/17 18:01	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-159-2 (0-2) (102417)**

**Lab Sample ID: 680-144745-6**

**Date Collected: 10/24/17 10:10**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 88.5**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.15		0.036	0.0079	mg/Kg	☆	10/31/17 17:53	11/01/17 18:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	82		11 - 130				10/31/17 17:53	11/01/17 18:25	1
2-Fluorophenol (Surr)	81		10 - 130				10/31/17 17:53	11/01/17 18:25	1
Nitrobenzene-d5 (Surr)	54		18 - 130				10/31/17 17:53	11/01/17 18:25	1
Phenol-d5 (Surr)	77		10 - 130				10/31/17 17:53	11/01/17 18:25	1
Terphenyl-d14 (Surr)	144	X	27 - 130				10/31/17 17:53	11/01/17 18:25	1
2,4,6-Tribromophenol (Surr)	87		24 - 130				10/31/17 17:53	11/01/17 18:25	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-159-3 (0-2) (102417)**

**Lab Sample ID: 680-144745-7**

**Date Collected: 10/24/17 10:20**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 84.7**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	2.0		0.19	0.042	mg/Kg	☼	10/31/17 17:53	11/02/17 18:55	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	80		11 - 130				10/31/17 17:53	11/02/17 18:55	5
2-Fluorophenol (Surr)	79		10 - 130				10/31/17 17:53	11/02/17 18:55	5
Nitrobenzene-d5 (Surr)	83		18 - 130				10/31/17 17:53	11/02/17 18:55	5
Phenol-d5 (Surr)	79		10 - 130				10/31/17 17:53	11/02/17 18:55	5
Terphenyl-d14 (Surr)	86		27 - 130				10/31/17 17:53	11/02/17 18:55	5
2,4,6-Tribromophenol (Surr)	99		24 - 130				10/31/17 17:53	11/02/17 18:55	5



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-126-1 (0-1) (102417)**

**Lab Sample ID: 680-144745-8**

**Date Collected: 10/24/17 10:50**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 85.6**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.89		0.38	0.082	mg/Kg	☆	10/31/17 17:53	11/02/17 19:17	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	0	D	11 - 130				10/31/17 17:53	11/02/17 19:17	10
2-Fluorophenol (Surr)	0	D	10 - 130				10/31/17 17:53	11/02/17 19:17	10
Nitrobenzene-d5 (Surr)	0	D	18 - 130				10/31/17 17:53	11/02/17 19:17	10
Phenol-d5 (Surr)	0	D	10 - 130				10/31/17 17:53	11/02/17 19:17	10
Terphenyl-d14 (Surr)	0	D	27 - 130				10/31/17 17:53	11/02/17 19:17	10
2,4,6-Tribromophenol (Surr)	0	D	24 - 130				10/31/17 17:53	11/02/17 19:17	10



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-126-2 (0-1) (102417)**

**Lab Sample ID: 680-144745-9**

**Date Collected: 10/24/17 11:00**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 83.5**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.17		0.039	0.0084	mg/Kg	☼	10/31/17 17:53	11/01/17 19:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	83		11 - 130				10/31/17 17:53	11/01/17 19:38	1
2-Fluorophenol (Surr)	78		10 - 130				10/31/17 17:53	11/01/17 19:38	1
Nitrobenzene-d5 (Surr)	55		18 - 130				10/31/17 17:53	11/01/17 19:38	1
Phenol-d5 (Surr)	78		10 - 130				10/31/17 17:53	11/01/17 19:38	1
Terphenyl-d14 (Surr)	145	X	27 - 130				10/31/17 17:53	11/01/17 19:38	1
2,4,6-Tribromophenol (Surr)	93		24 - 130				10/31/17 17:53	11/01/17 19:38	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-126-3 (0-1) (102417)**

**Lab Sample ID: 680-144745-10**

**Date Collected: 10/24/17 11:10**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**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
1,1'-Biphenyl	0.19		0.038	0.0083	mg/Kg	☆	10/31/17 17:53	11/01/17 20:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	89		11 - 130				10/31/17 17:53	11/01/17 20:02	1
2-Fluorophenol (Surr)	77		10 - 130				10/31/17 17:53	11/01/17 20:02	1
Nitrobenzene-d5 (Surr)	54		18 - 130				10/31/17 17:53	11/01/17 20:02	1
Phenol-d5 (Surr)	73		10 - 130				10/31/17 17:53	11/01/17 20:02	1
Terphenyl-d14 (Surr)	141	X	27 - 130				10/31/17 17:53	11/01/17 20:02	1
2,4,6-Tribromophenol (Surr)	92		24 - 130				10/31/17 17:53	11/01/17 20:02	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-202-1 (0-2) (102417)**

**Lab Sample ID: 680-144745-11**

**Date Collected: 10/24/17 14:25**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 82.9**

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DDT	0.25	U	2.0	0.25	ug/Kg	☼	10/31/17 10:04	10/31/17 17:39	1
Endrin	0.25	U	2.0	0.25	ug/Kg	☼	10/31/17 10:04	10/31/17 17:39	1
Endrin aldehyde	0.25	U	2.0	0.25	ug/Kg	☼	10/31/17 10:04	10/31/17 17:39	1
Methoxychlor	0.32	U	2.0	0.32	ug/Kg	☼	10/31/17 10:04	10/31/17 17:39	1
<b>PCB-1254</b>	<b>1.7</b>		0.15	0.046	mg/Kg	☼	10/31/17 10:04	11/01/17 16:37	4
PCB-1260	0.011	U	0.038	0.011	mg/Kg	☼	10/31/17 10:04	10/31/17 17:39	1
PCB-1262	7.0	U	38	7.0	ug/Kg	☼	10/31/17 10:04	10/31/17 17:39	1
PCB-1268	6.4	U	38	6.4	ug/Kg	☼	10/31/17 10:04	10/31/17 17:39	1
<b>Total PCB</b>	<b>1700</b>		150	23	ug/Kg	☼	10/31/17 10:04	11/01/17 16:37	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	48	X	54 - 133				10/31/17 10:04	10/31/17 17:39	1
Tetrachloro-m-xylene	69		46 - 130				10/31/17 10:04	10/31/17 17:39	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: DUP-1 (102417)**

**Lab Sample ID: 680-144745-12**

**Date Collected: 10/24/17 00:00**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 84.6**

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DDT	0.25	U	1.9	0.25	ug/Kg	☼	10/31/17 10:04	10/31/17 17:53	1
Endrin	0.25	U	1.9	0.25	ug/Kg	☼	10/31/17 10:04	10/31/17 17:53	1
Endrin aldehyde	0.25	U	1.9	0.25	ug/Kg	☼	10/31/17 10:04	10/31/17 17:53	1
Methoxychlor	0.31	U	1.9	0.31	ug/Kg	☼	10/31/17 10:04	10/31/17 17:53	1
<b>PCB-1254</b>	<b>0.77</b>		0.037	0.011	mg/Kg	☼	10/31/17 10:04	10/31/17 17:53	1
PCB-1260	0.011	U	0.037	0.011	mg/Kg	☼	10/31/17 10:04	10/31/17 17:53	1
PCB-1262	6.8	U	37	6.8	ug/Kg	☼	10/31/17 10:04	10/31/17 17:53	1
PCB-1268	6.1	U	37	6.1	ug/Kg	☼	10/31/17 10:04	10/31/17 17:53	1
<b>Total PCB</b>	<b>770</b>		37	5.6	ug/Kg	☼	10/31/17 10:04	10/31/17 17:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	45	X	54 - 133				10/31/17 10:04	10/31/17 17:53	1
Tetrachloro-m-xylene	88		46 - 130				10/31/17 10:04	10/31/17 17:53	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-202-2 (0-2) (102417)**

**Lab Sample ID: 680-144745-13**

**Date Collected: 10/24/17 14:35**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 87.2**

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DDT	0.24	U	1.9	0.24	ug/Kg	☼	10/31/17 10:04	10/31/17 18:07	1
Endrin	0.24	U	1.9	0.24	ug/Kg	☼	10/31/17 10:04	10/31/17 18:07	1
Endrin aldehyde	0.24	U	1.9	0.24	ug/Kg	☼	10/31/17 10:04	10/31/17 18:07	1
Methoxychlor	0.31	U	1.9	0.31	ug/Kg	☼	10/31/17 10:04	10/31/17 18:07	1
<b>PCB-1254</b>	<b>1.1</b>		0.036	0.011	mg/Kg	☼	10/31/17 10:04	10/31/17 18:07	1
PCB-1260	0.010	U	0.036	0.010	mg/Kg	☼	10/31/17 10:04	10/31/17 18:07	1
PCB-1262	6.7	U	36	6.7	ug/Kg	☼	10/31/17 10:04	10/31/17 18:07	1
PCB-1268	6.0	U	36	6.0	ug/Kg	☼	10/31/17 10:04	10/31/17 18:07	1
<b>Total PCB</b>	<b>1100</b>		36	5.5	ug/Kg	☼	10/31/17 10:04	10/31/17 18:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	18	p X	54 - 133				10/31/17 10:04	10/31/17 18:07	1
Tetrachloro-m-xylene	77		46 - 130				10/31/17 10:04	10/31/17 18:07	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-137-1 (0-1) (102417)**

**Lab Sample ID: 680-144745-14**

**Date Collected: 10/24/17 14:50**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 79.2**

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DDT	0.26	U	2.0	0.26	ug/Kg	☼	10/31/17 10:04	10/31/17 18:22	1
Endrin	0.26	U	2.0	0.26	ug/Kg	☼	10/31/17 10:04	10/31/17 18:22	1
Endrin aldehyde	0.26	U	2.0	0.26	ug/Kg	☼	10/31/17 10:04	10/31/17 18:22	1
Methoxychlor	0.33	U	2.0	0.33	ug/Kg	☼	10/31/17 10:04	10/31/17 18:22	1
<b>PCB-1254</b>	<b>4.4</b>		0.20	0.059	mg/Kg	☼	10/31/17 10:04	11/01/17 16:51	5
PCB-1260	0.011	U	0.039	0.011	mg/Kg	☼	10/31/17 10:04	10/31/17 18:22	1
PCB-1262	7.2	U	39	7.2	ug/Kg	☼	10/31/17 10:04	10/31/17 18:22	1
PCB-1268	6.5	U	39	6.5	ug/Kg	☼	10/31/17 10:04	10/31/17 18:22	1
<b>Total PCB</b>	<b>4400</b>		200	30	ug/Kg	☼	10/31/17 10:04	11/01/17 16:51	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	28	p X	54 - 133				10/31/17 10:04	10/31/17 18:22	1
Tetrachloro-m-xylene	69		46 - 130				10/31/17 10:04	10/31/17 18:22	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: DS-9-1 (0-2) (102417)**

**Lab Sample ID: 680-144745-15**

**Date Collected: 10/24/17 15:30**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 89.6**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.091		0.036	0.0079	mg/Kg	☆	10/31/17 17:53	11/01/17 20:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	81		11 - 130				10/31/17 17:53	11/01/17 20:26	1
2-Fluorophenol (Surr)	76		10 - 130				10/31/17 17:53	11/01/17 20:26	1
Nitrobenzene-d5 (Surr)	45		18 - 130				10/31/17 17:53	11/01/17 20:26	1
Phenol-d5 (Surr)	73		10 - 130				10/31/17 17:53	11/01/17 20:26	1
Terphenyl-d14 (Surr)	43		27 - 130				10/31/17 17:53	11/01/17 20:26	1
2,4,6-Tribromophenol (Surr)	84		24 - 130				10/31/17 17:53	11/01/17 20:26	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: DS-9-2 (0-4) (102417)**

**Lab Sample ID: 680-144745-16**

**Date Collected: 10/24/17 15:40**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 91.2**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	2.5		0.18	0.039	mg/Kg	☆	10/31/17 17:53	11/02/17 19:39	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	39		11 - 130				10/31/17 17:53	11/02/17 19:39	5
2-Fluorophenol (Surr)	36		10 - 130				10/31/17 17:53	11/02/17 19:39	5
Nitrobenzene-d5 (Surr)	43		18 - 130				10/31/17 17:53	11/02/17 19:39	5
Phenol-d5 (Surr)	39		10 - 130				10/31/17 17:53	11/02/17 19:39	5
Terphenyl-d14 (Surr)	34		27 - 130				10/31/17 17:53	11/02/17 19:39	5
2,4,6-Tribromophenol (Surr)	41		24 - 130				10/31/17 17:53	11/02/17 19:39	5



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: DS-9-3 (0-4) (102417)**

**Lab Sample ID: 680-144745-17**

**Date Collected: 10/24/17 15:50**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 88.7**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.16		0.037	0.0081	mg/Kg	☼	10/31/17 17:53	11/01/17 21:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	77		11 - 130				10/31/17 17:53	11/01/17 21:15	1
2-Fluorophenol (Surr)	70		10 - 130				10/31/17 17:53	11/01/17 21:15	1
Nitrobenzene-d5 (Surr)	37		18 - 130				10/31/17 17:53	11/01/17 21:15	1
Phenol-d5 (Surr)	68		10 - 130				10/31/17 17:53	11/01/17 21:15	1
Terphenyl-d14 (Surr)	175	* X	27 - 130				10/31/17 17:53	11/01/17 21:15	1
2,4,6-Tribromophenol (Surr)	83		24 - 130				10/31/17 17:53	11/01/17 21:15	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: DS-9-4 (0-4) (102417)**

**Lab Sample ID: 680-144745-18**

**Date Collected: 10/24/17 16:00**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 87.9**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.13		0.036	0.0079	mg/Kg	☆	10/31/17 17:53	11/01/17 21:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	50		11 - 130				10/31/17 17:53	11/01/17 21:39	1
2-Fluorophenol (Surr)	49		10 - 130				10/31/17 17:53	11/01/17 21:39	1
Nitrobenzene-d5 (Surr)	28		18 - 130				10/31/17 17:53	11/01/17 21:39	1
Phenol-d5 (Surr)	45		10 - 130				10/31/17 17:53	11/01/17 21:39	1
Terphenyl-d14 (Surr)	67		27 - 130				10/31/17 17:53	11/01/17 21:39	1
2,4,6-Tribromophenol (Surr)	53		24 - 130				10/31/17 17:53	11/01/17 21:39	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-168-1 (0-2) (102517)**

**Lab Sample ID: 680-144745-19**

**Date Collected: 10/25/17 10:40**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 81.5**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.086	F2 F1	0.040	0.0087	mg/Kg	☼	10/27/17 15:58	10/29/17 23:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	75		11 - 130				10/27/17 15:58	10/29/17 23:41	1
2-Fluorophenol (Surr)	80		10 - 130				10/27/17 15:58	10/29/17 23:41	1
Nitrobenzene-d5 (Surr)	86		18 - 130				10/27/17 15:58	10/29/17 23:41	1
Phenol-d5 (Surr)	82		10 - 130				10/27/17 15:58	10/29/17 23:41	1
Terphenyl-d14 (Surr)	72		27 - 130				10/27/17 15:58	10/29/17 23:41	1
2,4,6-Tribromophenol (Surr)	84		24 - 130				10/27/17 15:58	10/29/17 23:41	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-168-2 (0-2) (102517)**

**Lab Sample ID: 680-144745-20**

**Date Collected: 10/25/17 10:50**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 81.7**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.58		0.040	0.0087	mg/Kg	☼	10/31/17 17:53	11/01/17 22:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	64		11 - 130				10/31/17 17:53	11/01/17 22:04	1
2-Fluorophenol (Surr)	55		10 - 130				10/31/17 17:53	11/01/17 22:04	1
Nitrobenzene-d5 (Surr)	33		18 - 130				10/31/17 17:53	11/01/17 22:04	1
Phenol-d5 (Surr)	59		10 - 130				10/31/17 17:53	11/01/17 22:04	1
Terphenyl-d14 (Surr)	135	* X	27 - 130				10/31/17 17:53	11/01/17 22:04	1
2,4,6-Tribromophenol (Surr)	67		24 - 130				10/31/17 17:53	11/01/17 22:04	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-168-3 (0-2) (102517)**

**Lab Sample ID: 680-144745-21**

**Date Collected: 10/25/17 11:00**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 81.3**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.25		0.039	0.0086	mg/Kg	☆	10/31/17 17:53	11/01/17 22:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	82		11 - 130				10/31/17 17:53	11/01/17 22:28	1
2-Fluorophenol (Surr)	88		10 - 130				10/31/17 17:53	11/01/17 22:28	1
Nitrobenzene-d5 (Surr)	51		18 - 130				10/31/17 17:53	11/01/17 22:28	1
Phenol-d5 (Surr)	82		10 - 130				10/31/17 17:53	11/01/17 22:28	1
Terphenyl-d14 (Surr)	156	* X	27 - 130				10/31/17 17:53	11/01/17 22:28	1
2,4,6-Tribromophenol (Surr)	88		24 - 130				10/31/17 17:53	11/01/17 22:28	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-189-1 (0-2) (102517)**

**Lab Sample ID: 680-144745-22**

**Date Collected: 10/25/17 11:10**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 87.1**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.12		0.037	0.0081	mg/Kg	☼	10/31/17 17:53	11/01/17 22:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	81		11 - 130				10/31/17 17:53	11/01/17 22:53	1
2-Fluorophenol (Surr)	85		10 - 130				10/31/17 17:53	11/01/17 22:53	1
Nitrobenzene-d5 (Surr)	49		18 - 130				10/31/17 17:53	11/01/17 22:53	1
Phenol-d5 (Surr)	78		10 - 130				10/31/17 17:53	11/01/17 22:53	1
Terphenyl-d14 (Surr)	154	* X	27 - 130				10/31/17 17:53	11/01/17 22:53	1
2,4,6-Tribromophenol (Surr)	87		24 - 130				10/31/17 17:53	11/01/17 22:53	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-189-2 (0-2) (102517)**

**Lab Sample ID: 680-144745-23**

**Date Collected: 10/25/17 11:20**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 82.6**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.14		0.039	0.0086	mg/Kg	☼	10/31/17 17:53	11/01/17 23:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	71		11 - 130				10/31/17 17:53	11/01/17 23:17	1
2-Fluorophenol (Surr)	66		10 - 130				10/31/17 17:53	11/01/17 23:17	1
Nitrobenzene-d5 (Surr)	39		18 - 130				10/31/17 17:53	11/01/17 23:17	1
Phenol-d5 (Surr)	63		10 - 130				10/31/17 17:53	11/01/17 23:17	1
Terphenyl-d14 (Surr)	114		27 - 130				10/31/17 17:53	11/01/17 23:17	1
2,4,6-Tribromophenol (Surr)	79		24 - 130				10/31/17 17:53	11/01/17 23:17	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-189-3 (0-2) (102517)**

**Lab Sample ID: 680-144745-24**

**Date Collected: 10/25/17 11:30**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 82.8**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.070		0.040	0.0087	mg/Kg	☼	10/31/17 17:53	11/01/17 23:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	80		11 - 130				10/31/17 17:53	11/01/17 23:42	1
2-Fluorophenol (Surr)	80		10 - 130				10/31/17 17:53	11/01/17 23:42	1
Nitrobenzene-d5 (Surr)	48		18 - 130				10/31/17 17:53	11/01/17 23:42	1
Phenol-d5 (Surr)	76		10 - 130				10/31/17 17:53	11/01/17 23:42	1
Terphenyl-d14 (Surr)	154	X	27 - 130				10/31/17 17:53	11/01/17 23:42	1
2,4,6-Tribromophenol (Surr)	86		24 - 130				10/31/17 17:53	11/01/17 23:42	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: EX-21-1 (0-2) (102517)**

**Lab Sample ID: 680-144745-25**

**Date Collected: 10/25/17 12:15**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 91.0**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	1.5		0.18	0.038	mg/Kg	☆	10/31/17 17:53	11/02/17 20:02	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	42		11 - 130				10/31/17 17:53	11/02/17 20:02	5
2-Fluorophenol (Surr)	40		10 - 130				10/31/17 17:53	11/02/17 20:02	5
Nitrobenzene-d5 (Surr)	45		18 - 130				10/31/17 17:53	11/02/17 20:02	5
Phenol-d5 (Surr)	44		10 - 130				10/31/17 17:53	11/02/17 20:02	5
Terphenyl-d14 (Surr)	45		27 - 130				10/31/17 17:53	11/02/17 20:02	5
2,4,6-Tribromophenol (Surr)	48		24 - 130				10/31/17 17:53	11/02/17 20:02	5



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: EX-21-2 (0-2) (102517)**

**Lab Sample ID: 680-144745-26**

**Date Collected: 10/25/17 12:25**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 80.8**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.10	J	0.40	0.087	mg/Kg	☼	10/27/17 15:58	10/30/17 00:03	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	0	D	11 - 130				10/27/17 15:58	10/30/17 00:03	10
2-Fluorophenol (Surr)	0	D	10 - 130				10/27/17 15:58	10/30/17 00:03	10
Nitrobenzene-d5 (Surr)	0	D	18 - 130				10/27/17 15:58	10/30/17 00:03	10
Phenol-d5 (Surr)	0	D	10 - 130				10/27/17 15:58	10/30/17 00:03	10
Terphenyl-d14 (Surr)	0	D	27 - 130				10/27/17 15:58	10/30/17 00:03	10
2,4,6-Tribromophenol (Surr)	0	D	24 - 130				10/27/17 15:58	10/30/17 00:03	10



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-198-1 (0-2) (102517)**

**Lab Sample ID: 680-144745-27**

**Date Collected: 10/25/17 14:40**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 79.6**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.0090	U	0.041	0.0090	mg/Kg	☼	10/27/17 15:58	10/30/17 00:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	82		11 - 130				10/27/17 15:58	10/30/17 00:26	1
2-Fluorophenol (Surr)	84		10 - 130				10/27/17 15:58	10/30/17 00:26	1
Nitrobenzene-d5 (Surr)	87		18 - 130				10/27/17 15:58	10/30/17 00:26	1
Phenol-d5 (Surr)	85		10 - 130				10/27/17 15:58	10/30/17 00:26	1
Terphenyl-d14 (Surr)	96		27 - 130				10/27/17 15:58	10/30/17 00:26	1
2,4,6-Tribromophenol (Surr)	90		24 - 130				10/27/17 15:58	10/30/17 00:26	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-198-2 (0-2) (102517)**

**Lab Sample ID: 680-144745-28**

**Date Collected: 10/25/17 14:50**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 88.4**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.11	J	0.36	0.079	mg/Kg	☼	10/27/17 15:58	10/30/17 00:48	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	0	D	11 - 130				10/27/17 15:58	10/30/17 00:48	10
2-Fluorophenol (Surr)	0	D	10 - 130				10/27/17 15:58	10/30/17 00:48	10
Nitrobenzene-d5 (Surr)	0	D	18 - 130				10/27/17 15:58	10/30/17 00:48	10
Phenol-d5 (Surr)	0	D	10 - 130				10/27/17 15:58	10/30/17 00:48	10
Terphenyl-d14 (Surr)	0	D	27 - 130				10/27/17 15:58	10/30/17 00:48	10
2,4,6-Tribromophenol (Surr)	0	D	24 - 130				10/27/17 15:58	10/30/17 00:48	10



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-165-1 (0-2) (102517)**

**Lab Sample ID: 680-144745-29**

**Date Collected: 10/25/17 15:10**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**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
1,1'-Biphenyl	0.27		0.039	0.0085	mg/Kg	☼	10/27/17 15:58	10/30/17 01:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	78		11 - 130				10/27/17 15:58	10/30/17 01:11	1
2-Fluorophenol (Surr)	80		10 - 130				10/27/17 15:58	10/30/17 01:11	1
Nitrobenzene-d5 (Surr)	86		18 - 130				10/27/17 15:58	10/30/17 01:11	1
Phenol-d5 (Surr)	79		10 - 130				10/27/17 15:58	10/30/17 01:11	1
Terphenyl-d14 (Surr)	89		27 - 130				10/27/17 15:58	10/30/17 01:11	1
2,4,6-Tribromophenol (Surr)	87		24 - 130				10/27/17 15:58	10/30/17 01:11	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-165-2 (0-2) (102517)**

**Lab Sample ID: 680-144745-30**

**Date Collected: 10/25/17 15:20**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 89.6**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.012	J	0.037	0.0080	mg/Kg	☼	10/27/17 15:58	10/30/17 01:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	83		11 - 130				10/27/17 15:58	10/30/17 01:33	1
2-Fluorophenol (Surr)	82		10 - 130				10/27/17 15:58	10/30/17 01:33	1
Nitrobenzene-d5 (Surr)	89		18 - 130				10/27/17 15:58	10/30/17 01:33	1
Phenol-d5 (Surr)	81		10 - 130				10/27/17 15:58	10/30/17 01:33	1
Terphenyl-d14 (Surr)	90		27 - 130				10/27/17 15:58	10/30/17 01:33	1
2,4,6-Tribromophenol (Surr)	91		24 - 130				10/27/17 15:58	10/30/17 01:33	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: EX-22-1 (0-2) (102517)**

**Lab Sample ID: 680-144745-31**

**Date Collected: 10/25/17 16:00**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**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
1,1'-Biphenyl	0.013	J	0.037	0.0080	mg/Kg	☼	10/27/17 15:58	10/30/17 01:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	75		11 - 130				10/27/17 15:58	10/30/17 01:55	1
2-Fluorophenol (Surr)	75		10 - 130				10/27/17 15:58	10/30/17 01:55	1
Nitrobenzene-d5 (Surr)	80		18 - 130				10/27/17 15:58	10/30/17 01:55	1
Phenol-d5 (Surr)	75		10 - 130				10/27/17 15:58	10/30/17 01:55	1
Terphenyl-d14 (Surr)	80		27 - 130				10/27/17 15:58	10/30/17 01:55	1
2,4,6-Tribromophenol (Surr)	77		24 - 130				10/27/17 15:58	10/30/17 01:55	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: EX-22-2 (0-2) (102517)**

**Lab Sample ID: 680-144745-32**

**Date Collected: 10/25/17 16:10**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 87.4**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.012	J	0.037	0.0081	mg/Kg	☼	10/27/17 15:58	10/30/17 02:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	87		11 - 130				10/27/17 15:58	10/30/17 02:18	1
2-Fluorophenol (Surr)	89		10 - 130				10/27/17 15:58	10/30/17 02:18	1
Nitrobenzene-d5 (Surr)	92		18 - 130				10/27/17 15:58	10/30/17 02:18	1
Phenol-d5 (Surr)	88		10 - 130				10/27/17 15:58	10/30/17 02:18	1
Terphenyl-d14 (Surr)	101		27 - 130				10/27/17 15:58	10/30/17 02:18	1
2,4,6-Tribromophenol (Surr)	97		24 - 130				10/27/17 15:58	10/30/17 02:18	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: EX-22-3 (0-2) (102517)**

**Lab Sample ID: 680-144745-33**

**Date Collected: 10/25/17 16:20**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 86.8**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.013	J	0.037	0.0081	mg/Kg	☼	10/27/17 15:58	10/30/17 02:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	62		11 - 130				10/27/17 15:58	10/30/17 02:40	1
2-Fluorophenol (Surr)	61		10 - 130				10/27/17 15:58	10/30/17 02:40	1
Nitrobenzene-d5 (Surr)	64		18 - 130				10/27/17 15:58	10/30/17 02:40	1
Phenol-d5 (Surr)	61		10 - 130				10/27/17 15:58	10/30/17 02:40	1
Terphenyl-d14 (Surr)	65		27 - 130				10/27/17 15:58	10/30/17 02:40	1
2,4,6-Tribromophenol (Surr)	69		24 - 130				10/27/17 15:58	10/30/17 02:40	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: EB-1 (102517)**

**Lab Sample ID: 680-144745-34**

**Date Collected: 10/25/17 16:30**

**Matrix: Water**

**Date Received: 10/25/17 17:30**

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by GC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DDT	0.0076	U	0.055	0.0076	ug/L		10/30/17 15:15	11/01/17 23:44	1
Endrin	0.0058	U	0.055	0.0058	ug/L		10/30/17 15:15	11/01/17 23:44	1
Endrin aldehyde	0.0067	U	0.055	0.0067	ug/L		10/30/17 15:15	11/01/17 23:44	1
Methoxychlor	0.011	U	0.055	0.011	ug/L		10/30/17 15:15	11/01/17 23:44	1
PCB-1254	0.12	U	1.1	0.12	ug/L		10/30/17 15:15	11/01/17 23:44	1
PCB-1260	0.13	U	1.1	0.13	ug/L		10/30/17 15:15	11/01/17 23:44	1
PCB-1262	0.21	U	1.1	0.21	ug/L		10/30/17 15:15	11/01/17 23:44	1
PCB-1268	0.26	U	1.1	0.26	ug/L		10/30/17 15:15	11/01/17 23:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	31		14 - 130				10/30/17 15:15	11/01/17 23:44	1
Tetrachloro-m-xylene	61		40 - 130				10/30/17 15:15	11/01/17 23:44	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: EB-2 (102517)**

**Lab Sample ID: 680-144745-35**

**Date Collected: 10/25/17 16:40**

**Matrix: Water**

**Date Received: 10/25/17 17:30**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.097	U	0.97	0.097	ug/L		10/31/17 15:29	11/03/17 00:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	89		39 - 133				10/31/17 15:29	11/03/17 00:30	1
2-Fluorobiphenyl (Surr)	83		31 - 107				10/31/17 15:29	11/03/17 00:30	1
2-Fluorophenol (Surr)	75		18 - 112				10/31/17 15:29	11/03/17 00:30	1
Terphenyl-d14 (Surr)	90		22 - 121				10/31/17 15:29	11/03/17 00:30	1
Phenol-d5 (Surr)	77		20 - 113				10/31/17 15:29	11/03/17 00:30	1
Nitrobenzene-d5 (Surr)	92		37 - 103				10/31/17 15:29	11/03/17 00:30	1



# Surrogate Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (11-130)	2FP (10-130)	NBZ (18-130)	PHL (10-130)	TPH (27-130)	TBP (24-130)
680-144745-1	SB-128-1 (0-1) (102417)	0 D	0 D	0 D	0 D	0 D	0 D
680-144745-2	SB-128-2 (0-1) (102417)	0 D	0 D	0 D	0 D	0 D	0 D
680-144745-3	SB-128-3 (0-1) (102417)	86	83	63	81	163 X	87
680-144745-4	DUP-3 (102417)	0 D	0 D	0 D	0 D	0 D	0 D
680-144745-5	SB-159-1 (0-2) (102417)	86	79	52	77	159 X	92
680-144745-6	SB-159-2 (0-2) (102417)	82	81	54	77	144 X	87
680-144745-6 MS	SB-159-2 (0-2) (102417)	77	79	71	79	13 X *	88
680-144745-6 MSD	SB-159-2 (0-2) (102417)	80	77	59	80	18 X *	88
680-144745-7	SB-159-3 (0-2) (102417)	80	79	83	79	86	99
680-144745-8	SB-126-1 (0-1) (102417)	0 D	0 D	0 D	0 D	0 D	0 D
680-144745-9	SB-126-2 (0-1) (102417)	83	78	55	78	145 X	93
680-144745-10	SB-126-3 (0-1) (102417)	89	77	54	73	141 X	92
680-144745-15	DS-9-1 (0-2) (102417)	81	76	45	73	43	84
680-144745-16	DS-9-2 (0-4) (102417)	39	36	43	39	34	41
680-144745-17	DS-9-3 (0-4) (102417)	77	70	37	68	175 * X	83
680-144745-18	DS-9-4 (0-4) (102417)	50	49	28	45	67	53
680-144745-19	SB-168-1 (0-2) (102517)	75	80	86	82	72	84
680-144745-19 MS	SB-168-1 (0-2) (102517)	76	79	83	81	68	83
680-144745-19 MSD	SB-168-1 (0-2) (102517)	24	24	26	23	23 X	26
680-144745-20	SB-168-2 (0-2) (102517)	64	55	33	59	135 * X	67
680-144745-21	SB-168-3 (0-2) (102517)	82	88	51	82	156 * X	88
680-144745-22	SB-189-1 (0-2) (102517)	81	85	49	78	154 * X	87
680-144745-23	SB-189-2 (0-2) (102517)	71	66	39	63	114	79
680-144745-24	SB-189-3 (0-2) (102517)	80	80	48	76	154 X	86
680-144745-25	EX-21-1 (0-2) (102517)	42	40	45	44	45	48
680-144745-26	EX-21-2 (0-2) (102517)	0 D	0 D	0 D	0 D	0 D	0 D
680-144745-27	SB-198-1 (0-2) (102517)	82	84	87	85	96	90
680-144745-28	SB-198-2 (0-2) (102517)	0 D	0 D	0 D	0 D	0 D	0 D
680-144745-29	SB-165-1 (0-2) (102517)	78	80	86	79	89	87
680-144745-30	SB-165-2 (0-2) (102517)	83	82	89	81	90	91
680-144745-31	EX-22-1 (0-2) (102517)	75	75	80	75	80	77
680-144745-32	EX-22-2 (0-2) (102517)	87	89	92	88	101	97
680-144745-33	EX-22-3 (0-2) (102517)	62	61	64	61	65	69
LCS 680-500243/22-A	Lab Control Sample	82	77	86	82	92	96
LCS 680-500673/22-A	Lab Control Sample	82	80	76	83	92	91
MB 680-500243/21-A	Method Blank	78	79	82	79	93	92
MB 680-500673/21-A	Method Blank	86	94	82	95	93	86

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
2FP = 2-Fluorophenol (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
PHL = Phenol-d5 (Surr)  
TPH = Terphenyl-d14 (Surr)  
TBP = 2,4,6-Tribromophenol (Surr)

TestAmerica Savannah



## Surrogate Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

### Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (39-133)	FBP (31-107)	2FP (18-112)	TPH (22-121)	PHL (20-113)	NBZ (37-103)
680-144745-35	EB-2 (102517)	89	83	75	90	77	92
LCS 680-500722/15-A	Lab Control Sample	94	77	75	75	83	87
MB 680-500722/14-A	Method Blank	96	89	87	98	92	101

#### Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

TPH = Terphenyl-d14 (Surr)

PHL = Phenol-d5 (Surr)

NBZ = Nitrobenzene-d5 (Surr)

### Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB2 (54-133)	TCX2 (46-130)
680-144745-11	SB-202-1 (0-2) (102417)	48 X	69
LCS 680-500337/20-A	Lab Control Sample	76	82
MB 680-500337/16-A	Method Blank	88	95

#### Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

### Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB1 (54-133)	TCX1 (46-130)
680-144745-12	DUP-1 (102417)	45 X	88
680-144745-13	SB-202-2 (0-2) (102417)	18 p X	77

#### Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

### Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB1 (54-133)	TCX2 (46-130)
680-144745-14	SB-137-1 (0-1) (102417)	28 p X	69

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## Surrogate Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

### Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

### Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

#### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB2 (54-133)	TCX1 (46-130)
LCS 680-500337/17-A	Lab Control Sample	79	86

### Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

### Method: 8082A - Polychlorinated Biphenyls (PCBs) by GC

Matrix: Water

Prep Type: Total/NA

#### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB2 (14-130)	TCX2 (40-130)
680-144745-34	EB-1 (102517)	31	61
LCS 680-500551/16-A	Lab Control Sample	47	71
LCS 680-500551/19-A	Lab Control Sample	45	68
MB 680-500551/15-A	Method Blank	46	61

### Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 680-500243/21-A

Matrix: Solid

Analysis Batch: 500446

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 500243

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.0070	U	0.032	0.0070	mg/Kg		10/27/17 15:58	10/29/17 16:56	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	78		11 - 130				10/27/17 15:58	10/29/17 16:56	1
2-Fluorophenol (Surr)	79		10 - 130				10/27/17 15:58	10/29/17 16:56	1
Phenol-d5 (Surr)	79		10 - 130				10/27/17 15:58	10/29/17 16:56	1
Terphenyl-d14 (Surr)	93		27 - 130				10/27/17 15:58	10/29/17 16:56	1
2,4,6-Tribromophenol (Surr)	92		24 - 130				10/27/17 15:58	10/29/17 16:56	1
Nitrobenzene-d5 (Surr)	82		18 - 130				10/27/17 15:58	10/29/17 16:56	1

Lab Sample ID: LCS 680-500243/22-A

Matrix: Solid

Analysis Batch: 500446

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 500243

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	0.326	0.244		mg/Kg		75	10 - 130
Surrogate	%Recovery	LCS Qualifier	Limits				
2-Fluorobiphenyl (Surr)	82		11 - 130				
2-Fluorophenol (Surr)	77		10 - 130				
Phenol-d5 (Surr)	82		10 - 130				
Terphenyl-d14 (Surr)	92		27 - 130				
2,4,6-Tribromophenol (Surr)	96		24 - 130				
Nitrobenzene-d5 (Surr)	86		18 - 130				

Lab Sample ID: 680-144745-19 MS

Matrix: Solid

Analysis Batch: 500446

Client Sample ID: SB-168-1 (0-2) (102517)

Prep Type: Total/NA

Prep Batch: 500243

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	0.086	F2 F1	0.407	0.440		mg/Kg	☼	87	10 - 130
Surrogate	%Recovery	MS Qualifier	Limits						
2-Fluorobiphenyl (Surr)	76		11 - 130						
2-Fluorophenol (Surr)	79		10 - 130						
Nitrobenzene-d5 (Surr)	83		18 - 130						
Phenol-d5 (Surr)	81		10 - 130						
Terphenyl-d14 (Surr)	68		27 - 130						
2,4,6-Tribromophenol (Surr)	83		24 - 130						

Lab Sample ID: 680-144745-19 MSD

Matrix: Solid

Analysis Batch: 500446

Client Sample ID: SB-168-1 (0-2) (102517)

Prep Type: Total/NA

Prep Batch: 500243

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1'-Biphenyl	0.086	F2 F1	0.411	0.119	F2 F1	mg/Kg	☼	8	10 - 130	115	50

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# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 680-144745-19 MSD

Matrix: Solid

Analysis Batch: 500446

Client Sample ID: SB-168-1 (0-2) (102517)

Prep Type: Total/NA

Prep Batch: 500243

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	24		11 - 130
2-Fluorophenol (Surr)	24		10 - 130
Nitrobenzene-d5 (Surr)	26		18 - 130
Phenol-d5 (Surr)	23		10 - 130
Terphenyl-d14 (Surr)	23	X	27 - 130
2,4,6-Tribromophenol (Surr)	26		24 - 130

Lab Sample ID: MB 680-500673/21-A

Matrix: Solid

Analysis Batch: 500852

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 500673

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.0072	U	0.033	0.0072	mg/Kg		10/31/17 17:53	11/01/17 14:46	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	86		11 - 130				10/31/17 17:53	11/01/17 14:46	1
2-Fluorophenol (Surr)	94		10 - 130				10/31/17 17:53	11/01/17 14:46	1
Phenol-d5 (Surr)	95		10 - 130				10/31/17 17:53	11/01/17 14:46	1
Terphenyl-d14 (Surr)	93		27 - 130				10/31/17 17:53	11/01/17 14:46	1
2,4,6-Tribromophenol (Surr)	86		24 - 130				10/31/17 17:53	11/01/17 14:46	1
Nitrobenzene-d5 (Surr)	82		18 - 130				10/31/17 17:53	11/01/17 14:46	1

Lab Sample ID: LCS 680-500673/22-A

Matrix: Solid

Analysis Batch: 500852

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 500673

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	0.328	0.244		mg/Kg		74	10 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2-Fluorobiphenyl (Surr)	82		11 - 130				
2-Fluorophenol (Surr)	80		10 - 130				
Phenol-d5 (Surr)	83		10 - 130				
Terphenyl-d14 (Surr)	92		27 - 130				
2,4,6-Tribromophenol (Surr)	91		24 - 130				
Nitrobenzene-d5 (Surr)	76		18 - 130				

Lab Sample ID: 680-144745-6 MS

Matrix: Solid

Analysis Batch: 500852

Client Sample ID: SB-159-2 (0-2) (102417)

Prep Type: Total/NA

Prep Batch: 500673

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	0.15		0.365	0.376		mg/Kg	✱	61	10 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
2-Fluorobiphenyl (Surr)	77		11 - 130						
2-Fluorophenol (Surr)	79		10 - 130						

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# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 680-144745-6 MS

Matrix: Solid

Analysis Batch: 500852

Client Sample ID: SB-159-2 (0-2) (102417)

Prep Type: Total/NA

Prep Batch: 500673

Surrogate	MS %Recovery	MS Qualifier	Limits
Nitrobenzene-d5 (Surr)	71		18 - 130
Phenol-d5 (Surr)	79		10 - 130
Terphenyl-d14 (Surr)	13	X *	27 - 130
2,4,6-Tribromophenol (Surr)	88		24 - 130

Lab Sample ID: 680-144745-6 MSD

Matrix: Solid

Analysis Batch: 500852

Client Sample ID: SB-159-2 (0-2) (102417)

Prep Type: Total/NA

Prep Batch: 500673

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1'-Biphenyl	0.15		0.369	0.351		mg/Kg	☼	54	10 - 130	7	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	80		11 - 130
2-Fluorophenol (Surr)	77		10 - 130
Nitrobenzene-d5 (Surr)	59		18 - 130
Phenol-d5 (Surr)	80		10 - 130
Terphenyl-d14 (Surr)	18	X *	27 - 130
2,4,6-Tribromophenol (Surr)	88		24 - 130

Lab Sample ID: MB 680-500722/14-A

Matrix: Water

Analysis Batch: 501034

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 500722

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.10	U	1.0	0.10	ug/L		10/31/17 15:29	11/02/17 20:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	89		31 - 107	10/31/17 15:29	11/02/17 20:24	1
2-Fluorophenol (Surr)	87		18 - 112	10/31/17 15:29	11/02/17 20:24	1
Phenol-d5 (Surr)	92		20 - 113	10/31/17 15:29	11/02/17 20:24	1
Terphenyl-d14 (Surr)	98		22 - 121	10/31/17 15:29	11/02/17 20:24	1
2,4,6-Tribromophenol (Surr)	96		39 - 133	10/31/17 15:29	11/02/17 20:24	1
Nitrobenzene-d5 (Surr)	101		37 - 103	10/31/17 15:29	11/02/17 20:24	1

Lab Sample ID: LCS 680-500722/15-A

Matrix: Water

Analysis Batch: 501034

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 500722

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	10.0	7.34		ug/L		73	35 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	77		31 - 107
2-Fluorophenol (Surr)	75		18 - 112
Phenol-d5 (Surr)	83		20 - 113
Terphenyl-d14 (Surr)	75		22 - 121

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 680-500722/15-A

Matrix: Water

Analysis Batch: 501034

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 500722

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	94		39 - 133
Nitrobenzene-d5 (Surr)	87		37 - 103

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Lab Sample ID: MB 680-500337/16-A

Matrix: Solid

Analysis Batch: 500742

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 500337

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DDT	0.21	U	1.6	0.21	ug/Kg		10/31/17 10:04	10/31/17 16:56	1
Endrin	0.21	U	1.6	0.21	ug/Kg		10/31/17 10:04	10/31/17 16:56	1
Endrin aldehyde	0.21	U	1.6	0.21	ug/Kg		10/31/17 10:04	10/31/17 16:56	1
Methoxychlor	0.27	U	1.6	0.27	ug/Kg		10/31/17 10:04	10/31/17 16:56	1
PCB-1254	0.0095	U	0.031	0.0095	mg/Kg		10/31/17 10:04	10/31/17 16:56	1
PCB-1260	0.0091	U	0.031	0.0091	mg/Kg		10/31/17 10:04	10/31/17 16:56	1
PCB-1262	5.8	U	31	5.8	ug/Kg		10/31/17 10:04	10/31/17 16:56	1
PCB-1268	5.2	U	31	5.2	ug/Kg		10/31/17 10:04	10/31/17 16:56	1
Total PCB	4.8	U	31	4.8	ug/Kg		10/31/17 10:04	10/31/17 16:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	88		54 - 133	10/31/17 10:04	10/31/17 16:56	1
Tetrachloro-m-xylene	95		46 - 130	10/31/17 10:04	10/31/17 16:56	1

Lab Sample ID: LCS 680-500337/17-A

Matrix: Solid

Analysis Batch: 500742

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 500337

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1260	0.377	0.375		mg/Kg		99	45 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	79		54 - 133
Tetrachloro-m-xylene	86		46 - 130

Lab Sample ID: LCS 680-500337/20-A

Matrix: Solid

Analysis Batch: 500742

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 500337

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DDT	6.28	5.50		ug/Kg		88	45 - 144
Endrin	6.28	5.64		ug/Kg		90	46 - 155
Endrin aldehyde	6.28	5.48		ug/Kg		87	41 - 135
Methoxychlor	6.28	5.52		ug/Kg		88	43 - 166

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Lab Sample ID: LCS 680-500337/20-A  
Matrix: Solid  
Analysis Batch: 500742

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 500337

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	76		54 - 133
Tetrachloro-m-xylene	82		46 - 130

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by GC

Lab Sample ID: MB 680-500551/15-A  
Matrix: Water  
Analysis Batch: 500898

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 500551

Analyte	MB	MB								
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
DDT	0.0070	U	0.050	0.0070	ug/L		10/30/17 15:15	11/01/17 16:32	1	
Endrin	0.0053	U	0.050	0.0053	ug/L		10/30/17 15:15	11/01/17 16:32	1	
Endrin aldehyde	0.0061	U	0.050	0.0061	ug/L		10/30/17 15:15	11/01/17 16:32	1	
Methoxychlor	0.0098	U	0.050	0.0098	ug/L		10/30/17 15:15	11/01/17 16:32	1	
PCB-1254	0.11	U	1.0	0.11	ug/L		10/30/17 15:15	11/01/17 16:32	1	
PCB-1260	0.12	U	1.0	0.12	ug/L		10/30/17 15:15	11/01/17 16:32	1	
PCB-1262	0.19	U	1.0	0.19	ug/L		10/30/17 15:15	11/01/17 16:32	1	
PCB-1268	0.24	U	1.0	0.24	ug/L		10/30/17 15:15	11/01/17 16:32	1	

	MB	MB								
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil	Fac
DCB Decachlorobiphenyl	46		14 - 130				10/30/17 15:15	11/01/17 16:32	1	
Tetrachloro-m-xylene	61		40 - 130				10/30/17 15:15	11/01/17 16:32	1	

Lab Sample ID: LCS 680-500551/16-A  
Matrix: Water  
Analysis Batch: 500898

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 500551

Analyte	Spike	LCS	LCS							
	Added	Result	Qualifier	Unit	D	%Rec	%Rec.	Limits		
DDT	0.100	0.102		ug/L		102	47 - 134			
Endrin	0.100	0.103		ug/L		103	59 - 143			
Endrin aldehyde	0.100	0.111		ug/L		111	45 - 166			
Methoxychlor	0.100	0.110		ug/L		110	52 - 136			

	LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits							
DCB Decachlorobiphenyl	47		14 - 130							
Tetrachloro-m-xylene	71		40 - 130							

Lab Sample ID: LCS 680-500551/19-A  
Matrix: Water  
Analysis Batch: 500898

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 500551

Analyte	Spike	LCS	LCS							
	Added	Result	Qualifier	Unit	D	%Rec	%Rec.	Limits		
PCB-1260	6.00	4.54		ug/L		76	35 - 130			

TestAmerica Savannah



## QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

### Method: 8082A - Polychlorinated Biphenyls (PCBs) by GC (Continued)

Lab Sample ID: LCS 680-500551/19-A

Matrix: Water

Analysis Batch: 500898

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 500551

Surrogate	LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	45		14 - 130
Tetrachloro-m-xylene	68		40 - 130



# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

## GC/MS Semi VOA

### Prep Batch: 500243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-19	SB-168-1 (0-2) (102517)	Total/NA	Solid	3546	
680-144745-26	EX-21-2 (0-2) (102517)	Total/NA	Solid	3546	
680-144745-27	SB-198-1 (0-2) (102517)	Total/NA	Solid	3546	
680-144745-28	SB-198-2 (0-2) (102517)	Total/NA	Solid	3546	
680-144745-29	SB-165-1 (0-2) (102517)	Total/NA	Solid	3546	
680-144745-30	SB-165-2 (0-2) (102517)	Total/NA	Solid	3546	
680-144745-31	EX-22-1 (0-2) (102517)	Total/NA	Solid	3546	
680-144745-32	EX-22-2 (0-2) (102517)	Total/NA	Solid	3546	
680-144745-33	EX-22-3 (0-2) (102517)	Total/NA	Solid	3546	
MB 680-500243/21-A	Method Blank	Total/NA	Solid	3546	
LCS 680-500243/22-A	Lab Control Sample	Total/NA	Solid	3546	
680-144745-19 MS	SB-168-1 (0-2) (102517)	Total/NA	Solid	3546	
680-144745-19 MSD	SB-168-1 (0-2) (102517)	Total/NA	Solid	3546	

### Analysis Batch: 500446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-19	SB-168-1 (0-2) (102517)	Total/NA	Solid	8270D LL	500243
680-144745-26	EX-21-2 (0-2) (102517)	Total/NA	Solid	8270D LL	500243
680-144745-27	SB-198-1 (0-2) (102517)	Total/NA	Solid	8270D LL	500243
680-144745-28	SB-198-2 (0-2) (102517)	Total/NA	Solid	8270D LL	500243
680-144745-29	SB-165-1 (0-2) (102517)	Total/NA	Solid	8270D LL	500243
680-144745-30	SB-165-2 (0-2) (102517)	Total/NA	Solid	8270D LL	500243
680-144745-31	EX-22-1 (0-2) (102517)	Total/NA	Solid	8270D LL	500243
680-144745-32	EX-22-2 (0-2) (102517)	Total/NA	Solid	8270D LL	500243
680-144745-33	EX-22-3 (0-2) (102517)	Total/NA	Solid	8270D LL	500243
MB 680-500243/21-A	Method Blank	Total/NA	Solid	8270D LL	500243
LCS 680-500243/22-A	Lab Control Sample	Total/NA	Solid	8270D LL	500243
680-144745-19 MS	SB-168-1 (0-2) (102517)	Total/NA	Solid	8270D LL	500243
680-144745-19 MSD	SB-168-1 (0-2) (102517)	Total/NA	Solid	8270D LL	500243

### Prep Batch: 500673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-1	SB-128-1 (0-1) (102417)	Total/NA	Solid	3546	
680-144745-2	SB-128-2 (0-1) (102417)	Total/NA	Solid	3546	
680-144745-3	SB-128-3 (0-1) (102417)	Total/NA	Solid	3546	
680-144745-4	DUP-3 (102417)	Total/NA	Solid	3546	
680-144745-5	SB-159-1 (0-2) (102417)	Total/NA	Solid	3546	
680-144745-6	SB-159-2 (0-2) (102417)	Total/NA	Solid	3546	
680-144745-7	SB-159-3 (0-2) (102417)	Total/NA	Solid	3546	
680-144745-8	SB-126-1 (0-1) (102417)	Total/NA	Solid	3546	
680-144745-9	SB-126-2 (0-1) (102417)	Total/NA	Solid	3546	
680-144745-10	SB-126-3 (0-1) (102417)	Total/NA	Solid	3546	
680-144745-15	DS-9-1 (0-2) (102417)	Total/NA	Solid	3546	
680-144745-16	DS-9-2 (0-4) (102417)	Total/NA	Solid	3546	
680-144745-17	DS-9-3 (0-4) (102417)	Total/NA	Solid	3546	
680-144745-18	DS-9-4 (0-4) (102417)	Total/NA	Solid	3546	
680-144745-20	SB-168-2 (0-2) (102517)	Total/NA	Solid	3546	
680-144745-21	SB-168-3 (0-2) (102517)	Total/NA	Solid	3546	
680-144745-22	SB-189-1 (0-2) (102517)	Total/NA	Solid	3546	
680-144745-23	SB-189-2 (0-2) (102517)	Total/NA	Solid	3546	
680-144745-24	SB-189-3 (0-2) (102517)	Total/NA	Solid	3546	

TestAmerica Savannah



# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

## GC/MS Semi VOA (Continued)

### Prep Batch: 500673 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-25	EX-21-1 (0-2) (102517)	Total/NA	Solid	3546	
MB 680-500673/21-A	Method Blank	Total/NA	Solid	3546	
LCS 680-500673/22-A	Lab Control Sample	Total/NA	Solid	3546	
680-144745-6 MS	SB-159-2 (0-2) (102417)	Total/NA	Solid	3546	
680-144745-6 MSD	SB-159-2 (0-2) (102417)	Total/NA	Solid	3546	

### Prep Batch: 500722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-35	EB-2 (102517)	Total/NA	Water	3520C	
MB 680-500722/14-A	Method Blank	Total/NA	Water	3520C	
LCS 680-500722/15-A	Lab Control Sample	Total/NA	Water	3520C	

### Analysis Batch: 500852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-3	SB-128-3 (0-1) (102417)	Total/NA	Solid	8270D LL	500673
680-144745-5	SB-159-1 (0-2) (102417)	Total/NA	Solid	8270D LL	500673
680-144745-6	SB-159-2 (0-2) (102417)	Total/NA	Solid	8270D LL	500673
680-144745-9	SB-126-2 (0-1) (102417)	Total/NA	Solid	8270D LL	500673
680-144745-10	SB-126-3 (0-1) (102417)	Total/NA	Solid	8270D LL	500673
680-144745-15	DS-9-1 (0-2) (102417)	Total/NA	Solid	8270D LL	500673
680-144745-17	DS-9-3 (0-4) (102417)	Total/NA	Solid	8270D LL	500673
680-144745-18	DS-9-4 (0-4) (102417)	Total/NA	Solid	8270D LL	500673
680-144745-20	SB-168-2 (0-2) (102517)	Total/NA	Solid	8270D LL	500673
680-144745-21	SB-168-3 (0-2) (102517)	Total/NA	Solid	8270D LL	500673
680-144745-22	SB-189-1 (0-2) (102517)	Total/NA	Solid	8270D LL	500673
680-144745-23	SB-189-2 (0-2) (102517)	Total/NA	Solid	8270D LL	500673
680-144745-24	SB-189-3 (0-2) (102517)	Total/NA	Solid	8270D LL	500673
MB 680-500673/21-A	Method Blank	Total/NA	Solid	8270D LL	500673
LCS 680-500673/22-A	Lab Control Sample	Total/NA	Solid	8270D LL	500673
680-144745-6 MS	SB-159-2 (0-2) (102417)	Total/NA	Solid	8270D LL	500673
680-144745-6 MSD	SB-159-2 (0-2) (102417)	Total/NA	Solid	8270D LL	500673

### Analysis Batch: 501034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-2	SB-128-2 (0-1) (102417)	Total/NA	Solid	8270D LL	500673
680-144745-4	DUP-3 (102417)	Total/NA	Solid	8270D LL	500673
680-144745-7	SB-159-3 (0-2) (102417)	Total/NA	Solid	8270D LL	500673
680-144745-8	SB-126-1 (0-1) (102417)	Total/NA	Solid	8270D LL	500673
680-144745-16	DS-9-2 (0-4) (102417)	Total/NA	Solid	8270D LL	500673
680-144745-25	EX-21-1 (0-2) (102517)	Total/NA	Solid	8270D LL	500673
680-144745-35	EB-2 (102517)	Total/NA	Water	8270D LL	500722
MB 680-500722/14-A	Method Blank	Total/NA	Water	8270D LL	500722
LCS 680-500722/15-A	Lab Control Sample	Total/NA	Water	8270D LL	500722

### Analysis Batch: 501424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-1	SB-128-1 (0-1) (102417)	Total/NA	Solid	8270D LL	500673

TestAmerica Savannah



# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

## GC Semi VOA

### Prep Batch: 500337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-11	SB-202-1 (0-2) (102417)	Total/NA	Solid	3546	
680-144745-12	DUP-1 (102417)	Total/NA	Solid	3546	
680-144745-13	SB-202-2 (0-2) (102417)	Total/NA	Solid	3546	
680-144745-14	SB-137-1 (0-1) (102417)	Total/NA	Solid	3546	
MB 680-500337/16-A	Method Blank	Total/NA	Solid	3546	
LCS 680-500337/17-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 680-500337/20-A	Lab Control Sample	Total/NA	Solid	3546	

### Prep Batch: 500551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-34	EB-1 (102517)	Total/NA	Water	3520C	
MB 680-500551/15-A	Method Blank	Total/NA	Water	3520C	
LCS 680-500551/16-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 680-500551/19-A	Lab Control Sample	Total/NA	Water	3520C	

### Analysis Batch: 500742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-11	SB-202-1 (0-2) (102417)	Total/NA	Solid	8081B/8082A	500337
680-144745-12	DUP-1 (102417)	Total/NA	Solid	8081B/8082A	500337
680-144745-13	SB-202-2 (0-2) (102417)	Total/NA	Solid	8081B/8082A	500337
680-144745-14	SB-137-1 (0-1) (102417)	Total/NA	Solid	8081B/8082A	500337
MB 680-500337/16-A	Method Blank	Total/NA	Solid	8081B/8082A	500337
LCS 680-500337/17-A	Lab Control Sample	Total/NA	Solid	8081B/8082A	500337
LCS 680-500337/20-A	Lab Control Sample	Total/NA	Solid	8081B/8082A	500337

### Analysis Batch: 500890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-11	SB-202-1 (0-2) (102417)	Total/NA	Solid	8081B/8082A	500337
680-144745-14	SB-137-1 (0-1) (102417)	Total/NA	Solid	8081B/8082A	500337

### Analysis Batch: 500898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-500551/15-A	Method Blank	Total/NA	Water	8082A	500551
LCS 680-500551/16-A	Lab Control Sample	Total/NA	Water	8082A	500551
LCS 680-500551/19-A	Lab Control Sample	Total/NA	Water	8082A	500551

### Analysis Batch: 500956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-34	EB-1 (102517)	Total/NA	Water	8082A	500551

## General Chemistry

### Analysis Batch: 500224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-1	SB-128-1 (0-1) (102417)	Total/NA	Solid	Moisture	
680-144745-2	SB-128-2 (0-1) (102417)	Total/NA	Solid	Moisture	
680-144745-3	SB-128-3 (0-1) (102417)	Total/NA	Solid	Moisture	
680-144745-4	DUP-3 (102417)	Total/NA	Solid	Moisture	
680-144745-5	SB-159-1 (0-2) (102417)	Total/NA	Solid	Moisture	
680-144745-6	SB-159-2 (0-2) (102417)	Total/NA	Solid	Moisture	

TestAmerica Savannah



# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

## General Chemistry (Continued)

### Analysis Batch: 500224 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-7	SB-159-3 (0-2) (102417)	Total/NA	Solid	Moisture	
680-144745-8	SB-126-1 (0-1) (102417)	Total/NA	Solid	Moisture	
680-144745-9	SB-126-2 (0-1) (102417)	Total/NA	Solid	Moisture	
680-144745-10	SB-126-3 (0-1) (102417)	Total/NA	Solid	Moisture	
680-144745-11	SB-202-1 (0-2) (102417)	Total/NA	Solid	Moisture	
680-144745-12	DUP-1 (102417)	Total/NA	Solid	Moisture	
680-144745-13	SB-202-2 (0-2) (102417)	Total/NA	Solid	Moisture	
680-144745-14	SB-137-1 (0-1) (102417)	Total/NA	Solid	Moisture	
680-144745-15	DS-9-1 (0-2) (102417)	Total/NA	Solid	Moisture	
680-144745-16	DS-9-2 (0-4) (102417)	Total/NA	Solid	Moisture	
680-144745-17	DS-9-3 (0-4) (102417)	Total/NA	Solid	Moisture	
680-144745-18	DS-9-4 (0-4) (102417)	Total/NA	Solid	Moisture	
680-144745-19	SB-168-1 (0-2) (102517)	Total/NA	Solid	Moisture	
680-144745-20	SB-168-2 (0-2) (102517)	Total/NA	Solid	Moisture	
680-144745-21	SB-168-3 (0-2) (102517)	Total/NA	Solid	Moisture	
680-144745-22	SB-189-1 (0-2) (102517)	Total/NA	Solid	Moisture	
680-144745-23	SB-189-2 (0-2) (102517)	Total/NA	Solid	Moisture	
680-144745-24	SB-189-3 (0-2) (102517)	Total/NA	Solid	Moisture	
680-144745-25	EX-21-1 (0-2) (102517)	Total/NA	Solid	Moisture	
680-144745-26	EX-21-2 (0-2) (102517)	Total/NA	Solid	Moisture	
680-144745-27	SB-198-1 (0-2) (102517)	Total/NA	Solid	Moisture	
680-144745-28	SB-198-2 (0-2) (102517)	Total/NA	Solid	Moisture	
680-144745-29	SB-165-1 (0-2) (102517)	Total/NA	Solid	Moisture	
680-144745-30	SB-165-2 (0-2) (102517)	Total/NA	Solid	Moisture	
680-144745-31	EX-22-1 (0-2) (102517)	Total/NA	Solid	Moisture	
680-144745-32	EX-22-2 (0-2) (102517)	Total/NA	Solid	Moisture	
680-144745-33	EX-22-3 (0-2) (102517)	Total/NA	Solid	Moisture	
680-144745-6 MS	SB-159-2 (0-2) (102417)	Total/NA	Solid	Moisture	
680-144745-6 MSD	SB-159-2 (0-2) (102417)	Total/NA	Solid	Moisture	
680-144745-19 MS	SB-168-1 (0-2) (102517)	Total/NA	Solid	Moisture	
680-144745-19 MSD	SB-168-1 (0-2) (102517)	Total/NA	Solid	Moisture	



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-128-1 (0-1) (102417)**

Date Collected: 10/24/17 09:30

Date Received: 10/25/17 17:30

**Lab Sample ID: 680-144745-1**

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-128-1 (0-1) (102417)**

Date Collected: 10/24/17 09:30

Date Received: 10/25/17 17:30

**Lab Sample ID: 680-144745-1**

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			30.43 g	1 mL	500673	10/31/17 17:53	JAM	TAL SAV
Total/NA	Analysis	8270D LL		2000			501424	11/06/17 16:35	UI	TAL SAV

**Client Sample ID: SB-128-2 (0-1) (102417)**

Date Collected: 10/24/17 09:40

Date Received: 10/25/17 17:30

**Lab Sample ID: 680-144745-2**

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-128-2 (0-1) (102417)**

Date Collected: 10/24/17 09:40

Date Received: 10/25/17 17:30

**Lab Sample ID: 680-144745-2**

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			30.84 g	1 mL	500673	10/31/17 17:53	JAM	TAL SAV
Total/NA	Analysis	8270D LL		10			501034	11/02/17 18:09	OK	TAL SAV

**Client Sample ID: SB-128-3 (0-1) (102417)**

Date Collected: 10/24/17 09:50

Date Received: 10/25/17 17:30

**Lab Sample ID: 680-144745-3**

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-128-3 (0-1) (102417)**

Date Collected: 10/24/17 09:50

Date Received: 10/25/17 17:30

**Lab Sample ID: 680-144745-3**

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			30.88 g	1 mL	500673	10/31/17 17:53	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			500852	11/01/17 17:12	OK	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: DUP-3 (102417)**

Date Collected: 10/24/17 00:00

Date Received: 10/25/17 17:30

**Lab Sample ID: 680-144745-4**

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: DUP-3 (102417)**

Date Collected: 10/24/17 00:00

Date Received: 10/25/17 17:30

**Lab Sample ID: 680-144745-4**

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			30.00 g	1 mL	500673	10/31/17 17:53	JAM	TAL SAV
Total/NA	Analysis	8270D LL		10			501034	11/02/17 18:32	OK	TAL SAV

**Client Sample ID: SB-159-1 (0-2) (102417)**

Date Collected: 10/24/17 10:00

Date Received: 10/25/17 17:30

**Lab Sample ID: 680-144745-5**

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-159-1 (0-2) (102417)**

Date Collected: 10/24/17 10:00

Date Received: 10/25/17 17:30

**Lab Sample ID: 680-144745-5**

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			30.96 g	1 mL	500673	10/31/17 17:53	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			500852	11/01/17 18:01	OK	TAL SAV

**Client Sample ID: SB-159-2 (0-2) (102417)**

Date Collected: 10/24/17 10:10

Date Received: 10/25/17 17:30

**Lab Sample ID: 680-144745-6**

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-159-2 (0-2) (102417)**

Date Collected: 10/24/17 10:10

Date Received: 10/25/17 17:30

**Lab Sample ID: 680-144745-6**

Matrix: Solid

Percent Solids: 88.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.92 g	1 mL	500673	10/31/17 17:53	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			500852	11/01/17 18:25	OK	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-159-3 (0-2) (102417)**

Date Collected: 10/24/17 10:20

Date Received: 10/25/17 17:30

**Lab Sample ID: 680-144745-7**

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-159-3 (0-2) (102417)**

Date Collected: 10/24/17 10:20

Date Received: 10/25/17 17:30

**Lab Sample ID: 680-144745-7**

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	3546			30.18 g	1 mL	500673	10/31/17 17:53	JAM	TAL SAV
Total/NA	Analysis	8270D LL		5			501034	11/02/17 18:55	OK	TAL SAV

**Client Sample ID: SB-126-1 (0-1) (102417)**

Date Collected: 10/24/17 10:50

Date Received: 10/25/17 17:30

**Lab Sample ID: 680-144745-8**

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-126-1 (0-1) (102417)**

Date Collected: 10/24/17 10:50

Date Received: 10/25/17 17:30

**Lab Sample ID: 680-144745-8**

Matrix: Solid

Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.82 g	1 mL	500673	10/31/17 17:53	JAM	TAL SAV
Total/NA	Analysis	8270D LL		10			501034	11/02/17 19:17	OK	TAL SAV

**Client Sample ID: SB-126-2 (0-1) (102417)**

Date Collected: 10/24/17 11:00

Date Received: 10/25/17 17:30

**Lab Sample ID: 680-144745-9**

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-126-2 (0-1) (102417)**

Date Collected: 10/24/17 11:00

Date Received: 10/25/17 17:30

**Lab Sample ID: 680-144745-9**

Matrix: Solid

Percent Solids: 83.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.67 g	1 mL	500673	10/31/17 17:53	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			500852	11/01/17 19:38	OK	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-126-3 (0-1) (102417)**

**Lab Sample ID: 680-144745-10**

Date Collected: 10/24/17 11:10

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-126-3 (0-1) (102417)**

**Lab Sample ID: 680-144745-10**

Date Collected: 10/24/17 11:10

Matrix: Solid

Date Received: 10/25/17 17:30

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			30.05 g	1 mL	500673	10/31/17 17:53	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			500852	11/01/17 20:02	OK	TAL SAV

**Client Sample ID: SB-202-1 (0-2) (102417)**

**Lab Sample ID: 680-144745-11**

Date Collected: 10/24/17 14:25

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-202-1 (0-2) (102417)**

**Lab Sample ID: 680-144745-11**

Date Collected: 10/24/17 14:25

Matrix: Solid

Date Received: 10/25/17 17:30

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			15.66 g	10 mL	500337	10/31/17 10:04	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		1			500742	10/31/17 17:39	JCK	TAL SAV
Total/NA	Prep	3546			15.66 g	10 mL	500337	10/31/17 10:04	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		4			500890	11/01/17 16:37	JCK	TAL SAV

**Client Sample ID: DUP-1 (102417)**

**Lab Sample ID: 680-144745-12**

Date Collected: 10/24/17 00:00

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: DUP-1 (102417)**

**Lab Sample ID: 680-144745-12**

Date Collected: 10/24/17 00:00

Matrix: Solid

Date Received: 10/25/17 17:30

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			15.87 g	10 mL	500337	10/31/17 10:04	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		1			500742	10/31/17 17:53	JCK	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-202-2 (0-2) (102417)**

**Lab Sample ID: 680-144745-13**

Date Collected: 10/24/17 14:35

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-202-2 (0-2) (102417)**

**Lab Sample ID: 680-144745-13**

Date Collected: 10/24/17 14:35

Matrix: Solid

Date Received: 10/25/17 17:30

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			15.76 g	10 mL	500337	10/31/17 10:04	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		1			500742	10/31/17 18:07	JCK	TAL SAV

**Client Sample ID: SB-137-1 (0-1) (102417)**

**Lab Sample ID: 680-144745-14**

Date Collected: 10/24/17 14:50

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-137-1 (0-1) (102417)**

**Lab Sample ID: 680-144745-14**

Date Collected: 10/24/17 14:50

Matrix: Solid

Date Received: 10/25/17 17:30

Percent Solids: 79.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.95 g	10 mL	500337	10/31/17 10:04	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		1			500742	10/31/17 18:22	JCK	TAL SAV
Total/NA	Prep	3546			15.95 g	10 mL	500337	10/31/17 10:04	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		5			500890	11/01/17 16:51	JCK	TAL SAV

**Client Sample ID: DS-9-1 (0-2) (102417)**

**Lab Sample ID: 680-144745-15**

Date Collected: 10/24/17 15:30

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: DS-9-1 (0-2) (102417)**

**Lab Sample ID: 680-144745-15**

Date Collected: 10/24/17 15:30

Matrix: Solid

Date Received: 10/25/17 17:30

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			30.50 g	1 mL	500673	10/31/17 17:53	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			500852	11/01/17 20:26	OK	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: DS-9-2 (0-4) (102417)**

**Lab Sample ID: 680-144745-16**

Date Collected: 10/24/17 15:40

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: DS-9-2 (0-4) (102417)**

**Lab Sample ID: 680-144745-16**

Date Collected: 10/24/17 15:40

Matrix: Solid

Date Received: 10/25/17 17:30

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	3546			30.60 g	1 mL	500673	10/31/17 17:53	JAM	TAL SAV
Total/NA	Analysis	8270D LL		5			501034	11/02/17 19:39	OK	TAL SAV

**Client Sample ID: DS-9-3 (0-4) (102417)**

**Lab Sample ID: 680-144745-17**

Date Collected: 10/24/17 15:50

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: DS-9-3 (0-4) (102417)**

**Lab Sample ID: 680-144745-17**

Date Collected: 10/24/17 15:50

Matrix: Solid

Date Received: 10/25/17 17:30

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			30.08 g	1 mL	500673	10/31/17 17:53	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			500852	11/01/17 21:15	OK	TAL SAV

**Client Sample ID: DS-9-4 (0-4) (102417)**

**Lab Sample ID: 680-144745-18**

Date Collected: 10/24/17 16:00

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: DS-9-4 (0-4) (102417)**

**Lab Sample ID: 680-144745-18**

Date Collected: 10/24/17 16:00

Matrix: Solid

Date Received: 10/25/17 17:30

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	3546			30.92 g	1 mL	500673	10/31/17 17:53	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			500852	11/01/17 21:39	OK	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-168-1 (0-2) (102517)**

**Lab Sample ID: 680-144745-19**

Date Collected: 10/25/17 10:40

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-168-1 (0-2) (102517)**

**Lab Sample ID: 680-144745-19**

Date Collected: 10/25/17 10:40

Matrix: Solid

Date Received: 10/25/17 17:30

Percent Solids: 81.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.46 g	1 mL	500243	10/27/17 15:58	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			500446	10/29/17 23:41	NED	TAL SAV

**Client Sample ID: SB-168-2 (0-2) (102517)**

**Lab Sample ID: 680-144745-20**

Date Collected: 10/25/17 10:50

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-168-2 (0-2) (102517)**

**Lab Sample ID: 680-144745-20**

Date Collected: 10/25/17 10:50

Matrix: Solid

Date Received: 10/25/17 17:30

Percent Solids: 81.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.57 g	1 mL	500673	10/31/17 17:53	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			500852	11/01/17 22:04	OK	TAL SAV

**Client Sample ID: SB-168-3 (0-2) (102517)**

**Lab Sample ID: 680-144745-21**

Date Collected: 10/25/17 11:00

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-168-3 (0-2) (102517)**

**Lab Sample ID: 680-144745-21**

Date Collected: 10/25/17 11:00

Matrix: Solid

Date Received: 10/25/17 17:30

Percent Solids: 81.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.95 g	1 mL	500673	10/31/17 17:53	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			500852	11/01/17 22:28	OK	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-189-1 (0-2) (102517)**

**Lab Sample ID: 680-144745-22**

Date Collected: 10/25/17 11:10

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-189-1 (0-2) (102517)**

**Lab Sample ID: 680-144745-22**

Date Collected: 10/25/17 11:10

Matrix: Solid

Date Received: 10/25/17 17:30

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			30.66 g	1 mL	500673	10/31/17 17:53	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			500852	11/01/17 22:53	OK	TAL SAV

**Client Sample ID: SB-189-2 (0-2) (102517)**

**Lab Sample ID: 680-144745-23**

Date Collected: 10/25/17 11:20

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-189-2 (0-2) (102517)**

**Lab Sample ID: 680-144745-23**

Date Collected: 10/25/17 11:20

Matrix: Solid

Date Received: 10/25/17 17:30

Percent Solids: 82.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.35 g	1 mL	500673	10/31/17 17:53	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			500852	11/01/17 23:17	OK	TAL SAV

**Client Sample ID: SB-189-3 (0-2) (102517)**

**Lab Sample ID: 680-144745-24**

Date Collected: 10/25/17 11:30

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-189-3 (0-2) (102517)**

**Lab Sample ID: 680-144745-24**

Date Collected: 10/25/17 11:30

Matrix: Solid

Date Received: 10/25/17 17:30

Percent Solids: 82.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.14 g	1 mL	500673	10/31/17 17:53	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			500852	11/01/17 23:42	OK	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: EX-21-1 (0-2) (102517)**

**Lab Sample ID: 680-144745-25**

Date Collected: 10/25/17 12:15

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: EX-21-1 (0-2) (102517)**

**Lab Sample ID: 680-144745-25**

Date Collected: 10/25/17 12:15

Matrix: Solid

Date Received: 10/25/17 17:30

Percent Solids: 91.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.98 g	1 mL	500673	10/31/17 17:53	JAM	TAL SAV
Total/NA	Analysis	8270D LL		5			501034	11/02/17 20:02	OK	TAL SAV

**Client Sample ID: EX-21-2 (0-2) (102517)**

**Lab Sample ID: 680-144745-26**

Date Collected: 10/25/17 12:25

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: EX-21-2 (0-2) (102517)**

**Lab Sample ID: 680-144745-26**

Date Collected: 10/25/17 12:25

Matrix: Solid

Date Received: 10/25/17 17:30

Percent Solids: 80.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.61 g	1 mL	500243	10/27/17 15:58	JAM	TAL SAV
Total/NA	Analysis	8270D LL		10			500446	10/30/17 00:03	NED	TAL SAV

**Client Sample ID: SB-198-1 (0-2) (102517)**

**Lab Sample ID: 680-144745-27**

Date Collected: 10/25/17 14:40

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-198-1 (0-2) (102517)**

**Lab Sample ID: 680-144745-27**

Date Collected: 10/25/17 14:40

Matrix: Solid

Date Received: 10/25/17 17:30

Percent Solids: 79.6

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	500243	10/27/17 15:58	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			500446	10/30/17 00:26	NED	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: SB-198-2 (0-2) (102517)**

**Lab Sample ID: 680-144745-28**

Date Collected: 10/25/17 14:50

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-198-2 (0-2) (102517)**

**Lab Sample ID: 680-144745-28**

Date Collected: 10/25/17 14:50

Matrix: Solid

Date Received: 10/25/17 17:30

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			30.84 g	1 mL	500243	10/27/17 15:58	JAM	TAL SAV
Total/NA	Analysis	8270D LL		10			500446	10/30/17 00:48	NED	TAL SAV

**Client Sample ID: SB-165-1 (0-2) (102517)**

**Lab Sample ID: 680-144745-29**

Date Collected: 10/25/17 15:10

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-165-1 (0-2) (102517)**

**Lab Sample ID: 680-144745-29**

Date Collected: 10/25/17 15:10

Matrix: Solid

Date Received: 10/25/17 17:30

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			30.36 g	1 mL	500243	10/27/17 15:58	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			500446	10/30/17 01:11	NED	TAL SAV

**Client Sample ID: SB-165-2 (0-2) (102517)**

**Lab Sample ID: 680-144745-30**

Date Collected: 10/25/17 15:20

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: SB-165-2 (0-2) (102517)**

**Lab Sample ID: 680-144745-30**

Date Collected: 10/25/17 15:20

Matrix: Solid

Date Received: 10/25/17 17:30

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			30.25 g	1 mL	500243	10/27/17 15:58	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			500446	10/30/17 01:33	NED	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: EX-22-1 (0-2) (102517)**

**Lab Sample ID: 680-144745-31**

Date Collected: 10/25/17 16:00

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: EX-22-1 (0-2) (102517)**

**Lab Sample ID: 680-144745-31**

Date Collected: 10/25/17 16:00

Matrix: Solid

Date Received: 10/25/17 17:30

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			30.23 g	1 mL	500243	10/27/17 15:58	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			500446	10/30/17 01:55	NED	TAL SAV

**Client Sample ID: EX-22-2 (0-2) (102517)**

**Lab Sample ID: 680-144745-32**

Date Collected: 10/25/17 16:10

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: EX-22-2 (0-2) (102517)**

**Lab Sample ID: 680-144745-32**

Date Collected: 10/25/17 16:10

Matrix: Solid

Date Received: 10/25/17 17:30

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	3546			30.65 g	1 mL	500243	10/27/17 15:58	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			500446	10/30/17 02:18	NED	TAL SAV

**Client Sample ID: EX-22-3 (0-2) (102517)**

**Lab Sample ID: 680-144745-33**

Date Collected: 10/25/17 16:20

Matrix: Solid

Date Received: 10/25/17 17:30

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			500224	10/27/17 09:26	EAB	TAL SAV

**Client Sample ID: EX-22-3 (0-2) (102517)**

**Lab Sample ID: 680-144745-33**

Date Collected: 10/25/17 16:20

Matrix: Solid

Date Received: 10/25/17 17:30

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			30.52 g	1 mL	500243	10/27/17 15:58	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			500446	10/30/17 02:40	NED	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

**Client Sample ID: EB-1 (102517)**

**Lab Sample ID: 680-144745-34**

**Date Collected: 10/25/17 16:30**

**Matrix: Water**

**Date Received: 10/25/17 17:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			916.9 mL	10 mL	500551	10/30/17 15:15	CEW	TAL SAV
Total/NA	Analysis	8082A		1			500956	11/01/17 23:44	JCK	TAL SAV

**Client Sample ID: EB-2 (102517)**

**Lab Sample ID: 680-144745-35**

**Date Collected: 10/25/17 16:40**

**Matrix: Water**

**Date Received: 10/25/17 17:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1034.4 mL	1 mL	500722	10/31/17 15:29	CEW	TAL SAV
Total/NA	Analysis	8270D LL		1			501034	11/03/17 00:30	OK	TAL SAV

## Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858



Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

<b>Client Contact</b> Company Name: <u>ARCADIS</u> Address: <u>10 PATWORTH DR. STE 375</u> City/State/Zip: <u>GREENVILLE SC 29615</u> Phone: <u>(864) 987-3700</u> Fax: _____ Project Name: <u>ABULANT</u> Site: <u>SAVANNAH, GA</u> PO #: _____		<b>Project Manager: ANDY DAVIS</b> Tell/Fax: <u>ANDREW.DAVIS@ARCADIS.COM</u> Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below: <u>STANDARD</u> <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		<b>Site Contact:</b> Lab Contact: _____ Perform MS / MSD (Y / N) _____ Filtered Sample (Y / N) _____		Date: <u>10/25/17</u> Carrier: _____ COC No: _____ of <u>253</u> COCs Sampler: <u>M. COBB / B. MATHIAS</u> For Lab Use Only: Walk-in Client: _____ Lab Sampling: _____ Job / SDG No.: _____ Sample Specific Notes: _____	
<b>Sample Identification</b>		<b>Sample</b> Type (C=Comp, G=Grab) Sample Time Sample Date		<b>Matrix</b> # of Cont.		Sample Specific Notes: _____	
SB-128-1 (0-1) (102417)		G 0930 10/24/17		G 50 1			
SB-128-2 (0-1) (102417)		G 0940 10/24/17		G 50 1			
SB-128-3 (0-1) (102417)		G 0950 10/24/17		G 50 1			
DUP-3 (102417)		- 10/24/17		G 50 1			
SB-159-1 (0-2) (102417)		G 1000 10/24/17		G 50 1			
SB-159-2 (0-2) (102417)		G 1010 10/24/17		G 50 3			
SB-159-3 (0-2) (102417)		G 1020 10/24/17		G 50 1			
SB-166-1 (0-1) (102417)		G 1050 10/24/17		G 50 1			
SB-176-2 (0-1) (102417)		G 1100 10/24/17		G 50 1			
SB-176-3 (0-1) (102417)		G 1110 10/24/17		G 50 1			
SB-202-1 (0-2) (102417)		G 1425 10/24/17		G 50 2			
DUP-1 (102417)		- 10/24/17		G 50 2			
Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other _____ Possible Hazard Identification: _____ Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.		<input 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"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) 680-144745 Chain of Custody	
<b>Special Instructions/QC Requirements &amp; Comments:</b>							
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Relinquished by: <u>Bryan Meyer</u> Relinquished by: _____ Relinquished by: _____		Company: <u>ARCADIS</u> Date/Time: <u>10/25/17 1330</u> Company: _____ Date/Time: _____ Company: _____ Date/Time: _____		Cooler Temp. (°C): Obs'd: _____ Company: _____ Date/Time: _____ Company: _____ Date/Time: _____ Company: <u>THSAV</u> Date/Time: <u>10-25-17/1730</u>		Therm ID No.: _____ Date/Time: _____ Date/Time: _____ Date/Time: _____	

3.5°C 2.7°C 7.2°C (CF) 3.7°C 2.9°C 7.5°C



Company Name:		Client Contact		Regulatory Program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other:		Project Manager:		Site Contact:		Date:		COC No:	
Address:		Tel/Fax:		Analysis Turnaround Time		Lab Contact:		Lab Contact:		Carrier:		COCs	
City/State/Zip:		TAT if different from Below		Sample Type		Sample Time		Sample Date		Sample Matrix		Sample Specific Notes:	
Phone:		2 weeks		C		1435		10/24/17		SO		2	
Fax:		1 week		G		1450		10/24/17		SO		1	
Project Name:		2 days		G		1530		10/24/17		SO		1	
Site:		1 day		G		1540		10/24/17		SO		1	
PO #				G		1550		10/24/17		SO		1	
				G		1600		10/25/17		SO		1	
				G		1040		10/25/17		SO		3	
				G		1050		10/25/17		SO		1	
				G		1100		10/25/17		SO		1	
				G		1110		10/25/17		SO		1	
				G		1120		10/25/17		SO		1	
				G		1130		10/25/17		SO		1	
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other													
Possible Hazard Identification: Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.													
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown													
Special Instructions/QC Requirements & Comments:													
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____		Cor'd: _____		Therm ID No.:					
Relinquished by: <i>Bryn Mayer</i>		Company: <i>Acad. 13</i>		Date/Time: 10/25/17 1720		Received by:		Company:		Date/Time:			
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:			
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company: <i>TASAV</i>		Date/Time: 10-25-17/1730			

3.5°C 27°C 7.2°C (CF) 3.7°C 2.9°C 7.5°C



Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Company Name:		Client Contact		Project Manager:		Site Contact:		Date:		COC No:	
Address:		Tel/Fax:		Analysis Turnaround Time		Lab Contact:		Carrier:		3 of 3 COCs	
City/State/Zip:				<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS						Sampler:	
Phone:				TAT (if different from Below)						For Lab Use Only:	
Fax:				2 weeks						Walk-in Client:	
Project Name:				1 week						Lab Sampling:	
Site:				2 days						Job / SDG No.:	
P.O.#				1 day							
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	1-1-BIPHENYL 820D	PCB 80813/8082A	TEB 1668C/8290A
EX-21-1 (0-2) (102517)	10/25/17	1215	G	SO	1						
EX-21-2 (0-2) (102517)	10/25/17	1225	G	SO	1						
SB-198-1 (0-2) (102517)	10/25/17	1440	G	SO	1						
SB-198-2 (0-2) (102517)	10/25/17	1450	G	SO	1						
SB-165-1 (0-2) (102517)	10/25/17	1510	G	SO	1						
SB-165-2 (0-2) (102517)	10/25/17	1520	G	SO	1						
EX-22-1 (0-2) (102517)	10/25/17	1600	G	SO	1						
EX-22-2 (0-2) (102517)	10/25/17	1610	G	SO	1						
EX-22-3 (0-2) (102517)	10/25/17	1620	G	SO	1						
EB-1 (102517)	10/25/17	1630	G	WT	2						
EB-2 (102517)	10/25/17	1640	G	WT	2						

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No

Relinquished by: *Byron Mayes* Date/Time: 10/25/17 1730 Company: *ARCADIS*

Relinquished by: Date/Time: Company:

Relinquished by: Date/Time: Company: *TASAV*

Therm ID No.: 10-25-17/1730

3.5°C 2.7°C 7.2°C (CF) 3.7°C 2.9°C 7.5°C



## Chain of Custody Record

<b>Client Information (Sub Contract Lab)</b>				Carrier Tracking No(s) 680-495806.1	
Lab PM: Lanier, Jerry A				State of Origin: Georgia	
Client Contact: Shipping/Receiving				Page: Page 1 of 1	
Company: TestAmerica Laboratories, Inc.				Job #: 680-144745-1	
Address: 880 Riverside Parkway, City: West Sacramento State, Zip: CA, 95605				Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Phone: 916-373-5600(Tel) 916-372-1059(Fax)				Accreditations Required (See note): State Program - Georgia	
Email: Project #: 68001205				Due Date Requested: 11/10/2017	
Site: Hercules Savannah				TAT Requested (days):	
PO #: WO #: Project #: SSOW#:				Analysis Requested	
Sample Identification - Client ID (Lab ID)				Total Number of Containers	
SB-202-1 (0-2) (102417) (680-144745-11)				1	
DUP-1 (102417) (680-144745-12)				1	
SB-202-2 (0-2) (102417) (680-144745-13)				1	
EB-1 (102517) (680-144745-34)				4	
Special Instructions/Note: run as straight as possible, Caution, may have high levels, hold glassware run as straight as possible, Caution, may have high levels, hold glassware run as straight as possible, Caution, may have high levels, hold glassware run as straight as possible				Special Instructions/Note: run as straight as possible, Caution, may have high levels, hold glassware run as straight as possible, Caution, may have high levels, hold glassware run as straight as possible, Caution, may have high levels, hold glassware run as straight as possible	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

<b>Possible Hazard Identification</b> Unconfirmed		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Primary Deliverable Rank: 2		Method of Shipment:	
Date:		Date/Time:	
Relinquished by:		Received by:	
Relinquished by:		Received by:	
Relinquished by:		Received by:	
Empty Kit Relinquished by:		Date/Time:	
Relinquished by:		Received by:	
Relinquished by:		Received by:	
Relinquished by:		Received by:	
Custody Seals Intact: Δ Yes    Δ No		Cooler Temperature(g) °C and Other Remarks:	



## Chain of Custody Record

<b>Client Information (Sub Contract Lab)</b> Client Contact: Shipping/Receiving Company: TestAmerica Laboratories, Inc. Address: 880 Riverside Parkway, City: West Sacramento State, Zip: CA, 95605 Phone: 916-373-5600(Tel) 916-372-1059(Fax) Email: Project Name: Hercules Savannah Site:		Lab PM: Lanier, Jerry A E-Mail: jerry.lanier@testamericainc.com State of Origin: Georgia Carrier Tracking No(s): 680-495806.1 Page: Page 1 of 1 Job #: 680-144745-1	
Due Date Requested: 11/10/2017 TAT Requested (days): PO #: WO #: Project #: 68001205 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 - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
<b>Sample Identification - Client ID (Lab ID)</b> SB-202-1 (0-2) (102417) (680-144745-11) DUP-1 (102417) (680-144745-12) SB-202-2 (0-2) (102417) (680-144745-13) EB-1 (102517) (680-144745-34)		<b>Field Filtered Sample (Yes or No)</b> <b>Perform MS/MSD (Yes or No)</b> 8290A/8290_P_Sox 17 Isomers & Totals 1668C/HRMS_Sox_P Full List (209 Comb/Coel) Total PCB Cong 1668C/HRMS_Sep_P Full List (209 Comb/Coel) 8290A/8290_P_Sep 17 Isomers & Totals <b>Total Number of Containers</b>	
<b>Sample Date</b> 10/24/17 10/24/17 10/24/17 10/25/17		<b>Sample Time</b> 14:25 Eastern Eastern 14:35 Eastern 16:30 Eastern	
<b>Sample Type (C=Comp, G=Grab)</b> Solid Solid Solid Water		<b>Matrix (W=Water, S=Solid, O=Overstabilized)</b> Solid Solid Solid Water	
<b>Preservation Code</b> Solid Solid Solid Water		<b>Special Instructions/Note:</b> run as straight as possible. Caution, may have high levels, hold glassware run as straight as possible. Caution, may have high levels, hold glassware run as straight as possible. Caution, may have high levels, hold glassware run as straight as possible	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

<b>Possible Hazard Identification</b> Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Empty Kit Relinquished by:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months Special Instructions/QC Requirements:	
Date: 10-26-17 / 1800 Company: TABAV Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by: [Signature]		Date/Time: 10/27/17 10:10 Company: [Signature] Date/Time: [Signature] Date/Time: [Signature]	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 0.7	



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-144745-1

**Login Number: 144745**

**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.	False	Received same day of collection; chilling process has begun.
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	



# Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-1

## 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	11-30-17 *
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	12-31-17
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	12-31-17
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	06-30-17 *
Tennessee	State Program	4	TN02961	06-30-18
Texas	NELAP	6	T104704185-16-9	11-30-17 *
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



# 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: 680-144745-2

Client Project/Site: Savannah Resins Plant

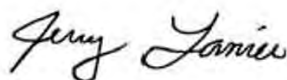
For:

ARCADIS U.S., Inc.

10 Patewood Drive, Suite 375

Greenville, South Carolina 29615

Attn: Andrew Davis



Authorized for release by:

12/8/2017 3:44:11 PM

Jerry Lanier, Project Manager I

(912)354-7858 e.3410

[jerry.lanier@testamericainc.com](mailto:jerry.lanier@testamericainc.com)

### LINKS

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results through

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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## Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Job ID: 680-144745-2**

**Laboratory: TestAmerica Savannah**

### Narrative

## CASE NARRATIVE

**Client: ARCADIS U.S., Inc.**

**Project: Savannah Resins Plant**

**Report Number: 680-144745-2**

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 10/25/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.9° C, 3.7° C and 7.5° C.

### CHLORINATED BIPHENYL CONGENERS

Sample EB-1 (102517) (680-144745-34) was analyzed for chlorinated biphenyl congeners in accordance with EPA method 1668C. The samples were prepared on 11/01/2017 and analyzed on 11/03/2017.

Several analytes were detected in method blank MB 320-192269/1-A 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.

### DIOXINS AND FURANS

Samples SB-202-1 (0-2) (102417) (680-144745-11), DUP-1 (102417) (680-144745-12) and SB-202-2 (0-2) (102417) (680-144745-13) were analyzed for dioxins and furans in accordance with EPA Method 8290A. The samples were prepared on 11/02/2017 and analyzed on 11/15/2017 and 11/17/2017.

The Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: SB-202-1 (0-2) (102417) (680-144745-11). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample(s). All detection limits are below the lower calibration.

Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: SB-202-2 (0-2) (102417) (680-144745-13). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

The following samples exhibited elevated noise or matrix interferences for one or more analytes causing elevation of the detection limit (EDL): SB-202-1 (0-2) (102417) (680-144745-11), DUP-1 (102417) (680-144745-12), SB-202-2 (0-2) (102417) (680-144745-13), (680-144854-B-12-A) and (680-144854-B-12-B MS). The reporting limit (RL) for the affected analytes has been raised to be equal to the EDL, and a "G" qualifier applied.

The concentration of one or more analytes associated with the following samples exceeded the instrument calibration range: SB-202-1 (0-2) (102417) (680-144745-11), DUP-1 (102417) (680-144745-12) and SB-202-2 (0-2) (102417) (680-144745-13). These analytes have been qualified; however, the peak(s) did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range.

Ion abundance ratios are outside criteria for the Isotope Dilution Analyte (IDA) 13C-1,2,3,4,6,7,8-HpCDD associated with the following samples: DUP-1 (102417) (680-144745-12), (680-144854-B-12-B MS) and (680-144854-B-12-C MS). The theoretical area for the IDA was



## Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

### Job ID: 680-144745-2 (Continued)

#### Laboratory: TestAmerica Savannah (Continued)

used to quantitate recovery and target concentration.

Sample SB-202-2 (0-2) (102417) (680-144745-13)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### DIOXINS AND FURANS

Sample EB-1 (102517) (680-144745-34) was analyzed for dioxins and furans in accordance with EPA SW-846 8290A. The samples were prepared on 11/17/2017 and analyzed on 11/21/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### CHLORINATED BIPHENYL CONGENERS

Samples SB-202-1 (0-2) (102417) (680-144745-11), DUP-1 (102417) (680-144745-12) and SB-202-2 (0-2) (102417) (680-144745-13) were analyzed for chlorinated biphenyl congeners in accordance with EPA method 1668C. The samples were analyzed on 12/05/2017.

There are surrogate recoveries above the method recommended limit for the following sample: DUP-1 (102417) (680-144745-12). Surrogates are not used in the quantitation of any target analytes but for monitoring the efficiency of the extraction process. These elevated recoveries are likely due matrix interferences.

The following samples exhibited elevated noise or matrix interferences for one or more analytes causing elevation of the detection limit (EDL): SB-202-1 (0-2) (102417) (680-144745-11), DUP-1 (102417) (680-144745-12) and (680-144854-B-12-D). The reporting limit (RL) for the affected analytes has been raised to be equal to the EDL, and a "G" qualifier applied.

The following samples exhibited elevated noise or matrix interferences for one or more analytes causing elevation of the detection limit (EDL): SB-202-2 (0-2) (102417) (680-144745-13), (680-144854-B-12-D), (680-144854-B-12-E MS) and (680-144854-B-12-F MS). The reporting limit (RL) for the affected analytes has been raised to be equal to the EDL, and a "G" qualifier applied.

The concentration of one or more analytes associated with the following samples exceeded the instrument calibration range: SB-202-1 (0-2) (102417) (680-144745-11), DUP-1 (102417) (680-144745-12) and (680-144854-B-12-D). These analytes have been qualified; however, the peak(s) did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range.

The concentration of one or more analytes associated with the following samples exceeded the instrument calibration range: SB-202-1 (0-2) (102417) (680-144745-11), DUP-1 (102417) (680-144745-12), SB-202-2 (0-2) (102417) (680-144745-13), (680-144854-B-12-D), (680-144854-B-12-E MS) and (680-144854-B-12-F MS). These analytes have been qualified; however, the peak(s) did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for 320-192576 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recoveries were within acceptance limits.

There are one or more Ion abundance ratios outside criteria for the Isotope Dilution Analytes (IDA) associated with the following samples: DUP-1 (102417) (680-144745-12), (680-144854-B-12-D), (680-144854-B-12-E MS) and (680-144854-B-12-F MS). The theoretical area for the IDA was used to quantitate recovery and target concentration.

The method blank for 320-192576 contained PCB-118 above the reporting limit (RL). Associated samples were not re-extracted and because results were greater than 10X the value found in the method blank.

The following sample has chromatographic interferences that could adversely impact the identification and quantitation of target analytes: SB-202-2 (0-2) (102417) (680-144745-13). A 50X dilution was attempted but the interferences are still present. The isotope dilution analytes (IDA) PCB-37L, PCB-81L, and PCB-77L were not identifiable due to major undulations in the lockmass and are therefore not reported. All analytes associated with these IDA are also not reported. After consultation with the client TestAmerica was instructed to



## Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

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### Job ID: 680-144745-2 (Continued)

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#### Laboratory: TestAmerica Savannah (Continued)

report the data with these anomalies.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### POLYCHLORINATED BIPHENYLS (PCBS)

Sample EB-1 (102517) (680-144745-34) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 1668. The samples were analyzed on 12/05/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



## Sample Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-144745-11	SB-202-1 (0-2) (102417)	Solid	10/24/17 14:25	10/25/17 17:30
680-144745-12	DUP-1 (102417)	Solid	10/24/17 00:00	10/25/17 17:30
680-144745-13	SB-202-2 (0-2) (102417)	Solid	10/24/17 14:35	10/25/17 17:30
680-144745-34	EB-1 (102517)	Water	10/25/17 16:30	10/25/17 17:30



## Method Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

Method	Method Description	Protocol	Laboratory
1668C	Chlorinated Biphenyl Congeners (HRGC/HRMS)	EPA	TAL SAC
8290A	Dioxins and Furans (HRGC/HRMS)	SW846	TAL SAC
None	Total PCB Calculation from HRMS PCB-Congeners	TAL SOP	TAL SAC

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

### Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



## Definitions/Glossary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

### Qualifiers

#### Dioxin

Qualifier	Qualifier Description
*	Isotope Dilution analyte is outside acceptance limits.
G	The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference
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.
E	Result exceeded calibration range.
q	The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.
X	Surrogate is outside control limits

### 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)



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

Client Sample ID: SB-202-1 (0-2) (102417)

Lab Sample ID: 680-144745-11

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-1	0.0000093	J	0.000024	0.0000005	mg/Kg	1	✱		1668C	Total/NA
PCB-2	0.0000030	J	0.000024	0.0000003	mg/Kg	1	✱		1668C	Total/NA
PCB-3	0.0000047	J	0.000024	0.0000003	mg/Kg	1	✱		1668C	Total/NA
PCB-4	0.000086		0.000024	0.000010	mg/Kg	1	✱		1668C	Total/NA
PCB-6	0.000034		0.000024	0.0000032	mg/Kg	1	✱		1668C	Total/NA
PCB-8	0.00013		0.000024	0.0000031	mg/Kg	1	✱		1668C	Total/NA
PCB-9	0.0000080	J	0.000024	0.0000032	mg/Kg	1	✱		1668C	Total/NA
PCB-11	0.000012	J	0.000024	0.0000031	mg/Kg	1	✱		1668C	Total/NA
PCB-12/13	0.000012	J q	0.000049	0.0000031	mg/Kg	1	✱		1668C	Total/NA
PCB-15	0.00013		0.000024	0.0000031	mg/Kg	1	✱		1668C	Total/NA
PCB-16	0.00073		0.000024	0.0000057	mg/Kg	1	✱		1668C	Total/NA
PCB-17	0.00064		0.000024	0.0000043	mg/Kg	1	✱		1668C	Total/NA
PCB-18/30	0.0019	B	0.000049	0.0000037	mg/Kg	1	✱		1668C	Total/NA
PCB-19	0.00018		0.000024	0.0000032	mg/Kg	1	✱		1668C	Total/NA
PCB-20/28	0.0023	B	0.000049	0.000044	mg/Kg	1	✱		1668C	Total/NA
PCB-21/33	0.0011	B	0.000049	0.000042	mg/Kg	1	✱		1668C	Total/NA
PCB-22	0.00067	G	0.000046	0.000046	mg/Kg	1	✱		1668C	Total/NA
PCB-25	0.00016	G	0.000043	0.000043	mg/Kg	1	✱		1668C	Total/NA
PCB-26/29	0.00035		0.000049	0.000043	mg/Kg	1	✱		1668C	Total/NA
PCB-27	0.00014		0.000024	0.0000032	mg/Kg	1	✱		1668C	Total/NA
PCB-31	0.0024	G B	0.000040	0.000040	mg/Kg	1	✱		1668C	Total/NA
PCB-32	0.00055		0.000024	0.0000031	mg/Kg	1	✱		1668C	Total/NA
PCB-36	0.00020	G	0.000041	0.000041	mg/Kg	1	✱		1668C	Total/NA
PCB-37	0.00051	G	0.000078	0.000078	mg/Kg	1	✱		1668C	Total/NA
PCB-40/71	0.0042	B	0.000049	0.000021	mg/Kg	1	✱		1668C	Total/NA
PCB-42	0.0014	B	0.000024	0.000023	mg/Kg	1	✱		1668C	Total/NA
PCB-44/47/65	0.017	E B	0.000073	0.000020	mg/Kg	1	✱		1668C	Total/NA
PCB-45	0.0014		0.000024	0.000024	mg/Kg	1	✱		1668C	Total/NA
PCB-46	0.00044	G	0.000025	0.000025	mg/Kg	1	✱		1668C	Total/NA
PCB-48	0.0015	B	0.000024	0.000021	mg/Kg	1	✱		1668C	Total/NA
PCB-49/69	0.0084	E B	0.000049	0.000018	mg/Kg	1	✱		1668C	Total/NA
PCB-50/53	0.0014	B	0.000049	0.000020	mg/Kg	1	✱		1668C	Total/NA
PCB-51	0.00029		0.000024	0.000020	mg/Kg	1	✱		1668C	Total/NA
PCB-52	0.040	E B	0.000024	0.000021	mg/Kg	1	✱		1668C	Total/NA
PCB-54	0.000017	J	0.000024	0.0000002	mg/Kg	1	✱		1668C	Total/NA
PCB-56	0.0042	E G	0.00027	0.00027	mg/Kg	1	✱		1668C	Total/NA
PCB-58	0.0014	G	0.00025	0.00025	mg/Kg	1	✱		1668C	Total/NA
PCB-59/62/75	0.00064		0.000073	0.000016	mg/Kg	1	✱		1668C	Total/NA
PCB-60	0.0018	G	0.00025	0.00025	mg/Kg	1	✱		1668C	Total/NA
PCB-61/70/74/76	0.030	E G B	0.00025	0.00025	mg/Kg	1	✱		1668C	Total/NA
PCB-64	0.0042	E B	0.000024	0.000015	mg/Kg	1	✱		1668C	Total/NA
PCB-66	0.011	E G B	0.00026	0.00026	mg/Kg	1	✱		1668C	Total/NA
PCB-77	0.0011	G	0.00027	0.00027	mg/Kg	1	✱		1668C	Total/NA
PCB-79	0.00081	G	0.00023	0.00023	mg/Kg	1	✱		1668C	Total/NA
PCB-80	0.00047	G	0.00022	0.00022	mg/Kg	1	✱		1668C	Total/NA
PCB-82	0.0097	E G	0.0017	0.0017	mg/Kg	1	✱		1668C	Total/NA
PCB-84	0.029	E G B	0.0016	0.0016	mg/Kg	1	✱		1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

Client Sample ID: SB-202-1 (0-2) (102417) (Continued)

Lab Sample ID: 680-144745-11

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-85/116/117	0.018	E q G	0.0012	0.0012	mg/Kg	1	✱		1668C	Total/NA
PCB-86/87/97/108/119/125	0.073	E G B	0.0012	0.0012	mg/Kg	1	✱		1668C	Total/NA
PCB-88/91	0.012	E G	0.0014	0.0014	mg/Kg	1	✱		1668C	Total/NA
PCB-92	0.020	E G B	0.0015	0.0015	mg/Kg	1	✱		1668C	Total/NA
PCB-107/124	0.0037	G	0.0011	0.0011	mg/Kg	1	✱		1668C	Total/NA
PCB-95	0.051	E G B	0.0014	0.0014	mg/Kg	1	✱		1668C	Total/NA
PCB-96	0.00058		0.000024	0.0000010	mg/Kg	1	✱		1668C	Total/NA
PCB-98/102	0.0022	G	0.0013	0.0013	mg/Kg	1	✱		1668C	Total/NA
PCB-99	0.045	E G B	0.0012	0.0012	mg/Kg	1	✱		1668C	Total/NA
PCB-104	0.0000041	J	0.000024	0.0000008	mg/Kg	1	✱		1668C	Total/NA
3										
PCB-105	0.039	E G B	0.0012	0.0012	mg/Kg	1	✱		1668C	Total/NA
PCB-109	0.0059	E G	0.0010	0.0010	mg/Kg	1	✱		1668C	Total/NA
PCB-114	0.0022	G	0.0014	0.0014	mg/Kg	1	✱		1668C	Total/NA
PCB-118	0.092	E G B	0.0012	0.0012	mg/Kg	1	✱		1668C	Total/NA
PCB-122	0.0014	G	0.0012	0.0012	mg/Kg	1	✱		1668C	Total/NA
PCB-128/166	0.022	E G B	0.00051	0.00051	mg/Kg	1	✱		1668C	Total/NA
PCB-130	0.010	E G	0.00068	0.00068	mg/Kg	1	✱		1668C	Total/NA
PCB-131	0.0020	G	0.00062	0.00062	mg/Kg	1	✱		1668C	Total/NA
PCB-132	0.045	E G B	0.00062	0.00062	mg/Kg	1	✱		1668C	Total/NA
PCB-133	0.0012	G	0.00061	0.00061	mg/Kg	1	✱		1668C	Total/NA
PCB-134/143	0.0073	E G	0.00063	0.00063	mg/Kg	1	✱		1668C	Total/NA
PCB-135/151	0.033	E G B	0.00057	0.00057	mg/Kg	1	✱		1668C	Total/NA
PCB-136	0.014	E G B	0.00042	0.00042	mg/Kg	1	✱		1668C	Total/NA
PCB-137	0.0080	E G	0.00051	0.00051	mg/Kg	1	✱		1668C	Total/NA
PCB-139/140	0.0024	G	0.00055	0.00055	mg/Kg	1	✱		1668C	Total/NA
PCB-141	0.014	E G B	0.00060	0.00060	mg/Kg	1	✱		1668C	Total/NA
PCB-144	0.0035	E G	0.00055	0.00055	mg/Kg	1	✱		1668C	Total/NA
PCB-146	0.014	E G	0.00052	0.00052	mg/Kg	1	✱		1668C	Total/NA
PCB-147/149	0.082	E G B	0.00055	0.00055	mg/Kg	1	✱		1668C	Total/NA
PCB-153/168	0.061	E G B	0.00047	0.00047	mg/Kg	1	✱		1668C	Total/NA
PCB-156/157	0.022	E G B	0.00024	0.00024	mg/Kg	1	✱		1668C	Total/NA
PCB-158	0.016	E G B	0.00042	0.00042	mg/Kg	1	✱		1668C	Total/NA
PCB-159	0.00040	G	0.00017	0.00017	mg/Kg	1	✱		1668C	Total/NA
PCB-162	0.00042	G	0.00016	0.00016	mg/Kg	1	✱		1668C	Total/NA
PCB-164	0.0083	E G	0.00050	0.00050	mg/Kg	1	✱		1668C	Total/NA
PCB-167	0.0065	E G	0.00017	0.00017	mg/Kg	1	✱		1668C	Total/NA
PCB-170	0.018	E B	0.000024	0.000014	mg/Kg	1	✱		1668C	Total/NA
PCB-171/173	0.0061	E	0.000049	0.000014	mg/Kg	1	✱		1668C	Total/NA
PCB-172	0.0027	E	0.000024	0.000014	mg/Kg	1	✱		1668C	Total/NA
PCB-174	0.018	E B	0.000024	0.000015	mg/Kg	1	✱		1668C	Total/NA
PCB-175	0.00064		0.000024	0.0000060	mg/Kg	1	✱		1668C	Total/NA
PCB-176	0.0017		0.000024	0.0000043	mg/Kg	1	✱		1668C	Total/NA
PCB-177	0.0095	E	0.000024	0.000014	mg/Kg	1	✱		1668C	Total/NA
PCB-178	0.0027	E	0.000024	0.0000063	mg/Kg	1	✱		1668C	Total/NA
PCB-179	0.0060	E	0.000024	0.0000046	mg/Kg	1	✱		1668C	Total/NA
PCB-180/193	0.033	E B	0.000049	0.000012	mg/Kg	1	✱		1668C	Total/NA
PCB-181	0.00028		0.000024	0.000013	mg/Kg	1	✱		1668C	Total/NA
PCB-183	0.0091	E B	0.000024	0.000011	mg/Kg	1	✱		1668C	Total/NA
PCB-185	0.0026	E	0.000024	0.000013	mg/Kg	1	✱		1668C	Total/NA
PCB-187	0.015	E B	0.000024	0.0000057	mg/Kg	1	✱		1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

Client Sample ID: SB-202-1 (0-2) (102417) (Continued)

Lab Sample ID: 680-144745-11

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-189	0.00071		0.0000024	0.0000024	mg/Kg	1	☼	1668C	Total/NA
PCB-190	0.0032	E B	0.000024	0.000010	mg/Kg	1	☼	1668C	Total/NA
PCB-191	0.00072		0.000024	0.000010	mg/Kg	1	☼	1668C	Total/NA
PCB-194	0.0053	E B	0.000024	0.0000054	mg/Kg	1	☼	1668C	Total/NA
PCB-195	0.0032	E	0.000024	0.0000057	mg/Kg	1	☼	1668C	Total/NA
PCB-196	0.0041	E	0.000024	0.0000094	mg/Kg	1	☼	1668C	Total/NA
PCB-197	0.00034		0.000024	0.0000066	mg/Kg	1	☼	1668C	Total/NA
PCB-198/199	0.0066	E	0.000049	0.000010	mg/Kg	1	☼	1668C	Total/NA
PCB-200	0.0012		0.000024	0.0000080	mg/Kg	1	☼	1668C	Total/NA
PCB-201	0.0012		0.000024	0.0000072	mg/Kg	1	☼	1668C	Total/NA
PCB-202	0.0014		0.000024	0.0000075	mg/Kg	1	☼	1668C	Total/NA
PCB-203	0.0055	E	0.000024	0.0000094	mg/Kg	1	☼	1668C	Total/NA
PCB-205	0.00034		0.000024	0.0000046	mg/Kg	1	☼	1668C	Total/NA
PCB-206	0.0029	E	0.000024	0.0000016	mg/Kg	1	☼	1668C	Total/NA
PCB-207	0.00034		0.000024	0.0000011	mg/Kg	1	☼	1668C	Total/NA
PCB-208	0.00074		0.000024	0.0000013	mg/Kg	1	☼	1668C	Total/NA
PCB-209	0.00040	B	0.000024	0.0000004	mg/Kg	1	☼	1668C	Total/NA
1									
PCB-90/101/113 - DL	0.11	B	0.0015	0.0013	mg/Kg	20	☼	1668C	Total/NA
PCB-110/115 - DL	0.15	E B G	0.0011	0.0011	mg/Kg	20	☼	1668C	Total/NA
PCB-129/138/163 - DL	0.15	E B	0.0015	0.00061	mg/Kg	20	☼	1668C	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Polychlorinated biphenyls, Total	1.5		0.0000020	0.0000050	mg/Kg	1		None	Total/NA

Client Sample ID: DUP-1 (102417)

Lab Sample ID: 680-144745-12

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1	0.000032		0.000024	0.0000006	mg/Kg	1	☼	1668C	Total/NA
6									
PCB-2	0.0000041	J	0.000024	0.0000005	mg/Kg	1	☼	1668C	Total/NA
3									
PCB-3	0.000013	J	0.000024	0.0000005	mg/Kg	1	☼	1668C	Total/NA
5									
PCB-4	0.00021	q	0.000024	0.000017	mg/Kg	1	☼	1668C	Total/NA
PCB-5	0.000016	J q	0.000024	0.0000058	mg/Kg	1	☼	1668C	Total/NA
PCB-6	0.000071		0.000024	0.0000060	mg/Kg	1	☼	1668C	Total/NA
PCB-8	0.00031		0.000024	0.0000059	mg/Kg	1	☼	1668C	Total/NA
PCB-9	0.000017	J	0.000024	0.0000060	mg/Kg	1	☼	1668C	Total/NA
PCB-11	0.0000096	J	0.000024	0.0000058	mg/Kg	1	☼	1668C	Total/NA
PCB-12/13	0.000013	J	0.000047	0.0000058	mg/Kg	1	☼	1668C	Total/NA
PCB-15	0.00015		0.000024	0.0000056	mg/Kg	1	☼	1668C	Total/NA
PCB-16	0.00047		0.000024	0.0000022	mg/Kg	1	☼	1668C	Total/NA
PCB-17	0.00040		0.000024	0.0000017	mg/Kg	1	☼	1668C	Total/NA
PCB-18/30	0.0010	B	0.000047	0.0000015	mg/Kg	1	☼	1668C	Total/NA
PCB-19	0.00014		0.000024	0.0000015	mg/Kg	1	☼	1668C	Total/NA
PCB-20/28	0.0013	B	0.000047	0.0000024	mg/Kg	1	☼	1668C	Total/NA
PCB-21/33	0.00064	B	0.000047	0.0000022	mg/Kg	1	☼	1668C	Total/NA
PCB-22	0.00042		0.000024	0.0000024	mg/Kg	1	☼	1668C	Total/NA
PCB-24	0.000016	J	0.000024	0.0000013	mg/Kg	1	☼	1668C	Total/NA
PCB-25	0.000099		0.000024	0.0000023	mg/Kg	1	☼	1668C	Total/NA
PCB-26/29	0.00021		0.000047	0.0000023	mg/Kg	1	☼	1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

Client Sample ID: DUP-1 (102417) (Continued)

Lab Sample ID: 680-144745-12

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-27	0.000079		0.000024	0.0000013	mg/Kg	1	☆		1668C	Total/NA
PCB-31	0.0015	B	0.000024	0.000021	mg/Kg	1	☆		1668C	Total/NA
PCB-32	0.00035		0.000024	0.0000012	mg/Kg	1	☆		1668C	Total/NA
PCB-37	0.00034	G	0.000031	0.000031	mg/Kg	1	☆		1668C	Total/NA
PCB-40/71	0.0027	B	0.000047	0.000023	mg/Kg	1	☆		1668C	Total/NA
PCB-41	0.00018	G	0.000027	0.000027	mg/Kg	1	☆		1668C	Total/NA
PCB-42	0.0010	G B	0.000025	0.000025	mg/Kg	1	☆		1668C	Total/NA
PCB-44/47/65	0.015	E B	0.000071	0.000022	mg/Kg	1	☆		1668C	Total/NA
PCB-45	0.00069	G	0.000027	0.000027	mg/Kg	1	☆		1668C	Total/NA
PCB-46	0.00021	G	0.000028	0.000028	mg/Kg	1	☆		1668C	Total/NA
PCB-48	0.00081	B	0.000024	0.000023	mg/Kg	1	☆		1668C	Total/NA
PCB-49/69	0.0076	E B	0.000047	0.000020	mg/Kg	1	☆		1668C	Total/NA
PCB-50/53	0.00095	B	0.000047	0.000022	mg/Kg	1	☆		1668C	Total/NA
PCB-51	0.00011		0.000024	0.000022	mg/Kg	1	☆		1668C	Total/NA
PCB-52	0.042	E B	0.000024	0.000024	mg/Kg	1	☆		1668C	Total/NA
PCB-54	0.0000085	J q	0.000024	0.0000004	mg/Kg	1	☆		1668C	Total/NA
PCB-56	0.0034	E G	0.00021	0.00021	mg/Kg	1	☆		1668C	Total/NA
PCB-58	0.0020	G	0.00020	0.00020	mg/Kg	1	☆		1668C	Total/NA
PCB-59/62/75	0.00038		0.000071	0.000017	mg/Kg	1	☆		1668C	Total/NA
PCB-60	0.0013	G	0.00020	0.00020	mg/Kg	1	☆		1668C	Total/NA
PCB-61/70/74/76	0.032	E G B	0.00020	0.00020	mg/Kg	1	☆		1668C	Total/NA
PCB-63	0.00027	G	0.00018	0.00018	mg/Kg	1	☆		1668C	Total/NA
PCB-64	0.0042	E B	0.000024	0.000016	mg/Kg	1	☆		1668C	Total/NA
PCB-66	0.0095	E G B	0.00021	0.00021	mg/Kg	1	☆		1668C	Total/NA
PCB-73	0.00015		0.000024	0.000018	mg/Kg	1	☆		1668C	Total/NA
PCB-77	0.00068	G	0.00019	0.00019	mg/Kg	1	☆		1668C	Total/NA
PCB-79	0.00083	G	0.00018	0.00018	mg/Kg	1	☆		1668C	Total/NA
PCB-80	0.00056	G	0.00018	0.00018	mg/Kg	1	☆		1668C	Total/NA
PCB-82	0.010	E G	0.0014	0.0014	mg/Kg	1	☆		1668C	Total/NA
PCB-84	0.026	E G B	0.0013	0.0013	mg/Kg	1	☆		1668C	Total/NA
PCB-85/116/117	0.017	E G	0.00096	0.00096	mg/Kg	1	☆		1668C	Total/NA
PCB-86/87/97/108/119/125	0.072	E G B	0.0010	0.0010	mg/Kg	1	☆		1668C	Total/NA
PCB-88/91	0.011	E G	0.0011	0.0011	mg/Kg	1	☆		1668C	Total/NA
PCB-92	0.020	E G B	0.0012	0.0012	mg/Kg	1	☆		1668C	Total/NA
PCB-107/124	0.0043	G	0.00089	0.00089	mg/Kg	1	☆		1668C	Total/NA
PCB-95	0.063	E G B	0.0011	0.0011	mg/Kg	1	☆		1668C	Total/NA
PCB-96	0.00045		0.000024	0.0000014	mg/Kg	1	☆		1668C	Total/NA
PCB-98/102	0.0021	G	0.0011	0.0011	mg/Kg	1	☆		1668C	Total/NA
PCB-99	0.042	E G B	0.00094	0.00094	mg/Kg	1	☆		1668C	Total/NA
PCB-104	0.0000042	J	0.000024	0.0000015	mg/Kg	1	☆		1668C	Total/NA
PCB-105	0.036	E G B	0.00086	0.00086	mg/Kg	1	☆		1668C	Total/NA
PCB-109	0.0062	E G	0.00083	0.00083	mg/Kg	1	☆		1668C	Total/NA
PCB-114	0.0021	G	0.00093	0.00093	mg/Kg	1	☆		1668C	Total/NA
PCB-122	0.0014	G	0.00097	0.00097	mg/Kg	1	☆		1668C	Total/NA
PCB-123	0.0014	G	0.00090	0.00090	mg/Kg	1	☆		1668C	Total/NA
PCB-128/166	0.020	E G B	0.00021	0.00021	mg/Kg	1	☆		1668C	Total/NA
PCB-130	0.0086	E G	0.00028	0.00028	mg/Kg	1	☆		1668C	Total/NA
PCB-131	0.0019	G	0.00026	0.00026	mg/Kg	1	☆		1668C	Total/NA
PCB-132	0.038	E G B	0.00025	0.00025	mg/Kg	1	☆		1668C	Total/NA
PCB-133	0.0013	G	0.00025	0.00025	mg/Kg	1	☆		1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

Client Sample ID: DUP-1 (102417) (Continued)

Lab Sample ID: 680-144745-12

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-134/143	0.0065	E G	0.00026	0.00026	mg/Kg	1	☆	1668C	Total/NA	
PCB-135/151	0.024	E G B	0.00024	0.00024	mg/Kg	1	☆	1668C	Total/NA	
PCB-136	0.010	E G B	0.00017	0.00017	mg/Kg	1	☆	1668C	Total/NA	
PCB-137	0.0069	E G	0.00021	0.00021	mg/Kg	1	☆	1668C	Total/NA	
PCB-139/140	0.0023	G	0.00023	0.00023	mg/Kg	1	☆	1668C	Total/NA	
PCB-141	0.011	E G B	0.00025	0.00025	mg/Kg	1	☆	1668C	Total/NA	
PCB-144	0.0036	E G	0.00023	0.00023	mg/Kg	1	☆	1668C	Total/NA	
PCB-146	0.011	E G	0.00022	0.00022	mg/Kg	1	☆	1668C	Total/NA	
PCB-147/149	0.063	E G B	0.00023	0.00023	mg/Kg	1	☆	1668C	Total/NA	
PCB-153/168	0.041	E G B	0.00019	0.00019	mg/Kg	1	☆	1668C	Total/NA	
PCB-154	0.00050	G	0.00021	0.00021	mg/Kg	1	☆	1668C	Total/NA	
PCB-156/157	0.019	E G B	0.00011	0.00011	mg/Kg	1	☆	1668C	Total/NA	
PCB-158	0.014	E G B	0.00017	0.00017	mg/Kg	1	☆	1668C	Total/NA	
PCB-159	0.00028	G	0.000076	0.000076	mg/Kg	1	☆	1668C	Total/NA	
PCB-162	0.00042	G	0.000073	0.000073	mg/Kg	1	☆	1668C	Total/NA	
PCB-164	0.0076	E G	0.00021	0.00021	mg/Kg	1	☆	1668C	Total/NA	
PCB-167	0.0056	E G	0.000065	0.000065	mg/Kg	1	☆	1668C	Total/NA	
PCB-170	0.012	E B	0.000024	0.000017	mg/Kg	1	☆	1668C	Total/NA	
PCB-171/173	0.0040		0.000047	0.000017	mg/Kg	1	☆	1668C	Total/NA	
PCB-172	0.0018		0.000024	0.000017	mg/Kg	1	☆	1668C	Total/NA	
PCB-174	0.010	E B	0.000024	0.000018	mg/Kg	1	☆	1668C	Total/NA	
PCB-175	0.00042		0.000024	0.0000043	mg/Kg	1	☆	1668C	Total/NA	
PCB-176	0.00093		0.000024	0.0000031	mg/Kg	1	☆	1668C	Total/NA	
PCB-177	0.0055	E	0.000024	0.000017	mg/Kg	1	☆	1668C	Total/NA	
PCB-178	0.0014		0.000024	0.0000045	mg/Kg	1	☆	1668C	Total/NA	
PCB-179	0.0029	E	0.000024	0.0000033	mg/Kg	1	☆	1668C	Total/NA	
PCB-180/193	0.019	E B	0.000047	0.000014	mg/Kg	1	☆	1668C	Total/NA	
PCB-181	0.00026		0.000024	0.000015	mg/Kg	1	☆	1668C	Total/NA	
PCB-182	0.000057		0.000024	0.0000040	mg/Kg	1	☆	1668C	Total/NA	
PCB-183	0.0050	E B	0.000024	0.000013	mg/Kg	1	☆	1668C	Total/NA	
PCB-185	0.0011		0.000024	0.000016	mg/Kg	1	☆	1668C	Total/NA	
PCB-187	0.0077	E B	0.000024	0.0000040	mg/Kg	1	☆	1668C	Total/NA	
PCB-188	0.000010	J	0.000024	0.0000036	mg/Kg	1	☆	1668C	Total/NA	
PCB-189	0.00048	q	0.0000024	0.0000016	mg/Kg	1	☆	1668C	Total/NA	
PCB-190	0.0021	B	0.000024	0.000012	mg/Kg	1	☆	1668C	Total/NA	
PCB-191	0.00048		0.000024	0.000012	mg/Kg	1	☆	1668C	Total/NA	
PCB-194	0.0025	E B	0.000024	0.0000024	mg/Kg	1	☆	1668C	Total/NA	
PCB-195	0.0013		0.000024	0.0000025	mg/Kg	1	☆	1668C	Total/NA	
PCB-196	0.0016		0.000024	0.000013	mg/Kg	1	☆	1668C	Total/NA	
PCB-197	0.00015		0.000024	0.0000091	mg/Kg	1	☆	1668C	Total/NA	
PCB-198/199	0.0030		0.000047	0.000014	mg/Kg	1	☆	1668C	Total/NA	
PCB-200	0.00059	q	0.000024	0.000011	mg/Kg	1	☆	1668C	Total/NA	
PCB-201	0.00043	q	0.000024	0.000010	mg/Kg	1	☆	1668C	Total/NA	
PCB-202	0.00063		0.000024	0.000010	mg/Kg	1	☆	1668C	Total/NA	
PCB-203	0.0025	E	0.000024	0.000013	mg/Kg	1	☆	1668C	Total/NA	
PCB-205	0.00016		0.000024	0.0000021	mg/Kg	1	☆	1668C	Total/NA	
PCB-206	0.0022		0.000024	0.0000017	mg/Kg	1	☆	1668C	Total/NA	
PCB-207	0.00023		0.000024	0.0000012	mg/Kg	1	☆	1668C	Total/NA	
PCB-208	0.00061		0.000024	0.0000012	mg/Kg	1	☆	1668C	Total/NA	
PCB-209	0.00043	B	0.000024	0.0000004	mg/Kg	1	☆	1668C	Total/NA	

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This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Client Sample ID: DUP-1 (102417) (Continued)

## Lab Sample ID: 680-144745-12

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-90/101/113 - DL	0.052	B	0.0014	0.00062	mg/Kg	20	✱	1668C	Total/NA
PCB-110/115 - DL	0.068	B	0.00095	0.00054	mg/Kg	20	✱	1668C	Total/NA
PCB-118 - DL	0.049	E B G	0.00053	0.00053	mg/Kg	20	✱	1668C	Total/NA
PCB-129/138/163 - DL	0.063	B	0.0014	0.00025	mg/Kg	20	✱	1668C	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Polychlorinated biphenyls, Total	1.1		0.0000020	0.0000050	mg/Kg	1	-	None	Total/NA

## Client Sample ID: SB-202-2 (0-2) (102417)

## Lab Sample ID: 680-144745-13

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1	0.000074	J	0.0012	0.0000097	mg/Kg	50	✱	1668C	Total/NA
PCB-2	0.0000082	J q	0.0012	0.0000077	mg/Kg	50	✱	1668C	Total/NA
PCB-3	0.000026	J	0.0012	0.0000080	mg/Kg	50	✱	1668C	Total/NA
PCB-4	0.00049	J	0.0012	0.000046	mg/Kg	50	✱	1668C	Total/NA
PCB-6	0.00019	J	0.0012	0.000044	mg/Kg	50	✱	1668C	Total/NA
PCB-8	0.00090	J	0.0012	0.000043	mg/Kg	50	✱	1668C	Total/NA
PCB-9	0.000054	J q	0.0012	0.000044	mg/Kg	50	✱	1668C	Total/NA
PCB-12/13	0.000091	J	0.0023	0.000042	mg/Kg	50	✱	1668C	Total/NA
PCB-15	0.00076	J	0.0012	0.000042	mg/Kg	50	✱	1668C	Total/NA
PCB-19	0.00053	J	0.0012	0.000016	mg/Kg	50	✱	1668C	Total/NA
PCB-54	0.000040	J	0.0012	0.0000063	mg/Kg	50	✱	1668C	Total/NA
PCB-82	0.027	G	0.0027	0.0027	mg/Kg	50	✱	1668C	Total/NA
PCB-84	0.059	B G	0.0025	0.0025	mg/Kg	50	✱	1668C	Total/NA
PCB-85/116/117	0.030		0.0035	0.0019	mg/Kg	50	✱	1668C	Total/NA
PCB-86/87/97/108/119/125	0.16	B	0.0070	0.0020	mg/Kg	50	✱	1668C	Total/NA
PCB-88/91	0.025		0.0023	0.0022	mg/Kg	50	✱	1668C	Total/NA
PCB-90/101/113	0.22	B	0.0035	0.0020	mg/Kg	50	✱	1668C	Total/NA
PCB-92	0.014	B G	0.0023	0.0023	mg/Kg	50	✱	1668C	Total/NA
PCB-93/100	0.073		0.0023	0.0022	mg/Kg	50	✱	1668C	Total/NA
PCB-107/124	0.0088		0.0023	0.0018	mg/Kg	50	✱	1668C	Total/NA
PCB-96	0.0010	J	0.0012	0.000021	mg/Kg	50	✱	1668C	Total/NA
PCB-98/102	0.0042		0.0023	0.0021	mg/Kg	50	✱	1668C	Total/NA
PCB-99	0.086	B G	0.0018	0.0018	mg/Kg	50	✱	1668C	Total/NA
PCB-105	0.094	B G	0.0018	0.0018	mg/Kg	50	✱	1668C	Total/NA
PCB-110/115	0.32	B	0.0023	0.0017	mg/Kg	50	✱	1668C	Total/NA
PCB-109	0.014	G	0.0016	0.0016	mg/Kg	50	✱	1668C	Total/NA
PCB-114	0.0062	G	0.0019	0.0019	mg/Kg	50	✱	1668C	Total/NA
PCB-118	0.21	E B G	0.0017	0.0017	mg/Kg	50	✱	1668C	Total/NA
PCB-123	0.0029	G	0.0018	0.0018	mg/Kg	50	✱	1668C	Total/NA
PCB-128/166	0.049	B	0.0023	0.0017	mg/Kg	50	✱	1668C	Total/NA
PCB-129/138/163	0.27	B	0.0035	0.0018	mg/Kg	50	✱	1668C	Total/NA
PCB-130	0.019	G	0.0022	0.0022	mg/Kg	50	✱	1668C	Total/NA
PCB-131	0.0039	G	0.0020	0.0020	mg/Kg	50	✱	1668C	Total/NA
PCB-132	0.087	B G	0.0020	0.0020	mg/Kg	50	✱	1668C	Total/NA
PCB-133	0.0027	G	0.0020	0.0020	mg/Kg	50	✱	1668C	Total/NA
PCB-134/143	0.013		0.0023	0.0021	mg/Kg	50	✱	1668C	Total/NA
PCB-135/151	0.016	B	0.0023	0.0019	mg/Kg	50	✱	1668C	Total/NA
PCB-136	0.023	B G	0.0014	0.0014	mg/Kg	50	✱	1668C	Total/NA
PCB-137	0.015	G	0.0017	0.0017	mg/Kg	50	✱	1668C	Total/NA
PCB-139/140	0.0045		0.0023	0.0018	mg/Kg	50	✱	1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

Client Sample ID: SB-202-2 (0-2) (102417) (Continued)

Lab Sample ID: 680-144745-13

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-141	0.036	B G	0.0020	0.0020	mg/Kg	50	✱	1668C	Total/NA
PCB-146	0.025	G	0.0017	0.0017	mg/Kg	50	✱	1668C	Total/NA
PCB-147/149	0.14	B	0.0023	0.0018	mg/Kg	50	✱	1668C	Total/NA
PCB-153/168	0.11	B	0.0023	0.0015	mg/Kg	50	✱	1668C	Total/NA
PCB-154	0.032	G	0.0016	0.0016	mg/Kg	50	✱	1668C	Total/NA
PCB-156/157	0.041	B G	0.00026	0.00026	mg/Kg	50	✱	1668C	Total/NA
PCB-158	0.030	B G	0.0014	0.0014	mg/Kg	50	✱	1668C	Total/NA
PCB-159	0.00052	J	0.0012	0.00018	mg/Kg	50	✱	1668C	Total/NA
PCB-162	0.00085	J	0.0012	0.00017	mg/Kg	50	✱	1668C	Total/NA
PCB-164	0.018	G	0.0016	0.0016	mg/Kg	50	✱	1668C	Total/NA
PCB-167	0.011	G	0.00015	0.00015	mg/Kg	50	✱	1668C	Total/NA
PCB-170	0.027	B	0.0012	0.000029	mg/Kg	50	✱	1668C	Total/NA
PCB-171/173	0.0090		0.0023	0.000029	mg/Kg	50	✱	1668C	Total/NA
PCB-172	0.0039		0.0012	0.000028	mg/Kg	50	✱	1668C	Total/NA
PCB-174	0.024	B	0.0012	0.000031	mg/Kg	50	✱	1668C	Total/NA
PCB-175	0.0010	J	0.0012	0.000021	mg/Kg	50	✱	1668C	Total/NA
PCB-176	0.0022		0.0012	0.000015	mg/Kg	50	✱	1668C	Total/NA
PCB-177	0.012		0.0012	0.000029	mg/Kg	50	✱	1668C	Total/NA
PCB-178	0.0034		0.0012	0.000022	mg/Kg	50	✱	1668C	Total/NA
PCB-179	0.0071		0.0012	0.000016	mg/Kg	50	✱	1668C	Total/NA
PCB-180/193	0.044	B	0.0023	0.000023	mg/Kg	50	✱	1668C	Total/NA
PCB-181	0.00056	J	0.0012	0.000026	mg/Kg	50	✱	1668C	Total/NA
PCB-182	0.00015	J	0.0012	0.000019	mg/Kg	50	✱	1668C	Total/NA
PCB-183	0.011	B	0.0012	0.000022	mg/Kg	50	✱	1668C	Total/NA
PCB-185	0.0022		0.0012	0.000027	mg/Kg	50	✱	1668C	Total/NA
PCB-187	0.020	B	0.0012	0.000019	mg/Kg	50	✱	1668C	Total/NA
PCB-189	0.0011		0.00012	0.000012	mg/Kg	50	✱	1668C	Total/NA
PCB-190	0.0046	B	0.0012	0.000021	mg/Kg	50	✱	1668C	Total/NA
PCB-191	0.0010	J	0.0012	0.000021	mg/Kg	50	✱	1668C	Total/NA
PCB-194	0.0054	B	0.0012	0.000019	mg/Kg	50	✱	1668C	Total/NA
PCB-195	0.0024		0.0012	0.000020	mg/Kg	50	✱	1668C	Total/NA
PCB-196	0.0036		0.0012	0.000023	mg/Kg	50	✱	1668C	Total/NA
PCB-197	0.00028	J	0.0012	0.000016	mg/Kg	50	✱	1668C	Total/NA
PCB-198/199	0.0074		0.0023	0.000024	mg/Kg	50	✱	1668C	Total/NA
PCB-200	0.00094	J	0.0012	0.000019	mg/Kg	50	✱	1668C	Total/NA
PCB-201	0.00095	J	0.0012	0.000017	mg/Kg	50	✱	1668C	Total/NA
PCB-202	0.0011	J	0.0012	0.000018	mg/Kg	50	✱	1668C	Total/NA
PCB-203	0.0048		0.0012	0.000023	mg/Kg	50	✱	1668C	Total/NA
PCB-205	0.00033	J	0.0012	0.000017	mg/Kg	50	✱	1668C	Total/NA
PCB-206	0.0032		0.0012	0.000028	mg/Kg	50	✱	1668C	Total/NA
PCB-207	0.00033	J	0.0012	0.000021	mg/Kg	50	✱	1668C	Total/NA
PCB-208	0.00087	J	0.0012	0.000024	mg/Kg	50	✱	1668C	Total/NA
PCB-209	0.00055	J B	0.0012	0.0000080	mg/Kg	50	✱	1668C	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Polychlorinated biphenyls, Total	NaN		0.0000020	0.0000050	mg/Kg	1		None	Total/NA

Client Sample ID: EB-1 (102517)

Lab Sample ID: 680-144745-34

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1	9.0	J	190	0.69	pg/L	1		1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

Client Sample ID: EB-1 (102517) (Continued)

Lab Sample ID: 680-144745-34

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-3	6.1	J	190	0.58	pg/L	1			1668C	Total/NA
PCB-11	13	J B	190	4.3	pg/L	1			1668C	Total/NA
PCB-16	1.9	J	190	1.2	pg/L	1			1668C	Total/NA
PCB-17	2.3	J B	190	0.87	pg/L	1			1668C	Total/NA
PCB-18/30	4.0	J B	380	0.77	pg/L	1			1668C	Total/NA
PCB-19	5.0	J	190	1.1	pg/L	1			1668C	Total/NA
PCB-20/28	3.8	J B	380	0.85	pg/L	1			1668C	Total/NA
PCB-21/33	2.8	J B	380	0.81	pg/L	1			1668C	Total/NA
PCB-31	3.3	J B	190	0.78	pg/L	1			1668C	Total/NA
PCB-32	1.2	J	190	0.64	pg/L	1			1668C	Total/NA
PCB-37	2.2	J	190	0.89	pg/L	1			1668C	Total/NA
PCB-40/71	1.4	J B	380	0.46	pg/L	1			1668C	Total/NA
PCB-42	0.90	J	190	0.50	pg/L	1			1668C	Total/NA
PCB-44/47/65	5.2	J B	570	0.44	pg/L	1			1668C	Total/NA
PCB-49/69	1.6	J B	380	0.39	pg/L	1			1668C	Total/NA
PCB-52	3.1	J B	190	0.47	pg/L	1			1668C	Total/NA
PCB-54	3.2	J	190	0.50	pg/L	1			1668C	Total/NA
PCB-61/70/74/76	2.4	J B	770	0.56	pg/L	1			1668C	Total/NA
PCB-64	1.3	J B	190	0.32	pg/L	1			1668C	Total/NA
PCB-66	1.3	J	190	0.59	pg/L	1			1668C	Total/NA
PCB-81	1.6	J	19	0.62	pg/L	1			1668C	Total/NA
PCB-90/101/113	3.1	J B	570	0.63	pg/L	1			1668C	Total/NA
PCB-95	2.1	J	190	0.68	pg/L	1			1668C	Total/NA
PCB-99	1.4	J	190	0.58	pg/L	1			1668C	Total/NA
PCB-104	2.5	J	190	0.49	pg/L	1			1668C	Total/NA
PCB-105	2.1	J	19	0.60	pg/L	1			1668C	Total/NA
PCB-110/115	3.2	J q B	380	0.55	pg/L	1			1668C	Total/NA
PCB-118	3.6	J B	19	0.56	pg/L	1			1668C	Total/NA
PCB-129/138/163	5.9	J B	570	0.95	pg/L	1			1668C	Total/NA
PCB-146	2.1	J	190	0.92	pg/L	1			1668C	Total/NA
PCB-147/149	3.4	J B	380	0.98	pg/L	1			1668C	Total/NA
PCB-153/168	8.3	J B	380	0.82	pg/L	1			1668C	Total/NA
PCB-155	1.3	J	190	0.64	pg/L	1			1668C	Total/NA
PCB-169	0.72	J	19	0.55	pg/L	1			1668C	Total/NA
PCB-170	1.3	J B	190	0.46	pg/L	1			1668C	Total/NA
PCB-171/173	0.96	J B	380	0.47	pg/L	1			1668C	Total/NA
PCB-177	0.67	J	190	0.46	pg/L	1			1668C	Total/NA
PCB-180/193	4.5	J B	380	0.38	pg/L	1			1668C	Total/NA
PCB-183	2.2	J B	190	0.36	pg/L	1			1668C	Total/NA
PCB-187	3.4	J B	190	0.85	pg/L	1			1668C	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Polychlorinated biphenyls, Total	130	J	200	20	pg/L	1			None	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Client Sample ID: SB-202-1 (0-2) (102417)**

**Lab Sample ID: 680-144745-11**

**Date Collected: 10/24/17 14:25**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 82.9**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0000093	J	0.000024	0.0000005	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-2	0.0000030	J	0.000024	0.0000003	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-3	0.0000047	J	0.000024	0.0000003	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-4	0.000086		0.000024	0.000010	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-5	0.0000031	U	0.000024	0.0000031	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-6	0.000034		0.000024	0.0000032	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-7	0.0000031	U	0.000024	0.0000031	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-8	0.00013		0.000024	0.0000031	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-9	0.0000080	J	0.000024	0.0000032	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-10	0.0000069	U	0.000024	0.0000069	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-11	0.000012	J	0.000024	0.0000031	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-12/13	0.000012	J q	0.000049	0.0000031	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-14	0.0000027	U	0.000024	0.0000027	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-15	0.00013		0.000024	0.0000031	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-16	0.00073		0.000024	0.0000057	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-17	0.00064		0.000024	0.0000043	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-18/30	0.0019	B	0.000049	0.0000037	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-19	0.00018		0.000024	0.0000032	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-20/28	0.0023	B	0.000049	0.000044	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-21/33	0.0011	B	0.000049	0.000042	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-22	0.00067	G	0.000046	0.000046	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-23	0.000043	U G	0.000043	0.000043	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-24	0.0000034	U	0.000024	0.0000034	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-25	0.00016	G	0.000043	0.000043	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-26/29	0.00035		0.000049	0.000043	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-27	0.00014		0.000024	0.0000032	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-31	0.0024	G B	0.000040	0.000040	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-32	0.00055		0.000024	0.0000031	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-34	0.000044	U G	0.000044	0.000044	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-35	0.000045	U G	0.000045	0.000045	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-36	0.00020	G	0.000041	0.000041	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-37	0.00051	G	0.000078	0.000078	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-38	0.000046	U G	0.000046	0.000046	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-39	0.000040	U G	0.000040	0.000040	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-40/71	0.0042	B	0.000049	0.000021	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-41	0.000025	U G	0.000025	0.000025	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-42	0.0014	B	0.000024	0.000023	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-43	0.000025	U G	0.000025	0.000025	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-44/47/65	0.017	E B	0.000073	0.000020	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-45	0.0014		0.000024	0.000024	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-46	0.00044	G	0.000025	0.000025	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-48	0.0015	B	0.000024	0.000021	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-49/69	0.0084	E B	0.000049	0.000018	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-50/53	0.0014	B	0.000049	0.000020	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-51	0.00029		0.000024	0.000020	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-52	0.040	E B	0.000024	0.000021	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Client Sample ID: SB-202-1 (0-2) (102417)**

**Lab Sample ID: 680-144745-11**

**Date Collected: 10/24/17 14:25**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 82.9**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-54	0.000017	J	0.000024	0.0000002	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
				3					
PCB-55	0.00026	U G	0.00026	0.00026	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-56	0.0042	E G	0.00027	0.00027	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-57	0.00026	U G	0.00026	0.00026	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-58	0.0014	G	0.00025	0.00025	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-59/62/75	0.00064		0.000073	0.000016	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-60	0.0018	G	0.00025	0.00025	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-61/70/74/76	0.030	E G B	0.00025	0.00025	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-63	0.00023	U G	0.00023	0.00023	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-64	0.0042	E B	0.000024	0.000015	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-66	0.011	E G B	0.00026	0.00026	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-67	0.00024	U G	0.00024	0.00024	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-68	0.00022	U G	0.00022	0.00022	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-72	0.00024	U G	0.00024	0.00024	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-73	0.000016	U	0.000024	0.000016	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-77	0.0011	G	0.00027	0.00027	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-78	0.00026	U G	0.00026	0.00026	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-79	0.00081	G	0.00023	0.00023	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-80	0.00047	G	0.00022	0.00022	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-81	0.00028	U G	0.00028	0.00028	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-82	0.0097	E G	0.0017	0.0017	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-83	0.0019	U G	0.0019	0.0019	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-84	0.029	E G B	0.0016	0.0016	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-85/116/117	0.018	E q G	0.0012	0.0012	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-86/87/97/108/119/125	0.073	E G B	0.0012	0.0012	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-88/91	0.012	E G	0.0014	0.0014	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-89	0.0015	U G	0.0015	0.0015	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-92	0.020	E G B	0.0015	0.0015	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-93/100	0.0014	U G	0.0014	0.0014	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-107/124	0.0037	G	0.0011	0.0011	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-94	0.0014	U G	0.0014	0.0014	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-95	0.051	E G B	0.0014	0.0014	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-96	0.00058		0.000024	0.0000010	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-98/102	0.0022	G	0.0013	0.0013	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-99	0.045	E G B	0.0012	0.0012	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-103	0.0013	U G	0.0013	0.0013	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-104	0.0000041	J	0.000024	0.0000008	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
				3					
PCB-105	0.039	E G B	0.0012	0.0012	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-106	0.0011	U G	0.0011	0.0011	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-109	0.0059	E G	0.0010	0.0010	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-111	0.0011	U G	0.0011	0.0011	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-112	0.0011	U G	0.0011	0.0011	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-114	0.0022	G	0.0014	0.0014	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-118	0.092	E G B	0.0012	0.0012	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-120	0.0010	U G	0.0010	0.0010	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-121	0.0010	U G	0.0010	0.0010	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-122	0.0014	G	0.0012	0.0012	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-123	0.0011	U G	0.0011	0.0011	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

Client Sample ID: SB-202-1 (0-2) (102417)

Lab Sample ID: 680-144745-11

Date Collected: 10/24/17 14:25

Matrix: Solid

Date Received: 10/25/17 17:30

Percent Solids: 82.9

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-126	0.0019	U G	0.0019	0.0019	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-127	0.0011	U G	0.0011	0.0011	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-128/166	0.022	E G B	0.00051	0.00051	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-130	0.010	E G	0.00068	0.00068	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-131	0.0020	G	0.00062	0.00062	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-132	0.045	E G B	0.00062	0.00062	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-133	0.0012	G	0.00061	0.00061	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-134/143	0.0073	E G	0.00063	0.00063	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-135/151	0.033	E G B	0.00057	0.00057	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-136	0.014	E G B	0.00042	0.00042	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-137	0.0080	E G	0.00051	0.00051	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-139/140	0.0024	G	0.00055	0.00055	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-141	0.014	E G B	0.00060	0.00060	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-142	0.00065	U G	0.00065	0.00065	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-144	0.0035	E G	0.00055	0.00055	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-145	0.00041	U G	0.00041	0.00041	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-146	0.014	E G	0.00052	0.00052	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-147/149	0.082	E G B	0.00055	0.00055	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-148	0.00055	U G	0.00055	0.00055	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-150	0.00039	U G	0.00039	0.00039	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-152	0.00040	U G	0.00040	0.00040	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-153/168	0.061	E G B	0.00047	0.00047	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-154	0.00050	U G	0.00050	0.00050	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-155	0.00032	U G	0.00032	0.00032	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-156/157	0.022	E G B	0.00024	0.00024	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-158	0.016	E G B	0.00042	0.00042	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-159	0.00040	G	0.00017	0.00017	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-160	0.00052	U G	0.00052	0.00052	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-161	0.00048	U G	0.00048	0.00048	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-162	0.00042	G	0.00016	0.00016	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-164	0.0083	E G	0.00050	0.00050	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-165	0.00049	U G	0.00049	0.00049	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-167	0.0065	E G	0.00017	0.00017	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-169	0.00017	U G	0.00017	0.00017	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-170	0.018	E B	0.000024	0.000014	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-171/173	0.0061	E	0.000049	0.000014	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-172	0.0027	E	0.000024	0.000014	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-174	0.018	E B	0.000024	0.000015	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-175	0.00064		0.000024	0.0000060	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-176	0.0017		0.000024	0.0000043	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-177	0.0095	E	0.000024	0.000014	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-178	0.0027	E	0.000024	0.0000063	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-179	0.0060	E	0.000024	0.0000046	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-180/193	0.033	E B	0.000049	0.000012	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-181	0.00028		0.000024	0.000013	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-182	0.0000056	U	0.000024	0.0000056	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-183	0.0091	E B	0.000024	0.000011	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-184	0.0000048	U	0.000024	0.0000048	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-185	0.0026	E	0.000024	0.000013	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Client Sample ID: SB-202-1 (0-2) (102417)**

**Lab Sample ID: 680-144745-11**

**Date Collected: 10/24/17 14:25**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 82.9**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-186	0.0000046	U	0.000024	0.0000046	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
<b>PCB-187</b>	<b>0.015</b>	<b>E B</b>	0.000024	0.0000057	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-188	0.0000054	U	0.000024	0.0000054	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
<b>PCB-189</b>	<b>0.00071</b>		0.0000024	0.0000024	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
<b>PCB-190</b>	<b>0.0032</b>	<b>E B</b>	0.000024	0.000010	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
<b>PCB-191</b>	<b>0.00072</b>		0.000024	0.000010	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-192	0.000011	U	0.000024	0.000011	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
<b>PCB-194</b>	<b>0.0053</b>	<b>E B</b>	0.000024	0.0000054	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
<b>PCB-195</b>	<b>0.0032</b>	<b>E</b>	0.000024	0.0000057	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
<b>PCB-196</b>	<b>0.0041</b>	<b>E</b>	0.000024	0.0000094	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
<b>PCB-197</b>	<b>0.00034</b>		0.000024	0.0000066	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
<b>PCB-198/199</b>	<b>0.0066</b>	<b>E</b>	0.000049	0.000010	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
<b>PCB-200</b>	<b>0.0012</b>		0.000024	0.0000080	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
<b>PCB-201</b>	<b>0.0012</b>		0.000024	0.0000072	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
<b>PCB-202</b>	<b>0.0014</b>		0.000024	0.0000075	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
<b>PCB-203</b>	<b>0.0055</b>	<b>E</b>	0.000024	0.0000094	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
PCB-204	0.0000075	U	0.000024	0.0000075	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
<b>PCB-205</b>	<b>0.00034</b>		0.000024	0.0000046	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
<b>PCB-206</b>	<b>0.0029</b>	<b>E</b>	0.000024	0.0000016	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
<b>PCB-207</b>	<b>0.00034</b>		0.000024	0.0000011	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
<b>PCB-208</b>	<b>0.00074</b>		0.000024	0.0000013	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1
<b>PCB-209</b>	<b>0.00040</b>	<b>B</b>	0.000024	0.0000004	mg/Kg	☼	11/02/17 12:52	11/21/17 21:23	1

1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	42		5 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-3L	48		5 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-4L	45		5 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-15L	48		5 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-19L	48		5 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-37L	41		5 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-54L	41		5 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-77L	60		10 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-81L	61		10 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-104L	62		10 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-105L	64		10 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-114L	58		10 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-118L	62		10 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-123L	62		10 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-126L	47		10 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-155L	72		10 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-156L/157L	70		10 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-167L	72		10 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-169L	70		10 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-188L	93		10 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-189L	108		10 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-202L	89		10 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-205L	60		10 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-206L	74		10 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-208L	93		10 - 145	11/02/17 12:52	11/21/17 21:23	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Client Sample ID: SB-202-1 (0-2) (102417)**

**Lab Sample ID: 680-144745-11**

**Date Collected: 10/24/17 14:25**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 82.9**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-209L	82		10 - 145	11/02/17 12:52	11/21/17 21:23	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	74		5 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-111L	82		10 - 145	11/02/17 12:52	11/21/17 21:23	1
PCB-178L	95		10 - 145	11/02/17 12:52	11/21/17 21:23	1

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) - DL

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-90/101/113	0.11	B	0.0015	0.0013	mg/Kg	☼	11/02/17 12:52	11/29/17 05:07	20
PCB-110/115	0.15	E B G	0.0011	0.0011	mg/Kg	☼	11/02/17 12:52	11/29/17 05:07	20
PCB-129/138/163	0.15	E B	0.0015	0.00061	mg/Kg	☼	11/02/17 12:52	11/29/17 05:07	20
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	45		5 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-3L	46		5 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-4L	45		5 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-15L	51		5 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-19L	53		5 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-37L	52		5 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-54L	40		5 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-77L	65		10 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-81L	66		10 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-104L	53		10 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-105L	68		10 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-114L	65		10 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-118L	70		10 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-123L	65		10 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-126L	68		10 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-155L	54		10 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-156L/157L	67		10 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-167L	65		10 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-169L	70		10 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-188L	67		10 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-189L	68		10 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-202L	67		10 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-205L	66		10 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-206L	64		10 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-208L	69		10 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-209L	67		10 - 145				11/02/17 12:52	11/29/17 05:07	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	60		5 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-111L	85		10 - 145				11/02/17 12:52	11/29/17 05:07	20
PCB-178L	98		10 - 145				11/02/17 12:52	11/29/17 05:07	20

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.0000014	U G	0.0000014	0.0000014	mg/Kg	☼	11/02/17 12:58	11/15/17 21:23	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	55		40 - 135				11/02/17 12:58	11/15/17 21:23	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Client Sample ID: SB-202-1 (0-2) (102417)**

**Lab Sample ID: 680-144745-11**

**Date Collected: 10/24/17 14:25**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 82.9**

## Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDF	53		40 - 135	11/02/17 12:58	11/15/17 21:23	1
13C-1,2,3,4,7,8-HxCDF	55		40 - 135	11/02/17 12:58	11/15/17 21:23	1
13C-1,2,3,6,7,8-HxCDD	54		40 - 135	11/02/17 12:58	11/15/17 21:23	1
13C-1,2,3,7,8-PeCDD	54		40 - 135	11/02/17 12:58	11/15/17 21:23	1
13C-1,2,3,7,8-PeCDF	54		40 - 135	11/02/17 12:58	11/15/17 21:23	1
13C-2,3,7,8-TCDD	36	*	40 - 135	11/02/17 12:58	11/15/17 21:23	1
13C-2,3,7,8-TCDF	51		40 - 135	11/02/17 12:58	11/15/17 21:23	1
13C-OCDD	63		40 - 135	11/02/17 12:58	11/15/17 21:23	1

## Method: 8290A - Dioxins and Furans (HRGC/HRMS) - RA

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	57		40 - 135	11/02/17 12:58	11/17/17 00:32	1

## Method: None - Total PCB Calculation from HRMS PCB-Congeners

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	1.5		0.0000020	0.0000050	mg/Kg	-		12/05/17 15:07	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Client Sample ID: DUP-1 (102417)**

**Date Collected: 10/24/17 00:00**

**Date Received: 10/25/17 17:30**

**Lab Sample ID: 680-144745-12**

**Matrix: Solid**

**Percent Solids: 84.6**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.000032		0.000024	0.0000006	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-2	0.0000041	J	0.000024	0.0000005	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-3	0.000013	J	0.000024	0.0000005	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-4	0.00021	q	0.000024	0.000017	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-5	0.000016	J q	0.000024	0.0000058	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-6	0.000071		0.000024	0.0000060	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-7	0.0000058	U	0.000024	0.0000058	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-8	0.00031		0.000024	0.0000059	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-9	0.000017	J	0.000024	0.0000060	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-10	0.000012	U	0.000024	0.000012	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-11	0.0000096	J	0.000024	0.0000058	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-12/13	0.000013	J	0.000047	0.0000058	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-14	0.0000051	U	0.000024	0.0000051	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-15	0.00015		0.000024	0.0000056	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-16	0.00047		0.000024	0.0000022	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-17	0.00040		0.000024	0.0000017	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-18/30	0.0010	B	0.000047	0.0000015	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-19	0.00014		0.000024	0.0000015	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-20/28	0.0013	B	0.000047	0.000024	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-21/33	0.00064	B	0.000047	0.000022	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-22	0.00042		0.000024	0.000024	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-23	0.000023	U	0.000024	0.000023	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-24	0.000016	J	0.000024	0.0000013	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-25	0.000099		0.000024	0.000023	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-26/29	0.00021		0.000047	0.000023	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-27	0.000079		0.000024	0.0000013	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-31	0.0015	B	0.000024	0.000021	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-32	0.00035		0.000024	0.0000012	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-34	0.000023	U	0.000024	0.000023	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-35	0.000024	U	0.000024	0.000024	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-36	0.000022	U	0.000024	0.000022	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-37	0.00034	G	0.000031	0.000031	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-38	0.000024	U	0.000024	0.000024	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-39	0.000021	U	0.000024	0.000021	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-40/71	0.0027	B	0.000047	0.000023	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-41	0.00018	G	0.000027	0.000027	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-42	0.0010	G B	0.000025	0.000025	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-43	0.000028	U G	0.000028	0.000028	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-44/47/65	0.015	E B	0.000071	0.000022	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-45	0.00069	G	0.000027	0.000027	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-46	0.00021	G	0.000028	0.000028	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-48	0.00081	B	0.000024	0.000023	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-49/69	0.0076	E B	0.000047	0.000020	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-50/53	0.00095	B	0.000047	0.000022	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-51	0.00011		0.000024	0.000022	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-52	0.042	E B	0.000024	0.000024	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Client Sample ID: DUP-1 (102417)**

**Lab Sample ID: 680-144745-12**

**Date Collected: 10/24/17 00:00**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 84.6**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-54	0.0000085	J q	0.000024	0.0000004	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-55	0.00020	U G	0.00020	0.00020	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-56	0.0034	E G	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-57	0.00020	U G	0.00020	0.00020	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-58	0.0020	G	0.00020	0.00020	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-59/62/75	0.00038		0.000071	0.000017	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-60	0.0013	G	0.00020	0.00020	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-61/70/74/76	0.032	E G B	0.00020	0.00020	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-63	0.00027	G	0.00018	0.00018	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-64	0.0042	E B	0.000024	0.000016	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-66	0.0095	E G B	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-67	0.00019	U G	0.00019	0.00019	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-68	0.00018	U G	0.00018	0.00018	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-72	0.00019	U G	0.00019	0.00019	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-73	0.00015		0.000024	0.000018	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-77	0.00068	G	0.00019	0.00019	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-78	0.00021	U G	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-79	0.00083	G	0.00018	0.00018	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-80	0.00056	G	0.00018	0.00018	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-81	0.00020	U G	0.00020	0.00020	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-82	0.010	E G	0.0014	0.0014	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-83	0.0015	U G	0.0015	0.0015	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-84	0.026	E G B	0.0013	0.0013	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-85/116/117	0.017	E G	0.00096	0.00096	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-86/87/97/108/119/125	0.072	E G B	0.0010	0.0010	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-88/91	0.011	E G	0.0011	0.0011	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-89	0.0012	U G	0.0012	0.0012	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-92	0.020	E G B	0.0012	0.0012	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-93/100	0.0011	U G	0.0011	0.0011	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-107/124	0.0043	G	0.00089	0.00089	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-94	0.0012	U G	0.0012	0.0012	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-95	0.063	E G B	0.0011	0.0011	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-96	0.00045		0.000024	0.0000014	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-98/102	0.0021	G	0.0011	0.0011	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-99	0.042	E G B	0.00094	0.00094	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-103	0.0010	U G	0.0010	0.0010	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-104	0.0000042	J	0.000024	0.0000015	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-105	0.036	E G B	0.00086	0.00086	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-106	0.00091	U G	0.00091	0.00091	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-109	0.0062	E G	0.00083	0.00083	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-111	0.00086	U G	0.00086	0.00086	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-112	0.00089	U G	0.00089	0.00089	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-114	0.0021	G	0.00093	0.00093	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-120	0.00082	U G	0.00082	0.00082	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-121	0.00082	U G	0.00082	0.00082	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-122	0.0014	G	0.00097	0.00097	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-123	0.0014	G	0.00090	0.00090	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-126	0.0012	U G	0.0012	0.0012	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-127	0.00091	U G	0.00091	0.00091	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Client Sample ID: DUP-1 (102417)**

**Lab Sample ID: 680-144745-12**

**Date Collected: 10/24/17 00:00**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 84.6**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	0.020	E G B	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-130	0.0086	E G	0.00028	0.00028	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-131	0.0019	G	0.00026	0.00026	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-132	0.038	E G B	0.00025	0.00025	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-133	0.0013	G	0.00025	0.00025	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-134/143	0.0065	E G	0.00026	0.00026	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-135/151	0.024	E G B	0.00024	0.00024	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-136	0.010	E G B	0.00017	0.00017	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-137	0.0069	E G	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-139/140	0.0023	G	0.00023	0.00023	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-141	0.011	E G B	0.00025	0.00025	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-142	0.00027	U G	0.00027	0.00027	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-144	0.0036	E G	0.00023	0.00023	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-145	0.00017	U G	0.00017	0.00017	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-146	0.011	E G	0.00022	0.00022	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-147/149	0.063	E G B	0.00023	0.00023	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-148	0.00023	U G	0.00023	0.00023	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-150	0.00016	U G	0.00016	0.00016	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-152	0.00017	U G	0.00017	0.00017	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-153/168	0.041	E G B	0.00019	0.00019	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-154	0.00050	G	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-155	0.00017	U G	0.00017	0.00017	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-156/157	0.019	E G B	0.00011	0.00011	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-158	0.014	E G B	0.00017	0.00017	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-159	0.00028	G	0.000076	0.000076	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-160	0.00021	U G	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-161	0.00020	U G	0.00020	0.00020	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-162	0.00042	G	0.000073	0.000073	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-164	0.0076	E G	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-165	0.00020	U G	0.00020	0.00020	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-167	0.0056	E G	0.000065	0.000065	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-169	0.000072	U G	0.000072	0.000072	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-170	0.012	E B	0.000024	0.000017	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-171/173	0.0040		0.000047	0.000017	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-172	0.0018		0.000024	0.000017	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-174	0.010	E B	0.000024	0.000018	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-175	0.00042		0.000024	0.000043	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-176	0.00093		0.000024	0.000031	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-177	0.0055	E	0.000024	0.000017	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-178	0.0014		0.000024	0.000045	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-179	0.0029	E	0.000024	0.000033	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-180/193	0.019	E B	0.000047	0.000014	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-181	0.00026		0.000024	0.000015	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-182	0.000057		0.000024	0.000040	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-183	0.0050	E B	0.000024	0.000013	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-184	0.0000034	U	0.000024	0.000034	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-185	0.0011		0.000024	0.000016	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-186	0.0000032	U	0.000024	0.000032	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-187	0.0077	E B	0.000024	0.000040	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Client Sample ID: DUP-1 (102417)**

**Lab Sample ID: 680-144745-12**

**Date Collected: 10/24/17 00:00**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 84.6**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-188	0.000010	J	0.000024	0.0000036	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-189	0.00048	q	0.0000024	0.0000016	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-190	0.0021	B	0.000024	0.000012	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-191	0.00048		0.000024	0.000012	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-192	0.000013	U	0.000024	0.000013	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-194	0.0025	E B	0.000024	0.0000024	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-195	0.0013		0.000024	0.0000025	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-196	0.0016		0.000024	0.000013	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-197	0.00015		0.000024	0.0000091	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-198/199	0.0030		0.000047	0.000014	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-200	0.00059	q	0.000024	0.000011	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-201	0.00043	q	0.000024	0.000010	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-202	0.00063		0.000024	0.000010	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-203	0.0025	E	0.000024	0.000013	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-204	0.000010	U	0.000024	0.000010	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-205	0.00016		0.000024	0.0000021	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-206	0.0022		0.000024	0.0000017	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-207	0.00023		0.000024	0.0000012	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-208	0.00061		0.000024	0.0000012	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1
PCB-209	0.00043	B	0.000024	0.0000004	mg/Kg	☼	11/02/17 12:52	11/21/17 22:38	1

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Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	45		5 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-3L	51		5 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-4L	50		5 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-15L	62		5 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-19L	57		5 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-37L	55		5 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-54L	39	q	5 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-77L	91		10 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-81L	89		10 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-104L	62	q	10 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-105L	95		10 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-114L	89		10 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-118L	89		10 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-123L	90		10 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-126L	74		10 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-155L	91		10 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-156L/157L	107		10 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-167L	107		10 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-169L	98		10 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-188L	116		10 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-189L	138		10 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-202L	113		10 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-205L	88		10 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-206L	95		10 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-208L	124		10 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-209L	104		10 - 145	11/02/17 12:52	11/21/17 22:38	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Client Sample ID: DUP-1 (102417)**

**Lab Sample ID: 680-144745-12**

**Date Collected: 10/24/17 00:00**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 84.6**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	136		5 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-111L	182	X	10 - 145	11/02/17 12:52	11/21/17 22:38	1
PCB-178L	205	X	10 - 145	11/02/17 12:52	11/21/17 22:38	1

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) - DL

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-90/101/113	0.052	B	0.0014	0.00062	mg/Kg	☼	11/02/17 12:52	11/29/17 06:22	20
PCB-110/115	0.068	B	0.00095	0.00054	mg/Kg	☼	11/02/17 12:52	11/29/17 06:22	20
PCB-118	0.049	E B G	0.00053	0.00053	mg/Kg	☼	11/02/17 12:52	11/29/17 06:22	20
PCB-129/138/163	0.063	B	0.0014	0.00025	mg/Kg	☼	11/02/17 12:52	11/29/17 06:22	20

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	50		5 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-3L	52		5 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-4L	54		5 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-15L	66		5 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-19L	57		5 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-37L	71		5 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-54L	51		5 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-77L	86		10 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-81L	86		10 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-104L	68		10 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-105L	93		10 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-114L	89		10 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-118L	93		10 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-123L	88		10 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-126L	94		10 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-155L	72		10 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-156L/157L	90		10 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-167L	89		10 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-169L	88		10 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-188L	88		10 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-189L	89		10 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-202L	85		10 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-205L	92		10 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-206L	89		10 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-208L	92		10 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-209L	94		10 - 145	11/02/17 12:52	11/29/17 06:22	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	62		5 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-111L	87		10 - 145	11/02/17 12:52	11/29/17 06:22	20
PCB-178L	101		10 - 145	11/02/17 12:52	11/29/17 06:22	20

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.00000049	U	0.0000012	0.0000004	mg/Kg	☼	11/02/17 12:58	11/15/17 22:11	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	85	q	40 - 135	11/02/17 12:58	11/15/17 22:11	1
13C-1,2,3,4,6,7,8-HpCDF	86		40 - 135	11/02/17 12:58	11/15/17 22:11	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Client Sample ID: DUP-1 (102417)**

**Lab Sample ID: 680-144745-12**

**Date Collected: 10/24/17 00:00**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 84.6**

## Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8-HxCDF	91		40 - 135	11/02/17 12:58	11/15/17 22:11	1
13C-1,2,3,6,7,8-HxCDD	93		40 - 135	11/02/17 12:58	11/15/17 22:11	1
13C-1,2,3,7,8-PeCDD	88		40 - 135	11/02/17 12:58	11/15/17 22:11	1
13C-1,2,3,7,8-PeCDF	87		40 - 135	11/02/17 12:58	11/15/17 22:11	1
13C-2,3,7,8-TCDD	65		40 - 135	11/02/17 12:58	11/15/17 22:11	1
13C-2,3,7,8-TCDF	84		40 - 135	11/02/17 12:58	11/15/17 22:11	1
13C-OCDD	108		40 - 135	11/02/17 12:58	11/15/17 22:11	1

## Method: 8290A - Dioxins and Furans (HRGC/HRMS) - RA

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	90		40 - 135	11/02/17 12:58	11/17/17 01:10	1

## Method: None - Total PCB Calculation from HRMS PCB-Congeners

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	1.1		0.0000020	0.0000050	mg/Kg	-		12/05/17 15:07	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Client Sample ID: SB-202-2 (0-2) (102417)**

**Lab Sample ID: 680-144745-13**

**Date Collected: 10/24/17 14:35**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 87.2**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.000074	J	0.0012	0.0000097	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-2	0.0000082	J q	0.0012	0.0000077	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-3	0.000026	J	0.0012	0.0000080	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-4	0.00049	J	0.0012	0.000046	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-5	0.000042	U q	0.0012	0.000042	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-6	0.00019	J	0.0012	0.000044	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-7	0.000042	U	0.0012	0.000042	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-8	0.00090	J	0.0012	0.000043	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-9	0.000054	J q	0.0012	0.000044	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-10	0.000032	U q	0.0012	0.000032	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-11	0.000043	U	0.0012	0.000043	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-12/13	0.000091	J	0.0023	0.000042	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-14	0.000037	U	0.0012	0.000037	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-15	0.00076	J	0.0012	0.000042	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-19	0.00053	J	0.0012	0.000016	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-54	0.000040	J	0.0012	0.0000063	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-82	0.027	G	0.0027	0.0027	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-83	0.0030	U G	0.0030	0.0030	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-84	0.059	B G	0.0025	0.0025	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-85/116/117	0.030		0.0035	0.0019	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-86/87/97/108/119/125	0.16	B	0.0070	0.0020	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-88/91	0.025		0.0023	0.0022	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-89	0.0024	U G	0.0024	0.0024	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-90/101/113	0.22	B	0.0035	0.0020	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-92	0.014	B G	0.0023	0.0023	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-93/100	0.073		0.0023	0.0022	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-107/124	0.0088		0.0023	0.0018	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-94	0.0023	U G	0.0023	0.0023	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-95	0.0022	U G	0.0022	0.0022	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-96	0.0010	J	0.0012	0.000021	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-98/102	0.0042		0.0023	0.0021	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-99	0.086	B G	0.0018	0.0018	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-103	0.0020	U G	0.0020	0.0020	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-104	0.000022	U	0.0012	0.000022	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-105	0.094	B G	0.0018	0.0018	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-106	0.0018	U G	0.0018	0.0018	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-110/115	0.32	B	0.0023	0.0017	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-109	0.014	G	0.0016	0.0016	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-111	0.0017	U G	0.0017	0.0017	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-112	0.0018	U G	0.0018	0.0018	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-114	0.0062	G	0.0019	0.0019	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-118	0.21	E B G	0.0017	0.0017	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-120	0.0016	U G	0.0016	0.0016	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-121	0.0016	U G	0.0016	0.0016	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-122	0.0019	U G	0.0019	0.0019	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-123	0.0029	G	0.0018	0.0018	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-126	0.0020	U G	0.0020	0.0020	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-127	0.0018	U G	0.0018	0.0018	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-128/166	0.049	B	0.0023	0.0017	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Client Sample ID: SB-202-2 (0-2) (102417)**

**Lab Sample ID: 680-144745-13**

**Date Collected: 10/24/17 14:35**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 87.2**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-129/138/163	0.27	B	0.0035	0.0018	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-130	0.019	G	0.0022	0.0022	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-131	0.0039	G	0.0020	0.0020	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-132	0.087	B G	0.0020	0.0020	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-133	0.0027	G	0.0020	0.0020	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-134/143	0.013		0.0023	0.0021	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-135/151	0.016	B	0.0023	0.0019	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-136	0.023	B G	0.0014	0.0014	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-137	0.015	G	0.0017	0.0017	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-139/140	0.0045		0.0023	0.0018	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-141	0.036	B G	0.0020	0.0020	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-142	0.0021	U G	0.0021	0.0021	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-144	0.0018	U G	0.0018	0.0018	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-145	0.0014	U G	0.0014	0.0014	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-146	0.025	G	0.0017	0.0017	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-147/149	0.14	B	0.0023	0.0018	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-148	0.0018	U G	0.0018	0.0018	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-150	0.0013	U G	0.0013	0.0013	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-152	0.0013	U G	0.0013	0.0013	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-153/168	0.11	B	0.0023	0.0015	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-154	0.032	G	0.0016	0.0016	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-155	0.0012	U	0.0012	0.0012	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-156/157	0.041	B G	0.00026	0.00026	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-158	0.030	B G	0.0014	0.0014	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-159	0.00052	J	0.0012	0.00018	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-160	0.0017	U G	0.0017	0.0017	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-161	0.0016	U G	0.0016	0.0016	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-162	0.00085	J	0.0012	0.00017	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-164	0.018	G	0.0016	0.0016	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-165	0.0016	U G	0.0016	0.0016	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-167	0.011	G	0.00015	0.00015	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-169	0.00018	U G	0.00018	0.00018	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-170	0.027	B	0.0012	0.000029	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-171/173	0.0090		0.0023	0.000029	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-172	0.0039		0.0012	0.000028	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-174	0.024	B	0.0012	0.000031	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-175	0.0010	J	0.0012	0.000021	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-176	0.0022		0.0012	0.000015	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-177	0.012		0.0012	0.000029	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-178	0.0034		0.0012	0.000022	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-179	0.0071		0.0012	0.000016	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-180/193	0.044	B	0.0023	0.000023	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-181	0.00056	J	0.0012	0.000026	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-182	0.00015	J	0.0012	0.000019	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-183	0.011	B	0.0012	0.000022	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-184	0.000016	U	0.0012	0.000016	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-185	0.0022		0.0012	0.000027	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-186	0.000016	U	0.0012	0.000016	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-187	0.020	B	0.0012	0.000019	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Client Sample ID: SB-202-2 (0-2) (102417)**

**Lab Sample ID: 680-144745-13**

**Date Collected: 10/24/17 14:35**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 87.2**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-188	0.000016	U	0.0012	0.000016	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-189	0.0011		0.00012	0.000012	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-190	0.0046	B	0.0012	0.000021	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-191	0.0010	J	0.0012	0.000021	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-192	0.000022	U	0.0012	0.000022	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-194	0.0054	B	0.0012	0.000019	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-195	0.0024		0.0012	0.000020	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-196	0.0036		0.0012	0.000023	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-197	0.00028	J	0.0012	0.000016	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-198/199	0.0074		0.0023	0.000024	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-200	0.00094	J	0.0012	0.000019	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-201	0.00095	J	0.0012	0.000017	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-202	0.0011	J	0.0012	0.000018	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-203	0.0048		0.0012	0.000023	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-204	0.000018	U	0.0012	0.000018	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-205	0.00033	J	0.0012	0.000017	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-206	0.0032		0.0012	0.000028	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-207	0.00033	J	0.0012	0.000021	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-208	0.00087	J	0.0012	0.000024	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50
PCB-209	0.00055	J B	0.0012	0.0000080	mg/Kg	☼	11/02/17 12:52	11/28/17 21:14	50

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	65		5 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-3L	73		5 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-4L	75		5 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-15L	99		5 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-19L	75		5 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-54L	77		5 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-104L	80		10 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-105L	85		10 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-114L	79		10 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-118L	89		10 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-123L	82		10 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-126L	78		10 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-155L	70		10 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-156L/157L	74		10 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-167L	78		10 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-169L	72		10 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-188L	101		10 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-189L	95		10 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-202L	101		10 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-205L	72		10 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-206L	93		10 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-208L	96		10 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-209L	104		10 - 145	11/02/17 12:52	11/28/17 21:14	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	113		5 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-111L	85		10 - 145	11/02/17 12:52	11/28/17 21:14	50
PCB-178L	95		10 - 145	11/02/17 12:52	11/28/17 21:14	50

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Client Sample ID: SB-202-2 (0-2) (102417)**

**Lab Sample ID: 680-144745-13**

**Date Collected: 10/24/17 14:35**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**Percent Solids: 87.2**

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.000011	U	0.000023	0.000011	mg/Kg	☼	11/02/17 12:58	11/17/17 10:33	20
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	84		40 - 135				11/02/17 12:58	11/17/17 10:33	20
13C-1,2,3,4,6,7,8-HpCDF	75		40 - 135				11/02/17 12:58	11/17/17 10:33	20
13C-1,2,3,4,7,8-HxCDF	91		40 - 135				11/02/17 12:58	11/17/17 10:33	20
13C-1,2,3,6,7,8-HxCDD	80		40 - 135				11/02/17 12:58	11/17/17 10:33	20
13C-1,2,3,7,8-PeCDD	85		40 - 135				11/02/17 12:58	11/17/17 10:33	20
13C-1,2,3,7,8-PeCDF	78		40 - 135				11/02/17 12:58	11/17/17 10:33	20
13C-2,3,7,8-TCDD	68		40 - 135				11/02/17 12:58	11/17/17 10:33	20
13C-2,3,7,8-TCDF	74		40 - 135				11/02/17 12:58	11/17/17 10:33	20
13C-OCDD	88		40 - 135				11/02/17 12:58	11/17/17 10:33	20

## Method: None - Total PCB Calculation from HRMS PCB-Congeners

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	NaN		0.0000020	0.0000050	mg/Kg	—		12/05/17 15:07	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Client Sample ID: EB-1 (102517)**

**Date Collected: 10/25/17 16:30**

**Date Received: 10/25/17 17:30**

**Lab Sample ID: 680-144745-34**

**Matrix: Water**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>PCB-1</b>	<b>9.0</b>	<b>J</b>	190	0.69	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-2	0.55	U	190	0.55	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-3</b>	<b>6.1</b>	<b>J</b>	190	0.58	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-4	6.9	U	190	6.9	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-5	4.3	U	190	4.3	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-6	4.5	U	190	4.5	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-7	4.3	U	190	4.3	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-8	4.4	U	190	4.4	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-9	4.4	U	190	4.4	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-10	4.7	U	190	4.7	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-11</b>	<b>13</b>	<b>J B</b>	190	4.3	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-12/13	4.3	U	380	4.3	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-14	3.8	U	190	3.8	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-15	4.2	U	190	4.2	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-16</b>	<b>1.9</b>	<b>J</b>	190	1.2	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-17</b>	<b>2.3</b>	<b>J B</b>	190	0.87	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-18/30</b>	<b>4.0</b>	<b>J B</b>	380	0.77	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-19</b>	<b>5.0</b>	<b>J</b>	190	1.1	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-20/28</b>	<b>3.8</b>	<b>J B</b>	380	0.85	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-21/33</b>	<b>2.8</b>	<b>J B</b>	380	0.81	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-22	0.87	U	190	0.87	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-23	0.82	U	190	0.82	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-24	0.70	U	190	0.70	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-25	0.82	U	190	0.82	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-26/29	0.82	U	380	0.82	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-27	0.67	U	190	0.67	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-31</b>	<b>3.3</b>	<b>J B</b>	190	0.78	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-32</b>	<b>1.2</b>	<b>J</b>	190	0.64	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-34	0.85	U	190	0.85	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-35	0.86	U	190	0.86	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-36	0.80	U	190	0.80	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-37</b>	<b>2.2</b>	<b>J</b>	190	0.89	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-38	0.88	U	190	0.88	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-39	0.77	U	190	0.77	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-40/71</b>	<b>1.4</b>	<b>J B</b>	380	0.46	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-41	0.54	U	190	0.54	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-42</b>	<b>0.90</b>	<b>J</b>	190	0.50	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-43	0.55	U	190	0.55	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-44/47/65</b>	<b>5.2</b>	<b>J B</b>	570	0.44	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-45	0.52	U	190	0.52	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-46	0.55	U	190	0.55	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-48	0.46	U	190	0.46	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-49/69</b>	<b>1.6</b>	<b>J B</b>	380	0.39	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-50/53	0.44	U	380	0.44	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-51	0.44	U	190	0.44	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-52</b>	<b>3.1</b>	<b>J B</b>	190	0.47	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-54</b>	<b>3.2</b>	<b>J</b>	190	0.50	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-55	0.58	U	190	0.58	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-56	0.60	U	190	0.60	pg/L		11/01/17 07:42	11/03/17 16:47	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Client Sample ID: EB-1 (102517)**

**Lab Sample ID: 680-144745-34**

**Date Collected: 10/25/17 16:30**

**Matrix: Water**

**Date Received: 10/25/17 17:30**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	0.58	U	190	0.58	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-58	0.56	U	190	0.56	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-59/62/75	0.34	U	570	0.34	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-60	0.58	U	190	0.58	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-61/70/74/76</b>	<b>2.4</b>	<b>J B</b>	770	0.56	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-63	0.51	U	190	0.51	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-64</b>	<b>1.3</b>	<b>J B</b>	190	0.32	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-66</b>	<b>1.3</b>	<b>J</b>	190	0.59	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-67	0.54	U	190	0.54	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-68	0.51	U	190	0.51	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-72	0.54	U	190	0.54	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-73	0.35	U	190	0.35	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-77	0.62	U	19	0.62	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-78	0.59	U	190	0.59	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-79	0.52	U	190	0.52	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-80	0.50	U	190	0.50	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-81</b>	<b>1.6</b>	<b>J</b>	19	0.62	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-82	0.86	U	190	0.86	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-83	0.93	U	190	0.93	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-84	0.80	U	190	0.80	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-85/116/117	0.60	U	570	0.60	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-86/87/97/108/119/125	0.62	U	1100	0.62	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-88/91	0.69	U	380	0.69	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-89	0.75	U	190	0.75	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-90/101/113</b>	<b>3.1</b>	<b>J B</b>	570	0.63	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-92	0.73	U	190	0.73	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-93/100	0.68	U	380	0.68	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-107/124	0.55	U	380	0.55	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-94	0.72	U	190	0.72	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-95</b>	<b>2.1</b>	<b>J</b>	190	0.68	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-96	0.52	U	190	0.52	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-98/102	0.66	U	380	0.66	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-99</b>	<b>1.4</b>	<b>J</b>	190	0.58	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-103	0.63	U	190	0.63	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-104</b>	<b>2.5</b>	<b>J</b>	190	0.49	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-105</b>	<b>2.1</b>	<b>J</b>	19	0.60	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-106	0.57	U	190	0.57	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-110/115</b>	<b>3.2</b>	<b>J q B</b>	380	0.55	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-109	0.52	U	190	0.52	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-111	0.53	U	190	0.53	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-112	0.55	U	190	0.55	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-114	0.59	U	19	0.59	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-118</b>	<b>3.6</b>	<b>J B</b>	19	0.56	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-120	0.51	U	190	0.51	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-121	0.51	U	190	0.51	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-122	0.60	U	190	0.60	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-123	0.58	U	19	0.58	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-126	0.67	U	19	0.67	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-127	0.57	U	190	0.57	pg/L		11/01/17 07:42	11/03/17 16:47	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Client Sample ID: EB-1 (102517)**

**Lab Sample ID: 680-144745-34**

**Date Collected: 10/25/17 16:30**

**Matrix: Water**

**Date Received: 10/25/17 17:30**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	0.90	U	380	0.90	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-129/138/163</b>	<b>5.9</b>	<b>J B</b>	570	0.95	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-130	1.2	U	190	1.2	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-131	1.1	U	190	1.1	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-132	1.1	U	190	1.1	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-133	1.1	U	190	1.1	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-134/143	1.1	U	380	1.1	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-135/151	1.0	U	380	1.0	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-136	0.75	U	190	0.75	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-137	0.90	U	190	0.90	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-139/140	0.97	U	380	0.97	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-141	1.1	U	190	1.1	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-142	1.1	U	190	1.1	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-144	0.97	U	190	0.97	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-145	0.73	U	190	0.73	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-146</b>	<b>2.1</b>	<b>J</b>	190	0.92	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-147/149</b>	<b>3.4</b>	<b>J B</b>	380	0.98	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-148	0.97	U	190	0.97	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-150	0.68	U	190	0.68	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-152	0.71	U	190	0.71	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-153/168</b>	<b>8.3</b>	<b>J B</b>	380	0.82	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-154	0.88	U	190	0.88	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-155</b>	<b>1.3</b>	<b>J</b>	190	0.64	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-156/157	0.73	U	38	0.73	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-158	0.75	U	190	0.75	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-159	0.53	U	190	0.53	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-160	0.92	U	190	0.92	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-161	0.85	U	190	0.85	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-162	0.51	U	190	0.51	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-164	0.88	U	190	0.88	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-165	0.87	U	190	0.87	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-167	0.45	U	19	0.45	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-169</b>	<b>0.72</b>	<b>J</b>	19	0.55	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-170</b>	<b>1.3</b>	<b>J B</b>	190	0.46	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-171/173</b>	<b>0.96</b>	<b>J B</b>	380	0.47	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-172	0.46	U	190	0.46	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-174	0.50	U	190	0.50	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-175	0.90	U	190	0.90	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-176	0.65	U	190	0.65	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-177</b>	<b>0.67</b>	<b>J</b>	190	0.46	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-178	0.95	U	190	0.95	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-179	0.69	U	190	0.69	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-180/193</b>	<b>4.5</b>	<b>J B</b>	380	0.38	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-181	0.41	U	190	0.41	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-182	0.85	U	190	0.85	pg/L		11/01/17 07:42	11/03/17 16:47	1
<b>PCB-183</b>	<b>2.2</b>	<b>J B</b>	190	0.36	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-184	0.72	U	190	0.72	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-185	0.44	U	190	0.44	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-186	0.69	U	190	0.69	pg/L		11/01/17 07:42	11/03/17 16:47	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

Client Sample ID: EB-1 (102517)

Lab Sample ID: 680-144745-34

Date Collected: 10/25/17 16:30

Matrix: Water

Date Received: 10/25/17 17:30

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	3.4	J B	190	0.85	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-188	0.63	U	190	0.63	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-189	0.84	U	19	0.84	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-190	0.33	U	190	0.33	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-191	0.34	U	190	0.34	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-192	0.36	U	190	0.36	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-194	0.79	U	190	0.79	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-195	0.83	U	190	0.83	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-196	0.57	U	190	0.57	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-197	0.40	U	190	0.40	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-198/199	0.61	U	380	0.61	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-200	0.48	U	190	0.48	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-201	0.44	U	190	0.44	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-202	0.45	U	190	0.45	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-203	0.57	U	190	0.57	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-204	0.45	U	190	0.45	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-205	0.69	U	190	0.69	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-206	1.5	U	190	1.5	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-207	1.0	U	190	1.0	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-208	1.1	U	190	1.1	pg/L		11/01/17 07:42	11/03/17 16:47	1
PCB-209	1.3	U	190	1.3	pg/L		11/01/17 07:42	11/03/17 16:47	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	57		5 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-3L	65		5 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-4L	66		5 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-15L	86		5 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-19L	77		5 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-37L	88		5 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-54L	64		5 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-77L	94		10 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-81L	92		10 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-104L	76		10 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-105L	94		10 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-114L	91		10 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-118L	92		10 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-123L	93		10 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-126L	91		10 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-155L	81		10 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-156L/157L	91		10 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-167L	93		10 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-169L	81		10 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-188L	113		10 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-189L	98		10 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-202L	124		10 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-205L	97		10 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-206L	84		10 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-208L	107		10 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-209L	88		10 - 145	11/01/17 07:42	11/03/17 16:47	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Client Sample ID: EB-1 (102517)**

**Lab Sample ID: 680-144745-34**

**Date Collected: 10/25/17 16:30**

**Matrix: Water**

**Date Received: 10/25/17 17:30**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	88		5 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-111L	95		10 - 145	11/01/17 07:42	11/03/17 16:47	1
PCB-178L	101		10 - 145	11/01/17 07:42	11/03/17 16:47	1

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.20	U	9.7	0.20	pg/L		11/17/17 10:44	11/21/17 05:33	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	91		40 - 135				11/17/17 10:44	11/21/17 05:33	1
13C-1,2,3,7,8-PeCDD	95		40 - 135				11/17/17 10:44	11/21/17 05:33	1
13C-1,2,3,6,7,8-HxCDD	91		40 - 135				11/17/17 10:44	11/21/17 05:33	1
13C-1,2,3,4,6,7,8-HpCDD	98		40 - 135				11/17/17 10:44	11/21/17 05:33	1
13C-OCDD	91		40 - 135				11/17/17 10:44	11/21/17 05:33	1
13C-2,3,7,8-TCDF	90		40 - 135				11/17/17 10:44	11/21/17 05:33	1
13C-1,2,3,7,8-PeCDF	93		40 - 135				11/17/17 10:44	11/21/17 05:33	1
13C-1,2,3,4,7,8-HxCDF	89		40 - 135				11/17/17 10:44	11/21/17 05:33	1
13C-1,2,3,4,6,7,8-HpCDF	83		40 - 135				11/17/17 10:44	11/21/17 05:33	1

## Method: None - Total PCB Calculation from HRMS PCB-Congeners

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	130	J	200	20	pg/L			12/05/17 15:07	1



# Toxicity Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

Client Sample ID: SB-202-1 (0-2) (102417)

Lab Sample ID: 680-144745-11

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	EDL	Unit	TEF	TEQ	Method
PCB-77	0.0011	G	0.00027	0.00027	mg/Kg	0.0001	0.00000011	1668C
PCB-81	0.00028	U G	0.00028	0.00028	mg/Kg	0.0003	0.00	1668C
PCB-105	0.039	E G B	0.0012	0.0012	mg/Kg	0.00003	0.0000012	1668C
PCB-114	0.0022	G	0.0014	0.0014	mg/Kg	0.00003	0.00000066	1668C
PCB-118	0.092	E G B	0.0012	0.0012	mg/Kg	0.00003	0.0000028	1668C
PCB-123	0.0011	U G	0.0011	0.0011	mg/Kg	0.00003	0.00	1668C
PCB-126	0.0019	U G	0.0019	0.0019	mg/Kg	0.1	0.00	1668C
PCB-156/157	0.022	E G B	0.00024	0.00024	mg/Kg	0.00003	0.00000066	1668C
PCB-167	0.0065	E G	0.00017	0.00017	mg/Kg	0.00003	0.00000020	1668C
PCB-169	0.00017	U G	0.00017	0.00017	mg/Kg	0.03	0.00	1668C
PCB-189	0.00071		0.0000024	0.0000024	mg/Kg	0.00003	0.000000021	1668C
2,3,7,8-TCDD	0.0000014	U G	0.0000014	0.0000014	mg/Kg	1	0.00	8290A

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	MDL	Unit	TEF	TEQ	Method
Polychlorinated biphenyls, Total	1.5		0.0000020	0.0000050	mg/Kg		0.0000051	None

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	NONE	NONE	Unit	TEF	TEQ	Method
Total Dioxin/Furan TEQ					mg/Kg		0.000015	TEQ
Total PCB TEQ					mg/Kg		0.0000051	TEQ
Total TEQ					mg/Kg		0.000020	TEQ

Client Sample ID: DUP-1 (102417)

Lab Sample ID: 680-144745-12

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	EDL	Unit	TEF	TEQ	Method
PCB-77	0.00068	G	0.00019	0.00019	mg/Kg	0.0001	0.000000068	1668C
PCB-81	0.00020	U G	0.00020	0.00020	mg/Kg	0.0003	0.00	1668C
PCB-105	0.036	E G B	0.00086	0.00086	mg/Kg	0.00003	0.0000011	1668C
PCB-114	0.0021	G	0.00093	0.00093	mg/Kg	0.00003	0.000000063	1668C
PCB-123	0.0014	G	0.00090	0.00090	mg/Kg	0.00003	0.000000042	1668C
PCB-126	0.0012	U G	0.0012	0.0012	mg/Kg	0.1	0.00	1668C
PCB-156/157	0.019	E G B	0.00011	0.00011	mg/Kg	0.00003	0.00000057	1668C
PCB-167	0.0056	E G	0.000065	0.000065	mg/Kg	0.00003	0.00000017	1668C
PCB-169	0.000072	U G	0.000072	0.000072	mg/Kg	0.03	0.00	1668C
PCB-189	0.00048	q	0.0000024	0.0000016	mg/Kg	0.00003	0.000000014	1668C
PCB-118 - DL	0.049	E B G	0.00053	0.00053	mg/Kg	0.00003	0.0000015	1668C
2,3,7,8-TCDD	0.00000049	U	0.0000012	0.0000004	mg/Kg	1	0.00	8290A

## TEF Reference:

WHO 2005 = World Health Organization (WHO) 2005 TEF, Dioxins, Furans and PCB Congeners

Note: The analytes PCB-156 and PCB-157 coelute as a single peak.

TestAmerica Savannah



# Toxicity Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Client Sample ID: DUP-1 (102417) (Continued)

## Lab Sample ID: 680-144745-12

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	MDL	Unit	TEF	TEQ	Method
Polychlorinated biphenyls, Total	1.1		0.0000020	0.0000050	mg/Kg		0.0000035	None
						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	NONE	NONE	Unit	TEF	TEQ	Method
Total Dioxin/Furan TEQ					mg/Kg		0.0000079	TEQ
Total PCB TEQ					mg/Kg		0.0000035	TEQ
Total TEQ					mg/Kg		0.000011	TEQ

## Client Sample ID: SB-202-2 (0-2) (102417)

## Lab Sample ID: 680-144745-13

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	EDL	Unit	TEF	TEQ	Method
PCB-105	0.094	B G	0.0018	0.0018	mg/Kg	0.00003	0.0000028	1668C
PCB-114	0.0062	G	0.0019	0.0019	mg/Kg	0.00003	0.00000019	1668C
PCB-118	0.21	E B G	0.0017	0.0017	mg/Kg	0.00003	0.0000063	1668C
PCB-123	0.0029	G	0.0018	0.0018	mg/Kg	0.00003	0.00000087	1668C
PCB-126	0.0020	U G	0.0020	0.0020	mg/Kg	0.1	0.00	1668C
PCB-156/157	0.041	B G	0.00026	0.00026	mg/Kg	0.00003	0.0000012	1668C
PCB-167	0.011	G	0.00015	0.00015	mg/Kg	0.00003	0.00000033	1668C
PCB-169	0.00018	U G	0.00018	0.00018	mg/Kg	0.03	0.00	1668C
PCB-189	0.0011		0.00012	0.00012	mg/Kg	0.00003	0.00000033	1668C
2,3,7,8-TCDD	0.000011	U	0.000023	0.000011	mg/Kg	1	0.00	8290A
						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	MDL	Unit	TEF	TEQ	Method
Polychlorinated biphenyls, Total	NaN		0.0000020	0.0000050	mg/Kg		0.000011	None
						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	NONE	NONE	Unit	TEF	TEQ	Method
Total Dioxin/Furan TEQ					mg/Kg		0.000022	TEQ
Total PCB TEQ					mg/Kg		0.000011	TEQ
Total TEQ					mg/Kg		0.000033	TEQ

## Client Sample ID: EB-1 (102517)

## Lab Sample ID: 680-144745-34

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	EDL	Unit	TEF	TEQ	Method
PCB-77	0.62	U	19	0.62	pg/L	0.0001	0.00	1668C
PCB-81	1.6	J	19	0.62	pg/L	0.0003	0.00048	1668C
PCB-105	2.1	J	19	0.60	pg/L	0.00003	0.000063	1668C

### TEF Reference:

WHO 2005 = World Health Organization (WHO) 2005 TEF, Dioxins, Furans and PCB Congeners

Note: The analytes PCB-156 and PCB-157 coelute as a single peak.

TestAmerica Savannah



# Toxicity Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

Client Sample ID: EB-1 (102517) (Continued)

Lab Sample ID: 680-144745-34

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	EDL	Unit	TEF	TEQ	Method
PCB-114	0.59	U	19	0.59	pg/L	0.00003	0.00	1668C
PCB-118	3.6	J B	19	0.56	pg/L	0.00003	0.00011	1668C
PCB-123	0.58	U	19	0.58	pg/L	0.00003	0.00	1668C
PCB-126	0.67	U	19	0.67	pg/L	0.1	0.00	1668C
PCB-156/157	0.73	U	38	0.73	pg/L	0.00003	0.00	1668C
PCB-167	0.45	U	19	0.45	pg/L	0.00003	0.00	1668C
PCB-169	0.72	J	19	0.55	pg/L	0.03	0.022	1668C
PCB-189	0.84	U	19	0.84	pg/L	0.00003	0.00	1668C
2,3,7,8-TCDD	0.20	U	9.7	0.20	pg/L	1	0.00	8290A

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	MDL	Unit	TEF	TEQ	Method
Polychlorinated biphenyls, Total	130	J	200	20	pg/L		0.023	None

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	NONE	NONE	Unit	TEF	TEQ	Method
Total Dioxin/Furan TEQ					pg/L		0.31	TEQ
Total PCB TEQ					pg/L		0.023	TEQ
Total TEQ					pg/L		0.33	TEQ

## TEF Reference:

WHO 2005 = World Health Organization (WHO) 2005 TEF, Dioxins, Furans and PCB Congeners

Note: The analytes PCB-156 and PCB-157 coelute as a single peak.

TestAmerica Savannah



# Surrogate Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		PCB-28L (5-145)	PCB-111L (10-145)	PCB-178L (10-145)
680-144745-11	SB-202-1 (0-2) (102417)	74	82	95
680-144745-11 - DL	SB-202-1 (0-2) (102417)	60	85	98
680-144745-12	DUP-1 (102417)	136	182 X	205 X
680-144745-12 - DL	DUP-1 (102417)	62	87	101
680-144745-13	SB-202-2 (0-2) (102417)	113	85	95
MB 320-192576/1-A	Method Blank	60	73	87

### Surrogate Legend

PCB-28L = PCB-28L  
PCB-111L = PCB-111L  
PCB-178L = PCB-178L

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		PCB-28L (15-145)	PCB-111L (40-145)	PCB-178L (40-145)
LCS 320-192576/2-A	Lab Control Sample	61	69	83

### Surrogate Legend

PCB-28L = PCB-28L  
PCB-111L = PCB-111L  
PCB-178L = PCB-178L

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		PCB-28L (5-145)	PCB-111L (10-145)	PCB-178L (10-145)
680-144745-34	EB-1 (102517)	88	95	101
MB 320-192269/1-A	Method Blank	86	93	95

### Surrogate Legend

PCB-28L = PCB-28L  
PCB-111L = PCB-111L  
PCB-178L = PCB-178L

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		PCB-28L (15-145)	PCB-111L (40-145)	PCB-178L (40-145)
LCS 320-192269/2-A	Lab Control Sample	88	94	96
LCSD 320-192269/3-A	Lab Control Sample Dup	87	93	98

### Surrogate Legend

PCB-28L = PCB-28L  
PCB-111L = PCB-111L

TestAmerica Savannah



# Surrogate Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

PCB-178L = PCB-178L

1
2
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16
17



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB-1L (5-145)	PCB-3L (5-145)	PCB-4L (5-145)	PCB-15L (5-145)	PCB-19L (5-145)	PCB-37L (5-145)	PCB-54L (5-145)	PCB-77L (10-145)
680-144745-11	SB-202-1 (0-2) (102417)	42	48	45	48	48	41	41	60
680-144745-11 - DL	SB-202-1 (0-2) (102417)	45	46	45	51	53	52	40	65
680-144745-12	DUP-1 (102417)	45	51	50	62	57	55	39 q	91
680-144745-12 - DL	DUP-1 (102417)	50	52	54	66	57	71	51	86
680-144745-13	SB-202-2 (0-2) (102417)	65	73	75	99	75		77	
MB 320-192576/1-A	Method Blank	54	61	58	64	67	62	50	72

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB-81L (10-145)	PCB-104L (10-145)	PCB-105L (10-145)	PCB-114L (10-145)	PCB-118L (10-145)	PCB-123L (10-145)	PCB-126L (10-145)	PCB-155L (10-145)
680-144745-11	SB-202-1 (0-2) (102417)	61	62	64	58	62	62	47	72
680-144745-11 - DL	SB-202-1 (0-2) (102417)	66	53	68	65	70	65	68	54
680-144745-12	DUP-1 (102417)	89	62 q	95	89	89	90	74	91
680-144745-12 - DL	DUP-1 (102417)	86	68	93	89	93	88	94	72
680-144745-13	SB-202-2 (0-2) (102417)		80	85	79	89	82	78	70
MB 320-192576/1-A	Method Blank	72	62	76	78	75	74	86	63

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	B-156L/15 (10-145)	PCB-167L (10-145)	PCB-169L (10-145)	PCB-188L (10-145)	PCB-189L (10-145)	PCB-202L (10-145)	PCB-205L (10-145)	PCB-206L (10-145)
680-144745-11	SB-202-1 (0-2) (102417)	70	72	70	93	108	89	60	74
680-144745-11 - DL	SB-202-1 (0-2) (102417)	67	65	70	67	68	67	66	64
680-144745-12	DUP-1 (102417)	107	107	98	116	138	113	88	95
680-144745-12 - DL	DUP-1 (102417)	90	89	88	88	89	85	92	89
680-144745-13	SB-202-2 (0-2) (102417)	74	78	72	101	95	101	72	93
MB 320-192576/1-A	Method Blank	81	80	85	78	96	87	96	94

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB-208L (10-145)	PCB-209L (10-145)
680-144745-11	SB-202-1 (0-2) (102417)	93	82
680-144745-11 - DL	SB-202-1 (0-2) (102417)	69	67
680-144745-12	DUP-1 (102417)	124	104
680-144745-12 - DL	DUP-1 (102417)	92	94
680-144745-13	SB-202-2 (0-2) (102417)	96	104
MB 320-192576/1-A	Method Blank	99	99

### Surrogate Legend

PCB-1L = PCB-1L  
PCB-3L = PCB-3L  
PCB-4L = PCB-4L  
PCB-15L = PCB-15L  
PCB-19L = PCB-19L  
PCB-37L = PCB-37L  
PCB-54L = PCB-54L  
PCB-77L = PCB-77L  
PCB-81L = PCB-81L  
PCB-104L = PCB-104L  
PCB-105L = PCB-105L  
PCB-114L = PCB-114L  
PCB-118L = PCB-118L  
PCB-123L = PCB-123L

TestAmerica Savannah



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

PCB-126L = PCB-126L  
PCB-155L = PCB-155L  
PCB-156L/157L = PCB-156L/157L  
PCB-167L = PCB-167L  
PCB-169L = PCB-169L  
PCB-188L = PCB-188L  
PCB-189L = PCB-189L  
PCB-202L = PCB-202L  
PCB-205L = PCB-205L  
PCB-206L = PCB-206L  
PCB-208L = PCB-208L  
PCB-209L = PCB-209L

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB-1L (15-145)	PCB-3L (15-145)	PCB-4L (15-145)	PCB-15L (15-145)	PCB-19L (15-145)	PCB-37L (15-145)	PCB-54L (15-145)	PCB-77L (40-145)
LCS 320-192576/2-A	Lab Control Sample	51	59	56	63	66	62	51	70
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB-81L (40-145)	PCB-104L (40-145)	PCB-105L (40-145)	PCB-114L (40-145)	PCB-118L (40-145)	PCB-123L (40-145)	PCB-126L (40-145)	PCB-155L (40-145)
LCS 320-192576/2-A	Lab Control Sample	71	61	72	73	71	71	80	64
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	B-156L/157L (40-145)	PCB-167L (40-145)	PCB-169L (40-145)	PCB-188L (40-145)	PCB-189L (40-145)	PCB-202L (40-145)	PCB-205L (40-145)	PCB-206L (40-145)
LCS 320-192576/2-A	Lab Control Sample	79	76	81	69	86	75	87	86
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB-208L (40-145)	PCB-209L (40-145)						
LCS 320-192576/2-A	Lab Control Sample	86	92						

### Surrogate Legend

PCB-1L = PCB-1L  
PCB-3L = PCB-3L  
PCB-4L = PCB-4L  
PCB-15L = PCB-15L  
PCB-19L = PCB-19L  
PCB-37L = PCB-37L  
PCB-54L = PCB-54L  
PCB-77L = PCB-77L  
PCB-81L = PCB-81L  
PCB-104L = PCB-104L  
PCB-105L = PCB-105L  
PCB-114L = PCB-114L  
PCB-118L = PCB-118L  
PCB-123L = PCB-123L  
PCB-126L = PCB-126L  
PCB-155L = PCB-155L  
PCB-156L/157L = PCB-156L/157L  
PCB-167L = PCB-167L  
PCB-169L = PCB-169L  
PCB-188L = PCB-188L  
PCB-189L = PCB-189L

TestAmerica Savannah



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

PCB-202L = PCB-202L  
PCB-205L = PCB-205L  
PCB-206L = PCB-206L  
PCB-208L = PCB-208L  
PCB-209L = PCB-209L

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB-1L (5-145)	PCB-3L (5-145)	PCB-4L (5-145)	PCB-15L (5-145)	PCB-19L (5-145)	PCB-37L (5-145)	PCB-54L (5-145)	PCB-77L (10-145)
680-144745-34	EB-1 (102517)	57	65	66	86	77	88	64	94
MB 320-192269/1-A	Method Blank	57	63	64	75	76	81	60	89

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB-81L (10-145)	PCB-104L (10-145)	PCB-105L (10-145)	PCB-114L (10-145)	PCB-118L (10-145)	PCB-123L (10-145)	PCB-126L (10-145)	PCB-155L (10-145)
680-144745-34	EB-1 (102517)	92	76	94	91	92	93	91	81
MB 320-192269/1-A	Method Blank	87	70	91	87	88	87	89	74

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	B-156L/157L (10-145)	PCB-167L (10-145)	PCB-169L (10-145)	PCB-188L (10-145)	PCB-189L (10-145)	PCB-202L (10-145)	PCB-205L (10-145)	PCB-206L (10-145)
680-144745-34	EB-1 (102517)	91	93	81	113	98	124	97	84
MB 320-192269/1-A	Method Blank	89	90	80	100	95	115	95	82

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB-208L (10-145)	PCB-209L (10-145)
680-144745-34	EB-1 (102517)	107	88
MB 320-192269/1-A	Method Blank	100	85

### Surrogate Legend

PCB-1L = PCB-1L  
PCB-3L = PCB-3L  
PCB-4L = PCB-4L  
PCB-15L = PCB-15L  
PCB-19L = PCB-19L  
PCB-37L = PCB-37L  
PCB-54L = PCB-54L  
PCB-77L = PCB-77L  
PCB-81L = PCB-81L  
PCB-104L = PCB-104L  
PCB-105L = PCB-105L  
PCB-114L = PCB-114L  
PCB-118L = PCB-118L  
PCB-123L = PCB-123L  
PCB-126L = PCB-126L  
PCB-155L = PCB-155L  
PCB-156L/157L = PCB-156L/157L  
PCB-167L = PCB-167L  
PCB-169L = PCB-169L  
PCB-188L = PCB-188L  
PCB-189L = PCB-189L  
PCB-202L = PCB-202L  
PCB-205L = PCB-205L  
PCB-206L = PCB-206L

TestAmerica Savannah



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

PCB-208L = PCB-208L  
PCB-209L = PCB-209L

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB-1L (15-145)	PCB-3L (15-145)	PCB-4L (15-145)	PCB-15L (15-145)	PCB-19L (15-145)	PCB-37L (15-145)	PCB-54L (15-145)	PCB-77L (40-145)
LCS 320-192269/2-A	Lab Control Sample	56	63	61	79	73	85	60	92
LCSD 320-192269/3-A	Lab Control Sample Dup	54	62	62	78	74	80	59	88

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB-81L (40-145)	PCB-104L (40-145)	PCB-105L (40-145)	PCB-114L (40-145)	PCB-118L (40-145)	PCB-123L (40-145)	PCB-126L (40-145)	PCB-155L (40-145)
LCS 320-192269/2-A	Lab Control Sample	91	72	92	89	91	89	91	78
LCSD 320-192269/3-A	Lab Control Sample Dup	86	66	87	83	85	83	85	73

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	B-156L/157L (40-145)	PCB-167L (40-145)	PCB-169L (40-145)	PCB-188L (40-145)	PCB-189L (40-145)	PCB-202L (40-145)	PCB-205L (40-145)	PCB-206L (40-145)
LCS 320-192269/2-A	Lab Control Sample	89	90	81	102	97	117	96	83
LCSD 320-192269/3-A	Lab Control Sample Dup	83	86	76	101	93	115	91	81

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB-208L (40-145)	PCB-209L (40-145)
LCS 320-192269/2-A	Lab Control Sample	101	86
LCSD 320-192269/3-A	Lab Control Sample Dup	99	82

### Surrogate Legend

PCB-1L = PCB-1L  
PCB-3L = PCB-3L  
PCB-4L = PCB-4L  
PCB-15L = PCB-15L  
PCB-19L = PCB-19L  
PCB-37L = PCB-37L  
PCB-54L = PCB-54L  
PCB-77L = PCB-77L  
PCB-81L = PCB-81L  
PCB-104L = PCB-104L  
PCB-105L = PCB-105L  
PCB-114L = PCB-114L  
PCB-118L = PCB-118L  
PCB-123L = PCB-123L  
PCB-126L = PCB-126L  
PCB-155L = PCB-155L  
PCB-156L/157L = PCB-156L/157L  
PCB-167L = PCB-167L  
PCB-169L = PCB-169L  
PCB-188L = PCB-188L  
PCB-189L = PCB-189L  
PCB-202L = PCB-202L  
PCB-205L = PCB-205L  
PCB-206L = PCB-206L  
PCB-208L = PCB-208L  
PCB-209L = PCB-209L

TestAmerica Savannah



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HpCDD (40-135)	HpCDF1 (40-135)	HxCDF1 (40-135)	HxCDD2 (40-135)	PeCDD (40-135)	PeCDF1 (40-135)	TCDD (40-135)	TCDF (40-135)
680-144745-11	SB-202-1 (0-2) (102417)	55	53	55	54	54	54	36 *	51
680-144745-11 - RA	SB-202-1 (0-2) (102417)								57
680-144745-12	DUP-1 (102417)	85 q	86	91	93	88	87	65	84
680-144745-12 - RA	DUP-1 (102417)								90
680-144745-13	SB-202-2 (0-2) (102417)	84	75	91	80	85	78	68	74
LCS 320-192583/2-A	Lab Control Sample	82	79	80	78	80	80	77	77
MB 320-192583/1-A	Method Blank	83	84	81	83	85	86	80	79

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OCDD (40-135)
680-144745-11	SB-202-1 (0-2) (102417)	63
680-144745-11 - RA	SB-202-1 (0-2) (102417)	
680-144745-12	DUP-1 (102417)	108
680-144745-12 - RA	DUP-1 (102417)	
680-144745-13	SB-202-2 (0-2) (102417)	88
LCS 320-192583/2-A	Lab Control Sample	84
MB 320-192583/1-A	Method Blank	87

### Surrogate Legend

HpCDD = 13C-1,2,3,4,6,7,8-HpCDD  
HpCDF1 = 13C-1,2,3,4,6,7,8-HpCDF  
HxCDF1 = 13C-1,2,3,4,7,8-HxCDF  
HxCDD2 = 13C-1,2,3,6,7,8-HxCDD  
PeCDD = 13C-1,2,3,7,8-PeCDD  
PeCDF1 = 13C-1,2,3,7,8-PeCDF  
TCDD = 13C-2,3,7,8-TCDD  
TCDF = 13C-2,3,7,8-TCDF  
OCDD = 13C-OCDD

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCDD (40-135)	PeCDD (40-135)	HxCDD2 (40-135)	HpCDD (40-135)	OCDD (40-135)	TCDF (40-135)	PeCDF1 (40-135)	HxCDF1 (40-135)
680-144745-34	EB-1 (102517)	91	95	91	98	91	90	93	89
LCS 320-195331/2-A	Lab Control Sample	93	96	90	98	94	91	95	89
LCSD 320-195331/3-A	Lab Control Sample Dup	93	93	91	97	93	90	91	92
MB 320-195331/1-A	Method Blank	94	93	91	94	87	88	93	91

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HpCDF1 (40-135)
680-144745-34	EB-1 (102517)	83
LCS 320-195331/2-A	Lab Control Sample	83
LCSD 320-195331/3-A	Lab Control Sample Dup	70
MB 320-195331/1-A	Method Blank	74

### Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD

TestAmerica Savannah



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

PeCDD = 13C-1,2,3,7,8-PeCDD  
HxCDD2 = 13C-1,2,3,6,7,8-HxCDD  
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD  
OCDD = 13C-OCDD  
TCDF = 13C-2,3,7,8-TCDF  
PeCDF1 = 13C-1,2,3,7,8-PeCDF  
HxCDF1 = 13C-1,2,3,4,7,8-HxCDF  
HpCDF1 = 13C-1,2,3,4,6,7,8-HpCDF

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Lab Sample ID: MB 320-192269/1-A

Matrix: Water

Analysis Batch: 192770

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 192269

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	1.7	U	200	1.7	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-2	0.27	U	200	0.27	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-3	0.29	U	200	0.29	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-4	6.1	U	200	6.1	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-5	2.5	U	200	2.5	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-6	2.6	U	200	2.6	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-7	2.5	U	200	2.5	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-8	2.6	U	200	2.6	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-9	2.6	U	200	2.6	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-10	4.5	U	200	4.5	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-11	20.3	J	200	2.5	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-12/13	2.5	U	400	2.5	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-14	2.2	U	200	2.2	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-15	2.6	U	200	2.6	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-16	1.4	U	200	1.4	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-17	1.83	J	200	1.1	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-18/30	3.64	J	400	0.94	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-19	1.2	U	200	1.2	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-20/28	4.57	J	400	0.81	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-21/33	2.62	J	400	0.77	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-22	1.34	J	200	0.83	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-23	0.78	U	200	0.78	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-24	0.86	U	200	0.86	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-25	0.78	U	200	0.78	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-26/29	0.78	U	400	0.78	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-27	0.81	U	200	0.81	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-31	3.62	J	200	0.74	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-32	0.78	U	200	0.78	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-34	0.81	U	200	0.81	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-35	0.82	U	200	0.82	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-36	0.76	U	200	0.76	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-37	0.87	U	200	0.87	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-38	0.84	U	200	0.84	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-39	0.74	U	200	0.74	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-40/71	1.78	J	400	0.64	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-41	0.75	U	200	0.75	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-42	0.70	U	200	0.70	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-43	0.77	U	200	0.77	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-44/47/65	15.2	J	600	0.61	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-45	0.72	U	200	0.72	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-46	0.76	U	200	0.76	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-48	0.64	U	200	0.64	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-49/69	1.65	J	400	0.53	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-50/53	0.61	U	400	0.61	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-51	1.27	J	200	0.60	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-52	3.82	J	200	0.65	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-54	0.64	U	200	0.64	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-55	0.71	U	200	0.71	pg/L		11/01/17 07:42	11/03/17 13:02	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-192269/1-A

Matrix: Water

Analysis Batch: 192770

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 192269

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-56	0.74	U	200	0.74	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-57	0.71	U	200	0.71	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-58	0.69	U	200	0.69	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-59/62/75	0.47	U	600	0.47	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-60	0.71	U	200	0.71	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-61/70/74/76	3.00	J	800	0.69	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-63	0.63	U	200	0.63	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-64	1.56	J	200	0.45	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-66	0.73	U	200	0.73	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-67	0.67	U	200	0.67	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-68	2.02	J	200	0.62	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-72	0.67	U	200	0.67	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-73	0.49	U	200	0.49	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-77	0.75	U	20	0.75	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-78	0.72	U	200	0.72	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-79	0.64	U	200	0.64	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-80	0.62	U	200	0.62	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-81	0.77	U	20	0.77	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-82	1.3	U	200	1.3	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-83	1.4	U	200	1.4	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-84	1.2	U	200	1.2	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-85/116/117	0.90	U	600	0.90	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-86/87/97/108/119/125	0.94	U	1200	0.94	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-88/91	1.0	U	400	1.0	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-89	1.1	U	200	1.1	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-90/101/113	2.90	J	600	0.95	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-92	1.1	U	200	1.1	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-93/100	1.0	U	400	1.0	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-107/124	0.84	U	400	0.84	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-94	1.1	U	200	1.1	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-95	1.0	U	200	1.0	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-96	0.49	U	200	0.49	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-98/102	1.0	U	400	1.0	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-99	0.88	U	200	0.88	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-103	0.95	U	200	0.95	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-104	0.48	U	200	0.48	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-105	0.89	U	20	0.89	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-106	0.86	U	200	0.86	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-110/115	3.26	J	400	0.83	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-109	0.79	U	200	0.79	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-111	0.81	U	200	0.81	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-112	0.84	U	200	0.84	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-114	0.89	U	20	0.89	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-118	2.53	J	20	0.85	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-120	0.77	U	200	0.77	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-121	0.77	U	200	0.77	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-122	0.91	U	200	0.91	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-123	0.87	U	20	0.87	pg/L		11/01/17 07:42	11/03/17 13:02	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-192269/1-A

Matrix: Water

Analysis Batch: 192770

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 192269

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-126	0.99	U	20	0.99	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-127	0.86	U	200	0.86	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-128/166	1.5	U	400	1.5	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-129/138/163	5.80	J	600	1.6	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-130	2.0	U	200	2.0	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-131	1.8	U	200	1.8	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-132	1.8	U	200	1.8	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-133	1.8	U	200	1.8	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-134/143	1.8	U	400	1.8	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-135/151	1.7	U	400	1.7	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-136	1.2	U	200	1.2	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-137	1.5	U	200	1.5	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-139/140	1.6	U	400	1.6	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-141	1.8	U	200	1.8	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-142	1.9	U	200	1.9	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-144	1.6	U	200	1.6	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-145	1.2	U	200	1.2	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-146	1.5	U	200	1.5	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-147/149	3.20	J	400	1.6	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-148	1.6	U	200	1.6	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-150	1.1	U	200	1.1	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-152	1.2	U	200	1.2	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-153/168	7.88	J	400	1.4	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-154	1.4	U	200	1.4	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-155	1.1	U	200	1.1	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-156/157	0.84	U	40	0.84	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-158	1.2	U	200	1.2	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-159	0.61	U	200	0.61	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-160	1.5	U	200	1.5	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-161	1.4	U	200	1.4	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-162	0.59	U	200	0.59	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-164	1.5	U	200	1.5	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-165	1.4	U	200	1.4	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-167	0.52	U	20	0.52	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-169	0.62	U	20	0.62	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-170	2.14	J	200	0.64	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-171/173	0.904	J	400	0.66	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-172	0.64	U	200	0.64	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-174	0.70	U	200	0.70	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-175	1.6	U	200	1.6	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-176	1.1	U	200	1.1	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-177	0.65	U	200	0.65	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-178	1.6	U	200	1.6	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-179	1.2	U	200	1.2	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-180/193	5.91	J	400	0.53	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-181	0.57	U	200	0.57	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-182	1.5	U	200	1.5	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-183	2.81	J	200	0.50	pg/L		11/01/17 07:42	11/03/17 13:02	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-192269/1-A

Matrix: Water

Analysis Batch: 192770

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 192269

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-184	1.2	U	200	1.2	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-185	0.61	U	200	0.61	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-186	1.2	U	200	1.2	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-187	3.99	J	200	1.5	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-188	1.1	U	200	1.1	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-189	0.92	U	20	0.92	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-190	0.46	U	200	0.46	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-191	0.47	U	200	0.47	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-192	0.50	U	200	0.50	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-194	0.86	U	200	0.86	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-195	0.91	U	200	0.91	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-196	0.82	U	200	0.82	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-197	0.58	U	200	0.58	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-198/199	0.88	U	400	0.88	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-200	0.70	U	200	0.70	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-201	0.63	U	200	0.63	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-202	0.66	U	200	0.66	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-203	0.82	U	200	0.82	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-204	0.66	U	200	0.66	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-205	0.74	U	200	0.74	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-206	1.5	U	200	1.5	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-207	1.0	U	200	1.0	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-208	1.1	U	200	1.1	pg/L		11/01/17 07:42	11/03/17 13:02	1
PCB-209	1.4	U	200	1.4	pg/L		11/01/17 07:42	11/03/17 13:02	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	57		5 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-3L	63		5 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-4L	64		5 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-15L	75		5 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-19L	76		5 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-37L	81		5 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-54L	60		5 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-77L	89		10 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-81L	87		10 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-104L	70		10 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-105L	91		10 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-114L	87		10 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-118L	88		10 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-123L	87		10 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-126L	89		10 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-155L	74		10 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-156L/157L	89		10 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-167L	90		10 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-169L	80		10 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-188L	100		10 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-189L	95		10 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-202L	115		10 - 145	11/01/17 07:42	11/03/17 13:02	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-192269/1-A

Matrix: Water

Analysis Batch: 192770

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 192269

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-205L	95		10 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-206L	82		10 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-208L	100		10 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-209L	85		10 - 145	11/01/17 07:42	11/03/17 13:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	86		5 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-111L	93		10 - 145	11/01/17 07:42	11/03/17 13:02	1
PCB-178L	95		10 - 145	11/01/17 07:42	11/03/17 13:02	1

Lab Sample ID: LCS 320-192269/2-A

Matrix: Water

Analysis Batch: 192770

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 192269

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	2000	1850		pg/L		92	60 - 135
PCB-3	2000	1870		pg/L		94	60 - 135
PCB-4	2000	1900		pg/L		95	60 - 135
PCB-15	2000	1810		pg/L		91	60 - 135
PCB-19	2000	1820		pg/L		91	60 - 135
PCB-37	2000	1760		pg/L		88	60 - 135
PCB-54	2000	1940		pg/L		97	60 - 135
PCB-77	2000	1830		pg/L		92	60 - 135
PCB-81	2000	1830		pg/L		91	60 - 135
PCB-104	2000	2030		pg/L		101	60 - 135
PCB-105	2000	1870		pg/L		93	60 - 135
PCB-114	2000	1860		pg/L		93	60 - 135
PCB-118	2000	1900		pg/L		95	60 - 135
PCB-123	2000	1880		pg/L		94	60 - 135
PCB-126	2000	1880		pg/L		94	60 - 135
PCB-155	2000	1950		pg/L		98	60 - 135
PCB-156/157	4000	3600		pg/L		90	60 - 135
PCB-167	2000	1800		pg/L		90	60 - 135
PCB-169	2000	1810		pg/L		90	60 - 135
PCB-188	2000	1820		pg/L		91	60 - 135
PCB-189	2000	1650		pg/L		83	60 - 135
PCB-202	2000	1780		pg/L		89	60 - 135
PCB-205	2000	1690		pg/L		84	60 - 135
PCB-206	2000	1920		pg/L		96	60 - 135
PCB-208	2000	1910		pg/L		95	60 - 135
PCB-209	2000	1830		pg/L		91	60 - 135

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-1L	56		15 - 145
PCB-3L	63		15 - 145
PCB-4L	61		15 - 145
PCB-15L	79		15 - 145
PCB-19L	73		15 - 145

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-192269/2-A

Matrix: Water

Analysis Batch: 192770

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 192269

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-37L	85		15 - 145
PCB-54L	60		15 - 145
PCB-77L	92		40 - 145
PCB-81L	91		40 - 145
PCB-104L	72		40 - 145
PCB-105L	92		40 - 145
PCB-114L	89		40 - 145
PCB-118L	91		40 - 145
PCB-123L	89		40 - 145
PCB-126L	91		40 - 145
PCB-155L	78		40 - 145
PCB-156L/157L	89		40 - 145
PCB-167L	90		40 - 145
PCB-169L	81		40 - 145
PCB-188L	102		40 - 145
PCB-189L	97		40 - 145
PCB-202L	117		40 - 145
PCB-205L	96		40 - 145
PCB-206L	83		40 - 145
PCB-208L	101		40 - 145
PCB-209L	86		40 - 145

Surrogate	LCS %Recovery	LCS Qualifier	Limits
PCB-28L	88		15 - 145
PCB-111L	94		40 - 145
PCB-178L	96		40 - 145

Lab Sample ID: LCSD 320-192269/3-A

Matrix: Water

Analysis Batch: 192770

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 192269

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1	2000	1870		pg/L		93	60 - 135	1	50
PCB-3	2000	1880		pg/L		94	60 - 135	0	50
PCB-4	2000	1900		pg/L		95	60 - 135	0	50
PCB-15	2000	1830		pg/L		91	60 - 135	1	50
PCB-19	2000	1830		pg/L		91	60 - 135	0	50
PCB-37	2000	1770		pg/L		88	60 - 135	1	50
PCB-54	2000	1950		pg/L		98	60 - 135	0	50
PCB-77	2000	1810		pg/L		91	60 - 135	1	50
PCB-81	2000	1820		pg/L		91	60 - 135	1	50
PCB-104	2000	2050		pg/L		102	60 - 135	1	50
PCB-105	2000	1870		pg/L		94	60 - 135	0	50
PCB-114	2000	1870		pg/L		94	60 - 135	1	50
PCB-118	2000	1910		pg/L		95	60 - 135	0	50
PCB-123	2000	1890		pg/L		95	60 - 135	1	50
PCB-126	2000	1890		pg/L		95	60 - 135	1	50
PCB-155	2000	1970		pg/L		98	60 - 135	1	50

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 320-192269/3-A

Matrix: Water

Analysis Batch: 192770

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 192269

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-156/157	4000	3620		pg/L		91	60 - 135	1	50
PCB-167	2000	1800		pg/L		90	60 - 135	0	50
PCB-169	2000	1820		pg/L		91	60 - 135	1	50
PCB-188	2000	1820		pg/L		91	60 - 135	0	50
PCB-189	2000	1650		pg/L		82	60 - 135	0	50
PCB-202	2000	1770		pg/L		89	60 - 135	0	50
PCB-205	2000	1680		pg/L		84	60 - 135	0	50
PCB-206	2000	1870		pg/L		94	60 - 135	3	50
PCB-208	2000	1920		pg/L		96	60 - 135	1	50
PCB-209	2000	1820		pg/L		91	60 - 135	0	50

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
PCB-1L	54		15 - 145
PCB-3L	62		15 - 145
PCB-4L	62		15 - 145
PCB-15L	78		15 - 145
PCB-19L	74		15 - 145
PCB-37L	80		15 - 145
PCB-54L	59		15 - 145
PCB-77L	88		40 - 145
PCB-81L	86		40 - 145
PCB-104L	66		40 - 145
PCB-105L	87		40 - 145
PCB-114L	83		40 - 145
PCB-118L	85		40 - 145
PCB-123L	83		40 - 145
PCB-126L	85		40 - 145
PCB-155L	73		40 - 145
PCB-156L/157L	83		40 - 145
PCB-167L	86		40 - 145
PCB-169L	76		40 - 145
PCB-188L	101		40 - 145
PCB-189L	93		40 - 145
PCB-202L	115		40 - 145
PCB-205L	91		40 - 145
PCB-206L	81		40 - 145
PCB-208L	99		40 - 145
PCB-209L	82		40 - 145

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
PCB-28L	87		15 - 145
PCB-111L	93		40 - 145
PCB-178L	98		40 - 145

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-192576/1-A

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 192576

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.00000022	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-2	0.00000018	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-3	0.00000018	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-4	0.00000062	U	0.000020	0.0000062	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-5	0.00000018	U	0.000020	0.0000018	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-6	0.00000019	U	0.000020	0.0000019	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-7	0.00000018	U	0.000020	0.0000018	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-8	0.00000018	U	0.000020	0.0000018	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-9	0.00000019	U	0.000020	0.0000019	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-10	0.00000041	U	0.000020	0.0000041	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-11	0.00000018	U	0.000020	0.0000018	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-12/13	0.00000018	U	0.000040	0.0000018	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-14	0.00000016	U	0.000020	0.0000016	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-15	0.00000018	U	0.000020	0.0000018	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-16	0.00000035	U	0.000020	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-17	0.00000027	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-18/30	0.000000459	J	0.000040	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-19	0.00000029	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-20/28	0.000000506	J	0.000040	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-21/33	0.000000291	J	0.000040	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-22	0.00000014	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-23	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-24	0.00000021	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-25	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-26/29	0.00000013	U	0.000040	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-27	0.00000020	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-31	0.000000352	J	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-32	0.00000019	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-34	0.00000014	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-35	0.00000014	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-36	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-37	0.00000015	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-192576/1-A

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 192576

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-38	0.00000014	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-39	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-40/71	0.000000364	J	0.000040	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-41	0.00000011	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-42	0.000000232	J	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-43	0.00000011	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-44/47/65	0.00000246	J	0.000060	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-45	0.00000011	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-46	0.00000011	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-48	0.000000145	J	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-49/69	0.000000761	J	0.000040	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-50/53	0.000000150	J	0.000040	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-51	0.000000088	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-52	0.00000288	J	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-54	0.00000015	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-55	0.00000014	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-56	0.00000014	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-57	0.00000014	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-58	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-59/62/75	0.000000069	U	0.000060	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-60	0.00000014	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-61/70/74/76	0.00000212	J	0.000080	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-63	0.00000012	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-64	0.000000353	J	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-66	0.000000735	J	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-67	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-68	0.00000012	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-192576/1-A

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 192576

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-72	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-73	0.000000071	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-77	0.00000014	U	0.0000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-78	0.00000014	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-79	0.00000012	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-80	0.00000012	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-81	0.00000014	U	0.0000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-82	0.00000038	U	0.000020	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-83	0.00000041	U	0.000020	0.0000004	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-84	0.00000130	J	0.000020	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-85/116/117	0.00000026	U	0.000060	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-86/87/97/108/119/125	0.00000341	J	0.00012	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-88/91	0.00000030	U	0.000040	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-89	0.00000033	U	0.000020	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-90/101/113	0.00000464	J	0.000060	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-92	0.000000884	J	0.000020	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-93/100	0.00000030	U	0.000040	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-107/124	0.00000024	U	0.000040	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-94	0.00000031	U	0.000020	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-95	0.00000388	J	0.000020	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-96	0.00000015	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-98/102	0.00000029	U	0.000040	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-99	0.00000188	J	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-103	0.00000027	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-104	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-105	0.00000162	J	0.0000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-106	0.00000025	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-192576/1-A

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 192576

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-110/115	0.00000569	J	0.000040	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-109	0.00000023	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-111	0.00000023	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-112	0.00000024	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-114	0.00000025	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-118	0.00000372		0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-120	0.00000022	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-121	0.00000022	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-122	0.00000026	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-123	0.00000026	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-126	0.00000025	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-127	0.00000025	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-128/166	0.000000478	J	0.000040	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-129/138/163	0.00000322	J	0.000060	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-130	0.00000026	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-131	0.00000024	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-132	0.00000131	J	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-133	0.00000024	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-134/143	0.00000024	U	0.000040	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-135/151	0.000000979	J	0.000040	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-136	0.000000502	J	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-137	0.00000020	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-139/140	0.00000021	U	0.000040	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-141	0.000000471	J	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-142	0.00000025	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-144	0.00000021	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-145	0.00000016	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-192576/1-A

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 192576

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-146	0.00000020	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				0					
PCB-147/149	0.00000246	J	0.000040	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				1					
PCB-148	0.00000021	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				1					
PCB-150	0.00000015	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				5					
PCB-152	0.00000016	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				6					
PCB-153/168	0.00000234	J	0.000040	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				8					
PCB-154	0.00000019	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				9					
PCB-155	0.00000016	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				6					
PCB-156/157	0.000000303	J	0.0000040	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				3					
PCB-158	0.000000337	J	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				6					
PCB-159	0.000000093	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				93					
PCB-160	0.00000020	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				0					
PCB-161	0.00000019	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				9					
PCB-162	0.000000089	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				89					
PCB-164	0.00000019	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				9					
PCB-165	0.00000019	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				9					
PCB-167	0.000000086	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				86					
PCB-169	0.000000081	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				81					
PCB-170	0.000000481	J	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				0					
PCB-171/173	0.00000011	U	0.000040	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				1					
PCB-172	0.00000010	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				0					
PCB-174	0.000000198	J	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				1					
PCB-175	0.00000012	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				2					
PCB-176	0.000000088	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				88					
PCB-177	0.00000010	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				0					
PCB-178	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				3					
PCB-179	0.000000093	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				93					

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-192576/1-A

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 192576

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-180/193	0.00000111	J	0.000040	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-181	0.000000093	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-182	0.00000011	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-183	0.000000353	J	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-184	0.000000097	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-185	0.000000099	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-186	0.000000093	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-187	0.000000628	J	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-188	0.00000010	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-189	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-190	0.000000140	J	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-191	0.000000077	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-192	0.000000080	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-194	0.00000279	J	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-195	0.00000019	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-196	0.00000011	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-197	0.000000081	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-198/199	0.00000012	U	0.000040	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-200	0.000000097	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-201	0.000000088	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-202	0.00000011	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-203	0.00000011	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-204	0.000000091	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-205	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-206	0.000000039	U	0.000020	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-207	0.00000031	U	0.000020	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-208	0.00000036	U	0.000020	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-192576/1-A

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 192576

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-209	0.00000115	J	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				2					

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	54		5 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-3L	61		5 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-4L	58		5 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-15L	64		5 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-19L	67		5 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-37L	62		5 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-54L	50		5 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-77L	72		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-81L	72		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-104L	62		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-105L	76		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-114L	78		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-118L	75		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-123L	74		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-126L	86		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-155L	63		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-156L/157L	81		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-167L	80		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-169L	85		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-188L	78		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-189L	96		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-202L	87		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-205L	96		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-206L	94		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-208L	99		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-209L	99		10 - 145	11/02/17 12:52	11/21/17 18:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	60		5 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-111L	73		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-178L	87		10 - 145	11/02/17 12:52	11/21/17 18:53	1

Lab Sample ID: LCS 320-192576/2-A

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 192576

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1	0.000200	0.000193		mg/Kg		97	60 - 135
PCB-3	0.000200	0.000195		mg/Kg		98	60 - 135
PCB-4	0.000200	0.000197		mg/Kg		99	60 - 135
PCB-15	0.000200	0.000192		mg/Kg		96	60 - 135
PCB-19	0.000200	0.000201		mg/Kg		101	60 - 135
PCB-37	0.000200	0.000182		mg/Kg		91	60 - 135
PCB-54	0.000200	0.000204		mg/Kg		102	60 - 135

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-192576/2-A

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 192576

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-77	0.000200	0.000192		mg/Kg		96	60 - 135
PCB-81	0.000200	0.000191		mg/Kg		96	60 - 135
PCB-104	0.000200	0.000217		mg/Kg		108	60 - 135
PCB-105	0.000200	0.000211		mg/Kg		105	60 - 135
PCB-114	0.000200	0.000196		mg/Kg		98	60 - 135
PCB-118	0.000200	0.000212		mg/Kg		106	60 - 135
PCB-123	0.000200	0.000205		mg/Kg		102	60 - 135
PCB-126	0.000200	0.000201		mg/Kg		100	60 - 135
PCB-155	0.000200	0.000201		mg/Kg		101	60 - 135
PCB-156/157	0.000400	0.000382		mg/Kg		95	60 - 135
PCB-167	0.000200	0.000191		mg/Kg		96	60 - 135
PCB-169	0.000200	0.000191		mg/Kg		96	60 - 135
PCB-188	0.000200	0.000186		mg/Kg		93	60 - 135
PCB-189	0.000200	0.000157		mg/Kg		78	60 - 135
PCB-202	0.000200	0.000190		mg/Kg		95	60 - 135
PCB-205	0.000200	0.000173		mg/Kg		87	60 - 135
PCB-206	0.000200	0.000190		mg/Kg		95	60 - 135
PCB-208	0.000200	0.000192		mg/Kg		96	60 - 135
PCB-209	0.000200	0.000185		mg/Kg		93	60 - 135

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-1L	51		15 - 145
PCB-3L	59		15 - 145
PCB-4L	56		15 - 145
PCB-15L	63		15 - 145
PCB-19L	66		15 - 145
PCB-37L	62		15 - 145
PCB-54L	51		15 - 145
PCB-77L	70		40 - 145
PCB-81L	71		40 - 145
PCB-104L	61		40 - 145
PCB-105L	72		40 - 145
PCB-114L	73		40 - 145
PCB-118L	71		40 - 145
PCB-123L	71		40 - 145
PCB-126L	80		40 - 145
PCB-155L	64		40 - 145
PCB-156L/157L	79		40 - 145
PCB-167L	76		40 - 145
PCB-169L	81		40 - 145
PCB-188L	69		40 - 145
PCB-189L	86		40 - 145
PCB-202L	75		40 - 145
PCB-205L	87		40 - 145
PCB-206L	86		40 - 145
PCB-208L	86		40 - 145
PCB-209L	92		40 - 145

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-192576/2-A

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 192576

Surrogate	LCS %Recovery	LCS Qualifier	Limits
PCB-28L	61		15 - 145
PCB-111L	69		40 - 145
PCB-178L	83		40 - 145

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 320-192583/1-A

Matrix: Solid

Analysis Batch: 195126

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 192583

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.00000015	U	0.0000010	0.0000001	mg/Kg		11/02/17 12:58	11/15/17 19:46	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	80		40 - 135	11/02/17 12:58	11/15/17 19:46	1
13C-1,2,3,7,8-PeCDD	85		40 - 135	11/02/17 12:58	11/15/17 19:46	1
13C-1,2,3,6,7,8-HxCDD	83		40 - 135	11/02/17 12:58	11/15/17 19:46	1
13C-1,2,3,4,6,7,8-HpCDD	83		40 - 135	11/02/17 12:58	11/15/17 19:46	1
13C-OCDD	87		40 - 135	11/02/17 12:58	11/15/17 19:46	1
13C-2,3,7,8-TCDF	79		40 - 135	11/02/17 12:58	11/15/17 19:46	1
13C-1,2,3,7,8-PeCDF	86		40 - 135	11/02/17 12:58	11/15/17 19:46	1
13C-1,2,3,4,7,8-HxCDF	81		40 - 135	11/02/17 12:58	11/15/17 19:46	1
13C-1,2,3,4,6,7,8-HpCDF	84		40 - 135	11/02/17 12:58	11/15/17 19:46	1

Lab Sample ID: LCS 320-192583/2-A

Matrix: Solid

Analysis Batch: 195126

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 192583

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	0.0000200	0.0000188		mg/Kg		94	77 - 130

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C-2,3,7,8-TCDD	77		40 - 135
13C-1,2,3,7,8-PeCDD	80		40 - 135
13C-1,2,3,6,7,8-HxCDD	78		40 - 135
13C-1,2,3,4,6,7,8-HpCDD	82		40 - 135
13C-OCDD	84		40 - 135
13C-2,3,7,8-TCDF	77		40 - 135
13C-1,2,3,7,8-PeCDF	80		40 - 135
13C-1,2,3,4,7,8-HxCDF	80		40 - 135
13C-1,2,3,4,6,7,8-HpCDF	79		40 - 135

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-195331/1-A

Matrix: Water

Analysis Batch: 195951

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 195331

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.21	U	10	0.21	pg/L	-	11/17/17 10:44	11/21/17 03:07	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	94		40 - 135				11/17/17 10:44	11/21/17 03:07	1
13C-1,2,3,7,8-PeCDD	93		40 - 135				11/17/17 10:44	11/21/17 03:07	1
13C-1,2,3,6,7,8-HxCDD	91		40 - 135				11/17/17 10:44	11/21/17 03:07	1
13C-1,2,3,4,6,7,8-HpCDD	94		40 - 135				11/17/17 10:44	11/21/17 03:07	1
13C-OCDD	87		40 - 135				11/17/17 10:44	11/21/17 03:07	1
13C-2,3,7,8-TCDF	88		40 - 135				11/17/17 10:44	11/21/17 03:07	1
13C-1,2,3,7,8-PeCDF	93		40 - 135				11/17/17 10:44	11/21/17 03:07	1
13C-1,2,3,4,7,8-HxCDF	91		40 - 135				11/17/17 10:44	11/21/17 03:07	1
13C-1,2,3,4,6,7,8-HpCDF	74		40 - 135				11/17/17 10:44	11/21/17 03:07	1

Lab Sample ID: LCS 320-195331/2-A

Matrix: Water

Analysis Batch: 195951

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 195331

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	200	184		pg/L	-	92	64 - 142
Isotope Dilution	%Recovery	Qualifier	Limits				
13C-2,3,7,8-TCDD	93		40 - 135				
13C-1,2,3,7,8-PeCDD	96		40 - 135				
13C-1,2,3,6,7,8-HxCDD	90		40 - 135				
13C-1,2,3,4,6,7,8-HpCDD	98		40 - 135				
13C-OCDD	94		40 - 135				
13C-2,3,7,8-TCDF	91		40 - 135				
13C-1,2,3,7,8-PeCDF	95		40 - 135				
13C-1,2,3,4,7,8-HxCDF	89		40 - 135				
13C-1,2,3,4,6,7,8-HpCDF	83		40 - 135				

Lab Sample ID: LCSD 320-195331/3-A

Matrix: Water

Analysis Batch: 195951

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 195331

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,3,7,8-TCDD	200	183		pg/L	-	92	64 - 142	1	20
Isotope Dilution	%Recovery	Qualifier	Limits						
13C-2,3,7,8-TCDD	93		40 - 135						
13C-1,2,3,7,8-PeCDD	93		40 - 135						
13C-1,2,3,6,7,8-HxCDD	91		40 - 135						
13C-1,2,3,4,6,7,8-HpCDD	97		40 - 135						
13C-OCDD	93		40 - 135						
13C-2,3,7,8-TCDF	90		40 - 135						
13C-1,2,3,7,8-PeCDF	91		40 - 135						
13C-1,2,3,4,7,8-HxCDF	92		40 - 135						
13C-1,2,3,4,6,7,8-HpCDF	70		40 - 135						

TestAmerica Savannah



# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Specialty Organics

### Prep Batch: 192269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-34	EB-1 (102517)	Total/NA	Water	HRMS-Sep	
MB 320-192269/1-A	Method Blank	Total/NA	Water	HRMS-Sep	
LCS 320-192269/2-A	Lab Control Sample	Total/NA	Water	HRMS-Sep	
LCSD 320-192269/3-A	Lab Control Sample Dup	Total/NA	Water	HRMS-Sep	

### Prep Batch: 192576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-11	SB-202-1 (0-2) (102417)	Total/NA	Solid	HRMS-Sox	
680-144745-11 - DL	SB-202-1 (0-2) (102417)	Total/NA	Solid	HRMS-Sox	
680-144745-12 - DL	DUP-1 (102417)	Total/NA	Solid	HRMS-Sox	
680-144745-12	DUP-1 (102417)	Total/NA	Solid	HRMS-Sox	
680-144745-13	SB-202-2 (0-2) (102417)	Total/NA	Solid	HRMS-Sox	
MB 320-192576/1-A	Method Blank	Total/NA	Solid	HRMS-Sox	
LCS 320-192576/2-A	Lab Control Sample	Total/NA	Solid	HRMS-Sox	

### Prep Batch: 192583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-11	SB-202-1 (0-2) (102417)	Total/NA	Solid	8290	
680-144745-11 - RA	SB-202-1 (0-2) (102417)	Total/NA	Solid	8290	
680-144745-12	DUP-1 (102417)	Total/NA	Solid	8290	
680-144745-12 - RA	DUP-1 (102417)	Total/NA	Solid	8290	
680-144745-13	SB-202-2 (0-2) (102417)	Total/NA	Solid	8290	
MB 320-192583/1-A	Method Blank	Total/NA	Solid	8290	
LCS 320-192583/2-A	Lab Control Sample	Total/NA	Solid	8290	

### Analysis Batch: 192770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-34	EB-1 (102517)	Total/NA	Water	1668C	192269
MB 320-192269/1-A	Method Blank	Total/NA	Water	1668C	192269
LCS 320-192269/2-A	Lab Control Sample	Total/NA	Water	1668C	192269
LCSD 320-192269/3-A	Lab Control Sample Dup	Total/NA	Water	1668C	192269

### Analysis Batch: 195126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-11	SB-202-1 (0-2) (102417)	Total/NA	Solid	8290A	192583
680-144745-12	DUP-1 (102417)	Total/NA	Solid	8290A	192583
MB 320-192583/1-A	Method Blank	Total/NA	Solid	8290A	192583
LCS 320-192583/2-A	Lab Control Sample	Total/NA	Solid	8290A	192583

### Analysis Batch: 195226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-13	SB-202-2 (0-2) (102417)	Total/NA	Solid	8290A	192583

### Analysis Batch: 195319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-11 - RA	SB-202-1 (0-2) (102417)	Total/NA	Solid	8290A	192583
680-144745-12 - RA	DUP-1 (102417)	Total/NA	Solid	8290A	192583

### Prep Batch: 195331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-34	EB-1 (102517)	Total/NA	Water	8290	

TestAmerica Savannah



# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Specialty Organics (Continued)

### Prep Batch: 195331 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-195331/1-A	Method Blank	Total/NA	Water	8290	
LCS 320-195331/2-A	Lab Control Sample	Total/NA	Water	8290	
LCSD 320-195331/3-A	Lab Control Sample Dup	Total/NA	Water	8290	

### Analysis Batch: 195879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-11	SB-202-1 (0-2) (102417)	Total/NA	Solid	1668C	192576
680-144745-12	DUP-1 (102417)	Total/NA	Solid	1668C	192576
MB 320-192576/1-A	Method Blank	Total/NA	Solid	1668C	192576
LCS 320-192576/2-A	Lab Control Sample	Total/NA	Solid	1668C	192576

### Analysis Batch: 195951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-34	EB-1 (102517)	Total/NA	Water	8290A	195331
MB 320-195331/1-A	Method Blank	Total/NA	Water	8290A	195331
LCS 320-195331/2-A	Lab Control Sample	Total/NA	Water	8290A	195331
LCSD 320-195331/3-A	Lab Control Sample Dup	Total/NA	Water	8290A	195331

### Analysis Batch: 197053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-13	SB-202-2 (0-2) (102417)	Total/NA	Solid	1668C	192576

### Analysis Batch: 197081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-11 - DL	SB-202-1 (0-2) (102417)	Total/NA	Solid	1668C	192576
680-144745-12 - DL	DUP-1 (102417)	Total/NA	Solid	1668C	192576

### Analysis Batch: 198446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144745-11	SB-202-1 (0-2) (102417)	Total/NA	Solid	None	
680-144745-12	DUP-1 (102417)	Total/NA	Solid	None	
680-144745-13	SB-202-2 (0-2) (102417)	Total/NA	Solid	None	
680-144745-34	EB-1 (102517)	Total/NA	Water	None	



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Client Sample ID: SB-202-1 (0-2) (102417)**

**Date Collected: 10/24/17 14:25**

**Date Received: 10/25/17 17:30**

**Lab Sample ID: 680-144745-11**

**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	None		1			198446	12/05/17 15:07	SHK	TAL SAC

**Client Sample ID: SB-202-1 (0-2) (102417)**

**Date Collected: 10/24/17 14:25**

**Date Received: 10/25/17 17:30**

**Lab Sample ID: 680-144745-11**

**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	HRMS-Sox			19.75 g	40.0 uL	192576	11/02/17 12:52	D1G	TAL SAC
Total/NA	Analysis	1668C		1			195879	11/21/17 21:23	KSS	TAL SAC
Total/NA	Prep	HRMS-Sox	DL		19.75 g	40.0 uL	192576	11/02/17 12:52	D1G	TAL SAC
Total/NA	Analysis	1668C	DL	20			197081	11/29/17 05:07	KSS	TAL SAC
Total/NA	Prep	8290			19.75 g	40.0 uL	192583	11/02/17 12:58	D1G	TAL SAC
Total/NA	Analysis	8290A		1			195126	11/15/17 21:23	SMA	TAL SAC
Total/NA	Prep	8290	RA		19.75 g	40.0 uL	192583	11/02/17 12:58	D1G	TAL SAC
Total/NA	Analysis	8290A	RA	1			195319	11/17/17 00:32	KSS	TAL SAC

**Client Sample ID: DUP-1 (102417)**

**Date Collected: 10/24/17 00:00**

**Date Received: 10/25/17 17:30**

**Lab Sample ID: 680-144745-12**

**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	None		1			198446	12/05/17 15:07	SHK	TAL SAC

**Client Sample ID: DUP-1 (102417)**

**Date Collected: 10/24/17 00:00**

**Date Received: 10/25/17 17:30**

**Lab Sample ID: 680-144745-12**

**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	HRMS-Sox			19.92 g	40.0 uL	192576	11/02/17 12:52	D1G	TAL SAC
Total/NA	Analysis	1668C		1			195879	11/21/17 22:38	KSS	TAL SAC
Total/NA	Prep	HRMS-Sox	DL		19.92 g	40.0 uL	192576	11/02/17 12:52	D1G	TAL SAC
Total/NA	Analysis	1668C	DL	20			197081	11/29/17 06:22	KSS	TAL SAC
Total/NA	Prep	8290			19.92 g	40.0 uL	192583	11/02/17 12:58	D1G	TAL SAC
Total/NA	Analysis	8290A		1			195126	11/15/17 22:11	SMA	TAL SAC
Total/NA	Prep	8290	RA		19.92 g	40.0 uL	192583	11/02/17 12:58	D1G	TAL SAC
Total/NA	Analysis	8290A	RA	1			195319	11/17/17 01:10	KSS	TAL SAC

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

**Client Sample ID: SB-202-2 (0-2) (102417)**

**Lab Sample ID: 680-144745-13**

**Date Collected: 10/24/17 14:35**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	None		1			198446	12/05/17 15:07	SHK	TAL SAC

**Client Sample ID: SB-202-2 (0-2) (102417)**

**Lab Sample ID: 680-144745-13**

**Date Collected: 10/24/17 14:35**

**Matrix: Solid**

**Date Received: 10/25/17 17:30**

**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	HRMS-Sox			19.73 g	40.0 uL	192576	11/02/17 12:52	D1G	TAL SAC
Total/NA	Analysis	1668C		50			197053	11/28/17 21:14	KSS	TAL SAC
Total/NA	Prep	8290			19.73 g	40.0 uL	192583	11/02/17 12:58	D1G	TAL SAC
Total/NA	Analysis	8290A		20			195226	11/17/17 10:33	SMA	TAL SAC

**Client Sample ID: EB-1 (102517)**

**Lab Sample ID: 680-144745-34**

**Date Collected: 10/25/17 16:30**

**Matrix: Water**

**Date Received: 10/25/17 17:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sep			1044.8 mL	20.0 uL	192269	11/01/17 07:42	DXD	TAL SAC
Total/NA	Analysis	1668C		1			192770	11/03/17 16:47	KSS	TAL SAC
Total/NA	Prep	8290			1032.6 mL	20.0 uL	195331	11/17/17 10:44	ADN	TAL SAC
Total/NA	Analysis	8290A		1			195951	11/21/17 05:33	AS	TAL SAC
Total/NA	Analysis	None		1			198446	12/05/17 15:07	SHK	TAL SAC

## Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



Company Name: <b>ARCADIS</b>		Client Contact		Project Manager: <b>ANDY DAVIS</b>		Site Contact:		Date: <b>10/25/17</b>		COC No: <b>1</b>	
Address: <b>10 PATEWOOD DR. STE. 375</b>				Tel/Fax: <b>ANDREW.DAVIS@ARCADIS.COM</b>		Lab Contact:		Carrier:		of <b>3</b> COCs	
City/State/Zip: <b>GREENVILLE SC 29615</b>				Analysis Turnaround Time		Perform MS / MSD (Y / N)		For Lab Use Only:		Sampler: <b>M. ROSE / B. MATHIAS</b>	
Phone: <b>(824) 987-3700</b>				<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below: <b>STANDARD</b> <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Filtered Sample (Y / N) PCB 8018 / 8082A PCB 1657C / 8290A		Walk-in Client:		Lab Sampling:	
Project Name: <b>ABULANT</b>				Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Job / SDG No.:	
Site: <b>SAVANNAH, GA</b>				Sample Identification		Matrix		# of Cont.		Sample Specific Notes:	
PO #				SB-128-1 (0-1) (102417)		G		50		AS/MSD	
				SB-128-2 (0-1) (102417)		G		50			
				SB-128-3 (0-1) (102417)		G		50			
				DUP-3 (102417)		-		50			
				SB-159-1 (0-2) (102417)		G		50			
				SB-159-2 (0-2) (102417)		G		50			
				SB-159-3 (0-2) (102417)		G		50			
				SB-126-1 (0-1) (102417)		G		50			
				SB-126-2 (0-1) (102417)		G		50			
				SB-126-3 (0-1) (102417)		G		50			
				SB-202-1 (0-2) (102417)		G		50			
				DUP-1 (102417)		-		50			
				Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other		1					
				Possible Hazard Identification:							
				Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.							
				<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown							
				Special Instructions/QC Requirements & Comments:							
				Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No							
				Relinquished by: <b>Bryan Meyer</b>							
				Relinquished by:							
				Relinquished by:							
				Custody Seal No.: <b>ARC-2-3</b>							
				Company: <b>ARCADIS</b>							
				Date/Time: <b>10/25/17 1330</b>							
				Received by:							
				Cooler Temp. (°C): Obs'd: _____							
				Corrd: _____							
				Company:							
				Date/Time:							
				Received by:							
				Company:							
				Date/Time:							
				Received by:							
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				Received by:							
				Company:							
				Date/							



Company Name:		Client Contact		Regulatory Program:		Project Manager:		Site Contact:		Date:		COC No:	
Address:		Tel/Fax:		Analysis Turnaround Time		Lab Contact:		Lab Contact:		Carrier:		COCs	
City/State/Zip:		Sample Date		Sample Time		Sample Type		Matrix		Filtered Sample (Y/N)		Perform MS/MSD (Y/N)	
Phone:		Sample Date		Sample Time		Sample Type		Matrix		Filtered Sample (Y/N)		Perform MS/MSD (Y/N)	
Fax:		Sample Date		Sample Time		Sample Type		Matrix		Filtered Sample (Y/N)		Perform MS/MSD (Y/N)	
Project Name:		Sample Date		Sample Time		Sample Type		Matrix		Filtered Sample (Y/N)		Perform MS/MSD (Y/N)	
Site:		Sample Date		Sample Time		Sample Type		Matrix		Filtered Sample (Y/N)		Perform MS/MSD (Y/N)	
PO #		Sample Date		Sample Time		Sample Type		Matrix		Filtered Sample (Y/N)		Perform MS/MSD (Y/N)	
SB-707-2 (0-2) (102417)		10/24/17	1435	G	SO	2							
SB-132-1 (0-1) (102417)		10/24/17	1450	G	SO	1							
DS-9-1 (0-2) (102417)		10/24/17	1530	G	SO	1							
DS-9-2 (0-4) (102417)		10/24/17	1540	G	SO	1							
DS-9-3 (0-4) (102417)		10/24/17	1550	G	SO	1							
DS-9-4 (0-4) (102417)		10/24/17	1600	G	SO	1							
SB-168-1 (0-2) (102517)		10/25/17	1040	G	SO	3							
SB-168-2 (0-2) (102517)		10/25/17	1050	G	SO	1							
SB-168-3 (0-2) (102517)		10/25/17	1100	G	SO	1							
SB-189-1 (0-2) (102517)		10/25/17	1110	G	SO	1							
SB-189-2 (0-2) (102517)		10/25/17	1120	G	SO	1							
SB-189-3 (0-2) (102517)		10/25/17	1130	G	SO	1							
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other Possible Hazard Identification: _____ Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.													
Special Instructions/QC Requirements & Comments: _____													
Custody Seals Intact:		Custody Seal No.:		Cooler Temp. (°C):		Obs'd:		Cor'd:		Therm ID No.:			
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:			
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:			
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company:		Date/Time:			

35° 2.7° 7.2° (CF) 3.7° 2.9° 7.5°



Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager:		Site Contact:		Date:		COC No:	
Company Name:	Address:	Tel/Fax:	Analysis Turnaround Time	Lab Contact:	Carrier:	COCs	Sample Specific Notes:	For Lab Use Only:	Job / SDG No.:
City/State/Zip: Phone: Fax: Project Name: Site: P.O.#		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT (if different from Below) <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Perform MS / MSD (Y / N) Filtered Sample (Y / N)		Walk-in Client: Lab Sampling:		Sampler: Job / SDG No.:	
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Disposal by Lab	Archive for	Months	Therm ID No.:
EX-21-1 (0-2) (102517)	10/25/17	1215	G	SO	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
EX-21-2 (0-2) (102517)	10/25/17	1225	G	SO	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
SB-198-1 (0-2) (102517)	10/25/17	1440	G	SO	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
SB-198-2 (0-2) (102517)	10/25/17	1450	G	SO	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
SB-165-1 (0-2) (102517)	10/25/17	1510	G	SO	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
SB-165-2 (0-2) (102517)	10/25/17	1520	G	SO	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
EX-22-1 (0-2) (102517)	10/25/17	1600	G	SO	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
EX-22-2 (0-2) (102517)	10/25/17	1610	G	SO	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
EX-22-3 (0-2) (102517)	10/25/17	1620	G	SO	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
EB-1 (102517)	10/25/17	1630	G	WT	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
EB-2 (102517)	10/25/17	1640	G	WT	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other									
Possible Hazard Identification: Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.									
Special Instructions/QC Requirements & Comments:									
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C):		Obs'd:		Cor'd:	
Relinquished by:		Company:		Received by:		Company:		Date/Time:	
Relinquished by:		Company:		Received by:		Company:		Date/Time:	
Relinquished by:		Company:		Received in Laboratory by:		Company:		Date/Time:	

3.5°C 2.7°C 7.2°C (CF) 3.7°C 2.9°C 7.5°C



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-144745-2

Login Number: 144745

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.	False	Received same day of collection; chilling process has begun.
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	



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-144745-2

**Login Number: 144745**

**List Number: 2**

**Creator: Hytrek, Cheryl**

**List Source: TestAmerica Sacramento**

**List Creation: 10/28/17 03:41 PM**

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.	N/A	
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?	False	Received project as a subcontract.
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	



# Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## 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	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



# Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144745-2

## Laboratory: TestAmerica Sacramento

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
Alaska (UST)	State Program	10	UST-055	12-18-17
Arizona	State Program	9	AZ0708	08-11-18
Arkansas DEQ	State Program	6	88-0691	06-17-18
California	State Program	9	2897	01-31-18
Colorado	State Program	8	CA00044	08-31-18
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-18
Georgia	State Program	4	N/A	01-28-19
Hawaii	State Program	9	N/A	01-29-18
Illinois	NELAP	5	200060	03-17-18
Kansas	NELAP	7	E-10375	12-31-17
L-A-B	DoD ELAP		L2468	01-20-18
Louisiana	NELAP	6	30612	06-30-18
Maine	State Program	1	CA0004	04-18-18
Michigan	State Program	5	9947	01-31-18
Nevada	State Program	9	CA00044	07-31-18
New Hampshire	NELAP	1	2997	04-18-18
New Jersey	NELAP	2	CA005	06-30-18
New York	NELAP	2	11666	04-01-18
Oregon	NELAP	10	4040	01-28-18
Pennsylvania	NELAP	3	68-01272	03-31-18
Texas	NELAP	6	T104704399	05-31-18
US Fish & Wildlife	Federal		LE148388-0	07-31-18
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-18
Virginia	NELAP	3	460278	03-14-18
Washington	State Program	10	C581	05-05-18
West Virginia (DW)	State Program	3	9930C	12-31-17
Wyoming	State Program	8	8TMS-L	01-28-19



# 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: 680-144854-1

Client Project/Site: Savannah Resins Plant

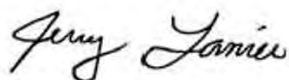
For:

ARCADIS U.S., Inc.

10 Patewood Drive, Suite 375

Greenville, South Carolina 29615

Attn: Andrew Davis



Authorized for release by:

11/9/2017 10:54:41 PM

Jerry Lanier, Project Manager I

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[jerry.lanier@testamericainc.com](mailto:jerry.lanier@testamericainc.com)

### LINKS

Review your project  
results through

**TotalAccess**

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[www.testamericainc.com](http://www.testamericainc.com)

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Job ID: 680-144854-1**

**Laboratory: TestAmerica Savannah**

## Narrative

### CASE NARRATIVE

**Client: ARCADIS U.S., Inc.**

**Project: Savannah Resins Plant**

**Report Number: 680-144854-1**

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 10/27/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.8 C.

#### TCLP SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample IDW-SOIL (102717) (680-144854-19) was analyzed for TCLP semivolatile organic compounds (GC-MS) in accordance with EPA SW846 Methods 1311 / 8270D. The samples were leached on 10/31/2017, prepared on 11/01/2017 and analyzed on 11/03/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) - LOW LEVEL

Samples SB-142-1 (0-1) (102617) (680-144854-1), SB-142-2 (0-1) (102617) (680-144854-2), SB-142-3 (0-1) (102617) (680-144854-3), EX-26-1 (0-2) (102617) (680-144854-4), EX-26-2 (0-2) (102617) (680-144854-5), EX-26-3 (0-2) (102617) (680-144854-6) and Dup-2 (102617) (680-144854-7) were analyzed for Semivolatile Organic Compounds (GC/MS) - Low level in accordance with EPA SW846 Method 8270D. The samples were prepared on 11/02/2017 and analyzed on 11/06/2017 and 11/07/2017.

The following samples was diluted due to the nature of the sample matrix : SB-142-1 (0-1) (102617) (680-144854-1) and SB-142-2 (0-1) (102617) (680-144854-2). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

The following sample was diluted due to the nature of the sample matrix : EX-26-2 (0-2) (102617) (680-144854-5). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Internal standard (ISTD) response for Perylene-d12 for the following sample was outside acceptance criteria: SB-142-2 (0-1) (102617) (680-144854-2). This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

Internal standard (ISTD) response for Perylene-d12 for the following samples was outside acceptance criteria: SB-142-3 (0-1) (102617) (680-144854-3), EX-26-1 (0-2) (102617) (680-144854-4), EX-26-2 (0-2) (102617) (680-144854-5), EX-26-3 (0-2) (102617) (680-144854-6) and Dup-2 (102617) (680-144854-7). This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

Samples SB-142-1 (0-1) (102617) (680-144854-1)[10X], SB-142-2 (0-1) (102617) (680-144854-2)[10X] and EX-26-2 (0-2) (102617) (680-144854-5)[10X] 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.

#### SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) - LOW LEVEL

Sample EB-3 (102617) (680-144854-18) was analyzed for Semivolatile Organic Compounds (GC/MS) - Low level in accordance with EPA SW-846 Method 8270D. The samples were prepared on 10/31/2017 and analyzed on 11/06/2017.



# Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

## Job ID: 680-144854-1 (Continued)

### Laboratory: TestAmerica Savannah (Continued)

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### PESTICIDES AND PCBS

Samples SB-122-1 (0-1) (102617) (680-144854-8), SB-122-2 (0-1) (102617) (680-144854-9), SB-122-3 (0-1) (102617) (680-144854-10), SB-122-4 (0-1) (102617) (680-144854-11), SB-204-1 (0-2) (102617) (680-144854-12), SB-204-2 (0-2) (102617) (680-144854-13), SB-204-3 (0-2) (102617) (680-144854-14) and IDW-SOIL (102717) (680-144854-19) were analyzed for Pesticides and PCBs in accordance with EPA SW-846 Method 8081B\_8082A. The samples were prepared on 11/01/2017 and analyzed on 11/01/2017 and 11/02/2017.

This method incorporates 2nd column confirmation. Corrective action is not taken for surrogate/spike compounds unless results from both columns are unacceptable. Results outside criteria are qualified.

The following samples required a copper clean-up to reduce matrix interferences caused by sulfur: SB-122-1 (0-1) (102617) (680-144854-8), SB-122-2 (0-1) (102617) (680-144854-9), SB-122-3 (0-1) (102617) (680-144854-10), SB-122-4 (0-1) (102617) (680-144854-11), SB-204-1 (0-2) (102617) (680-144854-12), SB-204-1 (0-2) (102617) (680-144854-12[MS]), SB-204-1 (0-2) (102617) (680-144854-12[MSD]), SB-204-2 (0-2) (102617) (680-144854-13), SB-204-3 (0-2) (102617) (680-144854-14) and IDW-SOIL (102717) (680-144854-19).

Two surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: SB-122-1 (0-1) (102617) (680-144854-8), SB-204-1 (0-2) (102617) (680-144854-12[MS]) and IDW-SOIL (102717) (680-144854-19). These results have been reported and qualified.

PCB-1260, DDT, Endrin and Endrin aldehyde failed the recovery criteria high for the MS of sample SB-204-1 (0-2) (102617)MS (680-144854-12) in batch 680-500970.

Several analytes failed the recovery criteria high for the MSD of sample SB-204-1 (0-2) (102617)MSD (680-144854-12) in batch 680-500970.

Refer to the QC report for details.

Samples SB-122-2 (0-1) (102617) (680-144854-9)[5X], SB-204-1 (0-2) (102617) (680-144854-12)[5X] and SB-204-2 (0-2) (102617) (680-144854-13)[10X] 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.

#### PERCENT SOLIDS/MOISTURE

Samples SB-142-1 (0-1) (102617) (680-144854-1), SB-142-2 (0-1) (102617) (680-144854-2), SB-142-3 (0-1) (102617) (680-144854-3), EX-26-1 (0-2) (102617) (680-144854-4), EX-26-2 (0-2) (102617) (680-144854-5), EX-26-3 (0-2) (102617) (680-144854-6), Dup-2 (102617) (680-144854-7), SB-122-1 (0-1) (102617) (680-144854-8), SB-122-2 (0-1) (102617) (680-144854-9), SB-122-3 (0-1) (102617) (680-144854-10), SB-122-4 (0-1) (102617) (680-144854-11), SB-204-1 (0-2) (102617) (680-144854-12), SB-204-2 (0-2) (102617) (680-144854-13), SB-204-3 (0-2) (102617) (680-144854-14), SB-207-1 (0-2) (102617) (680-144854-15), SB-207-2 (0-2) (102617) (680-144854-16), SB-207-3 (0-2) (102617) (680-144854-17) and IDW-SOIL (102717) (680-144854-19) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 10/31/2017 and 11/01/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



## Sample Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-144854-1	SB-142-1 (0-1) (102617)	Solid	10/26/17 08:30	10/27/17 13:50
680-144854-2	SB-142-2 (0-1) (102617)	Solid	10/26/17 08:40	10/27/17 13:50
680-144854-3	SB-142-3 (0-1) (102617)	Solid	10/26/17 08:50	10/27/17 13:50
680-144854-4	EX-26-1 (0-2) (102617)	Solid	10/26/17 10:00	10/27/17 13:50
680-144854-5	EX-26-2 (0-2) (102617)	Solid	10/26/17 10:10	10/27/17 13:50
680-144854-6	EX-26-3 (0-2) (102617)	Solid	10/26/17 10:20	10/27/17 13:50
680-144854-7	Dup-2 (102617)	Solid	10/26/17 00:00	10/27/17 13:50
680-144854-8	SB-122-1 (0-1) (102617)	Solid	10/26/17 12:30	10/27/17 13:50
680-144854-9	SB-122-2 (0-1) (102617)	Solid	10/26/17 12:40	10/27/17 13:50
680-144854-10	SB-122-3 (0-1) (102617)	Solid	10/26/17 12:50	10/27/17 13:50
680-144854-11	SB-122-4 (0-1) (102617)	Solid	10/26/17 13:00	10/27/17 13:50
680-144854-12	SB-204-1 (0-2) (102617)	Solid	10/26/17 15:00	10/27/17 13:50
680-144854-13	SB-204-2 (0-2) (102617)	Solid	10/26/17 15:10	10/27/17 13:50
680-144854-14	SB-204-3 (0-2) (102617)	Solid	10/26/17 15:20	10/27/17 13:50
680-144854-15	SB-207-1 (0-2) (102617)	Solid	10/26/17 15:30	10/27/17 13:50
680-144854-16	SB-207-2 (0-2) (102617)	Solid	10/26/17 15:40	10/27/17 13:50
680-144854-17	SB-207-3 (0-2) (102617)	Solid	10/26/17 15:50	10/27/17 13:50
680-144854-18	EB-3 (102617)	Water	10/26/17 16:15	10/27/17 13:50
680-144854-19	IDW-SOIL (102717)	Solid	10/26/17 13:00	10/27/17 13:50



## Method Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

Method	Method Description	Protocol	Laboratory
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL SAV
8081B/8082A	Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography	SW846	TAL SAV
D 2216	Percent Moisture	ASTM	TAL SAC
Moisture	Percent Moisture	EPA	TAL SAV

### Protocol References:

ASTM = ASTM International

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 SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858



## Definitions/Glossary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

### Qualifiers

#### 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.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery is outside acceptance limits.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

### 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)



## Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

### Client Sample ID: SB-142-1 (0-1) (102617)

Lab Sample ID: 680-144854-1

No Detections.

### Client Sample ID: SB-142-2 (0-1) (102617)

Lab Sample ID: 680-144854-2

No Detections.

### Client Sample ID: SB-142-3 (0-1) (102617)

Lab Sample ID: 680-144854-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.15		0.038	0.0083	mg/Kg	1	✱	8270D LL	Total/NA

### Client Sample ID: EX-26-1 (0-2) (102617)

Lab Sample ID: 680-144854-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.031	J	0.036	0.0078	mg/Kg	1	✱	8270D LL	Total/NA

### Client Sample ID: EX-26-2 (0-2) (102617)

Lab Sample ID: 680-144854-5

No Detections.

### Client Sample ID: EX-26-3 (0-2) (102617)

Lab Sample ID: 680-144854-6

No Detections.

### Client Sample ID: Dup-2 (102617)

Lab Sample ID: 680-144854-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.073		0.036	0.0079	mg/Kg	1	✱	8270D LL	Total/NA

### Client Sample ID: SB-122-1 (0-1) (102617)

Lab Sample ID: 680-144854-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
DDT	43	p	2.2	0.28	ug/Kg	1	✱	8081B/8082A	Total/NA
PCB-1254	1.2		0.042	0.013	mg/Kg	1	✱	8081B/8082A	Total/NA
Total PCB	1200		42	6.4	ug/Kg	1	✱	8081B/8082A	Total/NA

### Client Sample ID: SB-122-2 (0-1) (102617)

Lab Sample ID: 680-144854-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	1.4		0.21	0.062	mg/Kg	5	✱	8081B/8082A	Total/NA
Total PCB	1400		210	31	ug/Kg	5	✱	8081B/8082A	Total/NA

### Client Sample ID: SB-122-3 (0-1) (102617)

Lab Sample ID: 680-144854-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	0.90		0.038	0.011	mg/Kg	1	✱	8081B/8082A	Total/NA
Total PCB	900		38	5.7	ug/Kg	1	✱	8081B/8082A	Total/NA

### Client Sample ID: SB-122-4 (0-1) (102617)

Lab Sample ID: 680-144854-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	0.27		0.037	0.011	mg/Kg	1	✱	8081B/8082A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



## Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

### Client Sample ID: SB-122-4 (0-1) (102617) (Continued)

Lab Sample ID: 680-144854-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total PCB	270		37	5.7	ug/Kg	1	☼	8081B/8082A	Total/NA

### Client Sample ID: SB-204-1 (0-2) (102617)

Lab Sample ID: 680-144854-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	1.6		0.18	0.056	mg/Kg	5	☼	8081B/8082A	Total/NA
Total PCB	1600		180	28	ug/Kg	5	☼	8081B/8082A	Total/NA

### Client Sample ID: SB-204-2 (0-2) (102617)

Lab Sample ID: 680-144854-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	5.2		0.38	0.11	mg/Kg	10	☼	8081B/8082A	Total/NA
Total PCB	5200		380	57	ug/Kg	10	☼	8081B/8082A	Total/NA

### Client Sample ID: SB-204-3 (0-2) (102617)

Lab Sample ID: 680-144854-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	0.40		0.040	0.012	mg/Kg	1	☼	8081B/8082A	Total/NA
Total PCB	400		40	6.1	ug/Kg	1	☼	8081B/8082A	Total/NA

### Client Sample ID: SB-207-1 (0-2) (102617)

Lab Sample ID: 680-144854-15

No Detections.

### Client Sample ID: SB-207-2 (0-2) (102617)

Lab Sample ID: 680-144854-16

No Detections.

### Client Sample ID: SB-207-3 (0-2) (102617)

Lab Sample ID: 680-144854-17

No Detections.

### Client Sample ID: EB-3 (102617)

Lab Sample ID: 680-144854-18

No Detections.

### Client Sample ID: IDW-SOIL (102717)

Lab Sample ID: 680-144854-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	0.21		0.036	0.011	mg/Kg	1	☼	8081B/8082A	Total/NA
Total PCB	210		36	5.5	ug/Kg	1	☼	8081B/8082A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: SB-142-1 (0-1) (102617)**

**Lab Sample ID: 680-144854-1**

**Date Collected: 10/26/17 08:30**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 90.3**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.079	U	0.36	0.079	mg/Kg	☼	11/02/17 15:41	11/06/17 21:03	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	0	D	11 - 130				11/02/17 15:41	11/06/17 21:03	10
2-Fluorophenol (Surr)	0	D	10 - 130				11/02/17 15:41	11/06/17 21:03	10
Nitrobenzene-d5 (Surr)	0	D	18 - 130				11/02/17 15:41	11/06/17 21:03	10
Phenol-d5 (Surr)	0	D	10 - 130				11/02/17 15:41	11/06/17 21:03	10
Terphenyl-d14 (Surr)	0	D	27 - 130				11/02/17 15:41	11/06/17 21:03	10
2,4,6-Tribromophenol (Surr)	0	D	24 - 130				11/02/17 15:41	11/06/17 21:03	10



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: SB-142-2 (0-1) (102617)**

**Lab Sample ID: 680-144854-2**

**Date Collected: 10/26/17 08:40**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 90.0**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.080	U	0.37	0.080	mg/Kg	☼	11/02/17 15:41	11/06/17 21:27	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	0	D	11 - 130				11/02/17 15:41	11/06/17 21:27	10
2-Fluorophenol (Surr)	0	D	10 - 130				11/02/17 15:41	11/06/17 21:27	10
Nitrobenzene-d5 (Surr)	0	D	18 - 130				11/02/17 15:41	11/06/17 21:27	10
Phenol-d5 (Surr)	0	D	10 - 130				11/02/17 15:41	11/06/17 21:27	10
Terphenyl-d14 (Surr)	0	D	27 - 130				11/02/17 15:41	11/06/17 21:27	10
2,4,6-Tribromophenol (Surr)	0	D	24 - 130				11/02/17 15:41	11/06/17 21:27	10



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: SB-142-3 (0-1) (102617)**

**Lab Sample ID: 680-144854-3**

**Date Collected: 10/26/17 08:50**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 85.0**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.15		0.038	0.0083	mg/Kg	☼	11/02/17 15:41	11/07/17 16:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	54		11 - 130				11/02/17 15:41	11/07/17 16:07	1
2-Fluorophenol (Surr)	52		10 - 130				11/02/17 15:41	11/07/17 16:07	1
Nitrobenzene-d5 (Surr)	48		18 - 130				11/02/17 15:41	11/07/17 16:07	1
Phenol-d5 (Surr)	44		10 - 130				11/02/17 15:41	11/07/17 16:07	1
Terphenyl-d14 (Surr)	63		27 - 130				11/02/17 15:41	11/07/17 16:07	1
2,4,6-Tribromophenol (Surr)	62		24 - 130				11/02/17 15:41	11/07/17 16:07	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: EX-26-1 (0-2) (102617)**

**Lab Sample ID: 680-144854-4**

**Date Collected: 10/26/17 10:00**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**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
1,1'-Biphenyl	0.031	J	0.036	0.0078	mg/Kg	☼	11/02/17 15:41	11/07/17 16:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	82		11 - 130				11/02/17 15:41	11/07/17 16:31	1
2-Fluorophenol (Surr)	90		10 - 130				11/02/17 15:41	11/07/17 16:31	1
Nitrobenzene-d5 (Surr)	75		18 - 130				11/02/17 15:41	11/07/17 16:31	1
Phenol-d5 (Surr)	83		10 - 130				11/02/17 15:41	11/07/17 16:31	1
Terphenyl-d14 (Surr)	88		27 - 130				11/02/17 15:41	11/07/17 16:31	1
2,4,6-Tribromophenol (Surr)	94		24 - 130				11/02/17 15:41	11/07/17 16:31	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: EX-26-2 (0-2) (102617)**

**Lab Sample ID: 680-144854-5**

**Date Collected: 10/26/17 10:10**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 87.4**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.082	U	0.38	0.082	mg/Kg	☼	11/02/17 15:41	11/07/17 16:55	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	0	D	11 - 130				11/02/17 15:41	11/07/17 16:55	10
2-Fluorophenol (Surr)	0	D	10 - 130				11/02/17 15:41	11/07/17 16:55	10
Nitrobenzene-d5 (Surr)	0	D	18 - 130				11/02/17 15:41	11/07/17 16:55	10
Phenol-d5 (Surr)	0	D	10 - 130				11/02/17 15:41	11/07/17 16:55	10
Terphenyl-d14 (Surr)	0	D	27 - 130				11/02/17 15:41	11/07/17 16:55	10
2,4,6-Tribromophenol (Surr)	0	D	24 - 130				11/02/17 15:41	11/07/17 16:55	10



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: EX-26-3 (0-2) (102617)**

**Lab Sample ID: 680-144854-6**

**Date Collected: 10/26/17 10:20**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 88.0**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.0081	U	0.037	0.0081	mg/Kg	☼	11/02/17 15:41	11/07/17 17:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	52		11 - 130				11/02/17 15:41	11/07/17 17:19	1
2-Fluorophenol (Surr)	52		10 - 130				11/02/17 15:41	11/07/17 17:19	1
Nitrobenzene-d5 (Surr)	48		18 - 130				11/02/17 15:41	11/07/17 17:19	1
Phenol-d5 (Surr)	49		10 - 130				11/02/17 15:41	11/07/17 17:19	1
Terphenyl-d14 (Surr)	56		27 - 130				11/02/17 15:41	11/07/17 17:19	1
2,4,6-Tribromophenol (Surr)	59		24 - 130				11/02/17 15:41	11/07/17 17:19	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: Dup-2 (102617)**

**Lab Sample ID: 680-144854-7**

**Date Collected: 10/26/17 00:00**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 88.6**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.073		0.036	0.0079	mg/Kg	☼	11/02/17 15:41	11/07/17 17:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	80		11 - 130				11/02/17 15:41	11/07/17 17:44	1
2-Fluorophenol (Surr)	81		10 - 130				11/02/17 15:41	11/07/17 17:44	1
Nitrobenzene-d5 (Surr)	74		18 - 130				11/02/17 15:41	11/07/17 17:44	1
Phenol-d5 (Surr)	72		10 - 130				11/02/17 15:41	11/07/17 17:44	1
Terphenyl-d14 (Surr)	97		27 - 130				11/02/17 15:41	11/07/17 17:44	1
2,4,6-Tribromophenol (Surr)	92		24 - 130				11/02/17 15:41	11/07/17 17:44	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: SB-122-1 (0-1) (102617)**

**Lab Sample ID: 680-144854-8**

**Date Collected: 10/26/17 12:30**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 74.6**

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>DDT</b>	<b>43</b>	<b>p</b>	2.2	0.28	ug/Kg	☼	11/01/17 11:52	11/01/17 21:43	1
Endrin	0.28	U	2.2	0.28	ug/Kg	☼	11/01/17 11:52	11/01/17 21:43	1
Endrin aldehyde	0.28	U	2.2	0.28	ug/Kg	☼	11/01/17 11:52	11/01/17 21:43	1
Methoxychlor	0.36	U	2.2	0.36	ug/Kg	☼	11/01/17 11:52	11/01/17 21:43	1
<b>PCB-1254</b>	<b>1.2</b>		0.042	0.013	mg/Kg	☼	11/01/17 11:52	11/01/17 21:43	1
PCB-1260	0.012	U	0.042	0.012	mg/Kg	☼	11/01/17 11:52	11/01/17 21:43	1
PCB-1262	7.8	U	42	7.8	ug/Kg	☼	11/01/17 11:52	11/01/17 21:43	1
PCB-1268	7.0	U	42	7.0	ug/Kg	☼	11/01/17 11:52	11/01/17 21:43	1
<b>Total PCB</b>	<b>1200</b>		42	6.4	ug/Kg	☼	11/01/17 11:52	11/01/17 21:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	40	p X	54 - 133				11/01/17 11:52	11/01/17 21:43	1
Tetrachloro-m-xylene	64		46 - 130				11/01/17 11:52	11/01/17 21:43	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: SB-122-2 (0-1) (102617)**

**Lab Sample ID: 680-144854-9**

**Date Collected: 10/26/17 12:40**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 78.8**

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DDT	0.27	U	2.1	0.27	ug/Kg	☼	11/01/17 11:52	11/01/17 21:58	1
Endrin	0.27	U	2.1	0.27	ug/Kg	☼	11/01/17 11:52	11/01/17 21:58	1
Endrin aldehyde	0.27	U	2.1	0.27	ug/Kg	☼	11/01/17 11:52	11/01/17 21:58	1
Methoxychlor	0.35	U	2.1	0.35	ug/Kg	☼	11/01/17 11:52	11/01/17 21:58	1
<b>PCB-1254</b>	<b>1.4</b>		0.21	0.062	mg/Kg	☼	11/01/17 11:52	11/02/17 18:07	5
PCB-1260	0.012	U	0.041	0.012	mg/Kg	☼	11/01/17 11:52	11/01/17 21:58	1
PCB-1262	7.6	U	41	7.6	ug/Kg	☼	11/01/17 11:52	11/01/17 21:58	1
PCB-1268	6.9	U	41	6.9	ug/Kg	☼	11/01/17 11:52	11/01/17 21:58	1
<b>Total PCB</b>	<b>1400</b>		210	31	ug/Kg	☼	11/01/17 11:52	11/02/17 18:07	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	71		54 - 133				11/01/17 11:52	11/01/17 21:58	1
Tetrachloro-m-xylene	78		46 - 130				11/01/17 11:52	11/01/17 21:58	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: SB-122-3 (0-1) (102617)**

**Lab Sample ID: 680-144854-10**

**Date Collected: 10/26/17 12:50**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 84.0**

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DDT	0.25	U	2.0	0.25	ug/Kg	☼	11/01/17 11:52	11/01/17 22:12	1
Endrin	0.25	U	2.0	0.25	ug/Kg	☼	11/01/17 11:52	11/01/17 22:12	1
Endrin aldehyde	0.25	U	2.0	0.25	ug/Kg	☼	11/01/17 11:52	11/01/17 22:12	1
Methoxychlor	0.32	U	2.0	0.32	ug/Kg	☼	11/01/17 11:52	11/01/17 22:12	1
<b>PCB-1254</b>	<b>0.90</b>		0.038	0.011	mg/Kg	☼	11/01/17 11:52	11/01/17 22:12	1
PCB-1260	0.011	U	0.038	0.011	mg/Kg	☼	11/01/17 11:52	11/01/17 22:12	1
PCB-1262	7.0	U	38	7.0	ug/Kg	☼	11/01/17 11:52	11/01/17 22:12	1
PCB-1268	6.3	U	38	6.3	ug/Kg	☼	11/01/17 11:52	11/01/17 22:12	1
<b>Total PCB</b>	<b>900</b>		38	5.7	ug/Kg	☼	11/01/17 11:52	11/01/17 22:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	61		54 - 133				11/01/17 11:52	11/01/17 22:12	1
Tetrachloro-m-xylene	83		46 - 130				11/01/17 11:52	11/01/17 22:12	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: SB-122-4 (0-1) (102617)**

**Lab Sample ID: 680-144854-11**

**Date Collected: 10/26/17 13:00**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 83.5**

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DDT	0.25	U	1.9	0.25	ug/Kg	☼	11/01/17 11:52	11/01/17 22:26	1
Endrin	0.25	U	1.9	0.25	ug/Kg	☼	11/01/17 11:52	11/01/17 22:26	1
Endrin aldehyde	0.25	U	1.9	0.25	ug/Kg	☼	11/01/17 11:52	11/01/17 22:26	1
Methoxychlor	0.32	U	1.9	0.32	ug/Kg	☼	11/01/17 11:52	11/01/17 22:26	1
<b>PCB-1254</b>	<b>0.27</b>		0.037	0.011	mg/Kg	☼	11/01/17 11:52	11/01/17 22:26	1
PCB-1260	0.011	U	0.037	0.011	mg/Kg	☼	11/01/17 11:52	11/01/17 22:26	1
PCB-1262	6.9	U	37	6.9	ug/Kg	☼	11/01/17 11:52	11/01/17 22:26	1
PCB-1268	6.2	U	37	6.2	ug/Kg	☼	11/01/17 11:52	11/01/17 22:26	1
<b>Total PCB</b>	<b>270</b>		37	5.7	ug/Kg	☼	11/01/17 11:52	11/01/17 22:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	60		54 - 133				11/01/17 11:52	11/01/17 22:26	1
Tetrachloro-m-xylene	80		46 - 130				11/01/17 11:52	11/01/17 22:26	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: SB-204-1 (0-2) (102617)**

**Lab Sample ID: 680-144854-12**

**Date Collected: 10/26/17 15:00**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 85.6**

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DDT	0.25	U	1.9	0.25	ug/Kg	☼	11/01/17 11:52	11/01/17 22:40	1
Endrin	0.25	U	1.9	0.25	ug/Kg	☼	11/01/17 11:52	11/01/17 22:40	1
Endrin aldehyde	0.25	U	1.9	0.25	ug/Kg	☼	11/01/17 11:52	11/01/17 22:40	1
Methoxychlor	0.31	U	1.9	0.31	ug/Kg	☼	11/01/17 11:52	11/01/17 22:40	1
<b>PCB-1254</b>	<b>1.6</b>		0.18	0.056	mg/Kg	☼	11/01/17 11:52	11/02/17 14:50	5
PCB-1260	0.011	U	0.037	0.011	mg/Kg	☼	11/01/17 11:52	11/01/17 22:40	1
PCB-1262	6.8	U	37	6.8	ug/Kg	☼	11/01/17 11:52	11/01/17 22:40	1
PCB-1268	6.2	U	37	6.2	ug/Kg	☼	11/01/17 11:52	11/01/17 22:40	1
<b>Total PCB</b>	<b>1600</b>		180	28	ug/Kg	☼	11/01/17 11:52	11/02/17 14:50	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	56		54 - 133				11/01/17 11:52	11/01/17 22:40	1
Tetrachloro-m-xylene	92		46 - 130				11/01/17 11:52	11/01/17 22:40	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: SB-204-2 (0-2) (102617)**

**Lab Sample ID: 680-144854-13**

**Date Collected: 10/26/17 15:10**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 86.1**

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DDT	0.25	U	2.0	0.25	ug/Kg	☼	11/01/17 11:52	11/01/17 22:55	1
Endrin	0.25	U	2.0	0.25	ug/Kg	☼	11/01/17 11:52	11/01/17 22:55	1
Endrin aldehyde	0.25	U	2.0	0.25	ug/Kg	☼	11/01/17 11:52	11/01/17 22:55	1
Methoxychlor	0.32	U	2.0	0.32	ug/Kg	☼	11/01/17 11:52	11/01/17 22:55	1
<b>PCB-1254</b>	<b>5.2</b>		0.38	0.11	mg/Kg	☼	11/01/17 11:52	11/02/17 15:04	10
PCB-1260	0.011	U	0.038	0.011	mg/Kg	☼	11/01/17 11:52	11/01/17 22:55	1
PCB-1262	7.0	U	38	7.0	ug/Kg	☼	11/01/17 11:52	11/01/17 22:55	1
PCB-1268	6.3	U	38	6.3	ug/Kg	☼	11/01/17 11:52	11/01/17 22:55	1
<b>Total PCB</b>	<b>5200</b>		380	57	ug/Kg	☼	11/01/17 11:52	11/02/17 15:04	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	62		54 - 133				11/01/17 11:52	11/01/17 22:55	1
Tetrachloro-m-xylene	112		46 - 130				11/01/17 11:52	11/01/17 22:55	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: SB-204-3 (0-2) (102617)**

**Lab Sample ID: 680-144854-14**

**Date Collected: 10/26/17 15:20**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 79.9**

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DDT	0.27	U	2.1	0.27	ug/Kg	☼	11/01/17 11:52	11/01/17 23:09	1
Endrin	0.27	U	2.1	0.27	ug/Kg	☼	11/01/17 11:52	11/01/17 23:09	1
Endrin aldehyde	0.27	U	2.1	0.27	ug/Kg	☼	11/01/17 11:52	11/01/17 23:09	1
Methoxychlor	0.34	U	2.1	0.34	ug/Kg	☼	11/01/17 11:52	11/01/17 23:09	1
<b>PCB-1254</b>	<b>0.40</b>		0.040	0.012	mg/Kg	☼	11/01/17 11:52	11/01/17 23:09	1
PCB-1260	0.012	U	0.040	0.012	mg/Kg	☼	11/01/17 11:52	11/01/17 23:09	1
PCB-1262	7.5	U	40	7.5	ug/Kg	☼	11/01/17 11:52	11/01/17 23:09	1
PCB-1268	6.7	U	40	6.7	ug/Kg	☼	11/01/17 11:52	11/01/17 23:09	1
<b>Total PCB</b>	<b>400</b>		40	6.1	ug/Kg	☼	11/01/17 11:52	11/01/17 23:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	54		54 - 133				11/01/17 11:52	11/01/17 23:09	1
Tetrachloro-m-xylene	82		46 - 130				11/01/17 11:52	11/01/17 23:09	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: EB-3 (102617)**

**Lab Sample ID: 680-144854-18**

**Date Collected: 10/26/17 16:15**

**Matrix: Water**

**Date Received: 10/27/17 13:50**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.097	U	0.97	0.097	ug/L		10/31/17 15:29	11/06/17 14:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	88		39 - 133				10/31/17 15:29	11/06/17 14:33	1
2-Fluorobiphenyl (Surr)	86		31 - 107				10/31/17 15:29	11/06/17 14:33	1
2-Fluorophenol (Surr)	78		18 - 112				10/31/17 15:29	11/06/17 14:33	1
Terphenyl-d14 (Surr)	91		22 - 121				10/31/17 15:29	11/06/17 14:33	1
Phenol-d5 (Surr)	56		20 - 113				10/31/17 15:29	11/06/17 14:33	1
Nitrobenzene-d5 (Surr)	85		37 - 103				10/31/17 15:29	11/06/17 14:33	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: IDW-SOIL (102717)**

**Lab Sample ID: 680-144854-19**

**Date Collected: 10/26/17 13:00**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.0027	U	0.050	0.0027	mg/L		11/01/17 16:06	11/03/17 19:31	1
Pyridine	0.012	U	0.25	0.012	mg/L		11/01/17 16:06	11/03/17 19:31	1
Hexachlorobenzene	0.0040	U	0.050	0.0040	mg/L		11/01/17 16:06	11/03/17 19:31	1
2,4-Dinitrotoluene	0.0060	U	0.050	0.0060	mg/L		11/01/17 16:06	11/03/17 19:31	1
Hexachloroethane	0.0038	U	0.050	0.0038	mg/L		11/01/17 16:06	11/03/17 19:31	1
Hexachlorobutadiene	0.0031	U	0.050	0.0031	mg/L		11/01/17 16:06	11/03/17 19:31	1
Pentachlorophenol	0.010	U	0.25	0.010	mg/L		11/01/17 16:06	11/03/17 19:31	1
2,4,6-Trichlorophenol	0.0043	U	0.050	0.0043	mg/L		11/01/17 16:06	11/03/17 19:31	1
2,4,5-Trichlorophenol	0.0060	U	0.050	0.0060	mg/L		11/01/17 16:06	11/03/17 19:31	1
Nitrobenzene	0.0037	U	0.050	0.0037	mg/L		11/01/17 16:06	11/03/17 19:31	1
2-Methylphenol	0.0045	U	0.050	0.0045	mg/L		11/01/17 16:06	11/03/17 19:31	1
3 & 4 Methylphenol	0.0065	U	0.050	0.0065	mg/L		11/01/17 16:06	11/03/17 19:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	90		31 - 141	11/01/17 16:06	11/03/17 19:31	1
2-Fluorobiphenyl (Surr)	79		38 - 130	11/01/17 16:06	11/03/17 19:31	1
2-Fluorophenol (Surr)	69		25 - 130	11/01/17 16:06	11/03/17 19:31	1
Terphenyl-d14 (Surr)	78		10 - 143	11/01/17 16:06	11/03/17 19:31	1
Phenol-d5 (Surr)	74		25 - 130	11/01/17 16:06	11/03/17 19:31	1
Nitrobenzene-d5 (Surr)	77		39 - 130	11/01/17 16:06	11/03/17 19:31	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: IDW-SOIL (102717)**

**Lab Sample ID: 680-144854-19**

**Date Collected: 10/26/17 13:00**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 87.7**

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DDT	0.24	U	1.9	0.24	ug/Kg	☼	11/01/17 11:52	11/01/17 23:23	1
Endrin	0.24	U	1.9	0.24	ug/Kg	☼	11/01/17 11:52	11/01/17 23:23	1
Endrin aldehyde	0.24	U	1.9	0.24	ug/Kg	☼	11/01/17 11:52	11/01/17 23:23	1
Methoxychlor	0.31	U	1.9	0.31	ug/Kg	☼	11/01/17 11:52	11/01/17 23:23	1
<b>PCB-1254</b>	<b>0.21</b>		0.036	0.011	mg/Kg	☼	11/01/17 11:52	11/01/17 23:23	1
PCB-1260	0.010	U	0.036	0.010	mg/Kg	☼	11/01/17 11:52	11/01/17 23:23	1
PCB-1262	6.7	U	36	6.7	ug/Kg	☼	11/01/17 11:52	11/01/17 23:23	1
PCB-1268	6.0	U	36	6.0	ug/Kg	☼	11/01/17 11:52	11/01/17 23:23	1
<b>Total PCB</b>	<b>210</b>		36	5.5	ug/Kg	☼	11/01/17 11:52	11/01/17 23:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	25	p X	54 - 133				11/01/17 11:52	11/01/17 23:23	1
Tetrachloro-m-xylene	86		46 - 130				11/01/17 11:52	11/01/17 23:23	1



# Surrogate Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-141)	FBP (38-130)	2FP (25-130)	TPH (10-143)	PHL (25-130)	NBZ (39-130)
LCS 680-500844/10-A	Lab Control Sample	88	78	64	91	71	74
MB 680-500844/9-A	Method Blank	82	70	59	87	64	70
<b>Surrogate Legend</b>							
TBP = 2,4,6-Tribromophenol (Surr)							
FBP = 2-Fluorobiphenyl (Surr)							
2FP = 2-Fluorophenol (Surr)							
TPH = Terphenyl-d14 (Surr)							
PHL = Phenol-d5 (Surr)							
NBZ = Nitrobenzene-d5 (Surr)							

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-141)	FBP (38-130)	2FP (25-130)	TPH (10-143)	PHL (25-130)	NBZ (39-130)
680-144854-19	IDW-SOIL (102717)	90	79	69	78	74	77
680-144854-19 MS	IDW-SOIL (102717)	80	70	55	79	60	68
680-144854-19 MSD	IDW-SOIL (102717)	85	73	58	87	66	71
LB2 680-500690/5-B	Method Blank	77	63	50	82	54	64
<b>Surrogate Legend</b>							
TBP = 2,4,6-Tribromophenol (Surr)							
FBP = 2-Fluorobiphenyl (Surr)							
2FP = 2-Fluorophenol (Surr)							
TPH = Terphenyl-d14 (Surr)							
PHL = Phenol-d5 (Surr)							
NBZ = Nitrobenzene-d5 (Surr)							

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (11-130)	2FP (10-130)	NBZ (18-130)	PHL (10-130)	TPH (27-130)	TBP (24-130)
680-144854-1	SB-142-1 (0-1) (102617)	0 D	0 D	0 D	0 D	0 D	0 D
680-144854-2	SB-142-2 (0-1) (102617)	0 D	0 D	0 D	0 D	0 D	0 D
680-144854-3	SB-142-3 (0-1) (102617)	54	52	48	44	63	62
680-144854-4	EX-26-1 (0-2) (102617)	82	90	75	83	88	94
680-144854-5	EX-26-2 (0-2) (102617)	0 D	0 D	0 D	0 D	0 D	0 D
680-144854-6	EX-26-3 (0-2) (102617)	52	52	48	49	56	59
680-144854-7	Dup-2 (102617)	80	81	74	72	97	92
680-144854-7 MS	Dup-2 (102617)	61	62	57	32	63	67
680-144854-7 MSD	Dup-2 (102617)	68	66	63	37	69	81
LCS 680-501016/9-A	Lab Control Sample	75	70	70	60	84	86
MB 680-501016/8-A	Method Blank	65	67	58	39	67	55
<b>Surrogate Legend</b>							
FBP = 2-Fluorobiphenyl (Surr)							

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# Surrogate Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

2FP = 2-Fluorophenol (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
PHL = Phenol-d5 (Surr)  
TPH = Terphenyl-d14 (Surr)  
TBP = 2,4,6-Tribromophenol (Surr)

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (39-133)	FBP (31-107)	2FP (18-112)	TPH (22-121)	PHL (20-113)	NBZ (37-103)
680-144854-18	EB-3 (102617)	88	86	78	91	56	85

### Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)  
FBP = 2-Fluorobiphenyl (Surr)  
2FP = 2-Fluorophenol (Surr)  
TPH = Terphenyl-d14 (Surr)  
PHL = Phenol-d5 (Surr)  
NBZ = Nitrobenzene-d5 (Surr)

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas

Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB2 (54-133)	TCX1 (46-130)
680-144854-10	SB-122-3 (0-1) (102617)	61	83
680-144854-12	SB-204-1 (0-2) (102617)	56	92
680-144854-12 MS	SB-204-1 (0-2) (102617)	51 X	104
680-144854-12 MS	SB-204-1 (0-2) (102617)	57	94
680-144854-12 MSD	SB-204-1 (0-2) (102617)	55	92
680-144854-12 MSD	SB-204-1 (0-2) (102617)	57	95
LCS 680-500843/19-A	Lab Control Sample	83	88

### Surrogate Legend

DCB = DCB Decachlorobiphenyl  
TCX = Tetrachloro-m-xylene

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas

Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB2 (54-133)	TCX2 (46-130)
680-144854-9	SB-122-2 (0-1) (102617)	71	78
680-144854-11	SB-122-4 (0-1) (102617)	60	80
LCS 680-500843/22-A	Lab Control Sample	73	75
MB 680-500843/18-A	Method Blank	89	90

### Surrogate Legend

DCB = DCB Decachlorobiphenyl  
TCX = Tetrachloro-m-xylene

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## Surrogate Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

### Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCB1 (54-133)	TCX1 (46-130)
680-144854-13	SB-204-2 (0-2) (102617)	62	112
<b>Surrogate Legend</b>			
DCB = DCB Decachlorobiphenyl			
TCX = Tetrachloro-m-xylene			

### Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCB1 (54-133)	TCX2 (46-130)
680-144854-8	SB-122-1 (0-1) (102617)	40 p X	64
680-144854-14	SB-204-3 (0-2) (102617)	54	82
680-144854-19	IDW-SOIL (102717)	25 p X	86
<b>Surrogate Legend</b>			
DCB = DCB Decachlorobiphenyl			
TCX = Tetrachloro-m-xylene			



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-500844/9-A

Matrix: Solid

Analysis Batch: 501195

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 500844

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.00054	U	0.010	0.00054	mg/L		11/01/17 16:06	11/03/17 16:23	1
Pyridine	0.0024	U	0.050	0.0024	mg/L		11/01/17 16:06	11/03/17 16:23	1
Hexachlorobenzene	0.00080	U	0.010	0.00080	mg/L		11/01/17 16:06	11/03/17 16:23	1
2,4-Dinitrotoluene	0.0012	U	0.010	0.0012	mg/L		11/01/17 16:06	11/03/17 16:23	1
Hexachloroethane	0.00076	U	0.010	0.00076	mg/L		11/01/17 16:06	11/03/17 16:23	1
Hexachlorobutadiene	0.00062	U	0.010	0.00062	mg/L		11/01/17 16:06	11/03/17 16:23	1
Pentachlorophenol	0.0020	U	0.050	0.0020	mg/L		11/01/17 16:06	11/03/17 16:23	1
2,4,6-Trichlorophenol	0.00086	U	0.010	0.00086	mg/L		11/01/17 16:06	11/03/17 16:23	1
2,4,5-Trichlorophenol	0.0012	U	0.010	0.0012	mg/L		11/01/17 16:06	11/03/17 16:23	1
Nitrobenzene	0.00074	U	0.010	0.00074	mg/L		11/01/17 16:06	11/03/17 16:23	1
2-Methylphenol	0.00090	U	0.010	0.00090	mg/L		11/01/17 16:06	11/03/17 16:23	1
3 & 4 Methylphenol	0.0013	U	0.010	0.0013	mg/L		11/01/17 16:06	11/03/17 16:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	82		31 - 141	11/01/17 16:06	11/03/17 16:23	1
2-Fluorobiphenyl (Surr)	70		38 - 130	11/01/17 16:06	11/03/17 16:23	1
2-Fluorophenol (Surr)	59		25 - 130	11/01/17 16:06	11/03/17 16:23	1
Terphenyl-d14 (Surr)	87		10 - 143	11/01/17 16:06	11/03/17 16:23	1
Phenol-d5 (Surr)	64		25 - 130	11/01/17 16:06	11/03/17 16:23	1
Nitrobenzene-d5 (Surr)	70		39 - 130	11/01/17 16:06	11/03/17 16:23	1

Lab Sample ID: LCS 680-500844/10-A

Matrix: Solid

Analysis Batch: 501195

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 500844

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.100	0.0654		mg/L		65	31 - 130
Pyridine	0.200	0.117		mg/L		59	10 - 130
Hexachlorobenzene	0.100	0.0875		mg/L		87	43 - 130
2,4-Dinitrotoluene	0.100	0.0889		mg/L		89	52 - 130
Hexachloroethane	0.100	0.0656		mg/L		66	29 - 130
Hexachlorobutadiene	0.100	0.0702		mg/L		70	27 - 130
Pentachlorophenol	0.200	0.192		mg/L		96	33 - 130
2,4,6-Trichlorophenol	0.100	0.0871		mg/L		87	47 - 130
2,4,5-Trichlorophenol	0.100	0.0887		mg/L		89	48 - 130
Nitrobenzene	0.100	0.0778		mg/L		78	43 - 130
2-Methylphenol	0.100	0.0778		mg/L		78	40 - 130
3 & 4 Methylphenol	0.100	0.0786		mg/L		79	42 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	88		31 - 141
2-Fluorobiphenyl (Surr)	78		38 - 130
2-Fluorophenol (Surr)	64		25 - 130
Terphenyl-d14 (Surr)	91		10 - 143
Phenol-d5 (Surr)	71		25 - 130
Nitrobenzene-d5 (Surr)	74		39 - 130

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# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB2 680-500690/5-B

Matrix: Solid

Analysis Batch: 501195

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 500844

Analyte	LB2 Result	LB2 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.0027	U	0.050	0.0027	mg/L		11/01/17 16:06	11/03/17 16:46	1
Pyridine	0.012	U	0.25	0.012	mg/L		11/01/17 16:06	11/03/17 16:46	1
Hexachlorobenzene	0.0040	U	0.050	0.0040	mg/L		11/01/17 16:06	11/03/17 16:46	1
2,4-Dinitrotoluene	0.0060	U	0.050	0.0060	mg/L		11/01/17 16:06	11/03/17 16:46	1
Hexachloroethane	0.0038	U	0.050	0.0038	mg/L		11/01/17 16:06	11/03/17 16:46	1
Hexachlorobutadiene	0.0031	U	0.050	0.0031	mg/L		11/01/17 16:06	11/03/17 16:46	1
Pentachlorophenol	0.0099	U	0.25	0.0099	mg/L		11/01/17 16:06	11/03/17 16:46	1
2,4,6-Trichlorophenol	0.0043	U	0.050	0.0043	mg/L		11/01/17 16:06	11/03/17 16:46	1
2,4,5-Trichlorophenol	0.0060	U	0.050	0.0060	mg/L		11/01/17 16:06	11/03/17 16:46	1
Nitrobenzene	0.0037	U	0.050	0.0037	mg/L		11/01/17 16:06	11/03/17 16:46	1
2-Methylphenol	0.0045	U	0.050	0.0045	mg/L		11/01/17 16:06	11/03/17 16:46	1
3 & 4 Methylphenol	0.0065	U	0.050	0.0065	mg/L		11/01/17 16:06	11/03/17 16:46	1

Surrogate	LB2 %Recovery	LB2 Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	77		31 - 141	11/01/17 16:06	11/03/17 16:46	1
2-Fluorobiphenyl (Surr)	63		38 - 130	11/01/17 16:06	11/03/17 16:46	1
2-Fluorophenol (Surr)	50		25 - 130	11/01/17 16:06	11/03/17 16:46	1
Terphenyl-d14 (Surr)	82		10 - 143	11/01/17 16:06	11/03/17 16:46	1
Phenol-d5 (Surr)	54		25 - 130	11/01/17 16:06	11/03/17 16:46	1
Nitrobenzene-d5 (Surr)	64		39 - 130	11/01/17 16:06	11/03/17 16:46	1

Lab Sample ID: 680-144854-19 MS

Matrix: Solid

Analysis Batch: 501195

Client Sample ID: IDW-SOIL (102717)

Prep Type: TCLP

Prep Batch: 500844

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.0027	U	0.494	0.256		mg/L		52	31 - 130
Pyridine	0.012	U	0.988	0.558		mg/L		57	10 - 130
Hexachlorobenzene	0.0040	U	0.494	0.387		mg/L		78	43 - 130
2,4-Dinitrotoluene	0.0060	U	0.494	0.395		mg/L		80	52 - 130
Hexachloroethane	0.0038	U	0.494	0.240		mg/L		49	29 - 130
Hexachlorobutadiene	0.0031	U	0.494	0.273		mg/L		55	27 - 130
Pentachlorophenol	0.010	U	0.988	0.823		mg/L		83	33 - 130
2,4,6-Trichlorophenol	0.0043	U	0.494	0.378		mg/L		77	47 - 130
2,4,5-Trichlorophenol	0.0060	U	0.494	0.382		mg/L		77	48 - 130
Nitrobenzene	0.0037	U	0.494	0.353		mg/L		72	43 - 130
2-Methylphenol	0.0045	U	0.494	0.343		mg/L		70	40 - 130
3 & 4 Methylphenol	0.0065	U	0.494	0.343		mg/L		70	42 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	80		31 - 141
2-Fluorobiphenyl (Surr)	70		38 - 130
2-Fluorophenol (Surr)	55		25 - 130
Terphenyl-d14 (Surr)	79		10 - 143
Phenol-d5 (Surr)	60		25 - 130
Nitrobenzene-d5 (Surr)	68		39 - 130

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-144854-19 MSD

Matrix: Solid

Analysis Batch: 501195

Client Sample ID: IDW-SOIL (102717)

Prep Type: TCLP

Prep Batch: 500844

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene	0.0027	U	0.499	0.273		mg/L		55	31 - 130	7	50
Pyridine	0.012	U	0.998	0.612		mg/L		61	10 - 130	9	50
Hexachlorobenzene	0.0040	U	0.499	0.437		mg/L		88	43 - 130	12	50
2,4-Dinitrotoluene	0.0060	U	0.499	0.427		mg/L		86	52 - 130	8	50
Hexachloroethane	0.0038	U	0.499	0.262		mg/L		53	29 - 130	9	50
Hexachlorobutadiene	0.0031	U	0.499	0.298		mg/L		60	27 - 130	9	50
Pentachlorophenol	0.010	U	0.998	0.954		mg/L		96	33 - 130	15	50
2,4,6-Trichlorophenol	0.0043	U	0.499	0.406		mg/L		81	47 - 130	7	50
2,4,5-Trichlorophenol	0.0060	U	0.499	0.419		mg/L		84	48 - 130	9	50
Nitrobenzene	0.0037	U	0.499	0.374		mg/L		75	43 - 130	6	50
2-Methylphenol	0.0045	U	0.499	0.368		mg/L		74	40 - 130	7	50
3 & 4 Methylphenol	0.0065	U	0.499	0.372		mg/L		75	42 - 130	8	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	85		31 - 141
2-Fluorobiphenyl (Surr)	73		38 - 130
2-Fluorophenol (Surr)	58		25 - 130
Terphenyl-d14 (Surr)	87		10 - 143
Phenol-d5 (Surr)	66		25 - 130
Nitrobenzene-d5 (Surr)	71		39 - 130

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 680-501016/8-A

Matrix: Solid

Analysis Batch: 501424

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 501016

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.0070	U	0.032	0.0070	mg/Kg		11/02/17 15:41	11/06/17 19:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	65		11 - 130	11/02/17 15:41	11/06/17 19:25	1
2-Fluorophenol (Surr)	67		10 - 130	11/02/17 15:41	11/06/17 19:25	1
Phenol-d5 (Surr)	39		10 - 130	11/02/17 15:41	11/06/17 19:25	1
Terphenyl-d14 (Surr)	67		27 - 130	11/02/17 15:41	11/06/17 19:25	1
2,4,6-Tribromophenol (Surr)	55		24 - 130	11/02/17 15:41	11/06/17 19:25	1
Nitrobenzene-d5 (Surr)	58		18 - 130	11/02/17 15:41	11/06/17 19:25	1

Lab Sample ID: LCS 680-501016/9-A

Matrix: Solid

Analysis Batch: 501424

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 501016

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	0.324	0.218		mg/Kg		67	10 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	75		11 - 130

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 680-501016/9-A

Matrix: Solid

Analysis Batch: 501424

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 501016

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol (Surr)	70		10 - 130
Phenol-d5 (Surr)	60		10 - 130
Terphenyl-d14 (Surr)	84		27 - 130
2,4,6-Tribromophenol (Surr)	86		24 - 130
Nitrobenzene-d5 (Surr)	70		18 - 130

Lab Sample ID: 680-144854-7 MS

Matrix: Solid

Analysis Batch: 501424

Client Sample ID: Dup-2 (102617)

Prep Type: Total/NA

Prep Batch: 501016

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	0.073		0.366	0.255		mg/Kg	☼	50	10 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl (Surr)	61		11 - 130
2-Fluorophenol (Surr)	62		10 - 130
Phenol-d5 (Surr)	32		10 - 130
Terphenyl-d14 (Surr)	63		27 - 130
2,4,6-Tribromophenol (Surr)	67		24 - 130
Nitrobenzene-d5 (Surr)	57		18 - 130

Lab Sample ID: 680-144854-7 MSD

Matrix: Solid

Analysis Batch: 501424

Client Sample ID: Dup-2 (102617)

Prep Type: Total/NA

Prep Batch: 501016

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1'-Biphenyl	0.073		0.368	0.285		mg/Kg	☼	58	10 - 130	11	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	68		11 - 130
2-Fluorophenol (Surr)	66		10 - 130
Phenol-d5 (Surr)	37		10 - 130
Terphenyl-d14 (Surr)	69		27 - 130
2,4,6-Tribromophenol (Surr)	81		24 - 130
Nitrobenzene-d5 (Surr)	63		18 - 130

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Lab Sample ID: MB 680-500843/18-A

Matrix: Solid

Analysis Batch: 500970

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 500843

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DDT	0.21	U	1.7	0.21	ug/Kg		11/01/17 11:52	11/01/17 21:01	1
Endrin	0.21	U	1.7	0.21	ug/Kg		11/01/17 11:52	11/01/17 21:01	1
Endrin aldehyde	0.21	U	1.7	0.21	ug/Kg		11/01/17 11:52	11/01/17 21:01	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Lab Sample ID: MB 680-500843/18-A

Matrix: Solid

Analysis Batch: 500970

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 500843

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methoxychlor	0.27	U	1.7	0.27	ug/Kg		11/01/17 11:52	11/01/17 21:01	1
PCB-1254	0.0097	U	0.032	0.0097	mg/Kg		11/01/17 11:52	11/01/17 21:01	1
PCB-1260	0.0093	U	0.032	0.0093	mg/Kg		11/01/17 11:52	11/01/17 21:01	1
PCB-1262	5.9	U	32	5.9	ug/Kg		11/01/17 11:52	11/01/17 21:01	1
PCB-1268	5.3	U	32	5.3	ug/Kg		11/01/17 11:52	11/01/17 21:01	1
Total PCB	4.9	U	32	4.9	ug/Kg		11/01/17 11:52	11/01/17 21:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	89		54 - 133	11/01/17 11:52	11/01/17 21:01	1
Tetrachloro-m-xylene	90		46 - 130	11/01/17 11:52	11/01/17 21:01	1

Lab Sample ID: LCS 680-500843/19-A

Matrix: Solid

Analysis Batch: 500970

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 500843

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1260	0.398	0.391		mg/Kg		98	45 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	83		54 - 133
Tetrachloro-m-xylene	88		46 - 130

Lab Sample ID: LCS 680-500843/22-A

Matrix: Solid

Analysis Batch: 500970

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 500843

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DDT	6.41	5.60		ug/Kg		87	45 - 144
Endrin	6.41	5.65		ug/Kg		88	46 - 155
Endrin aldehyde	6.41	5.77		ug/Kg		90	41 - 135
Methoxychlor	6.41	5.69		ug/Kg		89	43 - 166

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	73		54 - 133
Tetrachloro-m-xylene	75		46 - 130

Lab Sample ID: 680-144854-12 MS

Matrix: Solid

Analysis Batch: 500970

Client Sample ID: SB-204-1 (0-2) (102617)

Prep Type: Total/NA

Prep Batch: 500843

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1260	0.011	U	0.437	0.895	E F1	mg/Kg	☼	205	45 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	51	X	54 - 133
Tetrachloro-m-xylene	104		46 - 130

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# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

Lab Sample ID: 680-144854-12 MS

Matrix: Solid

Analysis Batch: 500970

Client Sample ID: SB-204-1 (0-2) (102617)

Prep Type: Total/NA

Prep Batch: 500843

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
DDT	0.25	U	7.48	274	E F1	ug/Kg	☼	3659	45 - 144
Endrin	0.25	U	7.48	42.5	F1	ug/Kg	☼	568	46 - 155
Endrin aldehyde	0.25	U	7.48	41.5	p F1	ug/Kg	☼	555	41 - 135
Methoxychlor	0.31	U	7.48	12.0	p	ug/Kg	☼	160	43 - 166
<hr/>									
<b>Surrogate</b>	<b>MS %Recovery</b>	<b>MS Qualifier</b>	<b>Limits</b>						
DCB Decachlorobiphenyl	57		54 - 133						
Tetrachloro-m-xylene	94		46 - 130						

Lab Sample ID: 680-144854-12 MSD

Matrix: Solid

Analysis Batch: 500970

Client Sample ID: SB-204-1 (0-2) (102617)

Prep Type: Total/NA

Prep Batch: 500843

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1260	0.011	U	0.436	0.686	F1	mg/Kg	☼	157	45 - 130	26	50
<hr/>											
<b>Surrogate</b>	<b>MSD %Recovery</b>	<b>MSD Qualifier</b>	<b>Limits</b>								
DCB Decachlorobiphenyl	55		54 - 133								
Tetrachloro-m-xylene	92		46 - 130								

Lab Sample ID: 680-144854-12 MSD

Matrix: Solid

Analysis Batch: 500970

Client Sample ID: SB-204-1 (0-2) (102617)

Prep Type: Total/NA

Prep Batch: 500843

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DDT	0.25	U	7.56	283	E F1	ug/Kg	☼	3743	45 - 144	3	50
Endrin	0.25	U	7.56	29.5	p F1	ug/Kg	☼	390	46 - 155	36	50
Endrin aldehyde	0.25	U	7.56	44.7	p F1	ug/Kg	☼	592	41 - 135	8	50
Methoxychlor	0.31	U	7.56	13.6	p F1	ug/Kg	☼	180	43 - 166	13	50
<hr/>											
<b>Surrogate</b>	<b>MSD %Recovery</b>	<b>MSD Qualifier</b>	<b>Limits</b>								
DCB Decachlorobiphenyl	57		54 - 133								
Tetrachloro-m-xylene	95		46 - 130								

TestAmerica Savannah



# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

## GC/MS Semi VOA

### Leach Batch: 500690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-19	IDW-SOIL (102717)	TCLP	Solid	1311	
LB2 680-500690/5-B	Method Blank	TCLP	Solid	1311	
680-144854-19 MS	IDW-SOIL (102717)	TCLP	Solid	1311	
680-144854-19 MSD	IDW-SOIL (102717)	TCLP	Solid	1311	

### Prep Batch: 500722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-18	EB-3 (102617)	Total/NA	Water	3520C	

### Prep Batch: 500844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-19	IDW-SOIL (102717)	TCLP	Solid	3520C	500690
LB2 680-500690/5-B	Method Blank	TCLP	Solid	3520C	500690
MB 680-500844/9-A	Method Blank	Total/NA	Solid	3520C	
LCS 680-500844/10-A	Lab Control Sample	Total/NA	Solid	3520C	
680-144854-19 MS	IDW-SOIL (102717)	TCLP	Solid	3520C	500690
680-144854-19 MSD	IDW-SOIL (102717)	TCLP	Solid	3520C	500690

### Prep Batch: 501016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-1	SB-142-1 (0-1) (102617)	Total/NA	Solid	3546	
680-144854-2	SB-142-2 (0-1) (102617)	Total/NA	Solid	3546	
680-144854-3	SB-142-3 (0-1) (102617)	Total/NA	Solid	3546	
680-144854-4	EX-26-1 (0-2) (102617)	Total/NA	Solid	3546	
680-144854-5	EX-26-2 (0-2) (102617)	Total/NA	Solid	3546	
680-144854-6	EX-26-3 (0-2) (102617)	Total/NA	Solid	3546	
680-144854-7	Dup-2 (102617)	Total/NA	Solid	3546	
MB 680-501016/8-A	Method Blank	Total/NA	Solid	3546	
LCS 680-501016/9-A	Lab Control Sample	Total/NA	Solid	3546	
680-144854-7 MS	Dup-2 (102617)	Total/NA	Solid	3546	
680-144854-7 MSD	Dup-2 (102617)	Total/NA	Solid	3546	

### Analysis Batch: 501195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-19	IDW-SOIL (102717)	TCLP	Solid	8270D	500844
LB2 680-500690/5-B	Method Blank	TCLP	Solid	8270D	500844
MB 680-500844/9-A	Method Blank	Total/NA	Solid	8270D	500844
LCS 680-500844/10-A	Lab Control Sample	Total/NA	Solid	8270D	500844
680-144854-19 MS	IDW-SOIL (102717)	TCLP	Solid	8270D	500844
680-144854-19 MSD	IDW-SOIL (102717)	TCLP	Solid	8270D	500844

### Analysis Batch: 501424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-1	SB-142-1 (0-1) (102617)	Total/NA	Solid	8270D LL	501016
680-144854-2	SB-142-2 (0-1) (102617)	Total/NA	Solid	8270D LL	501016
680-144854-18	EB-3 (102617)	Total/NA	Water	8270D LL	500722
MB 680-501016/8-A	Method Blank	Total/NA	Solid	8270D LL	501016
LCS 680-501016/9-A	Lab Control Sample	Total/NA	Solid	8270D LL	501016
680-144854-7 MS	Dup-2 (102617)	Total/NA	Solid	8270D LL	501016
680-144854-7 MSD	Dup-2 (102617)	Total/NA	Solid	8270D LL	501016

TestAmerica Savannah



# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

## GC/MS Semi VOA (Continued)

### Analysis Batch: 501615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-3	SB-142-3 (0-1) (102617)	Total/NA	Solid	8270D LL	501016
680-144854-4	EX-26-1 (0-2) (102617)	Total/NA	Solid	8270D LL	501016
680-144854-5	EX-26-2 (0-2) (102617)	Total/NA	Solid	8270D LL	501016
680-144854-6	EX-26-3 (0-2) (102617)	Total/NA	Solid	8270D LL	501016
680-144854-7	Dup-2 (102617)	Total/NA	Solid	8270D LL	501016

## GC Semi VOA

### Prep Batch: 500843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-8	SB-122-1 (0-1) (102617)	Total/NA	Solid	3546	
680-144854-9	SB-122-2 (0-1) (102617)	Total/NA	Solid	3546	
680-144854-10	SB-122-3 (0-1) (102617)	Total/NA	Solid	3546	
680-144854-11	SB-122-4 (0-1) (102617)	Total/NA	Solid	3546	
680-144854-12	SB-204-1 (0-2) (102617)	Total/NA	Solid	3546	
680-144854-13	SB-204-2 (0-2) (102617)	Total/NA	Solid	3546	
680-144854-14	SB-204-3 (0-2) (102617)	Total/NA	Solid	3546	
680-144854-19	IDW-SOIL (102717)	Total/NA	Solid	3546	
MB 680-500843/18-A	Method Blank	Total/NA	Solid	3546	
LCS 680-500843/19-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 680-500843/22-A	Lab Control Sample	Total/NA	Solid	3546	
680-144854-12 MS	SB-204-1 (0-2) (102617)	Total/NA	Solid	3546	
680-144854-12 MS	SB-204-1 (0-2) (102617)	Total/NA	Solid	3546	
680-144854-12 MSD	SB-204-1 (0-2) (102617)	Total/NA	Solid	3546	
680-144854-12 MSD	SB-204-1 (0-2) (102617)	Total/NA	Solid	3546	

### Analysis Batch: 500970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-8	SB-122-1 (0-1) (102617)	Total/NA	Solid	8081B/8082A	500843
680-144854-9	SB-122-2 (0-1) (102617)	Total/NA	Solid	8081B/8082A	500843
680-144854-10	SB-122-3 (0-1) (102617)	Total/NA	Solid	8081B/8082A	500843
680-144854-11	SB-122-4 (0-1) (102617)	Total/NA	Solid	8081B/8082A	500843
680-144854-12	SB-204-1 (0-2) (102617)	Total/NA	Solid	8081B/8082A	500843
680-144854-13	SB-204-2 (0-2) (102617)	Total/NA	Solid	8081B/8082A	500843
680-144854-14	SB-204-3 (0-2) (102617)	Total/NA	Solid	8081B/8082A	500843
680-144854-19	IDW-SOIL (102717)	Total/NA	Solid	8081B/8082A	500843
MB 680-500843/18-A	Method Blank	Total/NA	Solid	8081B/8082A	500843
LCS 680-500843/19-A	Lab Control Sample	Total/NA	Solid	8081B/8082A	500843
LCS 680-500843/22-A	Lab Control Sample	Total/NA	Solid	8081B/8082A	500843
680-144854-12 MS	SB-204-1 (0-2) (102617)	Total/NA	Solid	8081B/8082A	500843
680-144854-12 MS	SB-204-1 (0-2) (102617)	Total/NA	Solid	8081B/8082A	500843
680-144854-12 MSD	SB-204-1 (0-2) (102617)	Total/NA	Solid	8081B/8082A	500843
680-144854-12 MSD	SB-204-1 (0-2) (102617)	Total/NA	Solid	8081B/8082A	500843

### Analysis Batch: 501067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-9	SB-122-2 (0-1) (102617)	Total/NA	Solid	8081B/8082A	500843
680-144854-12	SB-204-1 (0-2) (102617)	Total/NA	Solid	8081B/8082A	500843
680-144854-13	SB-204-2 (0-2) (102617)	Total/NA	Solid	8081B/8082A	500843
680-144854-12 MS	SB-204-1 (0-2) (102617)	Total/NA	Solid	8081B/8082A	500843

TestAmerica Savannah



# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

## GC Semi VOA (Continued)

### Analysis Batch: 501067 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-12 MSD	SB-204-1 (0-2) (102617)	Total/NA	Solid	8081B/8082A	500843

## General Chemistry

### Analysis Batch: 192398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-15	SB-207-1 (0-2) (102617)	Total/NA	Solid	D 2216	
680-144854-16	SB-207-2 (0-2) (102617)	Total/NA	Solid	D 2216	
680-144854-17	SB-207-3 (0-2) (102617)	Total/NA	Solid	D 2216	

### Analysis Batch: 500675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-1	SB-142-1 (0-1) (102617)	Total/NA	Solid	Moisture	
680-144854-2	SB-142-2 (0-1) (102617)	Total/NA	Solid	Moisture	
680-144854-3	SB-142-3 (0-1) (102617)	Total/NA	Solid	Moisture	
680-144854-4	EX-26-1 (0-2) (102617)	Total/NA	Solid	Moisture	
680-144854-5	EX-26-2 (0-2) (102617)	Total/NA	Solid	Moisture	
680-144854-6	EX-26-3 (0-2) (102617)	Total/NA	Solid	Moisture	
680-144854-7	Dup-2 (102617)	Total/NA	Solid	Moisture	
680-144854-8	SB-122-1 (0-1) (102617)	Total/NA	Solid	Moisture	
680-144854-9	SB-122-2 (0-1) (102617)	Total/NA	Solid	Moisture	
680-144854-10	SB-122-3 (0-1) (102617)	Total/NA	Solid	Moisture	
680-144854-11	SB-122-4 (0-1) (102617)	Total/NA	Solid	Moisture	
680-144854-12	SB-204-1 (0-2) (102617)	Total/NA	Solid	Moisture	
680-144854-13	SB-204-2 (0-2) (102617)	Total/NA	Solid	Moisture	
680-144854-14	SB-204-3 (0-2) (102617)	Total/NA	Solid	Moisture	
680-144854-19	IDW-SOIL (102717)	Total/NA	Solid	Moisture	
680-144854-12 MS	SB-204-1 (0-2) (102617)	Total/NA	Solid	Moisture	
680-144854-12 MSD	SB-204-1 (0-2) (102617)	Total/NA	Solid	Moisture	



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: SB-142-1 (0-1) (102617)**

Date Collected: 10/26/17 08:30

Date Received: 10/27/17 13:50

**Lab Sample ID: 680-144854-1**

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			500675	10/31/17 09:06	EAB	TAL SAV

**Client Sample ID: SB-142-1 (0-1) (102617)**

Date Collected: 10/26/17 08:30

Date Received: 10/27/17 13:50

**Lab Sample ID: 680-144854-1**

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	3546			30.33 g	1 mL	501016	11/02/17 15:41	JAM	TAL SAV
Total/NA	Analysis	8270D LL		10			501424	11/06/17 21:03	UI	TAL SAV

**Client Sample ID: SB-142-2 (0-1) (102617)**

Date Collected: 10/26/17 08:40

Date Received: 10/27/17 13:50

**Lab Sample ID: 680-144854-2**

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			500675	10/31/17 09:06	EAB	TAL SAV

**Client Sample ID: SB-142-2 (0-1) (102617)**

Date Collected: 10/26/17 08:40

Date Received: 10/27/17 13:50

**Lab Sample ID: 680-144854-2**

Matrix: Solid

Percent Solids: 90.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.07 g	1 mL	501016	11/02/17 15:41	JAM	TAL SAV
Total/NA	Analysis	8270D LL		10			501424	11/06/17 21:27	UI	TAL SAV

**Client Sample ID: SB-142-3 (0-1) (102617)**

Date Collected: 10/26/17 08:50

Date Received: 10/27/17 13:50

**Lab Sample ID: 680-144854-3**

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			500675	10/31/17 09:06	EAB	TAL SAV

**Client Sample ID: SB-142-3 (0-1) (102617)**

Date Collected: 10/26/17 08:50

Date Received: 10/27/17 13:50

**Lab Sample ID: 680-144854-3**

Matrix: Solid

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			30.66 g	1 mL	501016	11/02/17 15:41	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			501615	11/07/17 16:07	UI	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: EX-26-1 (0-2) (102617)**

**Lab Sample ID: 680-144854-4**

Date Collected: 10/26/17 10:00

Matrix: Solid

Date Received: 10/27/17 13:50

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			500675	10/31/17 09:06	EAB	TAL SAV

**Client Sample ID: EX-26-1 (0-2) (102617)**

**Lab Sample ID: 680-144854-4**

Date Collected: 10/26/17 10:00

Matrix: Solid

Date Received: 10/27/17 13:50

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			30.97 g	1 mL	501016	11/02/17 15:41	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			501615	11/07/17 16:31	UI	TAL SAV

**Client Sample ID: EX-26-2 (0-2) (102617)**

**Lab Sample ID: 680-144854-5**

Date Collected: 10/26/17 10:10

Matrix: Solid

Date Received: 10/27/17 13:50

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			500675	10/31/17 09:06	EAB	TAL SAV

**Client Sample ID: EX-26-2 (0-2) (102617)**

**Lab Sample ID: 680-144854-5**

Date Collected: 10/26/17 10:10

Matrix: Solid

Date Received: 10/27/17 13:50

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	3546			30.06 g	1 mL	501016	11/02/17 15:41	JAM	TAL SAV
Total/NA	Analysis	8270D LL		10			501615	11/07/17 16:55	UI	TAL SAV

**Client Sample ID: EX-26-3 (0-2) (102617)**

**Lab Sample ID: 680-144854-6**

Date Collected: 10/26/17 10:20

Matrix: Solid

Date Received: 10/27/17 13:50

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			500675	10/31/17 09:06	EAB	TAL SAV

**Client Sample ID: EX-26-3 (0-2) (102617)**

**Lab Sample ID: 680-144854-6**

Date Collected: 10/26/17 10:20

Matrix: Solid

Date Received: 10/27/17 13:50

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			30.23 g	1 mL	501016	11/02/17 15:41	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			501615	11/07/17 17:19	UI	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: Dup-2 (102617)**

**Date Collected: 10/26/17 00:00**

**Date Received: 10/27/17 13:50**

**Lab Sample ID: 680-144854-7**

**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			500675	10/31/17 09:06	EAB	TAL SAV

**Client Sample ID: Dup-2 (102617)**

**Date Collected: 10/26/17 00:00**

**Date Received: 10/27/17 13:50**

**Lab Sample ID: 680-144854-7**

**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	3546			30.97 g	1 mL	501016	11/02/17 15:41	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			501615	11/07/17 17:44	UI	TAL SAV

**Client Sample ID: SB-122-1 (0-1) (102617)**

**Date Collected: 10/26/17 12:30**

**Date Received: 10/27/17 13:50**

**Lab Sample ID: 680-144854-8**

**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			500675	10/31/17 09:06	EAB	TAL SAV

**Client Sample ID: SB-122-1 (0-1) (102617)**

**Date Collected: 10/26/17 12:30**

**Date Received: 10/27/17 13:50**

**Lab Sample ID: 680-144854-8**

**Matrix: Solid**

**Percent Solids: 74.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.81 g	10 mL	500843	11/01/17 11:52	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		1			500970	11/01/17 21:43	JCK	TAL SAV

**Client Sample ID: SB-122-2 (0-1) (102617)**

**Date Collected: 10/26/17 12:40**

**Date Received: 10/27/17 13:50**

**Lab Sample ID: 680-144854-9**

**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			500675	10/31/17 09:06	EAB	TAL SAV

**Client Sample ID: SB-122-2 (0-1) (102617)**

**Date Collected: 10/26/17 12:40**

**Date Received: 10/27/17 13:50**

**Lab Sample ID: 680-144854-9**

**Matrix: Solid**

**Percent Solids: 78.8**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.29 g	10 mL	500843	11/01/17 11:52	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		1			500970	11/01/17 21:58	JCK	TAL SAV
Total/NA	Prep	3546			15.29 g	10 mL	500843	11/01/17 11:52	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		5			501067	11/02/17 18:07	JCK	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: SB-122-3 (0-1) (102617)**

**Lab Sample ID: 680-144854-10**

Date Collected: 10/26/17 12:50

Matrix: Solid

Date Received: 10/27/17 13:50

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			500675	10/31/17 09:06	EAB	TAL SAV

**Client Sample ID: SB-122-3 (0-1) (102617)**

**Lab Sample ID: 680-144854-10**

Date Collected: 10/26/17 12:50

Matrix: Solid

Date Received: 10/27/17 13:50

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			15.55 g	10 mL	500843	11/01/17 11:52	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		1			500970	11/01/17 22:12	JCK	TAL SAV

**Client Sample ID: SB-122-4 (0-1) (102617)**

**Lab Sample ID: 680-144854-11**

Date Collected: 10/26/17 13:00

Matrix: Solid

Date Received: 10/27/17 13:50

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			500675	10/31/17 09:06	EAB	TAL SAV

**Client Sample ID: SB-122-4 (0-1) (102617)**

**Lab Sample ID: 680-144854-11**

Date Collected: 10/26/17 13:00

Matrix: Solid

Date Received: 10/27/17 13:50

Percent Solids: 83.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.88 g	10 mL	500843	11/01/17 11:52	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		1			500970	11/01/17 22:26	JCK	TAL SAV

**Client Sample ID: SB-204-1 (0-2) (102617)**

**Lab Sample ID: 680-144854-12**

Date Collected: 10/26/17 15:00

Matrix: Solid

Date Received: 10/27/17 13:50

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			500675	10/31/17 09:06	EAB	TAL SAV

**Client Sample ID: SB-204-1 (0-2) (102617)**

**Lab Sample ID: 680-144854-12**

Date Collected: 10/26/17 15:00

Matrix: Solid

Date Received: 10/27/17 13:50

Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.66 g	10 mL	500843	11/01/17 11:52	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		1			500970	11/01/17 22:40	JCK	TAL SAV
Total/NA	Prep	3546			15.66 g	10 mL	500843	11/01/17 11:52	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		5			501067	11/02/17 14:50	JCK	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: SB-204-2 (0-2) (102617)**

**Lab Sample ID: 680-144854-13**

Date Collected: 10/26/17 15:10

Matrix: Solid

Date Received: 10/27/17 13:50

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			500675	10/31/17 09:06	EAB	TAL SAV

**Client Sample ID: SB-204-2 (0-2) (102617)**

**Lab Sample ID: 680-144854-13**

Date Collected: 10/26/17 15:10

Matrix: Solid

Date Received: 10/27/17 13:50

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			15.18 g	10 mL	500843	11/01/17 11:52	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		1			500970	11/01/17 22:55	JCK	TAL SAV
Total/NA	Prep	3546			15.18 g	10 mL	500843	11/01/17 11:52	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		10			501067	11/02/17 15:04	JCK	TAL SAV

**Client Sample ID: SB-204-3 (0-2) (102617)**

**Lab Sample ID: 680-144854-14**

Date Collected: 10/26/17 15:20

Matrix: Solid

Date Received: 10/27/17 13:50

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			500675	10/31/17 09:06	EAB	TAL SAV

**Client Sample ID: SB-204-3 (0-2) (102617)**

**Lab Sample ID: 680-144854-14**

Date Collected: 10/26/17 15:20

Matrix: Solid

Date Received: 10/27/17 13:50

Percent Solids: 79.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.32 g	10 mL	500843	11/01/17 11:52	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		1			500970	11/01/17 23:09	JCK	TAL SAV

**Client Sample ID: SB-207-1 (0-2) (102617)**

**Lab Sample ID: 680-144854-15**

Date Collected: 10/26/17 15:30

Matrix: Solid

Date Received: 10/27/17 13:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1			192398	11/01/17 15:53	TCS	TAL SAC

**Client Sample ID: SB-207-2 (0-2) (102617)**

**Lab Sample ID: 680-144854-16**

Date Collected: 10/26/17 15:40

Matrix: Solid

Date Received: 10/27/17 13:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1			192398	11/01/17 15:53	TCS	TAL SAC

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

**Client Sample ID: SB-207-3 (0-2) (102617)**

**Lab Sample ID: 680-144854-17**

Date Collected: 10/26/17 15:50

Matrix: Solid

Date Received: 10/27/17 13:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1			192398	11/01/17 15:53	TCS	TAL SAC

**Client Sample ID: EB-3 (102617)**

**Lab Sample ID: 680-144854-18**

Date Collected: 10/26/17 16:15

Matrix: Water

Date Received: 10/27/17 13:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1029.1 mL	1 mL	500722	10/31/17 15:29	CEW	TAL SAV
Total/NA	Analysis	8270D LL		1			501424	11/06/17 14:33	UI	TAL SAV

**Client Sample ID: IDW-SOIL (102717)**

**Lab Sample ID: 680-144854-19**

Date Collected: 10/26/17 13:00

Matrix: Solid

Date Received: 10/27/17 13:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			100.04 g	2000 mL	500690	10/31/17 17:40	EAB	TAL SAV
TCLP	Prep	3520C			200.7 mL	1 mL	500844	11/01/17 16:06	CEW	TAL SAV
TCLP	Analysis	8270D		1			501195	11/03/17 19:31	DBM	TAL SAV
Total/NA	Analysis	Moisture		1			500675	10/31/17 09:06	EAB	TAL SAV

**Client Sample ID: IDW-SOIL (102717)**

**Lab Sample ID: 680-144854-19**

Date Collected: 10/26/17 13:00

Matrix: Solid

Date Received: 10/27/17 13:50

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			15.69 g	10 mL	500843	11/01/17 11:52	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		1			500970	11/01/17 23:23	JCK	TAL SAV

## Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858



Company Name: <b>ARCADIS</b> Address: <b>10 Potomac Dr, Ste 375</b> City/State/Zip: <b>Greenville, SC 29615</b> Phone: <b>(864) 987-3900</b> Fax: _____ Project Name: <b>Ashland</b> Site: <b>Savannah, GA</b> P O # _____		Client Contact Project Manager: <b>Andy Davis</b> Tel/Fax: <b>Andrew.Davis@arcadis.com</b>		Site Contact: _____ Lab Contact: <b>5. SENTER</b> Date: <b>10/23/12</b> Carrier: _____		COC No.: _____ of _____ COCs Sampler: <b>A. CENSEL / B. MAYELIX</b> For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.: _____	
Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below: <b>STANDARD</b> <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day				Filtered Sample (Y / N) _____ Perform MS / MSD (Y / N) _____			
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	
SB-142-1 (04) (102617)		10/26/12	0830	G	So	1	
SB-142-2 (0-1) (102617)		10/26/12	0840	G	So	1	
SB-142-3 (0-1) (102617)		10/26/12	0850	G	So	1	
EX-26-1 (0-2) (102617)		10/26/12	1000	G	So	1	
EX-26-2 (0-2) (102617)		10/26/12	1010	G	So	1	
EX-26-3 (0-2) (102617)		10/26/12	1020	G	So	1	
Dup-2 (102617)		10/26/12	-	G	So	1	
SB-122-1 (0-1) (102617)		10/26/12	1230	G	So	1	
SB-122-2 (0-1) (102617)		10/26/12	1240	G	So	1	
SB-122-3 (0-1) (102617)		10/26/12	1250	G	So	1	
SB-122-4 (0-1) (102617)		10/26/12	1300	G	So	1	
SB-204-1 (0-2) (102617)		10/26/12	1500	G	So	6	
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other _____ Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.							
Special Instructions/QC Requirements & Comments: <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Poison B							
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: _____		Cooler Temp. (°C): _____		Corr'd: _____	
Relinquished by: <b>ARCADIS</b>		Company: <b>ARCADIS</b>		Received by: _____		Date/Time: <b>10/23/12</b>	
Relinquished by: _____		Company: _____		Received by: _____		Date/Time: _____	
Relinquished by: _____		Company: _____		Received in Laboratory by: <b>MS</b>		Date/Time: <b>10/27/12 1350</b>	



Client Contact		Project Manager:		Site Contact:		Date: 10/27/17		COC No: 10/27/17	
Company Name:		Tel/Fax:		Name:		Carrier:		COCs	
Address:		Analysis Turnaround Time		Sample Identification		Sample Specific Notes:		Sampler: M. C. ... / B. M. ...	
City/State/Zip:		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS <input type="checkbox"/> TAT If different from Below		Sample Type (C=Comp, G=Grab)		Sample Date Sample Time		Sample Matrix # of Cont.	
Phone:		<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Sample Date Sample Time		Sample Matrix # of Cont.		Sample Specific Notes:	
Fax:		<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Sample Date Sample Time		Sample Matrix # of Cont.		Sample Specific Notes:	
Project Name:		<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Sample Date Sample Time		Sample Matrix # of Cont.		Sample Specific Notes:	
Site:		<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Sample Date Sample Time		Sample Matrix # of Cont.		Sample Specific Notes:	
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		<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Sample Date Sample Time		Sample Matrix # of Cont.			



## Chain of Custody Record

<b>Client Information (Sub Contract Lab)</b> Client Contact: Shipping/Receiving Company: TestAmerica Laboratories, Inc. Address: 880 Riverside Parkway, West Sacramento, CA, 95605 Phone: 916-373-5600(Tel) 916-372-1059(Fax) Email: Project Name: Hercules Savannah Site:		Lab PM: Lanier, Jerry A E-Mail: jerry.lanier@testamericainc.com State of Origin: Georgia Carrier Tracking No(s): 680-496093-1 Page: Page 1 of 1 Job #: 680-144854-1	
<b>Due Date Requested:</b> 11/14/2017 <b>TAT Requested (days):</b>		<b>Analysis Requested</b> 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:	
<b>Sample Identification - Client ID (Lab ID)</b>		<b>Preservation Codes:</b> M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (Specify)	
<b>Sample Date</b>		<b>Total Number of Containers</b>	
<b>Sample Time</b>		<b>Special Instructions/Note:</b>	
<b>Sample Type (C=Comp, G=Grab)</b>		run as straight as possible, Caution, may have high levels, hold glassware	
<b>Sample Matrix (W=water, S=solid, O=oil, B=BT, A=Asphalt)</b>		run as straight as possible, Caution, may have high levels, hold glassware	
<b>Field Filtered Sample (Yes or No)</b>		run as straight as possible, Caution, may have high levels, hold glassware	
<b>Perform MS/MSD (Yes or No)</b>		run as straight as possible, Caution, may have high levels, hold glassware	
<b>Total PCB Cong</b>		run as straight as possible, Caution, may have high levels, hold glassware	
<b>Total TEQ</b>		run as straight as possible, Caution, may have high levels, hold glassware	
<b>1668C/HRMS Sox P Full List (209 Comb/Coel)</b>		run as straight as possible, Caution, may have high levels, hold glassware	
<b>1668C/HRMS Sox P Sox 17 Isomers &amp; Totals</b>		run as straight as possible, Caution, may have high levels, hold glassware	
<b>Primary Deliverable Rank: 2</b>		<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months	
<b>Deliverable Requested: I, II, III, IV, Other (specify)</b>		<b>Special Instructions/QC Requirements:</b>	
<b>Empty Kit Relinquished by:</b>		<b>Method of Shipment:</b>	
<b>Relinquished by:</b>		<b>Received by:</b>	
<b>Relinquished by:</b>		<b>Received by:</b>	
<b>Relinquished by:</b>		<b>Received by:</b>	
<b>Relinquished by:</b>		<b>Received by:</b>	
<b>Custody Seals Intact:</b> Δ Yes Δ No		<b>Cooler Temperature(s) °C and Other Remarks:</b> 3.8°C	



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-144854-1

**Login Number: 144854**

**List Source: TestAmerica Savannah**

**List Number: 1**

**Creator: Flanagan, Naomi V**

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.	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	



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-144854-1

**Login Number: 144854**

**List Source: TestAmerica Sacramento**

**List Number: 2**

**List Creation: 11/01/17 10:36 AM**

**Creator: Her, David A**

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	414713
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.8 C
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?	False	Received project as a subcontract.
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	



## Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

### 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	11-30-17 *
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	12-31-17
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	12-31-17
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	06-30-17 *
Tennessee	State Program	4	TN02961	06-30-18
Texas	NELAP	6	T104704185-16-9	11-30-17 *
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



## Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-1

### Laboratory: TestAmerica Sacramento

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
Alaska (UST)	State Program	10	UST-055	12-18-17
Arizona	State Program	9	AZ0708	08-11-18
Arkansas DEQ	State Program	6	88-0691	06-17-18
California	State Program	9	2897	01-31-18
Colorado	State Program	8	CA00044	08-31-18
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-18
Georgia	State Program	4	N/A	01-28-19
Hawaii	State Program	9	N/A	01-29-18
Illinois	NELAP	5	200060	03-17-18
Kansas	NELAP	7	E-10375	10-31-17 *
L-A-B	DoD ELAP		L2468	01-20-18
Louisiana	NELAP	6	30612	06-30-18
Maine	State Program	1	CA0004	04-18-18
Michigan	State Program	5	9947	01-31-18
Nevada	State Program	9	CA00044	07-31-18
New Hampshire	NELAP	1	2997	04-18-18
New Jersey	NELAP	2	CA005	06-30-18
New York	NELAP	2	11666	04-01-18
Oregon	NELAP	10	4040	01-28-18
Pennsylvania	NELAP	3	68-01272	03-31-18
Texas	NELAP	6	T104704399	05-31-18
US Fish & Wildlife	Federal		LE148388-0	07-31-18
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-18
Virginia	NELAP	3	460278	03-14-18
Washington	State Program	10	C581	05-05-18
West Virginia (DW)	State Program	3	9930C	12-31-17
Wyoming	State Program	8	8TMS-L	01-28-19

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Savannah



# 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: 680-144854-2

Client Project/Site: Savannah Resins Plant

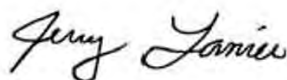
For:

ARCADIS U.S., Inc.

10 Patewood Drive, Suite 375

Greenville, South Carolina 29615

Attn: Andrew Davis



Authorized for release by:

12/8/2017 4:38:58 PM

Jerry Lanier, Project Manager I

(912)354-7858 e.3410

[jerry.lanier@testamericainc.com](mailto:jerry.lanier@testamericainc.com)

### LINKS

Review your project  
results through

**TotalAccess**

Have a Question?



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[www.testamericainc.com](http://www.testamericainc.com)

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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# Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Job ID: 680-144854-2**

**Laboratory: TestAmerica Savannah**

## Narrative

### CASE NARRATIVE

**Client: ARCADIS U.S., Inc.**

**Project: Savannah Resins Plant**

**Report Number: 680-144854-2**

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 10/27/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.8 C.

#### CHLORINATED BIPHENYL CONGENERS

Samples SB-204-1 (0-2) (102617) (680-144854-12), SB-204-2 (0-2) (102617) (680-144854-13), SB-204-3 (0-2) (102617) (680-144854-14), SB-207-1 (0-2) (102617) (680-144854-15), SB-207-2 (0-2) (102617) (680-144854-16) and SB-207-3 (0-2) (102617) (680-144854-17) were analyzed for chlorinated biphenyl congeners in accordance with epa method 1668C. The samples were prepared on 11/02/2017 and analyzed on 11/21/2017, 11/28/2017 and 11/29/2017.

The method blank for 320-192576 contained PCB-118 above the reporting limit (RL). Associated samples were not re-extracted and because results were greater than 10X the value found in the method blank.

The following samples exhibited elevated noise or matrix interferences for one or more analytes causing elevation of the detection limit (EDL): SB-204-1 (0-2) (102617) (680-144854-12) . The reporting limit (RL) for the affected analytes has been raised to be equal to the EDL, and a "G" qualifier applied.

The following samples exhibited elevated noise or matrix interferences for one or more analytes causing elevation of the detection limit (EDL): SB-204-1 (0-2) (102617) (680-144854-12), SB-204-1 (0-2) (102617) (680-144854-12[MSJ]), SB-204-1 (0-2) (102617) (680-144854-12[MSD]), SB-204-2 (0-2) (102617) (680-144854-13), SB-204-3 (0-2) (102617) (680-144854-14), SB-207-1 (0-2) (102617) (680-144854-15), SB-207-2 (0-2) (102617) (680-144854-16) and SB-207-3 (0-2) (102617) (680-144854-17) . The reporting limit (RL) for the affected analytes has been raised to be equal to the EDL, and a "G" qualifier applied.

The concentration of one or more analytes associated with the following sample exceeded the instrument calibration range: SB-204-1 (0-2) (102617) (680-144854-12). These analytes have been qualified; however, the peak(s) did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range.

The concentration of one or more analytes associated with the following samples exceeded the instrument calibration range: SB-204-1 (0-2) (102617) (680-144854-12), SB-204-1 (0-2) (102617) (680-144854-12[MSJ]), SB-204-1 (0-2) (102617) (680-144854-12[MSD]), SB-204-2 (0-2) (102617) (680-144854-13), SB-204-3 (0-2) (102617) (680-144854-14), SB-207-2 (0-2) (102617) (680-144854-16) and SB-207-3 (0-2) (102617) (680-144854-17). These analytes have been qualified; however, the peak(s) did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for 320-192576 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recoveries were within



# Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Job ID: 680-144854-2 (Continued)

### Laboratory: TestAmerica Savannah (Continued)

acceptance limits.

There are one or more Ion abundance ratios outside criteria for the Isotope Dilution Analytes (IDA) associated with the following samples: SB-204-1 (0-2) (102617) (680-144854-12), SB-204-1 (0-2) (102617) (680-144854-12[MS]) and SB-204-1 (0-2) (102617) (680-144854-12[MSD]). The theoretical area for the IDA was used to quantitate recovery and target concentration.

Several analytes failed the recovery criteria low for the MS/MSD of sample SB-204-1 (0-2) (102617) (680-144854-12) in batch 320-197081. Several analytes exceeded the RPD limit.

The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

Samples SB-204-1 (0-2) (102617) (680-144854-12)[20X], SB-204-2 (0-2) (102617) (680-144854-13)[20X], SB-204-3 (0-2) (102617) (680-144854-14)[20X], SB-207-1 (0-2) (102617) (680-144854-15)[5X], SB-207-2 (0-2) (102617) (680-144854-16)[5X] and SB-207-3 (0-2) (102617) (680-144854-17)[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.

### DIOXINS AND FURANS

Samples SB-204-1 (0-2) (102617) (680-144854-12), SB-204-2 (0-2) (102617) (680-144854-13), SB-204-3 (0-2) (102617) (680-144854-14), SB-207-1 (0-2) (102617) (680-144854-15), SB-207-2 (0-2) (102617) (680-144854-16) and SB-207-3 (0-2) (102617) (680-144854-17) were analyzed for dioxins and furans in accordance with EPA Method 8290A. The samples were prepared on 11/02/2017 and analyzed on 11/15/2017, 11/16/2017 and 11/17/2017.

Method(s) 8290A: The following samples exhibited elevated noise or matrix interferences for one or more analytes causing elevation of the detection limit (EDL): SB-204-3 (0-2) (102617) (680-144854-14) and SB-207-2 (0-2) (102617) (680-144854-16). The reporting limit (RL) for the affected analytes has been raised to be equal to the EDL, and a "G" qualifier applied.

The concentration of one or more analytes associated with the following sample exceeded the instrument calibration range: SB-207-2 (0-2) (102617) (680-144854-16). These analytes have been qualified; however, the peaks did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range.

The Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: SB-204-3 (0-2) (102617) (680-144854-14). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample(s). All detection limits are below the lower calibration.

The Isotope Dilution Analyte (IDA) 13C-2,3,7,8-TCDF recovery associated with the following sample is below the method recommended limit: SB-204-3 (0-2) (102617) (680-144854-14). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

The following samples exhibited elevated noise or matrix interferences for one or more analytes causing elevation of the detection limit (EDL): SB-204-3 (0-2) (102617) (680-144854-14). The reporting limit (RL) for the affected analytes has been raised to be equal to the EDL, and a "G" qualifier applied.

The following samples exhibited elevated noise or matrix interferences for one or more analytes causing elevation of the detection limit (EDL): SB-204-1 (0-2) (102617) (680-144854-12), SB-204-1 (0-2) (102617) (680-144854-12[MS]) and SB-204-2 (0-2) (102617) (680-144854-13). The reporting limit (RL) for the affected analytes has been raised to be equal to the EDL, and a "G" qualifier applied.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 320-192583 and analytical batch 320-195126 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Ion abundance ratios are outside criteria for the Isotope Dilution Analyte (IDA) 13C-1,2,3,4,6,7,8-HpCDD associated with the following



## Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

### Job ID: 680-144854-2 (Continued)

#### Laboratory: TestAmerica Savannah (Continued)

samples: SB-204-1 (0-2) (102617) (680-144854-12[MS]) and SB-204-1 (0-2) (102617) (680-144854-12[MSD]). The theoretical area for the IDA was used to quantitate recovery and target concentration.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **CHLORINATED BIPHENYL CONGENERS**

Samples SB-204-1 (0-2) (102617) (680-144854-12), SB-204-2 (0-2) (102617) (680-144854-13), SB-204-3 (0-2) (102617) (680-144854-14), SB-207-1 (0-2) (102617) (680-144854-15), SB-207-2 (0-2) (102617) (680-144854-16) and SB-207-3 (0-2) (102617) (680-144854-17) were analyzed for chlorinated biphenyl congeners in accordance with EPA method 1668C. The samples were analyzed on 12/08/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



# Sample Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-144854-12	SB-204-1 (0-2) (102617)	Solid	10/26/17 15:00	10/27/17 13:50
680-144854-13	SB-204-2 (0-2) (102617)	Solid	10/26/17 15:10	10/27/17 13:50
680-144854-14	SB-204-3 (0-2) (102617)	Solid	10/26/17 15:20	10/27/17 13:50
680-144854-15	SB-207-1 (0-2) (102617)	Solid	10/26/17 15:30	10/27/17 13:50
680-144854-16	SB-207-2 (0-2) (102617)	Solid	10/26/17 15:40	10/27/17 13:50
680-144854-17	SB-207-3 (0-2) (102617)	Solid	10/26/17 15:50	10/27/17 13:50



# Method Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

Method	Method Description	Protocol	Laboratory
1668C	Chlorinated Biphenyl Congeners (HRGC/HRMS)	EPA	TAL SAC
8290A	Dioxins and Furans (HRGC/HRMS)	SW846	TAL SAC
None	Total PCB Calculation from HRMS PCB-Congeners	TAL SOP	TAL SAC

## Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

## Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



## Definitions/Glossary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

### Qualifiers

#### Dioxin

Qualifier	Qualifier Description
G	The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference
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.
E	Result exceeded calibration range.
q	The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.
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.
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.
*	Isotope Dilution analyte is outside acceptance limits.

### 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)



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

Client Sample ID: SB-204-1 (0-2) (102617)

Lab Sample ID: 680-144854-12

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-1	0.000029		0.000024	0.0000005	mg/Kg	1		✱	1668C	Total/NA
PCB-2	0.0000040	J q	0.000024	0.0000004	mg/Kg	1		✱	1668C	Total/NA
PCB-3	0.000013	J	0.000024	0.0000004	mg/Kg	1		✱	1668C	Total/NA
PCB-4	0.000097		0.000024	0.000013	mg/Kg	1		✱	1668C	Total/NA
PCB-5	0.000024		0.000024	0.0000037	mg/Kg	1		✱	1668C	Total/NA
PCB-6	0.000046		0.000024	0.0000039	mg/Kg	1		✱	1668C	Total/NA
PCB-8	0.00022		0.000024	0.0000038	mg/Kg	1		✱	1668C	Total/NA
PCB-9	0.000015	J	0.000024	0.0000039	mg/Kg	1		✱	1668C	Total/NA
PCB-11	0.0000061	J	0.000024	0.0000037	mg/Kg	1		✱	1668C	Total/NA
PCB-12/13	0.000020	J q	0.000047	0.0000037	mg/Kg	1		✱	1668C	Total/NA
PCB-15	0.000086		0.000024	0.0000036	mg/Kg	1		✱	1668C	Total/NA
PCB-16	0.00031		0.000024	0.0000014	mg/Kg	1		✱	1668C	Total/NA
PCB-17	0.00027		0.000024	0.0000011	mg/Kg	1		✱	1668C	Total/NA
PCB-18/30	0.00077	B	0.000047	0.0000009	mg/Kg	1		✱	1668C	Total/NA
PCB-19	0.000080		0.000024	0.0000013	mg/Kg	1		✱	1668C	Total/NA
PCB-20/28	0.0012	B	0.000047	0.000021	mg/Kg	1		✱	1668C	Total/NA
PCB-21/33	0.0015	B	0.000047	0.000020	mg/Kg	1		✱	1668C	Total/NA
PCB-22	0.00038		0.000024	0.000022	mg/Kg	1		✱	1668C	Total/NA
PCB-24	0.000011	J	0.000024	0.0000008	mg/Kg	1		✱	1668C	Total/NA
PCB-25	0.000092		0.000024	0.000020	mg/Kg	1		✱	1668C	Total/NA
PCB-26/29	0.00018		0.000047	0.000020	mg/Kg	1		✱	1668C	Total/NA
PCB-27	0.000042		0.000024	0.0000008	mg/Kg	1		✱	1668C	Total/NA
PCB-31	0.0015	B	0.000024	0.000019	mg/Kg	1		✱	1668C	Total/NA
PCB-32	0.00022		0.000024	0.0000007	mg/Kg	1		✱	1668C	Total/NA
PCB-35	0.000028		0.000024	0.000021	mg/Kg	1		✱	1668C	Total/NA
PCB-37	0.00050	F1	0.000024	0.000022	mg/Kg	1		✱	1668C	Total/NA
PCB-40/71	0.0031	B	0.000047	0.000026	mg/Kg	1		✱	1668C	Total/NA
PCB-41	0.00029	G	0.000030	0.000030	mg/Kg	1		✱	1668C	Total/NA
PCB-42	0.0016	G B	0.000028	0.000028	mg/Kg	1		✱	1668C	Total/NA
PCB-43	0.00021	q G	0.000031	0.000031	mg/Kg	1		✱	1668C	Total/NA
PCB-44/47/65	0.018	E B	0.000071	0.000024	mg/Kg	1		✱	1668C	Total/NA
PCB-45	0.00043	G	0.000029	0.000029	mg/Kg	1		✱	1668C	Total/NA
PCB-46	0.00022	G	0.000030	0.000030	mg/Kg	1		✱	1668C	Total/NA
PCB-48	0.00098	G B	0.000026	0.000026	mg/Kg	1		✱	1668C	Total/NA
PCB-49/69	0.0099	E B	0.000047	0.000021	mg/Kg	1		✱	1668C	Total/NA
PCB-50/53	0.00097	B	0.000047	0.000024	mg/Kg	1		✱	1668C	Total/NA
PCB-51	0.00016		0.000024	0.000024	mg/Kg	1		✱	1668C	Total/NA
PCB-54	0.0000065	J	0.000024	0.0000003	mg/Kg	1		✱	1668C	Total/NA
PCB-56	0.0049	E G	0.00023	0.00023	mg/Kg	1		✱	1668C	Total/NA
PCB-59/62/75	0.00045		0.000071	0.000019	mg/Kg	1		✱	1668C	Total/NA
PCB-60	0.0020	G	0.00022	0.00022	mg/Kg	1		✱	1668C	Total/NA
PCB-61/70/74/76	0.047	E G B	0.00021	0.00021	mg/Kg	1		✱	1668C	Total/NA
PCB-63	0.00049	G	0.00020	0.00020	mg/Kg	1		✱	1668C	Total/NA
PCB-64	0.0056	E B	0.000024	0.000018	mg/Kg	1		✱	1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

Client Sample ID: SB-204-1 (0-2) (102617) (Continued)

Lab Sample ID: 680-144854-12

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-66	0.015	E G B	0.00022	0.00022	mg/Kg	1	✱		1668C	Total/NA
PCB-77	0.0019	G	0.00021	0.00021	mg/Kg	1	✱		1668C	Total/NA
PCB-78	0.00047	q G	0.00022	0.00022	mg/Kg	1	✱		1668C	Total/NA
PCB-79	0.00097	G	0.00020	0.00020	mg/Kg	1	✱		1668C	Total/NA
PCB-80	0.00063	G	0.00019	0.00019	mg/Kg	1	✱		1668C	Total/NA
PCB-82	0.013	E G	0.0014	0.0014	mg/Kg	1	✱		1668C	Total/NA
PCB-84	0.027	E G B	0.0013	0.0013	mg/Kg	1	✱		1668C	Total/NA
PCB-85/116/117	0.020	E G	0.00095	0.00095	mg/Kg	1	✱		1668C	Total/NA
PCB-88/91	0.012	E G	0.0011	0.0011	mg/Kg	1	✱		1668C	Total/NA
PCB-92	0.021	E G B	0.0012	0.0012	mg/Kg	1	✱		1668C	Total/NA
PCB-107/124	0.0059	E G	0.00088	0.00088	mg/Kg	1	✱		1668C	Total/NA
PCB-96	0.00041		0.000024	0.0000008	mg/Kg	1	✱		1668C	Total/NA
PCB-98/102	0.0014	q G	0.0011	0.0011	mg/Kg	1	✱		1668C	Total/NA
PCB-99	0.046	E G B	0.00093	0.00093	mg/Kg	1	✱		1668C	Total/NA
PCB-104	0.0000048	J	0.000024	0.0000010	mg/Kg	1	✱		1668C	Total/NA
PCB-109	0.0095	E G	0.00082	0.00082	mg/Kg	1	✱		1668C	Total/NA
PCB-114	0.0035	E G	0.00086	0.00086	mg/Kg	1	✱		1668C	Total/NA
PCB-122	0.0012	G	0.00095	0.00095	mg/Kg	1	✱		1668C	Total/NA
PCB-123	0.0020	G	0.00086	0.00086	mg/Kg	1	✱		1668C	Total/NA
PCB-128/166	0.026	E G B	0.00022	0.00022	mg/Kg	1	✱		1668C	Total/NA
PCB-130	0.0099	E G	0.00029	0.00029	mg/Kg	1	✱		1668C	Total/NA
PCB-131	0.0020	G	0.00026	0.00026	mg/Kg	1	✱		1668C	Total/NA
PCB-132	0.041	E G B	0.00026	0.00026	mg/Kg	1	✱		1668C	Total/NA
PCB-133	0.0016	G	0.00026	0.00026	mg/Kg	1	✱		1668C	Total/NA
PCB-134/143	0.0071	E G	0.00027	0.00027	mg/Kg	1	✱		1668C	Total/NA
PCB-135/151	0.028	E G B	0.00024	0.00024	mg/Kg	1	✱		1668C	Total/NA
PCB-136	0.011	E G B	0.00018	0.00018	mg/Kg	1	✱		1668C	Total/NA
PCB-137	0.0079	E G	0.00022	0.00022	mg/Kg	1	✱		1668C	Total/NA
PCB-139/140	0.0025	G	0.00023	0.00023	mg/Kg	1	✱		1668C	Total/NA
PCB-141	0.021	E G B	0.00026	0.00026	mg/Kg	1	✱		1668C	Total/NA
PCB-144	0.0044	E G	0.00024	0.00024	mg/Kg	1	✱		1668C	Total/NA
PCB-146	0.014	E G	0.00022	0.00022	mg/Kg	1	✱		1668C	Total/NA
PCB-156/157	0.022	E G B F2	0.00019	0.00019	mg/Kg	1	✱		1668C	Total/NA
PCB-158	0.016	E G B	0.00018	0.00018	mg/Kg	1	✱		1668C	Total/NA
PCB-159	0.00034	G	0.00013	0.00013	mg/Kg	1	✱		1668C	Total/NA
PCB-162	0.00052	G	0.00013	0.00013	mg/Kg	1	✱		1668C	Total/NA
PCB-164	0.0097	E G	0.00021	0.00021	mg/Kg	1	✱		1668C	Total/NA
PCB-167	0.0065	E G F2	0.00012	0.00012	mg/Kg	1	✱		1668C	Total/NA
PCB-170	0.015	E G B	0.000028	0.000028	mg/Kg	1	✱		1668C	Total/NA
PCB-171/173	0.0050	E	0.000047	0.000029	mg/Kg	1	✱		1668C	Total/NA
PCB-172	0.0023	G	0.000028	0.000028	mg/Kg	1	✱		1668C	Total/NA
PCB-174	0.014	E G B	0.000031	0.000031	mg/Kg	1	✱		1668C	Total/NA
PCB-175	0.00057		0.000024	0.0000055	mg/Kg	1	✱		1668C	Total/NA
PCB-176	0.0015		0.000024	0.0000040	mg/Kg	1	✱		1668C	Total/NA
PCB-177	0.0074	E G	0.000028	0.000028	mg/Kg	1	✱		1668C	Total/NA
PCB-178	0.0022		0.000024	0.0000058	mg/Kg	1	✱		1668C	Total/NA
PCB-179	0.0043	E	0.000024	0.0000042	mg/Kg	1	✱		1668C	Total/NA
PCB-180/193	0.027	E B	0.000047	0.000023	mg/Kg	1	✱		1668C	Total/NA
PCB-181	0.00028	G	0.000025	0.000025	mg/Kg	1	✱		1668C	Total/NA
PCB-182	0.000093		0.000024	0.0000052	mg/Kg	1	✱		1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

Client Sample ID: SB-204-1 (0-2) (102617) (Continued)

Lab Sample ID: 680-144854-12

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-183	0.0067	E B	0.000024	0.000022	mg/Kg	1	☆	1668C	Total/NA	
PCB-185	0.0011	G	0.000027	0.000027	mg/Kg	1	☆	1668C	Total/NA	
PCB-187	0.013	E B	0.000024	0.0000052	mg/Kg	1	☆	1668C	Total/NA	
PCB-189	0.00053	q F1	0.0000024	0.0000017	mg/Kg	1	☆	1668C	Total/NA	
PCB-190	0.0027	E B	0.000024	0.000020	mg/Kg	1	☆	1668C	Total/NA	
PCB-191	0.00059		0.000024	0.000021	mg/Kg	1	☆	1668C	Total/NA	
PCB-194	0.0043	E B	0.000024	0.0000018	mg/Kg	1	☆	1668C	Total/NA	
PCB-195	0.0018		0.000024	0.0000019	mg/Kg	1	☆	1668C	Total/NA	
PCB-196	0.0025	E	0.000024	0.000022	mg/Kg	1	☆	1668C	Total/NA	
PCB-197	0.00018		0.000024	0.000016	mg/Kg	1	☆	1668C	Total/NA	
PCB-198/199	0.0056	E	0.000047	0.000024	mg/Kg	1	☆	1668C	Total/NA	
PCB-200	0.00082		0.000024	0.000019	mg/Kg	1	☆	1668C	Total/NA	
PCB-201	0.00070		0.000024	0.000017	mg/Kg	1	☆	1668C	Total/NA	
PCB-202	0.0011		0.000024	0.000022	mg/Kg	1	☆	1668C	Total/NA	
PCB-203	0.0036	E	0.000024	0.000022	mg/Kg	1	☆	1668C	Total/NA	
PCB-205	0.00023	F1	0.000024	0.0000013	mg/Kg	1	☆	1668C	Total/NA	
PCB-206	0.0025	E F2	0.000024	0.0000011	mg/Kg	1	☆	1668C	Total/NA	
PCB-207	0.00033		0.000024	0.0000008	mg/Kg	1	☆	1668C	Total/NA	
PCB-208	0.00060	F1	0.000024	0.0000009	mg/Kg	1	☆	1668C	Total/NA	
PCB-209	0.00024	B F1	0.000024	0.0000002	mg/Kg	1	☆	1668C	Total/NA	
PCB-52 - DL	0.052	E B	0.00047	0.000050	mg/Kg	20	☆	1668C	Total/NA	
PCB-86/87/97/108/119/125 - DL	0.084	B	0.0028	0.0012	mg/Kg	20	☆	1668C	Total/NA	
PCB-90/101/113 - DL	0.12	B	0.0014	0.0012	mg/Kg	20	☆	1668C	Total/NA	
PCB-95 - DL	0.081	E G B	0.0013	0.0013	mg/Kg	20	☆	1668C	Total/NA	
PCB-105 - DL	0.056	E G B F2	0.0011	0.0011	mg/Kg	20	☆	1668C	Total/NA	
PCB-110/115 - DL	0.15	E G B	0.0010	0.0010	mg/Kg	20	☆	1668C	Total/NA	
PCB-118 - DL	0.13	E G B F2	0.00098	0.00098	mg/Kg	20	☆	1668C	Total/NA	
PCB-129/138/163 - DL	0.15	E B	0.0014	0.00051	mg/Kg	20	☆	1668C	Total/NA	
PCB-147/149 - DL	0.077	B	0.00095	0.00053	mg/Kg	20	☆	1668C	Total/NA	
PCB-153/168 - DL	0.091	B	0.00095	0.00045	mg/Kg	20	☆	1668C	Total/NA	
Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Polychlorinated biphenyls, Total	1.6		0.0000020	0.0000050	mg/Kg	1			None	Total/NA

Client Sample ID: SB-204-2 (0-2) (102617)

Lab Sample ID: 680-144854-13

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-1	0.00022	J	0.00047	0.0000021	mg/Kg	20	☆	1668C	Total/NA	
PCB-2	0.000029	J	0.00047	0.0000017	mg/Kg	20	☆	1668C	Total/NA	
PCB-3	0.000096	J	0.00047	0.0000019	mg/Kg	20	☆	1668C	Total/NA	
PCB-4	0.00019	J	0.00047	0.000019	mg/Kg	20	☆	1668C	Total/NA	
PCB-5	0.000023	J	0.00047	0.000016	mg/Kg	20	☆	1668C	Total/NA	
PCB-6	0.000082	J	0.00047	0.000017	mg/Kg	20	☆	1668C	Total/NA	
PCB-7	0.000025	J	0.00047	0.000016	mg/Kg	20	☆	1668C	Total/NA	
PCB-8	0.00046	J	0.00047	0.000017	mg/Kg	20	☆	1668C	Total/NA	
PCB-9	0.000031	J	0.00047	0.000017	mg/Kg	20	☆	1668C	Total/NA	
PCB-12/13	0.000052	J	0.00093	0.000016	mg/Kg	20	☆	1668C	Total/NA	
PCB-15	0.00015	J	0.00047	0.000017	mg/Kg	20	☆	1668C	Total/NA	
PCB-16	0.00021	J	0.00047	0.0000054	mg/Kg	20	☆	1668C	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

Client Sample ID: SB-204-2 (0-2) (102617) (Continued)

Lab Sample ID: 680-144854-13

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-17	0.00053		0.00047	0.0000040	mg/Kg	20	☆	1668C		Total/NA
PCB-18/30	0.00052	J B	0.00093	0.0000036	mg/Kg	20	☆	1668C		Total/NA
PCB-19	0.00011	J	0.00047	0.0000049	mg/Kg	20	☆	1668C		Total/NA
PCB-20/28	0.0018	B	0.00093	0.000024	mg/Kg	20	☆	1668C		Total/NA
PCB-21/33	0.0011	B	0.00093	0.000023	mg/Kg	20	☆	1668C		Total/NA
PCB-22	0.00026	J	0.00047	0.000025	mg/Kg	20	☆	1668C		Total/NA
PCB-24	0.0000036	J	0.00047	0.0000032	mg/Kg	20	☆	1668C		Total/NA
PCB-25	0.00012	J	0.00047	0.000023	mg/Kg	20	☆	1668C		Total/NA
PCB-26/29	0.00013	J	0.00093	0.000023	mg/Kg	20	☆	1668C		Total/NA
PCB-27	0.000046	J	0.00047	0.0000031	mg/Kg	20	☆	1668C		Total/NA
PCB-31	0.0010	B	0.00047	0.000022	mg/Kg	20	☆	1668C		Total/NA
PCB-32	0.00075		0.00047	0.0000029	mg/Kg	20	☆	1668C		Total/NA
PCB-34	0.000037	J	0.00047	0.000024	mg/Kg	20	☆	1668C		Total/NA
PCB-35	0.000036	J	0.00047	0.000024	mg/Kg	20	☆	1668C		Total/NA
PCB-37	0.00038	J	0.00047	0.000025	mg/Kg	20	☆	1668C		Total/NA
PCB-40/71	0.0054	B	0.00093	0.000037	mg/Kg	20	☆	1668C		Total/NA
PCB-41	0.000068	J	0.00047	0.000044	mg/Kg	20	☆	1668C		Total/NA
PCB-42	0.0022	B	0.00047	0.000041	mg/Kg	20	☆	1668C		Total/NA
PCB-43	0.00013	J	0.00047	0.000045	mg/Kg	20	☆	1668C		Total/NA
PCB-44/47/65	0.021	B	0.0014	0.000035	mg/Kg	20	☆	1668C		Total/NA
PCB-46	0.00052		0.00047	0.000044	mg/Kg	20	☆	1668C		Total/NA
PCB-48	0.00043	J B	0.00047	0.000037	mg/Kg	20	☆	1668C		Total/NA
PCB-49/69	0.014	B	0.00093	0.000031	mg/Kg	20	☆	1668C		Total/NA
PCB-50/53	0.0033	B	0.00093	0.000036	mg/Kg	20	☆	1668C		Total/NA
PCB-51	0.0023		0.00047	0.000035	mg/Kg	20	☆	1668C		Total/NA
PCB-52	0.039	B	0.00047	0.000038	mg/Kg	20	☆	1668C		Total/NA
PCB-54	0.00011	J	0.00047	0.0000015	mg/Kg	20	☆	1668C		Total/NA
PCB-56	0.0029		0.00047	0.00018	mg/Kg	20	☆	1668C		Total/NA
PCB-59/62/75	0.00049	J	0.0014	0.000027	mg/Kg	20	☆	1668C		Total/NA
PCB-60	0.0010		0.00047	0.00017	mg/Kg	20	☆	1668C		Total/NA
PCB-61/70/74/76	0.033	B	0.0019	0.00017	mg/Kg	20	☆	1668C		Total/NA
PCB-63	0.00043	J	0.00047	0.00015	mg/Kg	20	☆	1668C		Total/NA
PCB-64	0.0042	B	0.00047	0.000026	mg/Kg	20	☆	1668C		Total/NA
PCB-66	0.016	B	0.00047	0.00017	mg/Kg	20	☆	1668C		Total/NA
PCB-68	0.00030	J	0.00047	0.00015	mg/Kg	20	☆	1668C		Total/NA
PCB-72	0.00039	J	0.00047	0.00016	mg/Kg	20	☆	1668C		Total/NA
PCB-73	0.000091	J	0.00047	0.000028	mg/Kg	20	☆	1668C		Total/NA
PCB-77	0.0014	G	0.00018	0.00018	mg/Kg	20	☆	1668C		Total/NA
PCB-79	0.00064		0.00047	0.00015	mg/Kg	20	☆	1668C		Total/NA
PCB-82	0.0084	G	0.0012	0.0012	mg/Kg	20	☆	1668C		Total/NA
PCB-84	0.019	G B	0.0011	0.0011	mg/Kg	20	☆	1668C		Total/NA
PCB-85/116/117	0.014		0.0014	0.00082	mg/Kg	20	☆	1668C		Total/NA
PCB-86/87/97/108/119/125	0.058	B	0.0028	0.00086	mg/Kg	20	☆	1668C		Total/NA
PCB-88/91	0.011	G	0.00095	0.00095	mg/Kg	20	☆	1668C		Total/NA
PCB-90/101/113	0.087	B	0.0014	0.00087	mg/Kg	20	☆	1668C		Total/NA
PCB-92	0.017	G B	0.0010	0.0010	mg/Kg	20	☆	1668C		Total/NA
PCB-107/124	0.0039		0.00093	0.00076	mg/Kg	20	☆	1668C		Total/NA
PCB-95	0.058	E G B	0.00094	0.00094	mg/Kg	20	☆	1668C		Total/NA
PCB-96	0.00050		0.00047	0.0000018	mg/Kg	20	☆	1668C		Total/NA
PCB-98/102	0.0012		0.00093	0.00092	mg/Kg	20	☆	1668C		Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

Client Sample ID: SB-204-2 (0-2) (102617) (Continued)

Lab Sample ID: 680-144854-13

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-99	0.036	G B	0.00080	0.00080	mg/Kg	20	☆	1668C	Total/NA	
PCB-104	0.000021	J	0.00047	0.0000018	mg/Kg	20	☆	1668C	Total/NA	
PCB-105	0.039	G B	0.00080	0.00080	mg/Kg	20	☆	1668C	Total/NA	
PCB-110/115	0.11	E B	0.00093	0.00075	mg/Kg	20	☆	1668C	Total/NA	
PCB-109	0.0070	G	0.00072	0.00072	mg/Kg	20	☆	1668C	Total/NA	
PCB-114	0.0015	G	0.00081	0.00081	mg/Kg	20	☆	1668C	Total/NA	
PCB-118	0.096	E G B	0.00072	0.00072	mg/Kg	20	☆	1668C	Total/NA	
PCB-123	0.0013	G	0.00084	0.00084	mg/Kg	20	☆	1668C	Total/NA	
PCB-128/166	0.020	B	0.00093	0.00036	mg/Kg	20	☆	1668C	Total/NA	
PCB-129/138/163	0.11	B	0.0014	0.00038	mg/Kg	20	☆	1668C	Total/NA	
PCB-130	0.0075	G	0.00048	0.00048	mg/Kg	20	☆	1668C	Total/NA	
PCB-131	0.0012		0.00047	0.00044	mg/Kg	20	☆	1668C	Total/NA	
PCB-132	0.031	B	0.00047	0.00044	mg/Kg	20	☆	1668C	Total/NA	
PCB-133	0.0011		0.00047	0.00043	mg/Kg	20	☆	1668C	Total/NA	
PCB-134/143	0.0048		0.00093	0.00045	mg/Kg	20	☆	1668C	Total/NA	
PCB-135/151	0.019	B	0.00093	0.00041	mg/Kg	20	☆	1668C	Total/NA	
PCB-136	0.0080	B	0.00047	0.00030	mg/Kg	20	☆	1668C	Total/NA	
PCB-137	0.0057		0.00047	0.00036	mg/Kg	20	☆	1668C	Total/NA	
PCB-139/140	0.0017		0.00093	0.00039	mg/Kg	20	☆	1668C	Total/NA	
PCB-141	0.014	B	0.00047	0.00043	mg/Kg	20	☆	1668C	Total/NA	
PCB-144	0.0027		0.00047	0.00039	mg/Kg	20	☆	1668C	Total/NA	
PCB-146	0.011		0.00047	0.00037	mg/Kg	20	☆	1668C	Total/NA	
PCB-147/149	0.055	B	0.00093	0.00039	mg/Kg	20	☆	1668C	Total/NA	
PCB-153/168	0.065	B	0.00093	0.00033	mg/Kg	20	☆	1668C	Total/NA	
PCB-154	0.00038	J	0.00047	0.00035	mg/Kg	20	☆	1668C	Total/NA	
PCB-156/157	0.016	G B	0.00012	0.00012	mg/Kg	20	☆	1668C	Total/NA	
PCB-158	0.011	B	0.00047	0.00030	mg/Kg	20	☆	1668C	Total/NA	
PCB-159	0.00019	J	0.00047	0.000086	mg/Kg	20	☆	1668C	Total/NA	
PCB-162	0.00033	J	0.00047	0.000083	mg/Kg	20	☆	1668C	Total/NA	
PCB-164	0.0070		0.00047	0.00036	mg/Kg	20	☆	1668C	Total/NA	
PCB-167	0.0046	G	0.000076	0.000076	mg/Kg	20	☆	1668C	Total/NA	
PCB-170	0.010	B	0.00047	0.000014	mg/Kg	20	☆	1668C	Total/NA	
PCB-171/173	0.0033		0.00093	0.000015	mg/Kg	20	☆	1668C	Total/NA	
PCB-172	0.0015		0.00047	0.000014	mg/Kg	20	☆	1668C	Total/NA	
PCB-174	0.0085	B	0.00047	0.000015	mg/Kg	20	☆	1668C	Total/NA	
PCB-175	0.00034	J	0.00047	0.0000040	mg/Kg	20	☆	1668C	Total/NA	
PCB-176	0.00086		0.00047	0.0000029	mg/Kg	20	☆	1668C	Total/NA	
PCB-177	0.0049		0.00047	0.000014	mg/Kg	20	☆	1668C	Total/NA	
PCB-178	0.0014		0.00047	0.0000042	mg/Kg	20	☆	1668C	Total/NA	
PCB-179	0.0025		0.00047	0.0000031	mg/Kg	20	☆	1668C	Total/NA	
PCB-180/193	0.016	B	0.00093	0.000012	mg/Kg	20	☆	1668C	Total/NA	
PCB-181	0.00023	J	0.00047	0.000013	mg/Kg	20	☆	1668C	Total/NA	
PCB-182	0.000078	J	0.00047	0.0000038	mg/Kg	20	☆	1668C	Total/NA	
PCB-183	0.0039	B	0.00047	0.000011	mg/Kg	20	☆	1668C	Total/NA	
PCB-185	0.00056		0.00047	0.000014	mg/Kg	20	☆	1668C	Total/NA	
PCB-187	0.0075	B	0.00047	0.0000038	mg/Kg	20	☆	1668C	Total/NA	
PCB-188	0.000013	J	0.00047	0.0000034	mg/Kg	20	☆	1668C	Total/NA	
PCB-189	0.00045		0.000047	0.0000024	mg/Kg	20	☆	1668C	Total/NA	
PCB-190	0.0018	B	0.00047	0.000010	mg/Kg	20	☆	1668C	Total/NA	
PCB-191	0.00037	J	0.00047	0.000011	mg/Kg	20	☆	1668C	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Client Sample ID: SB-204-2 (0-2) (102617) (Continued)

## Lab Sample ID: 680-144854-13

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-194	0.0021	B	0.00047	0.0000022	mg/Kg	20	☼	1668C	Total/NA
PCB-195	0.00076		0.00047	0.0000024	mg/Kg	20	☼	1668C	Total/NA
PCB-196	0.0011		0.00047	0.0000073	mg/Kg	20	☼	1668C	Total/NA
PCB-197	0.000086	J	0.00047	0.0000051	mg/Kg	20	☼	1668C	Total/NA
PCB-198/199	0.0025		0.00093	0.0000078	mg/Kg	20	☼	1668C	Total/NA
PCB-200	0.00032	J	0.00047	0.0000062	mg/Kg	20	☼	1668C	Total/NA
PCB-201	0.00029	J	0.00047	0.0000056	mg/Kg	20	☼	1668C	Total/NA
PCB-202	0.00049		0.00047	0.0000067	mg/Kg	20	☼	1668C	Total/NA
PCB-203	0.0016		0.00047	0.0000073	mg/Kg	20	☼	1668C	Total/NA
PCB-205	0.00012	J	0.00047	0.0000017	mg/Kg	20	☼	1668C	Total/NA
PCB-206	0.0012		0.00047	0.0000057	mg/Kg	20	☼	1668C	Total/NA
PCB-207	0.00016	J	0.00047	0.0000045	mg/Kg	20	☼	1668C	Total/NA
PCB-208	0.00029	J	0.00047	0.0000055	mg/Kg	20	☼	1668C	Total/NA
PCB-209	0.00010	J B	0.00047	0.0000017	mg/Kg	20	☼	1668C	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Polychlorinated biphenyls, Total	1.2		0.0000020	0.0000050	mg/Kg	1		None	Total/NA

## Client Sample ID: SB-204-3 (0-2) (102617)

## Lab Sample ID: 680-144854-14

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1	0.000014	J	0.00050	0.0000017	mg/Kg	20	☼	1668C	Total/NA
PCB-2	0.0000039	J	0.00050	0.0000015	mg/Kg	20	☼	1668C	Total/NA
PCB-3	0.0000091	J	0.00050	0.0000018	mg/Kg	20	☼	1668C	Total/NA
PCB-4	0.000059	J	0.00050	0.000023	mg/Kg	20	☼	1668C	Total/NA
PCB-6	0.000031	J	0.00050	0.000019	mg/Kg	20	☼	1668C	Total/NA
PCB-8	0.00012	J	0.00050	0.000018	mg/Kg	20	☼	1668C	Total/NA
PCB-11	0.000055	J	0.00050	0.000018	mg/Kg	20	☼	1668C	Total/NA
PCB-15	0.00013	J	0.00050	0.000021	mg/Kg	20	☼	1668C	Total/NA
PCB-16	0.00021	J	0.00050	0.0000094	mg/Kg	20	☼	1668C	Total/NA
PCB-17	0.00020	J	0.00050	0.0000071	mg/Kg	20	☼	1668C	Total/NA
PCB-18/30	0.00057	J B	0.0010	0.0000062	mg/Kg	20	☼	1668C	Total/NA
PCB-19	0.000066	J	0.00050	0.0000071	mg/Kg	20	☼	1668C	Total/NA
PCB-20/28	0.00069	J B	0.0010	0.000022	mg/Kg	20	☼	1668C	Total/NA
PCB-21/33	0.00039	J B	0.0010	0.000020	mg/Kg	20	☼	1668C	Total/NA
PCB-22	0.00031	J	0.00050	0.000022	mg/Kg	20	☼	1668C	Total/NA
PCB-24	0.0000066	J	0.00050	0.0000057	mg/Kg	20	☼	1668C	Total/NA
PCB-25	0.000045	J	0.00050	0.000021	mg/Kg	20	☼	1668C	Total/NA
PCB-26/29	0.00016	J	0.0010	0.000021	mg/Kg	20	☼	1668C	Total/NA
PCB-27	0.000049	J	0.00050	0.0000054	mg/Kg	20	☼	1668C	Total/NA
PCB-31	0.0011	B	0.00050	0.000020	mg/Kg	20	☼	1668C	Total/NA
PCB-32	0.00020	J	0.00050	0.0000051	mg/Kg	20	☼	1668C	Total/NA
PCB-35	0.00012	J	0.00050	0.000022	mg/Kg	20	☼	1668C	Total/NA
PCB-37	0.00082		0.00050	0.000026	mg/Kg	20	☼	1668C	Total/NA
PCB-40/71	0.0043	B	0.0010	0.000062	mg/Kg	20	☼	1668C	Total/NA
PCB-41	0.00029	J	0.00050	0.000072	mg/Kg	20	☼	1668C	Total/NA
PCB-42	0.0019	B	0.00050	0.000067	mg/Kg	20	☼	1668C	Total/NA
PCB-43	0.00014	J	0.00050	0.000074	mg/Kg	20	☼	1668C	Total/NA
PCB-44/47/65	0.022	B	0.0015	0.000058	mg/Kg	20	☼	1668C	Total/NA
PCB-45	0.00059		0.00050	0.000070	mg/Kg	20	☼	1668C	Total/NA
PCB-46	0.00029	J	0.00050	0.000073	mg/Kg	20	☼	1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

Client Sample ID: SB-204-3 (0-2) (102617) (Continued)

Lab Sample ID: 680-144854-14

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-48	0.0011	B	0.00050	0.000062	mg/Kg	20	☆	1668C	Total/NA	
PCB-49/69	0.012	B	0.0010	0.000051	mg/Kg	20	☆	1668C	Total/NA	
PCB-50/53	0.0014	B	0.0010	0.000059	mg/Kg	20	☆	1668C	Total/NA	
PCB-51	0.00023	J	0.00050	0.000058	mg/Kg	20	☆	1668C	Total/NA	
PCB-52	0.065	E B	0.00050	0.000062	mg/Kg	20	☆	1668C	Total/NA	
PCB-54	0.000018	J	0.00050	0.0000027	mg/Kg	20	☆	1668C	Total/NA	
PCB-56	0.0071		0.00050	0.00031	mg/Kg	20	☆	1668C	Total/NA	
PCB-59/62/75	0.00056	J	0.0015	0.000045	mg/Kg	20	☆	1668C	Total/NA	
PCB-60	0.0024		0.00050	0.00030	mg/Kg	20	☆	1668C	Total/NA	
PCB-61/70/74/76	0.067	B	0.0020	0.00029	mg/Kg	20	☆	1668C	Total/NA	
PCB-63	0.00060		0.00050	0.00027	mg/Kg	20	☆	1668C	Total/NA	
PCB-64	0.0076	B	0.00050	0.000043	mg/Kg	20	☆	1668C	Total/NA	
PCB-66	0.017	B	0.00050	0.00030	mg/Kg	20	☆	1668C	Total/NA	
PCB-77	0.0074	G	0.00036	0.00036	mg/Kg	20	☆	1668C	Total/NA	
PCB-79	0.0020		0.00050	0.00027	mg/Kg	20	☆	1668C	Total/NA	
PCB-81	0.0027	G	0.00034	0.00034	mg/Kg	20	☆	1668C	Total/NA	
PCB-82	0.025	G	0.0034	0.0034	mg/Kg	20	☆	1668C	Total/NA	
PCB-84	0.047	G B	0.0031	0.0031	mg/Kg	20	☆	1668C	Total/NA	
PCB-85/116/117	0.032	G	0.0023	0.0023	mg/Kg	20	☆	1668C	Total/NA	
PCB-86/87/97/108/119/125	0.16	B	0.0030	0.0024	mg/Kg	20	☆	1668C	Total/NA	
PCB-88/91	0.022	G	0.0027	0.0027	mg/Kg	20	☆	1668C	Total/NA	
PCB-90/101/113	0.24	E G B	0.0025	0.0025	mg/Kg	20	☆	1668C	Total/NA	
PCB-92	0.043	G B	0.0029	0.0029	mg/Kg	20	☆	1668C	Total/NA	
PCB-107/124	0.0088	G	0.0022	0.0022	mg/Kg	20	☆	1668C	Total/NA	
PCB-95	0.14	E G B	0.0027	0.0027	mg/Kg	20	☆	1668C	Total/NA	
PCB-96	0.00079		0.00050	0.0000062	mg/Kg	20	☆	1668C	Total/NA	
PCB-98/102	0.0037	G	0.0026	0.0026	mg/Kg	20	☆	1668C	Total/NA	
PCB-99	0.090	E G B	0.0023	0.0023	mg/Kg	20	☆	1668C	Total/NA	
PCB-104	0.000013	J	0.00050	0.0000052	mg/Kg	20	☆	1668C	Total/NA	
PCB-105	0.10	E G B	0.0023	0.0023	mg/Kg	20	☆	1668C	Total/NA	
PCB-110/115	0.29	E G B	0.0022	0.0022	mg/Kg	20	☆	1668C	Total/NA	
PCB-109	0.020	G	0.0020	0.0020	mg/Kg	20	☆	1668C	Total/NA	
PCB-114	0.0041	G	0.0026	0.0026	mg/Kg	20	☆	1668C	Total/NA	
PCB-118	0.24	E G B	0.0021	0.0021	mg/Kg	20	☆	1668C	Total/NA	
PCB-126	0.0049	G	0.0026	0.0026	mg/Kg	20	☆	1668C	Total/NA	
PCB-128/166	0.060	G B	0.0012	0.0012	mg/Kg	20	☆	1668C	Total/NA	
PCB-129/138/163	0.35	E B	0.0015	0.0013	mg/Kg	20	☆	1668C	Total/NA	
PCB-130	0.026	G	0.0016	0.0016	mg/Kg	20	☆	1668C	Total/NA	
PCB-131	0.0044	G	0.0015	0.0015	mg/Kg	20	☆	1668C	Total/NA	
PCB-132	0.10	E G B	0.0015	0.0015	mg/Kg	20	☆	1668C	Total/NA	
PCB-133	0.0037	G	0.0015	0.0015	mg/Kg	20	☆	1668C	Total/NA	
PCB-134/143	0.016	G	0.0015	0.0015	mg/Kg	20	☆	1668C	Total/NA	
PCB-135/151	0.064	G B	0.0014	0.0014	mg/Kg	20	☆	1668C	Total/NA	
PCB-136	0.026	G B	0.0010	0.0010	mg/Kg	20	☆	1668C	Total/NA	
PCB-137	0.016	G	0.0012	0.0012	mg/Kg	20	☆	1668C	Total/NA	
PCB-139/140	0.0061	G	0.0013	0.0013	mg/Kg	20	☆	1668C	Total/NA	
PCB-141	0.041	G B	0.0015	0.0015	mg/Kg	20	☆	1668C	Total/NA	
PCB-144	0.0098	G	0.0013	0.0013	mg/Kg	20	☆	1668C	Total/NA	
PCB-146	0.041	G	0.0013	0.0013	mg/Kg	20	☆	1668C	Total/NA	
PCB-147/149	0.18	E G B	0.0013	0.0013	mg/Kg	20	☆	1668C	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

Client Sample ID: SB-204-3 (0-2) (102617) (Continued)

Lab Sample ID: 680-144854-14

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-153/168	0.22	E G B	0.0011	0.0011	mg/Kg	20	✱	1668C	Total/NA
PCB-154	0.0023	G	0.0012	0.0012	mg/Kg	20	✱	1668C	Total/NA
PCB-156/157	0.042	G B	0.00031	0.00031	mg/Kg	20	✱	1668C	Total/NA
PCB-158	0.033	G B	0.0010	0.0010	mg/Kg	20	✱	1668C	Total/NA
PCB-159	0.00073		0.00050	0.00022	mg/Kg	20	✱	1668C	Total/NA
PCB-162	0.0014		0.00050	0.00022	mg/Kg	20	✱	1668C	Total/NA
PCB-164	0.023	G	0.0012	0.0012	mg/Kg	20	✱	1668C	Total/NA
PCB-167	0.018	G	0.00021	0.00021	mg/Kg	20	✱	1668C	Total/NA
PCB-170	0.029	B	0.00050	0.000052	mg/Kg	20	✱	1668C	Total/NA
PCB-171/173	0.010		0.0010	0.000053	mg/Kg	20	✱	1668C	Total/NA
PCB-172	0.0046		0.00050	0.000052	mg/Kg	20	✱	1668C	Total/NA
PCB-174	0.025	B	0.00050	0.000057	mg/Kg	20	✱	1668C	Total/NA
PCB-175	0.0014		0.00050	0.000020	mg/Kg	20	✱	1668C	Total/NA
PCB-176	0.0030		0.00050	0.000014	mg/Kg	20	✱	1668C	Total/NA
PCB-177	0.017		0.00050	0.000052	mg/Kg	20	✱	1668C	Total/NA
PCB-178	0.0049		0.00050	0.000021	mg/Kg	20	✱	1668C	Total/NA
PCB-179	0.0089		0.00050	0.000015	mg/Kg	20	✱	1668C	Total/NA
PCB-180/193	0.047	B	0.0010	0.000043	mg/Kg	20	✱	1668C	Total/NA
PCB-181	0.00043	J	0.00050	0.000047	mg/Kg	20	✱	1668C	Total/NA
PCB-182	0.00023	J	0.00050	0.000019	mg/Kg	20	✱	1668C	Total/NA
PCB-183	0.014	B	0.00050	0.000041	mg/Kg	20	✱	1668C	Total/NA
PCB-184	0.000076	J	0.00050	0.000016	mg/Kg	20	✱	1668C	Total/NA
PCB-185	0.0012		0.00050	0.000050	mg/Kg	20	✱	1668C	Total/NA
PCB-187	0.027	B	0.00050	0.000019	mg/Kg	20	✱	1668C	Total/NA
PCB-188	0.00010	J	0.00050	0.000016	mg/Kg	20	✱	1668C	Total/NA
PCB-189	0.0012		0.000050	0.0000089	mg/Kg	20	✱	1668C	Total/NA
PCB-190	0.0039	B	0.00050	0.000038	mg/Kg	20	✱	1668C	Total/NA
PCB-191	0.0012		0.00050	0.000039	mg/Kg	20	✱	1668C	Total/NA
PCB-194	0.0060	B	0.00050	0.000010	mg/Kg	20	✱	1668C	Total/NA
PCB-195	0.0019		0.00050	0.000011	mg/Kg	20	✱	1668C	Total/NA
PCB-196	0.0036		0.00050	0.0000077	mg/Kg	20	✱	1668C	Total/NA
PCB-197	0.00032	J	0.00050	0.0000054	mg/Kg	20	✱	1668C	Total/NA
PCB-198/199	0.0072		0.0010	0.0000082	mg/Kg	20	✱	1668C	Total/NA
PCB-200	0.00073		0.00050	0.0000066	mg/Kg	20	✱	1668C	Total/NA
PCB-201	0.0010		0.00050	0.0000059	mg/Kg	20	✱	1668C	Total/NA
PCB-202	0.0014		0.00050	0.0000069	mg/Kg	20	✱	1668C	Total/NA
PCB-203	0.0039		0.00050	0.0000077	mg/Kg	20	✱	1668C	Total/NA
PCB-205	0.00031	J	0.00050	0.0000079	mg/Kg	20	✱	1668C	Total/NA
PCB-206	0.0029		0.00050	0.000021	mg/Kg	20	✱	1668C	Total/NA
PCB-207	0.00039	J	0.00050	0.000016	mg/Kg	20	✱	1668C	Total/NA
PCB-208	0.00064		0.00050	0.000019	mg/Kg	20	✱	1668C	Total/NA
PCB-209	0.00027	J B	0.00050	0.0000051	mg/Kg	20	✱	1668C	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Polychlorinated biphenyls, Total	3.2		0.0000020	0.0000050	mg/Kg	1		None	Total/NA

Client Sample ID: SB-207-1 (0-2) (102617)

Lab Sample ID: 680-144854-15

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1	0.0000025	J	0.00012	0.0000012	mg/Kg	5	✱	1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

Client Sample ID: SB-207-1 (0-2) (102617) (Continued)

Lab Sample ID: 680-144854-15

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-2	0.0000018	J	0.00012	0.0000009	mg/Kg	5	✱		1668C	Total/NA
PCB-3	0.0000027	J	0.00012	0.0000010	mg/Kg	5	✱		1668C	Total/NA
PCB-16	0.0000065	J	0.00012	0.0000034	mg/Kg	5	✱		1668C	Total/NA
PCB-17	0.0000045	J	0.00012	0.0000025	mg/Kg	5	✱		1668C	Total/NA
PCB-18/30	0.000011	J B	0.00024	0.0000022	mg/Kg	5	✱		1668C	Total/NA
PCB-20/28	0.000024	J B	0.00024	0.0000019	mg/Kg	5	✱		1668C	Total/NA
PCB-21/33	0.000025	J B	0.00024	0.0000018	mg/Kg	5	✱		1668C	Total/NA
PCB-22	0.0000063	J	0.00012	0.0000020	mg/Kg	5	✱		1668C	Total/NA
PCB-31	0.000026	J B	0.00012	0.0000018	mg/Kg	5	✱		1668C	Total/NA
PCB-32	0.0000029	J	0.00012	0.0000018	mg/Kg	5	✱		1668C	Total/NA
PCB-37	0.000021	J	0.00012	0.0000020	mg/Kg	5	✱		1668C	Total/NA
PCB-40/71	0.000093	J B	0.00024	0.0000018	mg/Kg	5	✱		1668C	Total/NA
PCB-42	0.000042	J B	0.00012	0.0000019	mg/Kg	5	✱		1668C	Total/NA
PCB-44/47/65	0.00061	B	0.00036	0.0000017	mg/Kg	5	✱		1668C	Total/NA
PCB-45	0.000012	J	0.00012	0.0000020	mg/Kg	5	✱		1668C	Total/NA
PCB-48	0.000017	J B	0.00012	0.0000018	mg/Kg	5	✱		1668C	Total/NA
PCB-49/69	0.00027	B	0.00024	0.0000015	mg/Kg	5	✱		1668C	Total/NA
PCB-50/53	0.000033	J B	0.00024	0.0000017	mg/Kg	5	✱		1668C	Total/NA
PCB-51	0.0000043	J	0.00012	0.0000017	mg/Kg	5	✱		1668C	Total/NA
PCB-52	0.0021	B	0.00012	0.0000018	mg/Kg	5	✱		1668C	Total/NA
PCB-56	0.00018		0.00012	0.0000010	mg/Kg	5	✱		1668C	Total/NA
PCB-58	0.00013		0.00012	0.0000096	mg/Kg	5	✱		1668C	Total/NA
PCB-59/62/75	0.000014	J	0.00036	0.0000013	mg/Kg	5	✱		1668C	Total/NA
PCB-60	0.000068	J	0.00012	0.0000098	mg/Kg	5	✱		1668C	Total/NA
PCB-61/70/74/76	0.0017	B	0.00048	0.0000096	mg/Kg	5	✱		1668C	Total/NA
PCB-64	0.00025	B	0.00012	0.0000012	mg/Kg	5	✱		1668C	Total/NA
PCB-66	0.00058	B	0.00012	0.0000010	mg/Kg	5	✱		1668C	Total/NA
PCB-77	0.00012		0.000012	0.0000096	mg/Kg	5	✱		1668C	Total/NA
PCB-79	0.000053	J	0.00012	0.0000089	mg/Kg	5	✱		1668C	Total/NA
PCB-82	0.00078	G	0.00017	0.00017	mg/Kg	5	✱		1668C	Total/NA
PCB-84	0.0014	G B	0.00016	0.00016	mg/Kg	5	✱		1668C	Total/NA
PCB-85/116/117	0.0017		0.00036	0.00012	mg/Kg	5	✱		1668C	Total/NA
PCB-86/87/97/108/119/125	0.0048	B	0.00072	0.00012	mg/Kg	5	✱		1668C	Total/NA
PCB-88/91	0.00081		0.00024	0.00013	mg/Kg	5	✱		1668C	Total/NA
PCB-90/101/113	0.0076	B	0.00036	0.00012	mg/Kg	5	✱		1668C	Total/NA
PCB-92	0.0014	G B	0.00014	0.00014	mg/Kg	5	✱		1668C	Total/NA
PCB-107/124	0.00040		0.00024	0.00011	mg/Kg	5	✱		1668C	Total/NA
PCB-95	0.0051	G B	0.00013	0.00013	mg/Kg	5	✱		1668C	Total/NA
PCB-96	0.000029	J	0.00012	0.0000005	mg/Kg	5	✱		1668C	Total/NA
PCB-99	0.0035	B	0.00012	0.00011	mg/Kg	5	✱		1668C	Total/NA
PCB-105	0.0043	G B	0.00011	0.00011	mg/Kg	5	✱		1668C	Total/NA
PCB-110/115	0.012	B	0.00024	0.00011	mg/Kg	5	✱		1668C	Total/NA
PCB-109	0.00069		0.00012	0.00010	mg/Kg	5	✱		1668C	Total/NA
PCB-114	0.00014	G	0.00011	0.00011	mg/Kg	5	✱		1668C	Total/NA
PCB-118	0.0094	G B	0.00011	0.00011	mg/Kg	5	✱		1668C	Total/NA
PCB-123	0.00014	G	0.00011	0.00011	mg/Kg	5	✱		1668C	Total/NA
PCB-128/166	0.0033	B	0.00024	0.000062	mg/Kg	5	✱		1668C	Total/NA
PCB-129/138/163	0.021	B	0.00036	0.000066	mg/Kg	5	✱		1668C	Total/NA
PCB-130	0.0012		0.00012	0.000083	mg/Kg	5	✱		1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

Client Sample ID: SB-207-1 (0-2) (102617) (Continued)

Lab Sample ID: 680-144854-15

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-131	0.00018		0.00012	0.000076	mg/Kg	5	✱		1668C	Total/NA
PCB-132	0.0055	B	0.00012	0.000076	mg/Kg	5	✱		1668C	Total/NA
PCB-133	0.00018		0.00012	0.000075	mg/Kg	5	✱		1668C	Total/NA
PCB-134/143	0.00075		0.00024	0.000077	mg/Kg	5	✱		1668C	Total/NA
PCB-135/151	0.0043	B	0.00024	0.000070	mg/Kg	5	✱		1668C	Total/NA
PCB-136	0.0016	B	0.00012	0.000052	mg/Kg	5	✱		1668C	Total/NA
PCB-137	0.00090		0.00012	0.000062	mg/Kg	5	✱		1668C	Total/NA
PCB-139/140	0.00027		0.00024	0.000067	mg/Kg	5	✱		1668C	Total/NA
PCB-141	0.0035	B	0.00012	0.000074	mg/Kg	5	✱		1668C	Total/NA
PCB-144	0.00063		0.00012	0.000068	mg/Kg	5	✱		1668C	Total/NA
PCB-146	0.0022		0.00012	0.000064	mg/Kg	5	✱		1668C	Total/NA
PCB-147/149	0.0097	B	0.00024	0.000068	mg/Kg	5	✱		1668C	Total/NA
PCB-153/168	0.014	B	0.00024	0.000057	mg/Kg	5	✱		1668C	Total/NA
PCB-156/157	0.0023	B	0.000024	0.000023	mg/Kg	5	✱		1668C	Total/NA
PCB-158	0.0022	B	0.00012	0.000052	mg/Kg	5	✱		1668C	Total/NA
PCB-159	0.00013		0.00012	0.000015	mg/Kg	5	✱		1668C	Total/NA
PCB-162	0.000055	J	0.00012	0.000014	mg/Kg	5	✱		1668C	Total/NA
PCB-164	0.0014		0.00012	0.000061	mg/Kg	5	✱		1668C	Total/NA
PCB-167	0.00072	G	0.000013	0.000013	mg/Kg	5	✱		1668C	Total/NA
PCB-170	0.0039	B	0.00012	0.0000048	mg/Kg	5	✱		1668C	Total/NA
PCB-171/173	0.0013		0.00024	0.0000049	mg/Kg	5	✱		1668C	Total/NA
PCB-172	0.00065		0.00012	0.0000047	mg/Kg	5	✱		1668C	Total/NA
PCB-174	0.0042	B	0.00012	0.0000052	mg/Kg	5	✱		1668C	Total/NA
PCB-175	0.00017		0.00012	0.0000012	mg/Kg	5	✱		1668C	Total/NA
PCB-176	0.00044		0.00012	0.0000008	mg/Kg	5	✱		1668C	Total/NA
PCB-177	0.0022		0.00012	0.0000048	mg/Kg	5	✱		1668C	Total/NA
PCB-178	0.00069		0.00012	0.0000012	mg/Kg	5	✱		1668C	Total/NA
PCB-179	0.0013		0.00012	0.0000008	mg/Kg	5	✱		1668C	Total/NA
PCB-180/193	0.0080	B	0.00024	0.0000039	mg/Kg	5	✱		1668C	Total/NA
PCB-181	0.000036	J	0.00012	0.0000043	mg/Kg	5	✱		1668C	Total/NA
PCB-182	0.000017	J	0.00012	0.0000011	mg/Kg	5	✱		1668C	Total/NA
PCB-183	0.0019	B	0.00012	0.0000037	mg/Kg	5	✱		1668C	Total/NA
PCB-185	0.00046		0.00012	0.0000045	mg/Kg	5	✱		1668C	Total/NA
PCB-187	0.0040	B	0.00012	0.0000011	mg/Kg	5	✱		1668C	Total/NA
PCB-189	0.00014		0.000012	0.0000007	mg/Kg	5	✱		1668C	Total/NA
PCB-190	0.00074	B	0.00012	0.0000034	mg/Kg	5	✱		1668C	Total/NA
PCB-191	0.00017		0.00012	0.0000035	mg/Kg	5	✱		1668C	Total/NA
PCB-194	0.0013	B	0.00012	0.0000014	mg/Kg	5	✱		1668C	Total/NA
PCB-195	0.00057		0.00012	0.0000015	mg/Kg	5	✱		1668C	Total/NA
PCB-196	0.00074		0.00012	0.0000010	mg/Kg	5	✱		1668C	Total/NA
PCB-197	0.000057	J	0.00012	0.0000007	mg/Kg	5	✱		1668C	Total/NA
PCB-198/199	0.0014		0.00024	0.0000011	mg/Kg	5	✱		1668C	Total/NA
PCB-200	0.00020		0.00012	0.0000008	mg/Kg	5	✱		1668C	Total/NA
PCB-201	0.00014		0.00012	0.0000007	mg/Kg	5	✱		1668C	Total/NA
PCB-202	0.00022		0.00012	0.0000008	mg/Kg	5	✱		1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Client Sample ID: SB-207-1 (0-2) (102617) (Continued)

## Lab Sample ID: 680-144854-15

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-203	0.00088		0.00012	0.0000010	mg/Kg	5	✱	1668C	Total/NA
PCB-205	0.000074	J	0.00012	0.0000012	mg/Kg	5	✱	1668C	Total/NA
PCB-206	0.00033		0.00012	0.0000014	mg/Kg	5	✱	1668C	Total/NA
PCB-207	0.000041	J	0.00012	0.0000011	mg/Kg	5	✱	1668C	Total/NA
PCB-208	0.000080	J	0.00012	0.0000012	mg/Kg	5	✱	1668C	Total/NA
PCB-209	0.00016	B	0.00012	0.0000003	mg/Kg	5	✱	1668C	Total/NA
				2					
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Polychlorinated biphenyls, Total	0.17		0.0000020	0.0000050	mg/Kg	1		None	Total/NA

## Client Sample ID: SB-207-2 (0-2) (102617)

## Lab Sample ID: 680-144854-16

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1	0.0000046	J	0.00013	0.0000011	mg/Kg	5	✱	1668C	Total/NA
PCB-2	0.0000031	J	0.00013	0.0000008	mg/Kg	5	✱	1668C	Total/NA
				9					
PCB-3	0.0000053	J	0.00013	0.0000009	mg/Kg	5	✱	1668C	Total/NA
				4					
PCB-8	0.000016	J	0.00013	0.000012	mg/Kg	5	✱	1668C	Total/NA
PCB-15	0.000012	J	0.00013	0.000011	mg/Kg	5	✱	1668C	Total/NA
PCB-16	0.000023	J	0.00013	0.0000056	mg/Kg	5	✱	1668C	Total/NA
PCB-17	0.000023	J	0.00013	0.0000042	mg/Kg	5	✱	1668C	Total/NA
PCB-18/30	0.000058	J B	0.00025	0.0000037	mg/Kg	5	✱	1668C	Total/NA
PCB-19	0.000011	J	0.00013	0.0000039	mg/Kg	5	✱	1668C	Total/NA
PCB-20/28	0.000095	J B	0.00025	0.0000049	mg/Kg	5	✱	1668C	Total/NA
PCB-21/33	0.000083	J B	0.00025	0.0000046	mg/Kg	5	✱	1668C	Total/NA
PCB-22	0.000023	J	0.00013	0.0000050	mg/Kg	5	✱	1668C	Total/NA
PCB-26/29	0.000016	J	0.00025	0.0000047	mg/Kg	5	✱	1668C	Total/NA
PCB-31	0.000089	J B	0.00013	0.0000045	mg/Kg	5	✱	1668C	Total/NA
PCB-32	0.000029	J	0.00013	0.0000031	mg/Kg	5	✱	1668C	Total/NA
PCB-37	0.000039	J	0.00013	0.0000064	mg/Kg	5	✱	1668C	Total/NA
PCB-40/71	0.00025	B	0.00025	0.0000036	mg/Kg	5	✱	1668C	Total/NA
PCB-42	0.00012	J B	0.00013	0.0000040	mg/Kg	5	✱	1668C	Total/NA
PCB-43	0.0000075	J	0.00013	0.0000043	mg/Kg	5	✱	1668C	Total/NA
PCB-44/47/65	0.0015	B	0.00038	0.0000034	mg/Kg	5	✱	1668C	Total/NA
PCB-45	0.000031	J	0.00013	0.0000041	mg/Kg	5	✱	1668C	Total/NA
PCB-46	0.000022	J	0.00013	0.0000043	mg/Kg	5	✱	1668C	Total/NA
PCB-48	0.000056	J B	0.00013	0.0000036	mg/Kg	5	✱	1668C	Total/NA
PCB-49/69	0.00079	B	0.00025	0.0000030	mg/Kg	5	✱	1668C	Total/NA
PCB-50/53	0.00010	J B	0.00025	0.0000035	mg/Kg	5	✱	1668C	Total/NA
PCB-51	0.000026	J	0.00013	0.0000034	mg/Kg	5	✱	1668C	Total/NA
PCB-52	0.0045	B	0.00013	0.0000037	mg/Kg	5	✱	1668C	Total/NA
PCB-54	0.0000021	J	0.00013	0.0000006	mg/Kg	5	✱	1668C	Total/NA
				1					
PCB-56	0.000069	J	0.00013	0.000026	mg/Kg	5	✱	1668C	Total/NA
PCB-58	0.00031		0.00013	0.000024	mg/Kg	5	✱	1668C	Total/NA
PCB-59/62/75	0.000037	J	0.00038	0.0000027	mg/Kg	5	✱	1668C	Total/NA
PCB-60	0.00026		0.00013	0.000024	mg/Kg	5	✱	1668C	Total/NA
PCB-61/70/74/76	0.0035	B	0.00051	0.000024	mg/Kg	5	✱	1668C	Total/NA
PCB-63	0.000030	J	0.00013	0.000022	mg/Kg	5	✱	1668C	Total/NA
PCB-64	0.00037	B	0.00013	0.0000025	mg/Kg	5	✱	1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

Client Sample ID: SB-207-2 (0-2) (102617) (Continued)

Lab Sample ID: 680-144854-16

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-66	0.0010	B	0.00013	0.000025	mg/Kg	5	✱		1668C	Total/NA
PCB-77	0.00018	G	0.000025	0.000025	mg/Kg	5	✱		1668C	Total/NA
PCB-79	0.000098	J	0.00013	0.000022	mg/Kg	5	✱		1668C	Total/NA
PCB-82	0.0018	G	0.00035	0.00035	mg/Kg	5	✱		1668C	Total/NA
PCB-84	0.0044	G B	0.00033	0.00033	mg/Kg	5	✱		1668C	Total/NA
PCB-85/116/117	0.0025		0.00038	0.00024	mg/Kg	5	✱		1668C	Total/NA
PCB-86/87/97/108/119/125	0.011	B	0.00076	0.00025	mg/Kg	5	✱		1668C	Total/NA
PCB-88/91	0.0020	G	0.00028	0.00028	mg/Kg	5	✱		1668C	Total/NA
PCB-90/101/113	0.017	B	0.00038	0.00026	mg/Kg	5	✱		1668C	Total/NA
PCB-107/124	0.00055		0.00025	0.00023	mg/Kg	5	✱		1668C	Total/NA
PCB-95	0.013	E G B	0.00028	0.00028	mg/Kg	5	✱		1668C	Total/NA
PCB-96	0.000070	J	0.00013	0.0000007	mg/Kg	5	✱		1668C	Total/NA
PCB-99	0.0066	G B	0.00024	0.00024	mg/Kg	5	✱		1668C	Total/NA
PCB-105	0.0060	G B	0.00024	0.00024	mg/Kg	5	✱		1668C	Total/NA
PCB-110/115	0.026	E B	0.00025	0.00022	mg/Kg	5	✱		1668C	Total/NA
PCB-109	0.0011	G	0.00021	0.00021	mg/Kg	5	✱		1668C	Total/NA
PCB-114	0.00030	G	0.00024	0.00024	mg/Kg	5	✱		1668C	Total/NA
PCB-118	0.016	E G B	0.00022	0.00022	mg/Kg	5	✱		1668C	Total/NA
PCB-128/166	0.0057	B	0.00025	0.000074	mg/Kg	5	✱		1668C	Total/NA
PCB-129/138/163	0.031	B	0.00038	0.000079	mg/Kg	5	✱		1668C	Total/NA
PCB-130	0.0023		0.00013	0.000099	mg/Kg	5	✱		1668C	Total/NA
PCB-131	0.00042		0.00013	0.000091	mg/Kg	5	✱		1668C	Total/NA
PCB-132	0.0099	B	0.00013	0.000090	mg/Kg	5	✱		1668C	Total/NA
PCB-133	0.00032		0.00013	0.000089	mg/Kg	5	✱		1668C	Total/NA
PCB-134/143	0.0016		0.00025	0.000092	mg/Kg	5	✱		1668C	Total/NA
PCB-135/151	0.0061	B	0.00025	0.000083	mg/Kg	5	✱		1668C	Total/NA
PCB-136	0.0026	B	0.00013	0.000062	mg/Kg	5	✱		1668C	Total/NA
PCB-137	0.0018		0.00013	0.000074	mg/Kg	5	✱		1668C	Total/NA
PCB-139/140	0.00053		0.00025	0.000080	mg/Kg	5	✱		1668C	Total/NA
PCB-141	0.0045	B	0.00013	0.000088	mg/Kg	5	✱		1668C	Total/NA
PCB-144	0.00093		0.00013	0.000080	mg/Kg	5	✱		1668C	Total/NA
PCB-146	0.0033		0.00013	0.000076	mg/Kg	5	✱		1668C	Total/NA
PCB-147/149	0.017	B	0.00025	0.000081	mg/Kg	5	✱		1668C	Total/NA
PCB-153/168	0.018	B	0.00025	0.000068	mg/Kg	5	✱		1668C	Total/NA
PCB-154	0.00011	J	0.00013	0.000073	mg/Kg	5	✱		1668C	Total/NA
PCB-156/157	0.0036	B	0.000025	0.000022	mg/Kg	5	✱		1668C	Total/NA
PCB-158	0.0035	B	0.00013	0.000062	mg/Kg	5	✱		1668C	Total/NA
PCB-159	0.000074	J	0.00013	0.000014	mg/Kg	5	✱		1668C	Total/NA
PCB-162	0.00011	J	0.00013	0.000013	mg/Kg	5	✱		1668C	Total/NA
PCB-164	0.0021		0.00013	0.000073	mg/Kg	5	✱		1668C	Total/NA
PCB-167	0.0012		0.000013	0.000013	mg/Kg	5	✱		1668C	Total/NA
PCB-170	0.0033	B	0.00013	0.0000042	mg/Kg	5	✱		1668C	Total/NA
PCB-171/173	0.0011		0.00025	0.0000043	mg/Kg	5	✱		1668C	Total/NA
PCB-172	0.00048		0.00013	0.0000042	mg/Kg	5	✱		1668C	Total/NA
PCB-174	0.0028	B	0.00013	0.0000046	mg/Kg	5	✱		1668C	Total/NA
PCB-175	0.00012	J	0.00013	0.0000017	mg/Kg	5	✱		1668C	Total/NA
PCB-176	0.00029		0.00013	0.0000012	mg/Kg	5	✱		1668C	Total/NA
PCB-177	0.0015		0.00013	0.0000042	mg/Kg	5	✱		1668C	Total/NA
PCB-178	0.00041		0.00013	0.0000018	mg/Kg	5	✱		1668C	Total/NA
PCB-179	0.00077		0.00013	0.0000013	mg/Kg	5	✱		1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

Client Sample ID: SB-207-2 (0-2) (102617) (Continued)

Lab Sample ID: 680-144854-16

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-180/193	0.0052	B	0.00025	0.0000035	mg/Kg	5	✱	1668C	Total/NA
PCB-181	0.000066	J	0.00013	0.0000038	mg/Kg	5	✱	1668C	Total/NA
PCB-182	0.000020	J	0.00013	0.0000016	mg/Kg	5	✱	1668C	Total/NA
PCB-183	0.0013	B	0.00013	0.0000033	mg/Kg	5	✱	1668C	Total/NA
PCB-185	0.00022		0.00013	0.0000040	mg/Kg	5	✱	1668C	Total/NA
PCB-187	0.0023	B	0.00013	0.0000016	mg/Kg	5	✱	1668C	Total/NA
PCB-188	0.0000028	J	0.00013	0.0000013	mg/Kg	5	✱	1668C	Total/NA
PCB-189	0.00014		0.000013	0.0000010	mg/Kg	5	✱	1668C	Total/NA
PCB-190	0.00055	B	0.00013	0.0000031	mg/Kg	5	✱	1668C	Total/NA
PCB-191	0.00013		0.00013	0.0000031	mg/Kg	5	✱	1668C	Total/NA
PCB-194	0.00066	B	0.00013	0.0000020	mg/Kg	5	✱	1668C	Total/NA
PCB-195	0.00027		0.00013	0.0000021	mg/Kg	5	✱	1668C	Total/NA
PCB-196	0.00042		0.00013	0.0000010	mg/Kg	5	✱	1668C	Total/NA
PCB-197	0.000035	J	0.00013	0.0000007	mg/Kg	5	✱	1668C	Total/NA
PCB-198/199	0.00085		0.00025	0.0000011	mg/Kg	5	✱	1668C	Total/NA
PCB-200	0.00011	J	0.00013	0.0000008	mg/Kg	5	✱	1668C	Total/NA
PCB-201	0.000088	J	0.00013	0.0000007	mg/Kg	5	✱	1668C	Total/NA
PCB-202	0.00014		0.00013	0.0000008	mg/Kg	5	✱	1668C	Total/NA
PCB-203	0.00055		0.00013	0.0000010	mg/Kg	5	✱	1668C	Total/NA
PCB-205	0.000040	J	0.00013	0.0000017	mg/Kg	5	✱	1668C	Total/NA
PCB-206	0.00040		0.00013	0.0000019	mg/Kg	5	✱	1668C	Total/NA
PCB-207	0.000061	J	0.00013	0.0000014	mg/Kg	5	✱	1668C	Total/NA
PCB-208	0.00012	J	0.00013	0.0000016	mg/Kg	5	✱	1668C	Total/NA
PCB-209	0.00053	B	0.00013	0.0000005	mg/Kg	5	✱	1668C	Total/NA
<b>Analyte</b>	<b>Result</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Unit</b>	<b>Dil Fac</b>	<b>D</b>	<b>Method</b>	<b>Prep Type</b>
Polychlorinated biphenyls, Total	0.26		0.0000020	0.0000050	mg/Kg	1		None	Total/NA

Client Sample ID: SB-207-3 (0-2) (102617)

Lab Sample ID: 680-144854-17

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1	0.0000031	J	0.00011	0.0000008	mg/Kg	5	✱	1668C	Total/NA
PCB-2	0.0000010	J	0.00011	0.0000007	mg/Kg	5	✱	1668C	Total/NA
PCB-3	0.0000021	J	0.00011	0.0000007	mg/Kg	5	✱	1668C	Total/NA
PCB-8	0.000024	J	0.00011	0.0000066	mg/Kg	5	✱	1668C	Total/NA
PCB-15	0.0000077	J	0.00011	0.0000065	mg/Kg	5	✱	1668C	Total/NA
PCB-16	0.000018	J	0.00011	0.0000051	mg/Kg	5	✱	1668C	Total/NA
PCB-17	0.000091	J	0.00011	0.0000039	mg/Kg	5	✱	1668C	Total/NA
PCB-18/30	0.000058	J B	0.00022	0.0000034	mg/Kg	5	✱	1668C	Total/NA
PCB-19	0.000021	J	0.00011	0.0000039	mg/Kg	5	✱	1668C	Total/NA
PCB-20/28	0.00077	B	0.00022	0.0000087	mg/Kg	5	✱	1668C	Total/NA
PCB-21/33	0.000070	J B	0.00022	0.0000082	mg/Kg	5	✱	1668C	Total/NA
PCB-22	0.000043	J	0.00011	0.0000089	mg/Kg	5	✱	1668C	Total/NA
PCB-26/29	0.000012	J	0.00022	0.0000084	mg/Kg	5	✱	1668C	Total/NA
PCB-27	0.0000043	J	0.00011	0.0000029	mg/Kg	5	✱	1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

Client Sample ID: SB-207-3 (0-2) (102617) (Continued)

Lab Sample ID: 680-144854-17

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-31	0.00019	B	0.00011	0.0000079	mg/Kg	5	✱		1668C	Total/NA
PCB-32	0.00045		0.00011	0.0000028	mg/Kg	5	✱		1668C	Total/NA
PCB-37	0.000031	J	0.00011	0.000010	mg/Kg	5	✱		1668C	Total/NA
PCB-40/71	0.0014	B	0.00022	0.0000067	mg/Kg	5	✱		1668C	Total/NA
PCB-42	0.00044	B	0.00011	0.0000073	mg/Kg	5	✱		1668C	Total/NA
PCB-43	0.000018	J	0.00011	0.0000080	mg/Kg	5	✱		1668C	Total/NA
PCB-44/47/65	0.0039	B	0.00033	0.0000063	mg/Kg	5	✱		1668C	Total/NA
PCB-46	0.00011		0.00011	0.0000079	mg/Kg	5	✱		1668C	Total/NA
PCB-48	0.000049	J B	0.00011	0.0000067	mg/Kg	5	✱		1668C	Total/NA
PCB-49/69	0.0023	B	0.00022	0.0000056	mg/Kg	5	✱		1668C	Total/NA
PCB-50/53	0.00057	B	0.00022	0.0000064	mg/Kg	5	✱		1668C	Total/NA
PCB-51	0.00052		0.00011	0.0000063	mg/Kg	5	✱		1668C	Total/NA
PCB-52	0.0046	B	0.00011	0.0000067	mg/Kg	5	✱		1668C	Total/NA
PCB-54	0.000034	J	0.00011	0.0000005	mg/Kg	5	✱		1668C	Total/NA
1										
PCB-56	0.00041		0.00011	0.000025	mg/Kg	5	✱		1668C	Total/NA
PCB-58	0.00025		0.00011	0.000024	mg/Kg	5	✱		1668C	Total/NA
PCB-59/62/75	0.000099	J	0.00033	0.0000049	mg/Kg	5	✱		1668C	Total/NA
PCB-60	0.00011		0.00011	0.000024	mg/Kg	5	✱		1668C	Total/NA
PCB-61/70/74/76	0.0036	B	0.00045	0.000024	mg/Kg	5	✱		1668C	Total/NA
PCB-63	0.000081	J	0.00011	0.000022	mg/Kg	5	✱		1668C	Total/NA
PCB-64	0.00059	B	0.00011	0.0000047	mg/Kg	5	✱		1668C	Total/NA
PCB-66	0.0026	B	0.00011	0.000025	mg/Kg	5	✱		1668C	Total/NA
PCB-68	0.000071	J	0.00011	0.000021	mg/Kg	5	✱		1668C	Total/NA
PCB-72	0.000062	J	0.00011	0.000023	mg/Kg	5	✱		1668C	Total/NA
PCB-73	0.000046	J	0.00011	0.0000051	mg/Kg	5	✱		1668C	Total/NA
PCB-77	0.00021	G	0.00025	0.000025	mg/Kg	5	✱		1668C	Total/NA
PCB-79	0.00010	J	0.00011	0.000022	mg/Kg	5	✱		1668C	Total/NA
PCB-82	0.0013	G	0.00022	0.00022	mg/Kg	5	✱		1668C	Total/NA
PCB-84	0.0030	G B	0.00021	0.00021	mg/Kg	5	✱		1668C	Total/NA
PCB-85/116/117	0.0027		0.00033	0.00015	mg/Kg	5	✱		1668C	Total/NA
PCB-86/87/97/108/119/125	0.010	B	0.00067	0.00016	mg/Kg	5	✱		1668C	Total/NA
PCB-88/91	0.0019		0.00022	0.00018	mg/Kg	5	✱		1668C	Total/NA
PCB-90/101/113	0.016	B	0.00033	0.00016	mg/Kg	5	✱		1668C	Total/NA
PCB-92	0.0032	G B	0.00019	0.00019	mg/Kg	5	✱		1668C	Total/NA
PCB-107/124	0.00063		0.00022	0.00014	mg/Kg	5	✱		1668C	Total/NA
PCB-95	0.0098	G B	0.00017	0.00017	mg/Kg	5	✱		1668C	Total/NA
PCB-96	0.00010	J	0.00011	0.0000006	mg/Kg	5	✱		1668C	Total/NA
0										
PCB-98/102	0.00029		0.00022	0.00017	mg/Kg	5	✱		1668C	Total/NA
PCB-99	0.0073	G B	0.00015	0.00015	mg/Kg	5	✱		1668C	Total/NA
PCB-104	0.0000043	J	0.00011	0.0000006	mg/Kg	5	✱		1668C	Total/NA
2										
PCB-105	0.0072	G B	0.00015	0.00015	mg/Kg	5	✱		1668C	Total/NA
PCB-110/115	0.024	E B	0.00022	0.00014	mg/Kg	5	✱		1668C	Total/NA
PCB-109	0.0014	G	0.00013	0.00013	mg/Kg	5	✱		1668C	Total/NA
PCB-114	0.00028	G	0.00015	0.00015	mg/Kg	5	✱		1668C	Total/NA
PCB-118	0.018	E G B	0.00014	0.00014	mg/Kg	5	✱		1668C	Total/NA
PCB-122	0.00016	G	0.00015	0.00015	mg/Kg	5	✱		1668C	Total/NA
PCB-123	0.00021	G	0.00015	0.00015	mg/Kg	5	✱		1668C	Total/NA
PCB-128/166	0.0041	B	0.00022	0.000062	mg/Kg	5	✱		1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

Client Sample ID: SB-207-3 (0-2) (102617) (Continued)

Lab Sample ID: 680-144854-17

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-129/138/163	0.024	B	0.00033	0.000066	mg/Kg	5	☆	1668C	Total/NA	
PCB-130	0.0015		0.00011	0.000083	mg/Kg	5	☆	1668C	Total/NA	
PCB-131	0.00027		0.00011	0.000076	mg/Kg	5	☆	1668C	Total/NA	
PCB-132	0.0070	B	0.00011	0.000075	mg/Kg	5	☆	1668C	Total/NA	
PCB-133	0.00024		0.00011	0.000074	mg/Kg	5	☆	1668C	Total/NA	
PCB-134/143	0.0011		0.00022	0.000077	mg/Kg	5	☆	1668C	Total/NA	
PCB-135/151	0.0052	B	0.00022	0.000070	mg/Kg	5	☆	1668C	Total/NA	
PCB-136	0.0021	B	0.00011	0.000052	mg/Kg	5	☆	1668C	Total/NA	
PCB-137	0.0012		0.00011	0.000062	mg/Kg	5	☆	1668C	Total/NA	
PCB-139/140	0.00038		0.00022	0.000067	mg/Kg	5	☆	1668C	Total/NA	
PCB-141	0.0035	B	0.00011	0.000074	mg/Kg	5	☆	1668C	Total/NA	
PCB-144	0.00069		0.00011	0.000068	mg/Kg	5	☆	1668C	Total/NA	
PCB-146	0.0024		0.00011	0.000064	mg/Kg	5	☆	1668C	Total/NA	
PCB-147/149	0.014	B	0.00022	0.000068	mg/Kg	5	☆	1668C	Total/NA	
PCB-153/168	0.015	B	0.00022	0.000057	mg/Kg	5	☆	1668C	Total/NA	
PCB-154	0.000086	J	0.00011	0.000061	mg/Kg	5	☆	1668C	Total/NA	
PCB-156/157	0.0032	B	0.000022	0.000019	mg/Kg	5	☆	1668C	Total/NA	
PCB-158	0.0026	B	0.00011	0.000052	mg/Kg	5	☆	1668C	Total/NA	
PCB-159	0.000074	J	0.00011	0.000013	mg/Kg	5	☆	1668C	Total/NA	
PCB-162	0.000072	J	0.00011	0.000012	mg/Kg	5	☆	1668C	Total/NA	
PCB-164	0.0016		0.00011	0.000061	mg/Kg	5	☆	1668C	Total/NA	
PCB-167	0.0010		0.000011	0.000011	mg/Kg	5	☆	1668C	Total/NA	
PCB-170	0.0031	B	0.00011	0.0000039	mg/Kg	5	☆	1668C	Total/NA	
PCB-171/173	0.0010		0.00022	0.0000040	mg/Kg	5	☆	1668C	Total/NA	
PCB-172	0.00049		0.00011	0.0000038	mg/Kg	5	☆	1668C	Total/NA	
PCB-174	0.0031	B	0.00011	0.0000042	mg/Kg	5	☆	1668C	Total/NA	
PCB-175	0.00013		0.00011	0.0000014	mg/Kg	5	☆	1668C	Total/NA	
PCB-176	0.00033		0.00011	0.0000010	mg/Kg	5	☆	1668C	Total/NA	
PCB-177	0.0016		0.00011	0.0000039	mg/Kg	5	☆	1668C	Total/NA	
PCB-178	0.00049		0.00011	0.0000015	mg/Kg	5	☆	1668C	Total/NA	
PCB-179	0.0010		0.00011	0.0000011	mg/Kg	5	☆	1668C	Total/NA	
PCB-180/193	0.0058	B	0.00022	0.0000032	mg/Kg	5	☆	1668C	Total/NA	
PCB-181	0.000047	J	0.00011	0.0000035	mg/Kg	5	☆	1668C	Total/NA	
PCB-182	0.000016	J	0.00011	0.0000013	mg/Kg	5	☆	1668C	Total/NA	
PCB-183	0.0014	B	0.00011	0.0000030	mg/Kg	5	☆	1668C	Total/NA	
PCB-185	0.00030		0.00011	0.0000037	mg/Kg	5	☆	1668C	Total/NA	
PCB-187	0.0028	B	0.00011	0.0000013	mg/Kg	5	☆	1668C	Total/NA	
PCB-188	0.0000034	J	0.00011	0.0000011	mg/Kg	5	☆	1668C	Total/NA	
PCB-189	0.00012		0.000011	0.0000007	mg/Kg	5	☆	1668C	Total/NA	
					3					
PCB-190	0.00058	B	0.00011	0.0000028	mg/Kg	5	☆	1668C	Total/NA	
PCB-191	0.00013		0.00011	0.0000029	mg/Kg	5	☆	1668C	Total/NA	
PCB-194	0.00079	B	0.00011	0.0000014	mg/Kg	5	☆	1668C	Total/NA	
PCB-195	0.00037		0.00011	0.0000015	mg/Kg	5	☆	1668C	Total/NA	
PCB-196	0.00050		0.00011	0.0000022	mg/Kg	5	☆	1668C	Total/NA	
PCB-197	0.000037	J	0.00011	0.0000016	mg/Kg	5	☆	1668C	Total/NA	
PCB-198/199	0.0011		0.00022	0.0000024	mg/Kg	5	☆	1668C	Total/NA	
PCB-200	0.00014		0.00011	0.0000019	mg/Kg	5	☆	1668C	Total/NA	
PCB-201	0.00012		0.00011	0.0000017	mg/Kg	5	☆	1668C	Total/NA	
PCB-202	0.00014		0.00011	0.0000018	mg/Kg	5	☆	1668C	Total/NA	
PCB-203	0.00062		0.00011	0.0000022	mg/Kg	5	☆	1668C	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



## Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-207-3 (0-2) (102617) (Continued)**

**Lab Sample ID: 680-144854-17**

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-205	0.000049	J	0.00011	0.0000012	mg/Kg	5		✱	1668C	Total/NA
PCB-206	0.00023		0.00011	0.0000017	mg/Kg	5		✱	1668C	Total/NA
PCB-207	0.000029	J	0.00011	0.0000012	mg/Kg	5		✱	1668C	Total/NA
PCB-208	0.000049	J	0.00011	0.0000013	mg/Kg	5		✱	1668C	Total/NA
PCB-209	0.000027	J B	0.00011	0.0000004 9	mg/Kg	5		✱	1668C	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Polychlorinated biphenyls, Total	0.25		0.0000020	0.0000050	mg/Kg	1			None	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-204-1 (0-2) (102617)**

**Lab Sample ID: 680-144854-12**

**Date Collected: 10/26/17 15:00**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 85.6**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.000029		0.000024	0.0000005	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-2	0.0000040	J q	0.000024	0.0000004	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-3	0.000013	J	0.000024	0.0000004	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-4	0.000097		0.000024	0.000013	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-5	0.000024		0.000024	0.0000037	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-6	0.000046		0.000024	0.0000039	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-7	0.0000037	U	0.000024	0.0000037	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-8	0.00022		0.000024	0.0000038	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-9	0.000015	J	0.000024	0.0000039	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-10	0.0000082	U	0.000024	0.0000082	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-11	0.0000061	J	0.000024	0.0000037	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-12/13	0.000020	J q	0.000047	0.0000037	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-14	0.0000033	U	0.000024	0.0000033	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-15	0.000086		0.000024	0.0000036	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-16	0.00031		0.000024	0.0000014	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-17	0.00027		0.000024	0.0000011	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-18/30	0.00077	B	0.000047	0.0000009	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-19	0.000080		0.000024	0.0000013	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-20/28	0.0012	B	0.000047	0.000021	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-21/33	0.0015	B	0.000047	0.000020	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-22	0.00038		0.000024	0.000022	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-23	0.000020	U	0.000024	0.000020	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-24	0.000011	J	0.000024	0.0000008	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-25	0.000092		0.000024	0.000020	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-26/29	0.00018		0.000047	0.000020	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-27	0.000042		0.000024	0.0000008	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-31	0.0015	B	0.000024	0.000019	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-32	0.00022		0.000024	0.0000007	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-34	0.000021	U	0.000024	0.000021	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-35	0.000028		0.000024	0.000021	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-36	0.000020	U	0.000024	0.000020	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-37	0.00050	F1	0.000024	0.000022	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-38	0.000022	U	0.000024	0.000022	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-39	0.000019	U	0.000024	0.000019	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-40/71	0.0031	B	0.000047	0.000026	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-41	0.00029	G	0.000030	0.000030	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-42	0.0016	G B	0.000028	0.000028	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-43	0.00021	q G	0.000031	0.000031	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-44/47/65	0.018	E B	0.000071	0.000024	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-45	0.00043	G	0.000029	0.000029	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-46	0.00022	G	0.000030	0.000030	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-48	0.00098	G B	0.000026	0.000026	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-49/69	0.0099	E B	0.000047	0.000021	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-50/53	0.00097	B	0.000047	0.000024	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-204-1 (0-2) (102617)**

**Lab Sample ID: 680-144854-12**

**Date Collected: 10/26/17 15:00**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 85.6**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-51	0.00016		0.000024	0.000024	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-54	0.0000065	J	0.000024	0.0000003	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-55	0.00022	U G	0.00022	0.00022	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-56	0.0049	E G	0.00023	0.00023	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-57	0.00022	U G	0.00022	0.00022	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-58	0.00021	U G	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-59/62/75	0.00045		0.000071	0.000019	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-60	0.0020	G	0.00022	0.00022	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-61/70/74/76	0.047	E G B	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-63	0.00049	G	0.00020	0.00020	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-64	0.0056	E B	0.000024	0.000018	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-66	0.015	E G B	0.00022	0.00022	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-67	0.00021	U G	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-68	0.00019	U G	0.00019	0.00019	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-72	0.00021	U G	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-73	0.000019	U	0.000024	0.000019	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-77	0.0019	G	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-78	0.00047	q G	0.00022	0.00022	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-79	0.00097	G	0.00020	0.00020	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-80	0.00063	G	0.00019	0.00019	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-81	0.00020	U G	0.00020	0.00020	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-82	0.013	E G	0.0014	0.0014	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-83	0.0015	U G	0.0015	0.0015	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-84	0.027	E G B	0.0013	0.0013	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-85/116/117	0.020	E G	0.00095	0.00095	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-88/91	0.012	E G	0.0011	0.0011	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-89	0.0012	U G	0.0012	0.0012	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-92	0.021	E G B	0.0012	0.0012	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-93/100	0.0011	U G	0.0011	0.0011	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-107/124	0.0059	E G	0.00088	0.00088	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-94	0.0011	U G	0.0011	0.0011	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-96	0.00041		0.000024	0.0000008	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-98/102	0.0014	q G	0.0011	0.0011	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-99	0.046	E G B	0.00093	0.00093	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-103	0.00099	U G	0.00099	0.00099	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-104	0.0000048	J	0.000024	0.0000010	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-106	0.00090	U G	0.00090	0.00090	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-109	0.0095	E G	0.00082	0.00082	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-111	0.00085	U G	0.00085	0.00085	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-112	0.00088	U G	0.00088	0.00088	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-114	0.0035	E G	0.00086	0.00086	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-120	0.00081	U G	0.00081	0.00081	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-121	0.00081	U G	0.00081	0.00081	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-122	0.0012	G	0.00095	0.00095	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-123	0.0020	G	0.00086	0.00086	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-126	0.00081	U G	0.00081	0.00081	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-127	0.00090	U G	0.00090	0.00090	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-128/166	0.026	E G B	0.00022	0.00022	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

Client Sample ID: SB-204-1 (0-2) (102617)

Lab Sample ID: 680-144854-12

Date Collected: 10/26/17 15:00

Matrix: Solid

Date Received: 10/27/17 13:50

Percent Solids: 85.6

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-130	0.0099	E G	0.00029	0.00029	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-131	0.0020	G	0.00026	0.00026	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-132	0.041	E G B	0.00026	0.00026	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-133	0.0016	G	0.00026	0.00026	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-134/143	0.0071	E G	0.00027	0.00027	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-135/151	0.028	E G B	0.00024	0.00024	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-136	0.011	E G B	0.00018	0.00018	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-137	0.0079	E G	0.00022	0.00022	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-139/140	0.0025	G	0.00023	0.00023	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-141	0.021	E G B	0.00026	0.00026	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-142	0.00028	U G	0.00028	0.00028	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-144	0.0044	E G	0.00024	0.00024	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-145	0.00018	U G	0.00018	0.00018	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-146	0.014	E G	0.00022	0.00022	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-148	0.00023	U G	0.00023	0.00023	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-150	0.00017	U G	0.00017	0.00017	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-152	0.00017	U G	0.00017	0.00017	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-154	0.00021	U G	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-155	0.00018	U G	0.00018	0.00018	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-156/157	0.022	E G B F2	0.00019	0.00019	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-158	0.016	E G B	0.00018	0.00018	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-159	0.00034	G	0.00013	0.00013	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-160	0.00022	U G	0.00022	0.00022	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-161	0.00021	U G	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-162	0.00052	G	0.00013	0.00013	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-164	0.0097	E G	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-165	0.00021	U G	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-167	0.0065	E G F2	0.00012	0.00012	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-169	0.00012	U G	0.00012	0.00012	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-170	0.015	E G B	0.000028	0.000028	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-171/173	0.0050	E	0.000047	0.000029	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-172	0.0023	G	0.000028	0.000028	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-174	0.014	E G B	0.000031	0.000031	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-175	0.00057		0.000024	0.0000055	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-176	0.0015		0.000024	0.0000040	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-177	0.0074	E G	0.000028	0.000028	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-178	0.0022		0.000024	0.0000058	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-179	0.0043	E	0.000024	0.0000042	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-180/193	0.027	E B	0.000047	0.000023	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-181	0.00028	G	0.000025	0.000025	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-182	0.000093		0.000024	0.0000052	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-183	0.0067	E B	0.000024	0.000022	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-184	0.0000044	U	0.000024	0.0000044	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-185	0.0011	G	0.000027	0.000027	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-186	0.0000042	U	0.000024	0.0000042	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-187	0.013	E B	0.000024	0.0000052	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-188	0.0000051	U	0.000024	0.0000051	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-189	0.00053	q F1	0.0000024	0.0000017	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-190	0.0027	E B	0.000024	0.000020	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-204-1 (0-2) (102617)**

**Lab Sample ID: 680-144854-12**

**Date Collected: 10/26/17 15:00**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 85.6**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-191	0.00059		0.000024	0.000021	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-192	0.000022	U	0.000024	0.000022	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-194	0.0043	E B	0.000024	0.0000018	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-195	0.0018		0.000024	0.0000019	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-196	0.0025	E	0.000024	0.000022	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-197	0.00018		0.000024	0.000016	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-198/199	0.0056	E	0.000047	0.000024	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-200	0.00082		0.000024	0.000019	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-201	0.00070		0.000024	0.000017	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-202	0.0011		0.000024	0.000022	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-203	0.0036	E	0.000024	0.000022	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-204	0.000018	U	0.000024	0.000018	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-205	0.00023	F1	0.000024	0.0000013	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-206	0.0025	E F2	0.000024	0.0000011	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
PCB-207	0.00033		0.000024	0.0000008	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
				1					
PCB-208	0.00060	F1	0.000024	0.0000009	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
				0					
PCB-209	0.00024	B F1	0.000024	0.0000002	mg/Kg	☼	11/02/17 12:52	11/21/17 23:53	1
				6					

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	39		5 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-3L	44		5 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-4L	46		5 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-15L	54		5 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-19L	52		5 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-37L	59		5 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-54L	32	q	5 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-77L	80		10 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-81L	79		10 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-104L	53		10 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-105L	90		10 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-114L	90		10 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-118L	87		10 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-123L	87		10 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-126L	99		10 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-155L	63		10 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-156L/157L	97		10 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-167L	97		10 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-169L	98		10 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-188L	71		10 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-189L	99		10 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-202L	79		10 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-205L	91		10 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-206L	84		10 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-208L	99		10 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-209L	93		10 - 145	11/02/17 12:52	11/21/17 23:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	55		5 - 145	11/02/17 12:52	11/21/17 23:53	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-204-1 (0-2) (102617)**

**Lab Sample ID: 680-144854-12**

**Date Collected: 10/26/17 15:00**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 85.6**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-111L	81		10 - 145	11/02/17 12:52	11/21/17 23:53	1
PCB-178L	96		10 - 145	11/02/17 12:52	11/21/17 23:53	1

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) - DL

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-52	0.052	E B	0.00047	0.000050	mg/Kg	☼	11/02/17 12:52	11/29/17 07:37	20
PCB-86/87/97/108/119/125	0.084	B	0.0028	0.0012	mg/Kg	☼	11/02/17 12:52	11/29/17 07:37	20
PCB-90/101/113	0.12	B	0.0014	0.0012	mg/Kg	☼	11/02/17 12:52	11/29/17 07:37	20
PCB-95	0.081	E G B	0.0013	0.0013	mg/Kg	☼	11/02/17 12:52	11/29/17 07:37	20
PCB-105	0.056	E G B F2	0.0011	0.0011	mg/Kg	☼	11/02/17 12:52	11/29/17 07:37	20
PCB-110/115	0.15	E G B	0.0010	0.0010	mg/Kg	☼	11/02/17 12:52	11/29/17 07:37	20
PCB-118	0.13	E G B F2	0.00098	0.00098	mg/Kg	☼	11/02/17 12:52	11/29/17 07:37	20
PCB-129/138/163	0.15	E B	0.0014	0.00051	mg/Kg	☼	11/02/17 12:52	11/29/17 07:37	20
PCB-147/149	0.077	B	0.00095	0.00053	mg/Kg	☼	11/02/17 12:52	11/29/17 07:37	20
PCB-153/168	0.091	B	0.00095	0.00045	mg/Kg	☼	11/02/17 12:52	11/29/17 07:37	20

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	46		5 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-3L	46		5 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-4L	49		5 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-15L	56		5 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-19L	50		5 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-37L	56		5 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-54L	43		5 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-77L	68		10 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-81L	70		10 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-104L	56		10 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-105L	80		10 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-114L	73		10 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-118L	82		10 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-123L	72		10 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-126L	81		10 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-155L	58		10 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-156L/157L	84		10 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-167L	85		10 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-169L	86		10 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-188L	73		10 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-189L	85		10 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-202L	80		10 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-205L	92		10 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-206L	85		10 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-208L	86		10 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-209L	92		10 - 145	11/02/17 12:52	11/29/17 07:37	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	50		5 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-111L	68		10 - 145	11/02/17 12:52	11/29/17 07:37	20
PCB-178L	90		10 - 145	11/02/17 12:52	11/29/17 07:37	20

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-204-1 (0-2) (102617)**

**Lab Sample ID: 680-144854-12**

**Date Collected: 10/26/17 15:00**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 85.6**

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.0000019	U G	0.0000019	0.0000019	mg/Kg	☼	11/02/17 12:58	11/15/17 23:48	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	85		40 - 135				11/02/17 12:58	11/15/17 23:48	1
13C-1,2,3,4,6,7,8-HpCDF	74		40 - 135				11/02/17 12:58	11/15/17 23:48	1
13C-1,2,3,4,7,8-HxCDF	101		40 - 135				11/02/17 12:58	11/15/17 23:48	1
13C-1,2,3,6,7,8-HxCDD	89		40 - 135				11/02/17 12:58	11/15/17 23:48	1
13C-1,2,3,7,8-PeCDD	92		40 - 135				11/02/17 12:58	11/15/17 23:48	1
13C-1,2,3,7,8-PeCDF	89		40 - 135				11/02/17 12:58	11/15/17 23:48	1
13C-2,3,7,8-TCDD	44		40 - 135				11/02/17 12:58	11/15/17 23:48	1
13C-2,3,7,8-TCDF	84		40 - 135				11/02/17 12:58	11/15/17 23:48	1
13C-OCDD	105		40 - 135				11/02/17 12:58	11/15/17 23:48	1

## Method: 8290A - Dioxins and Furans (HRGC/HRMS) - RA

Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	98		40 - 135				11/02/17 12:58	11/17/17 01:48	1

## Method: None - Total PCB Calculation from HRMS PCB-Congeners

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	1.6		0.0000020	0.0000050	mg/Kg	-		12/08/17 11:12	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-204-2 (0-2) (102617)**

**Lab Sample ID: 680-144854-13**

**Date Collected: 10/26/17 15:10**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 86.1**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.00022	J	0.00047	0.0000021	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-2	0.000029	J	0.00047	0.0000017	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-3	0.000096	J	0.00047	0.0000019	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-4	0.00019	J	0.00047	0.000019	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-5	0.000023	J	0.00047	0.000016	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-6	0.000082	J	0.00047	0.000017	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-7	0.000025	J	0.00047	0.000016	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-8	0.00046	J	0.00047	0.000017	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-9	0.000031	J	0.00047	0.000017	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-10	0.000014	U	0.00047	0.000014	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-11	0.000016	U	0.00047	0.000016	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-12/13	0.000052	J	0.00093	0.000016	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-14	0.000014	U	0.00047	0.000014	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-15	0.00015	J	0.00047	0.000017	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-16	0.00021	J	0.00047	0.0000054	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-17	0.00053		0.00047	0.0000040	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-18/30	0.00052	J B	0.00093	0.0000036	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-19	0.00011	J	0.00047	0.0000049	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-20/28	0.0018	B	0.00093	0.000024	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-21/33	0.0011	B	0.00093	0.000023	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-22	0.00026	J	0.00047	0.000025	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-23	0.000023	U	0.00047	0.000023	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-24	0.0000036	J	0.00047	0.0000032	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-25	0.00012	J	0.00047	0.000023	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-26/29	0.00013	J	0.00093	0.000023	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-27	0.000046	J	0.00047	0.0000031	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-31	0.0010	B	0.00047	0.000022	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-32	0.00075		0.00047	0.0000029	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-34	0.000037	J	0.00047	0.000024	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-35	0.000036	J	0.00047	0.000024	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-36	0.000022	U	0.00047	0.000022	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-37	0.00038	J	0.00047	0.000025	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-38	0.000025	U	0.00047	0.000025	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-39	0.000022	U	0.00047	0.000022	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-40/71	0.0054	B	0.00093	0.000037	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-41	0.000068	J	0.00047	0.000044	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-42	0.0022	B	0.00047	0.000041	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-43	0.00013	J	0.00047	0.000045	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-44/47/65	0.021	B	0.0014	0.000035	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-45	0.000042	U	0.00047	0.000042	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-46	0.00052		0.00047	0.000044	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-48	0.00043	J B	0.00047	0.000037	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-49/69	0.014	B	0.00093	0.000031	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-50/53	0.0033	B	0.00093	0.000036	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-51	0.0023		0.00047	0.000035	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-52	0.039	B	0.00047	0.000038	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-54	0.00011	J	0.00047	0.0000015	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-55	0.00017	U	0.00047	0.00017	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-56	0.0029		0.00047	0.00018	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-204-2 (0-2) (102617)**

**Lab Sample ID: 680-144854-13**

**Date Collected: 10/26/17 15:10**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 86.1**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	0.00017	U	0.00047	0.00017	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-58	0.00017	U	0.00047	0.00017	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-59/62/75</b>	<b>0.00049</b>	<b>J</b>	0.0014	0.000027	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-60</b>	<b>0.0010</b>		0.00047	0.00017	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-61/70/74/76</b>	<b>0.033</b>	<b>B</b>	0.0019	0.00017	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-63</b>	<b>0.00043</b>	<b>J</b>	0.00047	0.00015	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-64</b>	<b>0.0042</b>	<b>B</b>	0.00047	0.000026	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-66</b>	<b>0.016</b>	<b>B</b>	0.00047	0.00017	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-67	0.00016	U	0.00047	0.00016	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-68</b>	<b>0.00030</b>	<b>J</b>	0.00047	0.00015	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-72</b>	<b>0.00039</b>	<b>J</b>	0.00047	0.00016	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-73</b>	<b>0.000091</b>	<b>J</b>	0.00047	0.000028	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-77</b>	<b>0.0014</b>	<b>G</b>	0.00018	0.00018	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-78	0.00017	U	0.00047	0.00017	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-79</b>	<b>0.00064</b>		0.00047	0.00015	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-80	0.00015	U	0.00047	0.00015	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-81	0.00018	U G	0.00018	0.00018	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-82</b>	<b>0.0084</b>	<b>G</b>	0.0012	0.0012	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-83	0.0013	U G	0.0013	0.0013	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-84</b>	<b>0.019</b>	<b>G B</b>	0.0011	0.0011	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-85/116/117</b>	<b>0.014</b>		0.0014	0.00082	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-86/87/97/108/119/125</b>	<b>0.058</b>	<b>B</b>	0.0028	0.00086	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-88/91</b>	<b>0.011</b>	<b>G</b>	0.00095	0.00095	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-89	0.0010	U G	0.0010	0.0010	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-90/101/113</b>	<b>0.087</b>	<b>B</b>	0.0014	0.00087	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-92</b>	<b>0.017</b>	<b>G B</b>	0.0010	0.0010	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-93/100	0.00094	U G	0.00094	0.00094	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-107/124</b>	<b>0.0039</b>		0.00093	0.00076	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-94	0.00099	U G	0.00099	0.00099	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-95</b>	<b>0.058</b>	<b>E G B</b>	0.00094	0.00094	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-96</b>	<b>0.00050</b>		0.00047	0.0000018	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-98/102</b>	<b>0.0012</b>		0.00093	0.00092	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-99</b>	<b>0.036</b>	<b>G B</b>	0.00080	0.00080	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-103	0.00086	U G	0.00086	0.00086	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-104</b>	<b>0.000021</b>	<b>J</b>	0.00047	0.0000018	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-105</b>	<b>0.039</b>	<b>G B</b>	0.00080	0.00080	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-106	0.00078	U G	0.00078	0.00078	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-110/115</b>	<b>0.11</b>	<b>E B</b>	0.00093	0.00075	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-109</b>	<b>0.0070</b>	<b>G</b>	0.00072	0.00072	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-111	0.00074	U G	0.00074	0.00074	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-112	0.00076	U G	0.00076	0.00076	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-114</b>	<b>0.0015</b>	<b>G</b>	0.00081	0.00081	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-118</b>	<b>0.096</b>	<b>E G B</b>	0.00072	0.00072	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-120	0.00070	U G	0.00070	0.00070	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-121	0.00070	U G	0.00070	0.00070	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-122	0.00083	U G	0.00083	0.00083	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
<b>PCB-123</b>	<b>0.0013</b>	<b>G</b>	0.00084	0.00084	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-126	0.00080	U G	0.00080	0.00080	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-127	0.00078	U G	0.00078	0.00078	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-204-2 (0-2) (102617)**

**Lab Sample ID: 680-144854-13**

**Date Collected: 10/26/17 15:10**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 86.1**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	0.020	B	0.00093	0.00036	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-129/138/163	0.11	B	0.0014	0.00038	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-130	0.0075	G	0.00048	0.00048	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-131	0.0012		0.00047	0.00044	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-132	0.031	B	0.00047	0.00044	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-133	0.0011		0.00047	0.00043	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-134/143	0.0048		0.00093	0.00045	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-135/151	0.019	B	0.00093	0.00041	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-136	0.0080	B	0.00047	0.00030	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-137	0.0057		0.00047	0.00036	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-139/140	0.0017		0.00093	0.00039	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-141	0.014	B	0.00047	0.00043	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-142	0.00046	U	0.00047	0.00046	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-144	0.0027		0.00047	0.00039	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-145	0.00030	U	0.00047	0.00030	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-146	0.011		0.00047	0.00037	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-147/149	0.055	B	0.00093	0.00039	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-148	0.00039	U	0.00047	0.00039	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-150	0.00028	U	0.00047	0.00028	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-152	0.00029	U	0.00047	0.00029	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-153/168	0.065	B	0.00093	0.00033	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-154	0.00038	J	0.00047	0.00035	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-155	0.00030	U	0.00047	0.00030	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-156/157	0.016	G B	0.00012	0.00012	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-158	0.011	B	0.00047	0.00030	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-159	0.00019	J	0.00047	0.000086	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-160	0.00037	U	0.00047	0.00037	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-161	0.00034	U	0.00047	0.00034	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-162	0.00033	J	0.00047	0.000083	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-164	0.0070		0.00047	0.00036	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-165	0.00035	U	0.00047	0.00035	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-167	0.0046	G	0.000076	0.000076	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-169	0.000076	U G	0.000076	0.000076	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-170	0.010	B	0.00047	0.000014	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-171/173	0.0033		0.00093	0.000015	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-172	0.0015		0.00047	0.000014	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-174	0.0085	B	0.00047	0.000015	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-175	0.00034	J	0.00047	0.0000040	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-176	0.00086		0.00047	0.0000029	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-177	0.0049		0.00047	0.000014	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-178	0.0014		0.00047	0.0000042	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-179	0.0025		0.00047	0.0000031	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-180/193	0.016	B	0.00093	0.000012	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-181	0.00023	J	0.00047	0.000013	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-182	0.000078	J	0.00047	0.0000038	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-183	0.0039	B	0.00047	0.000011	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-184	0.0000032	U	0.00047	0.0000032	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-185	0.00056		0.00047	0.000014	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-186	0.0000031	U	0.00047	0.0000031	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-204-2 (0-2) (102617)**

**Lab Sample ID: 680-144854-13**

**Date Collected: 10/26/17 15:10**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 86.1**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	0.0075	B	0.00047	0.0000038	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-188	0.000013	J	0.00047	0.0000034	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-189	0.00045		0.000047	0.0000024	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-190	0.0018	B	0.00047	0.000010	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-191	0.00037	J	0.00047	0.000011	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-192	0.000011	U	0.00047	0.000011	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-194	0.0021	B	0.00047	0.0000022	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-195	0.00076		0.00047	0.0000024	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-196	0.0011		0.00047	0.0000073	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-197	0.000086	J	0.00047	0.0000051	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-198/199	0.0025		0.00093	0.0000078	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-200	0.00032	J	0.00047	0.0000062	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-201	0.00029	J	0.00047	0.0000056	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-202	0.00049		0.00047	0.0000067	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-203	0.0016		0.00047	0.0000073	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-204	0.000058	U	0.00047	0.0000058	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-205	0.00012	J	0.00047	0.0000017	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-206	0.0012		0.00047	0.0000057	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-207	0.00016	J	0.00047	0.0000045	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-208	0.00029	J	0.00047	0.0000055	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20
PCB-209	0.00010	J B	0.00047	0.0000017	mg/Kg	☼	11/02/17 12:52	11/29/17 11:22	20

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	50		5 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-3L	53		5 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-4L	53		5 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-15L	61		5 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-19L	67		5 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-37L	63		5 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-54L	52		5 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-77L	73		10 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-81L	74		10 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-104L	62		10 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-105L	84		10 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-114L	79		10 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-118L	85		10 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-123L	76		10 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-126L	86		10 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-155L	68		10 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-156L/157L	88		10 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-167L	89		10 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-169L	100		10 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-188L	85		10 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-189L	92		10 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-202L	92		10 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-205L	99		10 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-206L	96		10 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-208L	92		10 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-209L	103		10 - 145	11/02/17 12:52	11/29/17 11:22	20

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-204-2 (0-2) (102617)**

**Lab Sample ID: 680-144854-13**

**Date Collected: 10/26/17 15:10**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 86.1**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	56		5 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-111L	74		10 - 145	11/02/17 12:52	11/29/17 11:22	20
PCB-178L	101		10 - 145	11/02/17 12:52	11/29/17 11:22	20

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.0000015	U G	0.0000015	0.0000015	mg/Kg	☼	11/02/17 12:58	11/16/17 02:14	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	109		40 - 135				11/02/17 12:58	11/16/17 02:14	1
13C-1,2,3,4,6,7,8-HpCDF	99		40 - 135				11/02/17 12:58	11/16/17 02:14	1
13C-1,2,3,4,7,8-HxCDF	98		40 - 135				11/02/17 12:58	11/16/17 02:14	1
13C-1,2,3,6,7,8-HxCDD	93		40 - 135				11/02/17 12:58	11/16/17 02:14	1
13C-1,2,3,7,8-PeCDD	93		40 - 135				11/02/17 12:58	11/16/17 02:14	1
13C-1,2,3,7,8-PeCDF	95		40 - 135				11/02/17 12:58	11/16/17 02:14	1
13C-2,3,7,8-TCDD	58		40 - 135				11/02/17 12:58	11/16/17 02:14	1
13C-2,3,7,8-TCDF	92		40 - 135				11/02/17 12:58	11/16/17 02:14	1
13C-OCDD	113		40 - 135				11/02/17 12:58	11/16/17 02:14	1

## Method: 8290A - Dioxins and Furans (HRGC/HRMS) - RA

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	95		40 - 135	11/02/17 12:58	11/17/17 03:42	1

## Method: None - Total PCB Calculation from HRMS PCB-Congeners

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	1.2		0.0000020	0.0000050	mg/Kg	-		12/08/17 11:12	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-204-3 (0-2) (102617)**

**Lab Sample ID: 680-144854-14**

**Date Collected: 10/26/17 15:20**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 79.9**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.000014	J	0.00050	0.0000017	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-2	0.0000039	J	0.00050	0.0000015	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-3	0.0000091	J	0.00050	0.0000018	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-4	0.000059	J	0.00050	0.000023	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-5	0.000018	U	0.00050	0.000018	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-6	0.000031	J	0.00050	0.000019	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-7	0.000018	U	0.00050	0.000018	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-8	0.00012	J	0.00050	0.000018	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-9	0.000019	U	0.00050	0.000019	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-10	0.000020	U	0.00050	0.000020	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-11	0.000055	J	0.00050	0.000018	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-12/13	0.000018	U	0.0010	0.000018	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-14	0.000016	U	0.00050	0.000016	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-15	0.00013	J	0.00050	0.000021	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-16	0.00021	J	0.00050	0.0000094	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-17	0.00020	J	0.00050	0.0000071	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-18/30	0.00057	J B	0.0010	0.0000062	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-19	0.000066	J	0.00050	0.0000071	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-20/28	0.00069	J B	0.0010	0.000022	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-21/33	0.00039	J B	0.0010	0.000020	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-22	0.00031	J	0.00050	0.000022	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-23	0.000021	U	0.00050	0.000021	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-24	0.0000066	J	0.00050	0.0000057	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-25	0.000045	J	0.00050	0.000021	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-26/29	0.00016	J	0.0010	0.000021	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-27	0.000049	J	0.00050	0.0000054	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-31	0.0011	B	0.00050	0.000020	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-32	0.00020	J	0.00050	0.0000051	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-34	0.000022	U	0.00050	0.000022	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-35	0.00012	J	0.00050	0.000022	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-36	0.000020	U	0.00050	0.000020	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-37	0.00082	J	0.00050	0.000026	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-38	0.000022	U	0.00050	0.000022	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-39	0.000020	U	0.00050	0.000020	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-40/71	0.0043	B	0.0010	0.000062	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-41	0.00029	J	0.00050	0.000072	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-42	0.0019	B	0.00050	0.000067	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-43	0.00014	J	0.00050	0.000074	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-44/47/65	0.022	B	0.0015	0.000058	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-45	0.00059	J	0.00050	0.000070	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-46	0.00029	J	0.00050	0.000073	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-48	0.0011	B	0.00050	0.000062	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-49/69	0.012	B	0.0010	0.000051	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-50/53	0.0014	B	0.0010	0.000059	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-51	0.00023	J	0.00050	0.000058	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-52	0.065	E B	0.00050	0.000062	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-54	0.000018	J	0.00050	0.0000027	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-55	0.00030	U	0.00050	0.00030	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-56	0.0071	J	0.00050	0.00031	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-204-3 (0-2) (102617)**

**Lab Sample ID: 680-144854-14**

**Date Collected: 10/26/17 15:20**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 79.9**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	0.00030	U	0.00050	0.00030	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-58	0.00029	U	0.00050	0.00029	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-59/62/75</b>	<b>0.00056</b>	<b>J</b>	0.0015	0.000045	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-60</b>	<b>0.0024</b>		0.00050	0.00030	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-61/70/74/76</b>	<b>0.067</b>	<b>B</b>	0.0020	0.00029	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-63</b>	<b>0.00060</b>		0.00050	0.00027	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-64</b>	<b>0.0076</b>	<b>B</b>	0.00050	0.000043	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-66</b>	<b>0.017</b>	<b>B</b>	0.00050	0.00030	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-67	0.00028	U	0.00050	0.00028	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-68	0.00026	U	0.00050	0.00026	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-72	0.00028	U	0.00050	0.00028	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-73	0.000047	U	0.00050	0.000047	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-77</b>	<b>0.0074</b>	<b>G</b>	0.00036	0.00036	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-78	0.00030	U	0.00050	0.00030	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-79</b>	<b>0.0020</b>		0.00050	0.00027	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-80	0.00026	U	0.00050	0.00026	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-81</b>	<b>0.0027</b>	<b>G</b>	0.00034	0.00034	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-82</b>	<b>0.025</b>	<b>G</b>	0.0034	0.0034	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-83	0.0037	U G	0.0037	0.0037	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-84</b>	<b>0.047</b>	<b>G B</b>	0.0031	0.0031	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-85/116/117</b>	<b>0.032</b>	<b>G</b>	0.0023	0.0023	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-86/87/97/108/119/125</b>	<b>0.16</b>	<b>B</b>	0.0030	0.0024	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-88/91</b>	<b>0.022</b>	<b>G</b>	0.0027	0.0027	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-89	0.0030	U G	0.0030	0.0030	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-90/101/113</b>	<b>0.24</b>	<b>E G B</b>	0.0025	0.0025	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-92</b>	<b>0.043</b>	<b>G B</b>	0.0029	0.0029	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-93/100	0.0027	U G	0.0027	0.0027	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-107/124</b>	<b>0.0088</b>	<b>G</b>	0.0022	0.0022	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-94	0.0028	U G	0.0028	0.0028	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-95</b>	<b>0.14</b>	<b>E G B</b>	0.0027	0.0027	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-96</b>	<b>0.00079</b>		0.00050	0.0000062	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-98/102</b>	<b>0.0037</b>	<b>G</b>	0.0026	0.0026	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-99</b>	<b>0.090</b>	<b>E G B</b>	0.0023	0.0023	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-103	0.0025	U G	0.0025	0.0025	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-104</b>	<b>0.000013</b>	<b>J</b>	0.00050	0.0000052	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-105</b>	<b>0.10</b>	<b>E G B</b>	0.0023	0.0023	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-106	0.0022	U G	0.0022	0.0022	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-110/115</b>	<b>0.29</b>	<b>E G B</b>	0.0022	0.0022	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-109</b>	<b>0.020</b>	<b>G</b>	0.0020	0.0020	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-111	0.0021	U G	0.0021	0.0021	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-112	0.0022	U G	0.0022	0.0022	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-114</b>	<b>0.0041</b>	<b>G</b>	0.0026	0.0026	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-118</b>	<b>0.24</b>	<b>E G B</b>	0.0021	0.0021	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-120	0.0020	U G	0.0020	0.0020	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-121	0.0020	U G	0.0020	0.0020	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-122	0.0024	U G	0.0024	0.0024	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-123	0.0025	U G	0.0025	0.0025	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
<b>PCB-126</b>	<b>0.0049</b>	<b>G</b>	0.0026	0.0026	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-127	0.0022	U G	0.0022	0.0022	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-204-3 (0-2) (102617)**

**Lab Sample ID: 680-144854-14**

**Date Collected: 10/26/17 15:20**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 79.9**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	0.060	G B	0.0012	0.0012	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-129/138/163	0.35	E B	0.0015	0.0013	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-130	0.026	G	0.0016	0.0016	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-131	0.0044	G	0.0015	0.0015	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-132	0.10	E G B	0.0015	0.0015	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-133	0.0037	G	0.0015	0.0015	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-134/143	0.016	G	0.0015	0.0015	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-135/151	0.064	G B	0.0014	0.0014	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-136	0.026	G B	0.0010	0.0010	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-137	0.016	G	0.0012	0.0012	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-139/140	0.0061	G	0.0013	0.0013	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-141	0.041	G B	0.0015	0.0015	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-142	0.0016	U G	0.0016	0.0016	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-144	0.0098	G	0.0013	0.0013	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-145	0.0010	U G	0.0010	0.0010	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-146	0.041	G	0.0013	0.0013	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-147/149	0.18	E G B	0.0013	0.0013	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-148	0.0013	U G	0.0013	0.0013	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-150	0.00094	U G	0.00094	0.00094	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-152	0.00097	U G	0.00097	0.00097	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-153/168	0.22	E G B	0.0011	0.0011	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-154	0.0023	G	0.0012	0.0012	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-155	0.00086	U G	0.00086	0.00086	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-156/157	0.042	G B	0.00031	0.00031	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-158	0.033	G B	0.0010	0.0010	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-159	0.00073		0.00050	0.00022	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-160	0.0013	U G	0.0013	0.0013	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-161	0.0012	U G	0.0012	0.0012	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-162	0.0014		0.00050	0.00022	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-164	0.023	G	0.0012	0.0012	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-165	0.0012	U G	0.0012	0.0012	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-167	0.018	G	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-169	0.00022	U G	0.00022	0.00022	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-170	0.029	B	0.00050	0.000052	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-171/173	0.010		0.0010	0.000053	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-172	0.0046		0.00050	0.000052	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-174	0.025	B	0.00050	0.000057	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-175	0.0014		0.00050	0.000020	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-176	0.0030		0.00050	0.000014	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-177	0.017		0.00050	0.000052	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-178	0.0049		0.00050	0.000021	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-179	0.0089		0.00050	0.000015	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-180/193	0.047	B	0.0010	0.000043	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-181	0.00043	J	0.00050	0.000047	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-182	0.00023	J	0.00050	0.000019	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-183	0.014	B	0.00050	0.000041	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-184	0.000076	J	0.00050	0.000016	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-185	0.0012		0.00050	0.000050	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-186	0.000015	U	0.00050	0.000015	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-204-3 (0-2) (102617)**

**Lab Sample ID: 680-144854-14**

**Date Collected: 10/26/17 15:20**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 79.9**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	0.0027	B	0.00050	0.000019	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-188	0.00010	J	0.00050	0.000016	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-189	0.0012		0.000050	0.0000089	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-190	0.0039	B	0.00050	0.000038	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-191	0.0012		0.00050	0.000039	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-192	0.000040	U	0.00050	0.000040	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-194	0.0060	B	0.00050	0.000010	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-195	0.0019		0.00050	0.000011	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-196	0.0036		0.00050	0.0000077	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-197	0.00032	J	0.00050	0.0000054	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-198/199	0.0072		0.0010	0.0000082	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-200	0.00073		0.00050	0.0000066	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-201	0.0010		0.00050	0.0000059	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-202	0.0014		0.00050	0.0000069	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-203	0.0039		0.00050	0.0000077	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-204	0.0000061	U	0.00050	0.0000061	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-205	0.00031	J	0.00050	0.0000079	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-206	0.0029		0.00050	0.000021	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-207	0.00039	J	0.00050	0.000016	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-208	0.00064		0.00050	0.000019	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20
PCB-209	0.00027	J B	0.00050	0.0000051	mg/Kg	☼	11/02/17 12:52	11/29/17 12:37	20

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	53		5 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-3L	49		5 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-4L	46		5 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-15L	37		5 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-19L	40		5 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-37L	30		5 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-54L	29		5 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-77L	30		10 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-81L	31		10 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-104L	30		10 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-105L	33		10 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-114L	29		10 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-118L	34		10 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-123L	29		10 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-126L	31		10 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-155L	26		10 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-156L/157L	29		10 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-167L	28		10 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-169L	27		10 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-188L	30		10 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-189L	28		10 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-202L	30		10 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-205L	31		10 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-206L	29		10 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-208L	29		10 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-209L	32		10 - 145	11/02/17 12:52	11/29/17 12:37	20

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-204-3 (0-2) (102617)**

**Lab Sample ID: 680-144854-14**

**Date Collected: 10/26/17 15:20**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 79.9**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	66		5 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-111L	84		10 - 145	11/02/17 12:52	11/29/17 12:37	20
PCB-178L	100		10 - 145	11/02/17 12:52	11/29/17 12:37	20

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.0000022	U	0.0000022	0.0000022	mg/Kg	☼	11/02/17 12:58	11/16/17 10:00	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	40		40 - 135				11/02/17 12:58	11/16/17 10:00	1
13C-1,2,3,4,6,7,8-HpCDF	37	*	40 - 135				11/02/17 12:58	11/16/17 10:00	1
13C-1,2,3,4,7,8-HxCDF	36	*	40 - 135				11/02/17 12:58	11/16/17 10:00	1
13C-1,2,3,6,7,8-HxCDD	34	*	40 - 135				11/02/17 12:58	11/16/17 10:00	1
13C-1,2,3,7,8-PeCDD	30	*	40 - 135				11/02/17 12:58	11/16/17 10:00	1
13C-1,2,3,7,8-PeCDF	32	*	40 - 135				11/02/17 12:58	11/16/17 10:00	1
13C-2,3,7,8-TCDD	20	*	40 - 135				11/02/17 12:58	11/16/17 10:00	1
13C-2,3,7,8-TCDF	31	*	40 - 135				11/02/17 12:58	11/16/17 10:00	1
13C-OCDD	43		40 - 135				11/02/17 12:58	11/16/17 10:00	1

## Method: 8290A - Dioxins and Furans (HRGC/HRMS) - RA

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	34	*	40 - 135	11/02/17 12:58	11/17/17 04:20	1

## Method: None - Total PCB Calculation from HRMS PCB-Congeners

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	3.2		0.0000020	0.0000050	mg/Kg	-		12/08/17 11:12	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-207-1 (0-2) (102617)**

**Lab Sample ID: 680-144854-15**

**Date Collected: 10/26/17 15:30**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 83.6**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0000025	J	0.00012	0.0000012	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-2	0.0000018	J	0.00012	0.0000009	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-3	0.0000027	J	0.00012	0.0000010	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-4	0.000019	U	0.00012	0.000019	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-5	0.000012	U	0.00012	0.000012	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-6	0.000012	U	0.00012	0.000012	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-7	0.000012	U	0.00012	0.000012	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-8	0.000012	U	0.00012	0.000012	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-9	0.000012	U	0.00012	0.000012	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-10	0.000014	U	0.00012	0.000014	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-11	0.000012	U	0.00012	0.000012	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-12/13	0.000012	U	0.00024	0.000012	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-14	0.000010	U	0.00012	0.000010	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-15	0.000012	U	0.00012	0.000012	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-16	0.0000065	J	0.00012	0.0000034	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-17	0.0000045	J	0.00012	0.0000025	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-18/30	0.000011	J B	0.00024	0.0000022	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-19	0.0000032	U	0.00012	0.0000032	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-20/28	0.000024	J B	0.00024	0.0000019	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-21/33	0.000025	J B	0.00024	0.0000018	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-22	0.0000063	J	0.00012	0.0000020	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-23	0.0000019	U	0.00012	0.0000019	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-24	0.0000020	U	0.00012	0.0000020	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-25	0.0000019	U	0.00012	0.0000019	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-26/29	0.0000019	U	0.00024	0.0000019	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-27	0.0000019	U	0.00012	0.0000019	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-31	0.000026	J B	0.00012	0.0000018	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-32	0.0000029	J	0.00012	0.0000018	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-34	0.0000019	U	0.00012	0.0000019	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-35	0.0000020	U	0.00012	0.0000020	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-36	0.0000018	U	0.00012	0.0000018	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-37	0.000021	J	0.00012	0.0000020	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-38	0.0000020	U	0.00012	0.0000020	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-39	0.0000018	U	0.00012	0.0000018	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-40/71	0.000093	J B	0.00024	0.0000018	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-41	0.0000021	U	0.00012	0.0000021	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-42	0.000042	J B	0.00012	0.0000019	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-43	0.0000021	U	0.00012	0.0000021	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-44/47/65	0.00061	B	0.00036	0.0000017	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-45	0.000012	J	0.00012	0.0000020	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-46	0.0000021	U	0.00012	0.0000021	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-48	0.000017	J B	0.00012	0.0000018	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-49/69	0.00027	B	0.00024	0.0000015	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-50/53	0.000033	J B	0.00024	0.0000017	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-51	0.0000043	J	0.00012	0.0000017	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-52	0.0021	B	0.00012	0.0000018	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-54	0.0000010	U	0.00012	0.0000010	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-55	0.0000099	U	0.00012	0.0000099	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-207-1 (0-2) (102617)**

**Lab Sample ID: 680-144854-15**

**Date Collected: 10/26/17 15:30**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 83.6**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-56	0.00018		0.00012	0.000010	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-57	0.0000099	U	0.00012	0.0000099	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-58	0.00013		0.00012	0.0000096	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-59/62/75	0.000014	J	0.00036	0.0000013	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-60	0.000068	J	0.00012	0.0000098	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-61/70/74/76	0.0017	B	0.00048	0.0000096	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-63	0.0000088	U	0.00012	0.0000088	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-64	0.00025	B	0.00012	0.0000012	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-66	0.00058	B	0.00012	0.000010	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-67	0.0000092	U	0.00012	0.0000092	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-68	0.0000086	U	0.00012	0.0000086	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-72	0.0000093	U	0.00012	0.0000093	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-73	0.0000013	U	0.00012	0.0000013	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-77	0.00012		0.000012	0.0000096	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-78	0.000010	U	0.00012	0.000010	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-79	0.000053	J	0.00012	0.0000089	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-80	0.0000085	U	0.00012	0.0000085	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-81	0.0000097	U	0.000012	0.0000097	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-82	0.00078	G	0.00017	0.00017	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-83	0.00018	U G	0.00018	0.00018	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-84	0.0014	G B	0.00016	0.00016	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-85/116/117	0.0017		0.00036	0.00012	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-86/87/97/108/119/125	0.0048	B	0.00072	0.00012	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-88/91	0.00081		0.00024	0.00013	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-89	0.00015	U G	0.00015	0.00015	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-90/101/113	0.0076	B	0.00036	0.00012	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-92	0.0014	G B	0.00014	0.00014	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-93/100	0.00013	U	0.00024	0.00013	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-107/124	0.00040		0.00024	0.00011	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-94	0.00014	U G	0.00014	0.00014	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-95	0.0051	G B	0.00013	0.00013	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-96	0.000029	J	0.00012	0.0000005	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
						4			
PCB-98/102	0.00013	U	0.00024	0.00013	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-99	0.0035	B	0.00012	0.00011	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-103	0.00012	U	0.00012	0.00012	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-104	0.00000053	U	0.00012	0.0000005	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
						3			
PCB-105	0.0043	G B	0.00011	0.00011	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-106	0.00011	U	0.00012	0.00011	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-110/115	0.012	B	0.00024	0.00011	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-109	0.00069		0.00012	0.00010	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-111	0.00010	U	0.00012	0.00010	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-112	0.00011	U	0.00012	0.00011	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-114	0.00014	G	0.00011	0.00011	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-118	0.0094	G B	0.00011	0.00011	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-120	0.00010	U	0.00012	0.00010	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-121	0.000099	U	0.00012	0.000099	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-122	0.00012	U	0.00012	0.00012	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-123	0.00014	G	0.00011	0.00011	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-207-1 (0-2) (102617)**

**Lab Sample ID: 680-144854-15**

**Date Collected: 10/26/17 15:30**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 83.6**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-126	0.00011	U G	0.00011	0.00011	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-127	0.00011	U	0.00012	0.00011	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-128/166	0.0033	B	0.00024	0.000062	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-129/138/163	0.021	B	0.00036	0.000066	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-130	0.0012		0.00012	0.000083	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-131	0.00018		0.00012	0.000076	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-132	0.0055	B	0.00012	0.000076	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-133	0.00018		0.00012	0.000075	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-134/143	0.00075		0.00024	0.000077	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-135/151	0.0043	B	0.00024	0.000070	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-136	0.0016	B	0.00012	0.000052	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-137	0.00090		0.00012	0.000062	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-139/140	0.00027		0.00024	0.000067	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-141	0.0035	B	0.00012	0.000074	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-142	0.000079	U	0.00012	0.000079	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-144	0.00063		0.00012	0.000068	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-145	0.000051	U	0.00012	0.000051	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-146	0.0022		0.00012	0.000064	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-147/149	0.0097	B	0.00024	0.000068	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-148	0.000068	U	0.00012	0.000068	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-150	0.000048	U	0.00012	0.000048	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-152	0.000049	U	0.00012	0.000049	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-153/168	0.014	B	0.00024	0.000057	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-154	0.000061	U	0.00012	0.000061	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-155	0.000049	U	0.00012	0.000049	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-156/157	0.0023	B	0.00024	0.000023	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-158	0.0022	B	0.00012	0.000052	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-159	0.00013		0.00012	0.000015	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-160	0.000064	U	0.00012	0.000064	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-161	0.000059	U	0.00012	0.000059	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-162	0.000055	J	0.00012	0.000014	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-164	0.0014		0.00012	0.000061	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-165	0.000060	U	0.00012	0.000060	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-167	0.00072	G	0.00013	0.000013	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-169	0.000012	U	0.00012	0.000012	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-170	0.0039	B	0.00012	0.000048	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-171/173	0.0013		0.00024	0.000049	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-172	0.00065		0.00012	0.000047	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-174	0.0042	B	0.00012	0.000052	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-175	0.00017		0.00012	0.000012	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-176	0.00044		0.00012	0.000008	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
				4					
PCB-177	0.0022		0.00012	0.000048	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-178	0.00069		0.00012	0.000012	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-179	0.0013		0.00012	0.000008	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
				8					
PCB-180/193	0.0080	B	0.00024	0.000039	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-181	0.000036	J	0.00012	0.000043	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-182	0.000017	J	0.00012	0.000011	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-183	0.0019	B	0.00012	0.000037	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-207-1 (0-2) (102617)**

**Lab Sample ID: 680-144854-15**

**Date Collected: 10/26/17 15:30**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 83.6**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-184	0.00000092	U	0.00012	0.0000009	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
				2					
PCB-185	0.00046		0.00012	0.0000045	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-186	0.00000088	U	0.00012	0.0000008	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
				8					
PCB-187	0.0040	B	0.00012	0.0000011	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-188	0.00000095	U	0.00012	0.0000009	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
				5					
PCB-189	0.00014		0.000012	0.0000007	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
				2					
PCB-190	0.00074	B	0.00012	0.0000034	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-191	0.00017		0.00012	0.0000035	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-192	0.0000037	U	0.00012	0.0000037	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-194	0.0013	B	0.00012	0.0000014	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-195	0.00057		0.00012	0.0000015	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-196	0.00074		0.00012	0.0000010	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-197	0.000057	J	0.00012	0.0000007	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
				2					
PCB-198/199	0.0014		0.00024	0.0000011	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-200	0.00020		0.00012	0.0000008	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
				7					
PCB-201	0.00014		0.00012	0.0000007	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
				8					
PCB-202	0.00022		0.00012	0.0000008	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
				4					
PCB-203	0.00088		0.00012	0.0000010	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-204	0.00000081	U	0.00012	0.0000008	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
				1					
PCB-205	0.000074	J	0.00012	0.0000012	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-206	0.00033		0.00012	0.0000014	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-207	0.000041	J	0.00012	0.0000011	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-208	0.000080	J	0.00012	0.0000012	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
PCB-209	0.00016	B	0.00012	0.0000003	mg/Kg	☼	11/02/17 12:52	11/28/17 17:29	5
				2					

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	48		5 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-3L	55		5 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-4L	57		5 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-15L	69		5 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-19L	67		5 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-37L	73		5 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-54L	58		5 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-77L	84		10 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-81L	87		10 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-104L	74		10 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-105L	96		10 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-114L	94		10 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-118L	94		10 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-123L	93		10 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-126L	100		10 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-155L	72		10 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-156L/157L	66		10 - 145	11/02/17 12:52	11/28/17 17:29	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-207-1 (0-2) (102617)**

**Lab Sample ID: 680-144854-15**

**Date Collected: 10/26/17 15:30**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 83.6**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-167L	91		10 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-169L	99		10 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-188L	96		10 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-189L	94		10 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-202L	102		10 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-205L	91		10 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-206L	91		10 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-208L	97		10 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-209L	99		10 - 145	11/02/17 12:52	11/28/17 17:29	5
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	63		5 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-111L	90		10 - 145	11/02/17 12:52	11/28/17 17:29	5
PCB-178L	105		10 - 145	11/02/17 12:52	11/28/17 17:29	5

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.00000041	U	0.0000012	0.0000004	mg/Kg	☼	11/02/17 12:58	11/16/17 10:49	1
				1					
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	97		40 - 135				11/02/17 12:58	11/16/17 10:49	1
13C-1,2,3,4,6,7,8-HpCDF	94		40 - 135				11/02/17 12:58	11/16/17 10:49	1
13C-1,2,3,4,7,8-HxCDF	103		40 - 135				11/02/17 12:58	11/16/17 10:49	1
13C-1,2,3,6,7,8-HxCDD	85		40 - 135				11/02/17 12:58	11/16/17 10:49	1
13C-1,2,3,7,8-PeCDD	103		40 - 135				11/02/17 12:58	11/16/17 10:49	1
13C-1,2,3,7,8-PeCDF	76		40 - 135				11/02/17 12:58	11/16/17 10:49	1
13C-2,3,7,8-TCDD	64		40 - 135				11/02/17 12:58	11/16/17 10:49	1
13C-2,3,7,8-TCDF	63		40 - 135				11/02/17 12:58	11/16/17 10:49	1
13C-OCDD	118		40 - 135				11/02/17 12:58	11/16/17 10:49	1

## Method: None - Total PCB Calculation from HRMS PCB-Congeners

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.17		0.0000020	0.0000050	mg/Kg	-		12/08/17 11:12	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-207-2 (0-2) (102617)**

**Lab Sample ID: 680-144854-16**

**Date Collected: 10/26/17 15:40**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 79.1**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0000046	J	0.00013	0.0000011	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-2	0.0000031	J	0.00013	0.0000008	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-3	0.0000053	J	0.00013	0.0000009	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-4	0.000022	U	0.00013	0.000022	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-5	0.000011	U	0.00013	0.000011	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-6	0.000012	U	0.00013	0.000012	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-7	0.000012	U	0.00013	0.000012	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-8	0.000016	J	0.00013	0.000012	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-9	0.000012	U	0.00013	0.000012	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-10	0.000014	U	0.00013	0.000014	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-11	0.000012	U	0.00013	0.000012	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-12/13	0.000012	U	0.00025	0.000012	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-14	0.000010	U	0.00013	0.000010	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-15	0.000012	J	0.00013	0.000011	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-16	0.000023	J	0.00013	0.0000056	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-17	0.000023	J	0.00013	0.0000042	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-18/30	0.000058	J B	0.00025	0.0000037	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-19	0.000011	J	0.00013	0.0000039	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-20/28	0.000095	J B	0.00025	0.0000049	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-21/33	0.000083	J B	0.00025	0.0000046	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-22	0.000023	J	0.00013	0.0000050	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-23	0.0000047	U	0.00013	0.0000047	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-24	0.0000034	U	0.00013	0.0000034	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-25	0.0000047	U	0.00013	0.0000047	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-26/29	0.000016	J	0.00025	0.0000047	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-27	0.0000032	U	0.00013	0.0000032	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-31	0.000089	J B	0.00013	0.0000045	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-32	0.000029	J	0.00013	0.0000031	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-34	0.0000049	U	0.00013	0.0000049	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-35	0.0000050	U	0.00013	0.0000050	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-36	0.0000046	U	0.00013	0.0000046	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-37	0.000039	J	0.00013	0.0000064	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-38	0.0000050	U	0.00013	0.0000050	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-39	0.0000045	U	0.00013	0.0000045	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-40/71	0.00025	B	0.00025	0.0000036	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-41	0.0000043	U	0.00013	0.0000043	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-42	0.00012	J B	0.00013	0.0000040	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-43	0.0000075	J	0.00013	0.0000043	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-44/47/65	0.0015	B	0.00038	0.0000034	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-45	0.000031	J	0.00013	0.0000041	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-46	0.000022	J	0.00013	0.0000043	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-48	0.000056	J B	0.00013	0.0000036	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-49/69	0.00079	B	0.00025	0.0000030	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-50/53	0.00010	J B	0.00025	0.0000035	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-51	0.000026	J	0.00013	0.0000034	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-52	0.0045	B	0.00013	0.0000037	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-54	0.0000021	J	0.00013	0.0000006	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5

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TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-207-2 (0-2) (102617)**

**Lab Sample ID: 680-144854-16**

**Date Collected: 10/26/17 15:40**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 79.1**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-55	0.000025	U	0.00013	0.000025	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-56</b>	<b>0.000069</b>	<b>J</b>	0.00013	0.000026	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-57	0.000024	U	0.00013	0.000024	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-58</b>	<b>0.000031</b>		0.00013	0.000024	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-59/62/75</b>	<b>0.000037</b>	<b>J</b>	0.00038	0.0000027	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-60</b>	<b>0.000026</b>		0.00013	0.000024	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-61/70/74/76</b>	<b>0.0035</b>	<b>B</b>	0.00051	0.000024	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-63</b>	<b>0.000030</b>	<b>J</b>	0.00013	0.000022	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-64</b>	<b>0.000037</b>	<b>B</b>	0.00013	0.0000025	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-66</b>	<b>0.0010</b>	<b>B</b>	0.00013	0.000025	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-67	0.000023	U	0.00013	0.000023	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-68	0.000021	U	0.00013	0.000021	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-72	0.000023	U	0.00013	0.000023	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-73	0.0000028	U	0.00013	0.0000028	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-77</b>	<b>0.00018</b>	<b>G</b>	0.000025	0.000025	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-78	0.000025	U	0.00013	0.000025	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-79</b>	<b>0.000098</b>	<b>J</b>	0.00013	0.000022	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-80	0.000021	U	0.00013	0.000021	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-81	0.000024	U G	0.000024	0.000024	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-82</b>	<b>0.0018</b>	<b>G</b>	0.00035	0.00035	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-83	0.00038	U G	0.00038	0.00038	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-84</b>	<b>0.0044</b>	<b>G B</b>	0.00033	0.00033	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-85/116/117</b>	<b>0.0025</b>		0.00038	0.00024	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-86/87/97/108/119/125</b>	<b>0.011</b>	<b>B</b>	0.00076	0.00025	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-88/91</b>	<b>0.0020</b>	<b>G</b>	0.00028	0.00028	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-89	0.00031	U G	0.00031	0.00031	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-90/101/113</b>	<b>0.017</b>	<b>B</b>	0.00038	0.00026	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-92	0.00030	U G	0.00030	0.00030	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-93/100	0.00028	U G	0.00028	0.00028	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-107/124</b>	<b>0.00055</b>		0.00025	0.00023	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-94	0.00030	U G	0.00030	0.00030	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-95</b>	<b>0.013</b>	<b>E G B</b>	0.00028	0.00028	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-96</b>	<b>0.000070</b>	<b>J</b>	0.00013	0.0000007	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
7									
PCB-98/102	0.00027	U G	0.00027	0.00027	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-99</b>	<b>0.0066</b>	<b>G B</b>	0.00024	0.00024	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-103	0.00026	U G	0.00026	0.00026	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-104	0.00000078	U	0.00013	0.0000007	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
8									
<b>PCB-105</b>	<b>0.0060</b>	<b>G B</b>	0.00024	0.00024	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-106	0.00023	U G	0.00023	0.00023	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-110/115</b>	<b>0.026</b>	<b>E B</b>	0.00025	0.00022	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-109</b>	<b>0.0011</b>	<b>G</b>	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-111	0.00022	U G	0.00022	0.00022	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-112	0.00023	U G	0.00023	0.00023	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-114</b>	<b>0.00030</b>	<b>G</b>	0.00024	0.00024	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-118</b>	<b>0.016</b>	<b>E G B</b>	0.00022	0.00022	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-120	0.00021	U G	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-121	0.00021	U G	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-122	0.00025	U G	0.00025	0.00025	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-207-2 (0-2) (102617)**

**Lab Sample ID: 680-144854-16**

**Date Collected: 10/26/17 15:40**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 79.1**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-123	0.00024	U G	0.00024	0.00024	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-126	0.00024	U G	0.00024	0.00024	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-127	0.00023	U G	0.00023	0.00023	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-128/166	0.0057	B	0.00025	0.000074	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-129/138/163	0.031	B	0.00038	0.000079	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-130	0.0023		0.00013	0.000099	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-131	0.00042		0.00013	0.000091	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-132	0.0099	B	0.00013	0.000090	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-133	0.00032		0.00013	0.000089	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-134/143	0.0016		0.00025	0.000092	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-135/151	0.0061	B	0.00025	0.000083	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-136	0.0026	B	0.00013	0.000062	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-137	0.0018		0.00013	0.000074	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-139/140	0.00053		0.00025	0.000080	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-141	0.0045	B	0.00013	0.000088	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-142	0.000094	U	0.00013	0.000094	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-144	0.00093		0.00013	0.000080	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-145	0.000060	U	0.00013	0.000060	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-146	0.0033		0.00013	0.000076	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-147/149	0.017	B	0.00025	0.000081	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-148	0.000080	U	0.00013	0.000080	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-150	0.000057	U	0.00013	0.000057	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-152	0.000059	U	0.00013	0.000059	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-153/168	0.018	B	0.00025	0.000068	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-154	0.00011	J	0.00013	0.000073	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-155	0.000044	U	0.00013	0.000044	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-156/157	0.0036	B	0.00025	0.000022	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-158	0.0035	B	0.00013	0.000062	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-159	0.000074	J	0.00013	0.000014	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-160	0.000076	U	0.00013	0.000076	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-161	0.000070	U	0.00013	0.000070	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-162	0.00011	J	0.00013	0.000013	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-164	0.0021		0.00013	0.000073	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-165	0.000072	U	0.00013	0.000072	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-167	0.0012		0.00013	0.000013	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-169	0.000013	U	0.00013	0.000013	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-170	0.0033	B	0.00013	0.000042	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-171/173	0.0011		0.00025	0.000043	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-172	0.00048		0.00013	0.000042	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-174	0.0028	B	0.00013	0.000046	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-175	0.00012	J	0.00013	0.0000017	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-176	0.00029		0.00013	0.0000012	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-177	0.0015		0.00013	0.000042	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-178	0.00041		0.00013	0.0000018	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-179	0.00077		0.00013	0.0000013	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-180/193	0.0052	B	0.00025	0.0000035	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-181	0.000066	J	0.00013	0.0000038	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-182	0.000020	J	0.00013	0.0000016	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-183	0.0013	B	0.00013	0.0000033	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-207-2 (0-2) (102617)**

**Lab Sample ID: 680-144854-16**

**Date Collected: 10/26/17 15:40**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 79.1**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-184	0.0000013	U	0.00013	0.0000013	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-185</b>	<b>0.00022</b>		0.00013	0.0000040	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-186	0.0000013	U	0.00013	0.0000013	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-187</b>	<b>0.0023</b>	<b>B</b>	0.00013	0.0000016	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-188</b>	<b>0.0000028</b>	<b>J</b>	0.00013	0.0000013	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-189</b>	<b>0.00014</b>		0.000013	0.0000010	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-190</b>	<b>0.00055</b>	<b>B</b>	0.00013	0.0000031	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-191</b>	<b>0.00013</b>		0.00013	0.0000031	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-192	0.0000033	U	0.00013	0.0000033	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-194</b>	<b>0.00066</b>	<b>B</b>	0.00013	0.0000020	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-195</b>	<b>0.00027</b>		0.00013	0.0000021	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-196</b>	<b>0.00042</b>		0.00013	0.0000010	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-197</b>	<b>0.000035</b>	<b>J</b>	0.00013	0.0000007	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
				1					
<b>PCB-198/199</b>	<b>0.00085</b>		0.00025	0.0000011	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-200</b>	<b>0.00011</b>	<b>J</b>	0.00013	0.0000008	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
				5					
<b>PCB-201</b>	<b>0.000088</b>	<b>J</b>	0.00013	0.0000007	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
				7					
<b>PCB-202</b>	<b>0.00014</b>		0.00013	0.0000008	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
				1					
<b>PCB-203</b>	<b>0.00055</b>		0.00013	0.0000010	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
PCB-204	0.00000080	U	0.00013	0.0000008	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
				0					
<b>PCB-205</b>	<b>0.000040</b>	<b>J</b>	0.00013	0.0000017	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-206</b>	<b>0.00040</b>		0.00013	0.0000019	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-207</b>	<b>0.000061</b>	<b>J</b>	0.00013	0.0000014	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-208</b>	<b>0.00012</b>	<b>J</b>	0.00013	0.0000016	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
<b>PCB-209</b>	<b>0.00053</b>	<b>B</b>	0.00013	0.0000005	mg/Kg	☼	11/02/17 12:52	11/28/17 18:44	5
				0					

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	47		5 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-3L	52		5 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-4L	56		5 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-15L	67		5 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-19L	61		5 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-37L	46		5 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-54L	59		5 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-77L	88		10 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-81L	91		10 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-104L	73		10 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-105L	96		10 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-114L	93		10 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-118L	94		10 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-123L	92		10 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-126L	100		10 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-155L	75		10 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-156L/157L	74		10 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-167L	91		10 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-169L	93		10 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-188L	107		10 - 145	11/02/17 12:52	11/28/17 18:44	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-207-2 (0-2) (102617)**

**Lab Sample ID: 680-144854-16**

**Date Collected: 10/26/17 15:40**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 79.1**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-189L	98		10 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-202L	110		10 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-205L	93		10 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-206L	102		10 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-208L	105		10 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-209L	105		10 - 145	11/02/17 12:52	11/28/17 18:44	5
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	66		5 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-111L	91		10 - 145	11/02/17 12:52	11/28/17 18:44	5
PCB-178L	107		10 - 145	11/02/17 12:52	11/28/17 18:44	5

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.00000045	U	0.0000013	0.0000004	mg/Kg	☼	11/02/17 12:58	11/16/17 11:38	1
5									
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	106		40 - 135				11/02/17 12:58	11/16/17 11:38	1
13C-1,2,3,4,6,7,8-HpCDF	98		40 - 135				11/02/17 12:58	11/16/17 11:38	1
13C-1,2,3,4,7,8-HxCDF	108		40 - 135				11/02/17 12:58	11/16/17 11:38	1
13C-1,2,3,6,7,8-HxCDD	91		40 - 135				11/02/17 12:58	11/16/17 11:38	1
13C-1,2,3,7,8-PeCDD	91		40 - 135				11/02/17 12:58	11/16/17 11:38	1
13C-1,2,3,7,8-PeCDF	91		40 - 135				11/02/17 12:58	11/16/17 11:38	1
13C-2,3,7,8-TCDD	82		40 - 135				11/02/17 12:58	11/16/17 11:38	1
13C-2,3,7,8-TCDF	87		40 - 135				11/02/17 12:58	11/16/17 11:38	1
13C-OCDD	108		40 - 135				11/02/17 12:58	11/16/17 11:38	1

## Method: None - Total PCB Calculation from HRMS PCB-Congeners

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.26		0.0000020	0.0000050	mg/Kg	-		12/08/17 11:12	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-207-3 (0-2) (102617)**

**Lab Sample ID: 680-144854-17**

**Date Collected: 10/26/17 15:50**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 89.6**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0000031	J	0.00011	0.0000008	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-2	0.0000010	J	0.00011	0.0000007	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-3	0.0000021	J	0.00011	0.0000007	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-4	0.000013	U	0.00011	0.000013	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-5	0.0000065	U	0.00011	0.0000065	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-6	0.0000068	U	0.00011	0.0000068	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-7	0.0000065	U	0.00011	0.0000065	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-8	0.000024	J	0.00011	0.0000066	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-9	0.0000067	U	0.00011	0.0000067	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-10	0.0000089	U	0.00011	0.0000089	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-11	0.0000065	U	0.00011	0.0000065	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-12/13	0.0000065	U	0.00022	0.0000065	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-14	0.0000057	U	0.00011	0.0000057	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-15	0.0000077	J	0.00011	0.0000065	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-16	0.000018	J	0.00011	0.0000051	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-17	0.000091	J	0.00011	0.0000039	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-18/30	0.000058	J B	0.00022	0.0000034	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-19	0.000021	J	0.00011	0.0000039	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-20/28	0.00077	B	0.00022	0.0000087	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-21/33	0.000070	J B	0.00022	0.0000082	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-22	0.000043	J	0.00011	0.0000089	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-23	0.0000084	U	0.00011	0.0000084	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-24	0.0000031	U	0.00011	0.0000031	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-25	0.0000084	U	0.00011	0.0000084	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-26/29	0.000012	J	0.00022	0.0000084	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-27	0.0000043	J	0.00011	0.0000029	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-31	0.00019	B	0.00011	0.0000079	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-32	0.00045		0.00011	0.0000028	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-34	0.0000086	U	0.00011	0.0000086	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-35	0.0000087	U	0.00011	0.0000087	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-36	0.0000081	U	0.00011	0.0000081	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-37	0.000031	J	0.00011	0.000010	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-38	0.0000089	U	0.00011	0.0000089	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-39	0.0000079	U	0.00011	0.0000079	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-40/71	0.0014	B	0.00022	0.0000067	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-41	0.0000078	U	0.00011	0.0000078	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-42	0.00044	B	0.00011	0.0000073	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-43	0.000018	J	0.00011	0.0000080	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-44/47/65	0.0039	B	0.00033	0.0000063	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-45	0.0000076	U	0.00011	0.0000076	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-46	0.00011		0.00011	0.0000079	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-48	0.000049	J B	0.00011	0.0000067	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-49/69	0.0023	B	0.00022	0.0000056	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-50/53	0.00057	B	0.00022	0.0000064	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-51	0.00052		0.00011	0.0000063	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-52	0.0046	B	0.00011	0.0000067	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-207-3 (0-2) (102617)**

**Lab Sample ID: 680-144854-17**

**Date Collected: 10/26/17 15:50**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 89.6**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-54	0.000034	J	0.00011	0.0000005	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
				1					
PCB-55	0.000024	U	0.00011	0.000024	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-56	0.00041		0.00011	0.000025	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-57	0.000024	U	0.00011	0.000024	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-58	0.00025		0.00011	0.000024	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-59/62/75	0.000099	J	0.00033	0.0000049	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-60	0.00011		0.00011	0.000024	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-61/70/74/76	0.0036	B	0.00045	0.000024	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-63	0.000081	J	0.00011	0.000022	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-64	0.00059	B	0.00011	0.0000047	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-66	0.0026	B	0.00011	0.000025	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-67	0.000023	U	0.00011	0.000023	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-68	0.000071	J	0.00011	0.000021	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-72	0.000062	J	0.00011	0.000023	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-73	0.000046	J	0.00011	0.0000051	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-77	0.00021	G	0.000025	0.000025	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-78	0.000025	U	0.00011	0.000025	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-79	0.00010	J	0.00011	0.000022	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-80	0.000021	U	0.00011	0.000021	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-81	0.000026	U G	0.000026	0.000026	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-82	0.0013	G	0.00022	0.00022	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-83	0.00024	U G	0.00024	0.00024	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-84	0.0030	G B	0.00021	0.00021	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-85/116/117	0.0027		0.00033	0.00015	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-86/87/97/108/119/125	0.010	B	0.00067	0.00016	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-88/91	0.0019		0.00022	0.00018	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-89	0.00019	U G	0.00019	0.00019	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-90/101/113	0.016	B	0.00033	0.00016	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-92	0.0032	G B	0.00019	0.00019	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-93/100	0.00018	U	0.00022	0.00018	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-107/124	0.00063		0.00022	0.00014	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-94	0.00018	U G	0.00018	0.00018	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-95	0.0098	G B	0.00017	0.00017	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-96	0.00010	J	0.00011	0.0000006	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
				0					
PCB-98/102	0.00029		0.00022	0.00017	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-99	0.0073	G B	0.00015	0.00015	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-103	0.00016	U G	0.00016	0.00016	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-104	0.0000043	J	0.00011	0.0000006	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
				2					
PCB-105	0.0072	G B	0.00015	0.00015	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-106	0.00015	U G	0.00015	0.00015	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-110/115	0.024	E B	0.00022	0.00014	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-109	0.0014	G	0.00013	0.00013	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-111	0.00014	U G	0.00014	0.00014	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-112	0.00014	U G	0.00014	0.00014	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-114	0.00028	G	0.00015	0.00015	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-118	0.018	E G B	0.00014	0.00014	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-120	0.00013	U G	0.00013	0.00013	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-207-3 (0-2) (102617)**

**Lab Sample ID: 680-144854-17**

**Date Collected: 10/26/17 15:50**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 89.6**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-121	0.00013	U G	0.00013	0.00013	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-122</b>	<b>0.00016</b>	<b>G</b>	0.00015	0.00015	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-123</b>	<b>0.00021</b>	<b>G</b>	0.00015	0.00015	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-126	0.00014	U G	0.00014	0.00014	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-127	0.00015	U G	0.00015	0.00015	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-128/166</b>	<b>0.0041</b>	<b>B</b>	0.00022	0.000062	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-129/138/163</b>	<b>0.024</b>	<b>B</b>	0.00033	0.000066	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-130</b>	<b>0.0015</b>		0.00011	0.000083	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-131</b>	<b>0.00027</b>		0.00011	0.000076	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-132</b>	<b>0.0070</b>	<b>B</b>	0.00011	0.000075	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-133</b>	<b>0.00024</b>		0.00011	0.000074	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-134/143</b>	<b>0.0011</b>		0.00022	0.000077	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-135/151</b>	<b>0.0052</b>	<b>B</b>	0.00022	0.000070	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-136</b>	<b>0.0021</b>	<b>B</b>	0.00011	0.000052	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-137</b>	<b>0.0012</b>		0.00011	0.000062	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-139/140</b>	<b>0.00038</b>		0.00022	0.000067	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-141</b>	<b>0.0035</b>	<b>B</b>	0.00011	0.000074	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-142	0.000079	U	0.00011	0.000079	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-144</b>	<b>0.00069</b>		0.00011	0.000068	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-145	0.000051	U	0.00011	0.000051	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-146</b>	<b>0.0024</b>		0.00011	0.000064	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-147/149</b>	<b>0.014</b>	<b>B</b>	0.00022	0.000068	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-148	0.000067	U	0.00011	0.000067	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-150	0.000047	U	0.00011	0.000047	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-152	0.000049	U	0.00011	0.000049	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-153/168</b>	<b>0.015</b>	<b>B</b>	0.00022	0.000057	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-154</b>	<b>0.000086</b>	<b>J</b>	0.00011	0.000061	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-155	0.000045	U	0.00011	0.000045	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-156/157</b>	<b>0.0032</b>	<b>B</b>	0.00022	0.000019	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-158</b>	<b>0.0026</b>	<b>B</b>	0.00011	0.000052	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-159</b>	<b>0.000074</b>	<b>J</b>	0.00011	0.000013	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-160	0.000064	U	0.00011	0.000064	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-161	0.000059	U	0.00011	0.000059	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-162</b>	<b>0.000072</b>	<b>J</b>	0.00011	0.000012	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-164</b>	<b>0.0016</b>		0.00011	0.000061	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-165	0.000060	U	0.00011	0.000060	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-167</b>	<b>0.0010</b>		0.00011	0.000011	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-169	0.000012	U G	0.00012	0.000012	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-170</b>	<b>0.0031</b>	<b>B</b>	0.00011	0.0000039	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-171/173</b>	<b>0.0010</b>		0.00022	0.0000040	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-172</b>	<b>0.00049</b>		0.00011	0.0000038	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-174</b>	<b>0.0031</b>	<b>B</b>	0.00011	0.0000042	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-175</b>	<b>0.00013</b>		0.00011	0.0000014	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-176</b>	<b>0.00033</b>		0.00011	0.0000010	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-177</b>	<b>0.0016</b>		0.00011	0.0000039	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-178</b>	<b>0.00049</b>		0.00011	0.0000015	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-179</b>	<b>0.0010</b>		0.00011	0.0000011	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-180/193</b>	<b>0.0058</b>	<b>B</b>	0.00022	0.0000032	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
<b>PCB-181</b>	<b>0.000047</b>	<b>J</b>	0.00011	0.0000035	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-207-3 (0-2) (102617)**

**Lab Sample ID: 680-144854-17**

**Date Collected: 10/26/17 15:50**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 89.6**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-182	0.000016	J	0.00011	0.0000013	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-183	0.0014	B	0.00011	0.0000030	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-184	0.0000011	U	0.00011	0.0000011	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-185	0.00030		0.00011	0.0000037	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-186	0.0000011	U	0.00011	0.0000011	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-187	0.0028	B	0.00011	0.0000013	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-188	0.0000034	J	0.00011	0.0000011	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-189	0.00012		0.000011	0.0000007	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
				3					
PCB-190	0.00058	B	0.00011	0.0000028	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-191	0.00013		0.00011	0.0000029	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-192	0.0000030	U	0.00011	0.0000030	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-194	0.00079	B	0.00011	0.0000014	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-195	0.00037		0.00011	0.0000015	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-196	0.00050		0.00011	0.0000022	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-197	0.000037	J	0.00011	0.0000016	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-198/199	0.0011		0.00022	0.0000024	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-200	0.00014		0.00011	0.0000019	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-201	0.00012		0.00011	0.0000017	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-202	0.00014		0.00011	0.0000018	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-203	0.00062		0.00011	0.0000022	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-204	0.0000018	U	0.00011	0.0000018	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-205	0.000049	J	0.00011	0.0000012	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-206	0.00023		0.00011	0.0000017	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-207	0.000029	J	0.00011	0.0000012	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-208	0.000049	J	0.00011	0.0000013	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5
PCB-209	0.000027	J B	0.00011	0.0000004	mg/Kg	☼	11/02/17 12:52	11/28/17 19:59	5

9

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	51		5 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-3L	56		5 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-4L	59		5 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-15L	70		5 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-19L	65		5 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-37L	60		5 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-54L	58		5 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-77L	90		10 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-81L	90		10 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-104L	71		10 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-105L	95		10 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-114L	90		10 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-118L	92		10 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-123L	90		10 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-126L	98		10 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-155L	74		10 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-156L/157L	94		10 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-167L	93		10 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-169L	101		10 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-188L	107		10 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-189L	98		10 - 145	11/02/17 12:52	11/28/17 19:59	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-207-3 (0-2) (102617)**

**Lab Sample ID: 680-144854-17**

**Date Collected: 10/26/17 15:50**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 89.6**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-202L	108		10 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-205L	85		10 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-206L	91		10 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-208L	105		10 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-209L	101		10 - 145	11/02/17 12:52	11/28/17 19:59	5
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	66		5 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-111L	86		10 - 145	11/02/17 12:52	11/28/17 19:59	5
PCB-178L	107		10 - 145	11/02/17 12:52	11/28/17 19:59	5

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.00000036	U	0.0000011	0.0000003	mg/Kg	☼	11/02/17 12:58	11/16/17 12:26	1
6									
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	107		40 - 135				11/02/17 12:58	11/16/17 12:26	1
13C-1,2,3,4,6,7,8-HpCDF	97		40 - 135				11/02/17 12:58	11/16/17 12:26	1
13C-1,2,3,4,7,8-HxCDF	97		40 - 135				11/02/17 12:58	11/16/17 12:26	1
13C-1,2,3,6,7,8-HxCDD	90		40 - 135				11/02/17 12:58	11/16/17 12:26	1
13C-1,2,3,7,8-PeCDD	87		40 - 135				11/02/17 12:58	11/16/17 12:26	1
13C-1,2,3,7,8-PeCDF	91		40 - 135				11/02/17 12:58	11/16/17 12:26	1
13C-2,3,7,8-TCDD	77		40 - 135				11/02/17 12:58	11/16/17 12:26	1
13C-2,3,7,8-TCDF	92		40 - 135				11/02/17 12:58	11/16/17 12:26	1
13C-OCDD	105		40 - 135				11/02/17 12:58	11/16/17 12:26	1

## Method: 8290A - Dioxins and Furans (HRGC/HRMS) - RA

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	85		40 - 135	11/02/17 12:58	11/17/17 04:58	1

## Method: None - Total PCB Calculation from HRMS PCB-Congeners

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.25		0.0000020	0.0000050	mg/Kg	-		12/08/17 11:12	1



# Toxicity Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

Client Sample ID: SB-204-1 (0-2) (102617)

Lab Sample ID: 680-144854-12

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	EDL	Unit	TEF	TEQ	Method
PCB-77	0.0019	G	0.00021	0.00021	mg/Kg	0.0001	0.00000019	1668C
PCB-81	0.00020	U G	0.00020	0.00020	mg/Kg	0.0003	0.00	1668C
PCB-114	0.0035	E G	0.00086	0.00086	mg/Kg	0.00003	0.00000011	1668C
PCB-123	0.0020	G	0.00086	0.00086	mg/Kg	0.00003	0.00000060	1668C
PCB-126	0.00081	U G	0.00081	0.00081	mg/Kg	0.1	0.00	1668C
PCB-156/157	0.022	E G B F2	0.00019	0.00019	mg/Kg	0.00003	0.00000066	1668C
PCB-167	0.0065	E G F2	0.00012	0.00012	mg/Kg	0.00003	0.00000020	1668C
PCB-169	0.00012	U G	0.00012	0.00012	mg/Kg	0.03	0.00	1668C
PCB-189	0.00053	q F1	0.0000024	0.0000017	mg/Kg	0.00003	0.00000016	1668C
PCB-105 - DL	0.056	E G B F2	0.0011	0.0011	mg/Kg	0.00003	0.0000017	1668C
PCB-118 - DL	0.13	E G B F2	0.00098	0.00098	mg/Kg	0.00003	0.0000039	1668C
2,3,7,8-TCDD	0.0000019	U G	0.0000019	0.0000019	mg/Kg	1	0.00	8290A

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	MDL	Unit	TEF	TEQ	Method
Polychlorinated biphenyls, Total	1.6		0.0000020	0.0000050	mg/Kg		0.0000068	None

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	NONE	NONE	Unit	TEF	TEQ	Method
Total Dioxin/Furan TEQ					mg/Kg		0.00000091	TEQ
Total PCB TEQ					mg/Kg		0.0000068	TEQ
Total TEQ					mg/Kg		0.0000078	TEQ

Client Sample ID: SB-204-2 (0-2) (102617)

Lab Sample ID: 680-144854-13

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	EDL	Unit	TEF	TEQ	Method
PCB-77	0.0014	G	0.00018	0.00018	mg/Kg	0.0001	0.00000014	1668C
PCB-81	0.00018	U G	0.00018	0.00018	mg/Kg	0.0003	0.00	1668C
PCB-105	0.039	G B	0.00080	0.00080	mg/Kg	0.00003	0.0000012	1668C
PCB-114	0.0015	G	0.00081	0.00081	mg/Kg	0.00003	0.00000045	1668C
PCB-118	0.096	E G B	0.00072	0.00072	mg/Kg	0.00003	0.0000029	1668C
PCB-123	0.0013	G	0.00084	0.00084	mg/Kg	0.00003	0.00000039	1668C
PCB-126	0.00080	U G	0.00080	0.00080	mg/Kg	0.1	0.00	1668C
PCB-156/157	0.016	G B	0.00012	0.00012	mg/Kg	0.00003	0.00000048	1668C
PCB-167	0.0046	G	0.000076	0.000076	mg/Kg	0.00003	0.00000014	1668C
PCB-169	0.000076	U G	0.000076	0.000076	mg/Kg	0.03	0.00	1668C
PCB-189	0.00045		0.000047	0.0000024	mg/Kg	0.00003	0.00000014	1668C
2,3,7,8-TCDD	0.0000015	U G	0.0000015	0.0000015	mg/Kg	1	0.00	8290A

## TEF Reference:

WHO 2005 = World Health Organization (WHO) 2005 TEF, Dioxins, Furans and PCB Congeners

Note: The analytes PCB-156 and PCB-157 coelute as a single peak.

TestAmerica Savannah



# Toxicity Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Client Sample ID: SB-204-2 (0-2) (102617) (Continued)

## Lab Sample ID: 680-144854-13

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	MDL	Unit	TEF	TEQ	Method
Polychlorinated biphenyls, Total	1.2		0.0000020	0.0000050	mg/Kg		0.0000050	None
						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	NONE	NONE	Unit	TEF	TEQ	Method
Total Dioxin/Furan TEQ					mg/Kg		0.00000056	TEQ
Total PCB TEQ					mg/Kg		0.0000050	TEQ
Total TEQ					mg/Kg		0.0000055	TEQ

## Client Sample ID: SB-204-3 (0-2) (102617)

## Lab Sample ID: 680-144854-14

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	EDL	Unit	TEF	TEQ	Method
PCB-77	0.0074	G	0.00036	0.00036	mg/Kg	0.0001	0.00000074	1668C
PCB-81	0.0027	G	0.00034	0.00034	mg/Kg	0.0003	0.00000081	1668C
PCB-105	0.10	E G B	0.0023	0.0023	mg/Kg	0.00003	0.0000030	1668C
PCB-114	0.0041	G	0.0026	0.0026	mg/Kg	0.00003	0.00000012	1668C
PCB-118	0.24	E G B	0.0021	0.0021	mg/Kg	0.00003	0.0000072	1668C
PCB-123	0.0025	U G	0.0025	0.0025	mg/Kg	0.00003	0.00	1668C
PCB-126	0.0049	G	0.0026	0.0026	mg/Kg	0.1	0.00049	1668C
PCB-156/157	0.042	G B	0.00031	0.00031	mg/Kg	0.00003	0.0000013	1668C
PCB-167	0.018	G	0.00021	0.00021	mg/Kg	0.00003	0.00000054	1668C
PCB-169	0.00022	U G	0.00022	0.00022	mg/Kg	0.03	0.00	1668C
PCB-189	0.0012		0.000050	0.0000089	mg/Kg	0.00003	0.00000036	1668C
2,3,7,8-TCDD	0.0000022	U	0.0000022	0.0000022	mg/Kg	1	0.00	8290A
						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	MDL	Unit	TEF	TEQ	Method
Polychlorinated biphenyls, Total	3.2		0.0000020	0.0000050	mg/Kg		0.00050	None
						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	NONE	NONE	Unit	TEF	TEQ	Method
Total Dioxin/Furan TEQ					mg/Kg		0.000010	TEQ
Total PCB TEQ					mg/Kg		0.00050	TEQ
Total TEQ					mg/Kg		0.00051	TEQ

## Client Sample ID: SB-207-1 (0-2) (102617)

## Lab Sample ID: 680-144854-15

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	EDL	Unit	TEF	TEQ	Method
PCB-77	0.00012		0.000012	0.0000096	mg/Kg	0.0001	0.00000012	1668C

### TEF Reference:

WHO 2005 = World Health Organization (WHO) 2005 TEF, Dioxins, Furans and PCB Congeners

Note: The analytes PCB-156 and PCB-157 coelute as a single peak.

TestAmerica Savannah



# Toxicity Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Client Sample ID: SB-207-1 (0-2) (102617) (Continued)

## Lab Sample ID: 680-144854-15

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	EDL	Unit	TEF	TEQ	Method
PCB-81	0.0000097	U	0.000012	0.0000097	mg/Kg	0.0003	0.00	1668C
PCB-105	0.0043	G B	0.00011	0.00011	mg/Kg	0.00003	0.00000013	1668C
PCB-114	0.00014	G	0.00011	0.00011	mg/Kg	0.00003	0.00000004	1668C
							2	
PCB-118	0.0094	G B	0.00011	0.00011	mg/Kg	0.00003	0.00000028	1668C
PCB-123	0.00014	G	0.00011	0.00011	mg/Kg	0.00003	0.00000004	1668C
							2	
PCB-126	0.00011	U G	0.00011	0.00011	mg/Kg	0.1	0.00	1668C
PCB-156/157	0.0023	B	0.000024	0.000023	mg/Kg	0.00003	0.000000069	1668C
PCB-167	0.00072	G	0.000013	0.000013	mg/Kg	0.00003	0.000000022	1668C
PCB-169	0.000012	U	0.000012	0.000012	mg/Kg	0.03	0.00	1668C
PCB-189	0.00014		0.000012	0.0000007	mg/Kg	0.00003	0.000000004	1668C
				2			2	
2,3,7,8-TCDD	0.00000041	U	0.0000012	0.0000004	mg/Kg	1	0.00	8290A
				1				
						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	MDL	Unit	TEF	TEQ	Method
Polychlorinated biphenyls, Total	0.17		0.0000020	0.0000050	mg/Kg		0.00000053	None
						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	NONE	NONE	Unit	TEF	TEQ	Method
Total Dioxin/Furan TEQ					mg/Kg		0.0000023	TEQ
Total PCB TEQ					mg/Kg		0.00000053	TEQ
Total TEQ					mg/Kg		0.0000029	TEQ

## Client Sample ID: SB-207-2 (0-2) (102617)

## Lab Sample ID: 680-144854-16

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	EDL	Unit	TEF	TEQ	Method
PCB-77	0.00018	G	0.000025	0.000025	mg/Kg	0.0001	0.000000018	1668C
PCB-81	0.000024	U G	0.000024	0.000024	mg/Kg	0.0003	0.00	1668C
PCB-105	0.0060	G B	0.00024	0.00024	mg/Kg	0.00003	0.00000018	1668C
PCB-114	0.00030	G	0.00024	0.00024	mg/Kg	0.00003	0.000000009	1668C
PCB-118	0.016	E G B	0.00022	0.00022	mg/Kg	0.00003	0.00000048	1668C
PCB-123	0.00024	U G	0.00024	0.00024	mg/Kg	0.00003	0.00	1668C
PCB-126	0.00024	U G	0.00024	0.00024	mg/Kg	0.1	0.00	1668C
PCB-156/157	0.0036	B	0.000025	0.000022	mg/Kg	0.00003	0.00000011	1668C
PCB-167	0.0012		0.000013	0.000013	mg/Kg	0.00003	0.000000036	1668C
PCB-169	0.000013	U	0.000013	0.000013	mg/Kg	0.03	0.00	1668C
PCB-189	0.00014		0.000013	0.0000010	mg/Kg	0.00003	0.000000004	1668C

### TEF Reference:

WHO 2005 = World Health Organization (WHO) 2005 TEF, Dioxins, Furans and PCB Congeners

Note: The analytes PCB-156 and PCB-157 coelute as a single peak.

TestAmerica Savannah



# Toxicity Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Client Sample ID: SB-207-2 (0-2) (102617) (Continued)

## Lab Sample ID: 680-144854-16

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	EDL	Unit	TEF	TEQ	Method
2,3,7,8-TCDD	0.00000045	U	0.0000013	0.00000045	mg/Kg	1	0.00	8290A
						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	MDL	Unit	TEF	TEQ	Method
Polychlorinated biphenyls, Total	0.26		0.0000020	0.0000050	mg/Kg		0.00000084	None
						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	NONE	NONE	Unit	TEF	TEQ	Method
Total Dioxin/Furan TEQ					mg/Kg		0.000016	TEQ
Total PCB TEQ					mg/Kg		0.00000084	TEQ
Total TEQ					mg/Kg		0.000017	TEQ

## Client Sample ID: SB-207-3 (0-2) (102617)

## Lab Sample ID: 680-144854-17

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	EDL	Unit	TEF	TEQ	Method
PCB-77	0.00021	G	0.000025	0.000025	mg/Kg	0.0001	0.00000021	1668C
PCB-81	0.000026	U G	0.000026	0.000026	mg/Kg	0.0003	0.00	1668C
PCB-105	0.0072	G B	0.00015	0.00015	mg/Kg	0.00003	0.00000022	1668C
PCB-114	0.00028	G	0.00015	0.00015	mg/Kg	0.00003	0.00000008	1668C
PCB-118	0.018	E G B	0.00014	0.00014	mg/Kg	0.00003	0.00000054	1668C
PCB-123	0.00021	G	0.00015	0.00015	mg/Kg	0.00003	0.00000006	1668C
PCB-126	0.00014	U G	0.00014	0.00014	mg/Kg	0.1	0.00	1668C
PCB-156/157	0.0032	B	0.000022	0.000019	mg/Kg	0.00003	0.000000096	1668C
PCB-167	0.0010		0.000011	0.000011	mg/Kg	0.00003	0.000000030	1668C
PCB-169	0.000012	U G	0.000012	0.000012	mg/Kg	0.03	0.00	1668C
PCB-189	0.00012		0.000011	0.0000007	mg/Kg	0.00003	0.000000003	1668C
2,3,7,8-TCDD	0.00000036	U	0.0000011	0.0000003	mg/Kg	1	0.00	8290A
						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	MDL	Unit	TEF	TEQ	Method
Polychlorinated biphenyls, Total	0.25		0.0000020	0.0000050	mg/Kg		0.00000093	None
						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	NONE	NONE	Unit	TEF	TEQ	Method
Total Dioxin/Furan TEQ					mg/Kg		0.0000019	TEQ
Total PCB TEQ					mg/Kg		0.00000093	TEQ

### TEF Reference:

WHO 2005 = World Health Organization (WHO) 2005 TEF, Dioxins, Furans and PCB Congeners

Note: The analytes PCB-156 and PCB-157 coelute as a single peak.

TestAmerica Savannah



# Toxicity Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

Client Sample ID: SB-207-3 (0-2) (102617) (Continued)

Lab Sample ID: 680-144854-17

Analyte	Result	Qualifier	NONE	NONE	Unit	WHO 2005		Method
						TEF	TEQ	
Total TEQ					mg/Kg		0.0000029	TEQ

## TEF Reference:

WHO 2005 = World Health Organization (WHO) 2005 TEF, Dioxins, Furans and PCB Congeners

Note: The analytes PCB-156 and PCB-157 coelute as a single peak.

TestAmerica Savannah



# Surrogate Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		PCB-28L (5-145)	PCB-111L (10-145)	PCB-178L (10-145)
680-144854-12	SB-204-1 (0-2) (102617)	55	81	96
680-144854-12 - DL	SB-204-1 (0-2) (102617)	50	68	90
680-144854-12 MS	SB-204-1 (0-2) (102617)	49	67	86
680-144854-12 MS - DL	SB-204-1 (0-2) (102617)	45	67	92
680-144854-12 MSD	SB-204-1 (0-2) (102617)	58	84	101
680-144854-12 MSD - DL	SB-204-1 (0-2) (102617)	60	82	106
680-144854-13	SB-204-2 (0-2) (102617)	56	74	101
680-144854-14	SB-204-3 (0-2) (102617)	66	84	100
680-144854-15	SB-207-1 (0-2) (102617)	63	90	105
680-144854-16	SB-207-2 (0-2) (102617)	66	91	107
680-144854-17	SB-207-3 (0-2) (102617)	66	86	107
MB 320-192576/1-A	Method Blank	60	73	87

### Surrogate Legend

PCB-28L = PCB-28L  
PCB-111L = PCB-111L  
PCB-178L = PCB-178L

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		PCB-28L (15-145)	PCB-111L (40-145)	PCB-178L (40-145)
LCS 320-192576/2-A	Lab Control Sample	61	69	83

### Surrogate Legend

PCB-28L = PCB-28L  
PCB-111L = PCB-111L  
PCB-178L = PCB-178L



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB-1L (5-145)	PCB-3L (5-145)	PCB-4L (5-145)	PCB-15L (5-145)	PCB-19L (5-145)	PCB-37L (5-145)	PCB-54L (5-145)	PCB-77L (10-145)
680-144854-12	SB-204-1 (0-2) (102617)	39	44	46	54	52	59	32 q	80
680-144854-12 - DL	SB-204-1 (0-2) (102617)	46	46	49	56	50	56	43	68
680-144854-12 MS	SB-204-1 (0-2) (102617)	38	41	43	50	49	54	30 q	73
680-144854-12 MS - DL	SB-204-1 (0-2) (102617)	41	43	43	51	46	51	43	65
680-144854-12 MSD	SB-204-1 (0-2) (102617)	46	53	53	64	62	63	37 q	88
680-144854-12 MSD - DL	SB-204-1 (0-2) (102617)	45	48	49	56	53	63	52	80
680-144854-13	SB-204-2 (0-2) (102617)	50	53	53	61	67	63	52	73
680-144854-14	SB-204-3 (0-2) (102617)	53	49	46	37	40	30	29	30
680-144854-15	SB-207-1 (0-2) (102617)	48	55	57	69	67	73	58	84
680-144854-16	SB-207-2 (0-2) (102617)	47	52	56	67	61	46	59	88
680-144854-17	SB-207-3 (0-2) (102617)	51	56	59	70	65	60	58	90
MB 320-192576/1-A	Method Blank	54	61	58	64	67	62	50	72

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB-81L (10-145)	PCB-104L (10-145)	PCB-105L (10-145)	PCB-114L (10-145)	PCB-118L (10-145)	PCB-123L (10-145)	PCB-126L (10-145)	PCB-155L (10-145)
680-144854-12	SB-204-1 (0-2) (102617)	79	53	90	90	87	87	99	63
680-144854-12 - DL	SB-204-1 (0-2) (102617)	70	56	80	73	82	72	81	58
680-144854-12 MS	SB-204-1 (0-2) (102617)	73	46	75	79	75	74	87	56
680-144854-12 MS - DL	SB-204-1 (0-2) (102617)	66	54	75	70	73	68	82	57
680-144854-12 MSD	SB-204-1 (0-2) (102617)	88	50 q	90	91	90	88	98	68
680-144854-12 MSD - DL	SB-204-1 (0-2) (102617)	81	64	87	82	84	84	86	73
680-144854-13	SB-204-2 (0-2) (102617)	74	62	84	79	85	76	86	68
680-144854-14	SB-204-3 (0-2) (102617)	31	30	33	29	34	29	31	26
680-144854-15	SB-207-1 (0-2) (102617)	87	74	96	94	94	93	100	72
680-144854-16	SB-207-2 (0-2) (102617)	91	73	96	93	94	92	100	75
680-144854-17	SB-207-3 (0-2) (102617)	90	71	95	90	92	90	98	74
MB 320-192576/1-A	Method Blank	72	62	76	78	75	74	86	63

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	B-156L/15 (10-145)	PCB-167L (10-145)	PCB-169L (10-145)	PCB-188L (10-145)	PCB-189L (10-145)	PCB-202L (10-145)	PCB-205L (10-145)	PCB-206L (10-145)
680-144854-12	SB-204-1 (0-2) (102617)	97	97	98	71	99	79	91	84
680-144854-12 - DL	SB-204-1 (0-2) (102617)	84	85	86	73	85	80	92	85
680-144854-12 MS	SB-204-1 (0-2) (102617)	87	92	88	62	89	71	89	85
680-144854-12 MS - DL	SB-204-1 (0-2) (102617)	83	82	90	70	82	79	90	85
680-144854-12 MSD	SB-204-1 (0-2) (102617)	98	99	96	76	96	78	96	88
680-144854-12 MSD - DL	SB-204-1 (0-2) (102617)	92	93	92	91	92	96	97	94
680-144854-13	SB-204-2 (0-2) (102617)	88	89	100	85	92	92	99	96
680-144854-14	SB-204-3 (0-2) (102617)	29	28	27	30	28	30	31	29
680-144854-15	SB-207-1 (0-2) (102617)	66	91	99	96	94	102	91	91
680-144854-16	SB-207-2 (0-2) (102617)	74	91	93	107	98	110	93	102
680-144854-17	SB-207-3 (0-2) (102617)	94	93	101	107	98	108	85	91
MB 320-192576/1-A	Method Blank	81	80	85	78	96	87	96	94

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB-208L (10-145)	PCB-209L (10-145)
680-144854-12	SB-204-1 (0-2) (102617)	99	93
680-144854-12 - DL	SB-204-1 (0-2) (102617)	86	92
680-144854-12 MS	SB-204-1 (0-2) (102617)	90	91

TestAmerica Savannah



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Matrix: Solid

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB-208L (10-145)	PCB-209L (10-145)
680-144854-12 MS - DL	SB-204-1 (0-2) (102617)	83	91
680-144854-12 MSD	SB-204-1 (0-2) (102617)	96	95
680-144854-12 MSD - DL	SB-204-1 (0-2) (102617)	98	107
680-144854-13	SB-204-2 (0-2) (102617)	92	103
680-144854-14	SB-204-3 (0-2) (102617)	29	32
680-144854-15	SB-207-1 (0-2) (102617)	97	99
680-144854-16	SB-207-2 (0-2) (102617)	105	105
680-144854-17	SB-207-3 (0-2) (102617)	105	101
MB 320-192576/1-A	Method Blank	99	99

### Surrogate Legend

PCB-1L = PCB-1L  
PCB-3L = PCB-3L  
PCB-4L = PCB-4L  
PCB-15L = PCB-15L  
PCB-19L = PCB-19L  
PCB-37L = PCB-37L  
PCB-54L = PCB-54L  
PCB-77L = PCB-77L  
PCB-81L = PCB-81L  
PCB-104L = PCB-104L  
PCB-105L = PCB-105L  
PCB-114L = PCB-114L  
PCB-118L = PCB-118L  
PCB-123L = PCB-123L  
PCB-126L = PCB-126L  
PCB-155L = PCB-155L  
PCB-156L/157L = PCB-156L/157L  
PCB-167L = PCB-167L  
PCB-169L = PCB-169L  
PCB-188L = PCB-188L  
PCB-189L = PCB-189L  
PCB-202L = PCB-202L  
PCB-205L = PCB-205L  
PCB-206L = PCB-206L  
PCB-208L = PCB-208L  
PCB-209L = PCB-209L

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB-1L (15-145)	PCB-3L (15-145)	PCB-4L (15-145)	PCB-15L (15-145)	PCB-19L (15-145)	PCB-37L (15-145)	PCB-54L (15-145)	PCB-77L (40-145)
LCS 320-192576/2-A	Lab Control Sample	51	59	56	63	66	62	51	70

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB-81L (40-145)	PCB-104L (40-145)	PCB-105L (40-145)	PCB-114L (40-145)	PCB-118L (40-145)	PCB-123L (40-145)	PCB-126L (40-145)	PCB-155L (40-145)
LCS 320-192576/2-A	Lab Control Sample	71	61	72	73	71	71	80	64

TestAmerica Savannah



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Matrix: Solid

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	B-156L/157L (40-145)	PCB-167L (40-145)	PCB-169L (40-145)	PCB-188L (40-145)	PCB-189L (40-145)	PCB-202L (40-145)	PCB-205L (40-145)	PCB-206L (40-145)
LCS 320-192576/2-A	Lab Control Sample	79	76	81	69	86	75	87	86

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB-208L (40-145)	PCB-209L (40-145)
LCS 320-192576/2-A	Lab Control Sample	86	92

### Surrogate Legend

PCB-1L = PCB-1L  
PCB-3L = PCB-3L  
PCB-4L = PCB-4L  
PCB-15L = PCB-15L  
PCB-19L = PCB-19L  
PCB-37L = PCB-37L  
PCB-54L = PCB-54L  
PCB-77L = PCB-77L  
PCB-81L = PCB-81L  
PCB-104L = PCB-104L  
PCB-105L = PCB-105L  
PCB-114L = PCB-114L  
PCB-118L = PCB-118L  
PCB-123L = PCB-123L  
PCB-126L = PCB-126L  
PCB-155L = PCB-155L  
PCB-156L/157L = PCB-156L/157L  
PCB-167L = PCB-167L  
PCB-169L = PCB-169L  
PCB-188L = PCB-188L  
PCB-189L = PCB-189L  
PCB-202L = PCB-202L  
PCB-205L = PCB-205L  
PCB-206L = PCB-206L  
PCB-208L = PCB-208L  
PCB-209L = PCB-209L

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HpCDD (40-135)	HpCDF1 (40-135)	HxCDF1 (40-135)	HxCDD2 (40-135)	PeCDD (40-135)	PeCDF1 (40-135)	TCDD (40-135)	TCDF (40-135)
680-144854-12	SB-204-1 (0-2) (102617)	85	74	101	89	92	89	44	84
680-144854-12 - RA	SB-204-1 (0-2) (102617)								98
680-144854-12 MS	SB-204-1 (0-2) (102617)	86 q	81	93	91	92	94	70	90
680-144854-12 MS - RA	SB-204-1 (0-2) (102617)								85
680-144854-12 MSD	SB-204-1 (0-2) (102617)	105 q	92	92	92	90	93	84	90
680-144854-12 MSD - RA	SB-204-1 (0-2) (102617)								83
680-144854-13	SB-204-2 (0-2) (102617)	109	99	98	93	93	95	58	92
680-144854-13 - RA	SB-204-2 (0-2) (102617)								95
680-144854-14	SB-204-3 (0-2) (102617)	40	37 *	36 *	34 *	30 *	32 *	20 *	31 *

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# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HpCDD (40-135)	HpCDF1 (40-135)	HxCDF1 (40-135)	HxCDD2 (40-135)	PeCDD (40-135)	PeCDF1 (40-135)	TCDD (40-135)	TCDF (40-135)
680-144854-14 - RA	SB-204-3 (0-2) (102617)								34 *
680-144854-15	SB-207-1 (0-2) (102617)	97	94	103	85	103	76	64	63
680-144854-16	SB-207-2 (0-2) (102617)	106	98	108	91	91	91	82	87
680-144854-17	SB-207-3 (0-2) (102617)	107	97	97	90	87	91	77	92
680-144854-17 - RA	SB-207-3 (0-2) (102617)								85
LCS 320-192583/2-A	Lab Control Sample	82	79	80	78	80	80	77	77
MB 320-192583/1-A	Method Blank	83	84	81	83	85	86	80	79
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	OCDD (40-135)							
680-144854-12	SB-204-1 (0-2) (102617)	105							
680-144854-12 - RA	SB-204-1 (0-2) (102617)								
680-144854-12 MS	SB-204-1 (0-2) (102617)	97							
680-144854-12 MS - RA	SB-204-1 (0-2) (102617)								
680-144854-12 MSD	SB-204-1 (0-2) (102617)	119							
680-144854-12 MSD - RA	SB-204-1 (0-2) (102617)								
680-144854-13	SB-204-2 (0-2) (102617)	113							
680-144854-13 - RA	SB-204-2 (0-2) (102617)								
680-144854-14	SB-204-3 (0-2) (102617)	43							
680-144854-14 - RA	SB-204-3 (0-2) (102617)								
680-144854-15	SB-207-1 (0-2) (102617)	118							
680-144854-16	SB-207-2 (0-2) (102617)	108							
680-144854-17	SB-207-3 (0-2) (102617)	105							
680-144854-17 - RA	SB-207-3 (0-2) (102617)								
LCS 320-192583/2-A	Lab Control Sample	84							
MB 320-192583/1-A	Method Blank	87							

### Surrogate Legend

HpCDD = 13C-1,2,3,4,6,7,8-HpCDD  
 HpCDF1 = 13C-1,2,3,4,6,7,8-HpCDF  
 HxCDF1 = 13C-1,2,3,4,7,8-HxCDF  
 HxCDD2 = 13C-1,2,3,6,7,8-HxCDD  
 PeCDD = 13C-1,2,3,7,8-PeCDD  
 PeCDF1 = 13C-1,2,3,7,8-PeCDF  
 TCDD = 13C-2,3,7,8-TCDD  
 TCDF = 13C-2,3,7,8-TCDF  
 OCDD = 13C-OCDD



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Lab Sample ID: MB 320-192576/1-A

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 192576

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.00000022	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-2	0.00000018	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-3	0.00000018	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-4	0.00000062	U	0.000020	0.0000062	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-5	0.00000018	U	0.000020	0.0000018	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-6	0.00000019	U	0.000020	0.0000019	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-7	0.00000018	U	0.000020	0.0000018	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-8	0.00000018	U	0.000020	0.0000018	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-9	0.00000019	U	0.000020	0.0000019	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-10	0.00000041	U	0.000020	0.0000041	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-11	0.00000018	U	0.000020	0.0000018	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-12/13	0.00000018	U	0.000040	0.0000018	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-14	0.00000016	U	0.000020	0.0000016	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-15	0.00000018	U	0.000020	0.0000018	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-16	0.00000035	U	0.000020	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-17	0.00000027	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-18/30	0.000000459	J	0.000040	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-19	0.00000029	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-20/28	0.000000506	J	0.000040	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-21/33	0.000000291	J	0.000040	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-22	0.00000014	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-23	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-24	0.00000021	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-25	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-26/29	0.00000013	U	0.000040	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-27	0.00000020	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-31	0.000000352	J	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-32	0.00000019	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-34	0.00000014	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-35	0.00000014	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-36	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-37	0.00000015	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-192576/1-A

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 192576

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-38	0.00000014	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-39	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-40/71	0.000000364	J	0.000040	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-41	0.00000011	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-42	0.000000232	J	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-43	0.00000011	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-44/47/65	0.00000246	J	0.000060	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-45	0.00000011	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-46	0.00000011	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-48	0.000000145	J	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-49/69	0.000000761	J	0.000040	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-50/53	0.000000150	J	0.000040	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-51	0.000000088	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-52	0.00000288	J	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-54	0.00000015	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-55	0.00000014	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-56	0.00000014	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-57	0.00000014	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-58	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-59/62/75	0.000000069	U	0.000060	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-60	0.00000014	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-61/70/74/76	0.00000212	J	0.000080	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-63	0.00000012	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-64	0.000000353	J	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-66	0.000000735	J	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-67	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-68	0.00000012	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-192576/1-A

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 192576

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-72	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-73	0.000000071	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-77	0.00000014	U	0.0000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-78	0.00000014	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-79	0.00000012	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-80	0.00000012	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-81	0.00000014	U	0.0000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-82	0.00000038	U	0.000020	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-83	0.00000041	U	0.000020	0.0000004	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-84	0.00000130	J	0.000020	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-85/116/117	0.00000026	U	0.000060	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-86/87/97/108/119/125	0.00000341	J	0.00012	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-88/91	0.00000030	U	0.000040	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-89	0.00000033	U	0.000020	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-90/101/113	0.00000464	J	0.000060	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-92	0.000000884	J	0.000020	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-93/100	0.00000030	U	0.000040	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-107/124	0.00000024	U	0.000040	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-94	0.00000031	U	0.000020	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-95	0.00000388	J	0.000020	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-96	0.00000015	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-98/102	0.00000029	U	0.000040	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-99	0.00000188	J	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-103	0.00000027	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-104	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-105	0.00000162	J	0.0000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-106	0.00000025	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-192576/1-A

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 192576

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-110/115	0.00000569	J	0.000040	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-109	0.00000023	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-111	0.00000023	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-112	0.00000024	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-114	0.00000025	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-118	0.00000372		0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-120	0.00000022	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-121	0.00000022	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-122	0.00000026	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-123	0.00000026	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-126	0.00000025	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-127	0.00000025	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-128/166	0.000000478	J	0.000040	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-129/138/163	0.00000322	J	0.000060	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-130	0.00000026	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-131	0.00000024	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-132	0.00000131	J	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-133	0.00000024	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-134/143	0.00000024	U	0.000040	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-135/151	0.000000979	J	0.000040	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-136	0.000000502	J	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-137	0.00000020	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-139/140	0.00000021	U	0.000040	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-141	0.000000471	J	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-142	0.00000025	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-144	0.00000021	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-145	0.00000016	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-192576/1-A

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 192576

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-146	0.00000020	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				0					
PCB-147/149	0.00000246	J	0.000040	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				1					
PCB-148	0.00000021	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				1					
PCB-150	0.00000015	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				5					
PCB-152	0.00000016	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				6					
PCB-153/168	0.00000234	J	0.000040	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				8					
PCB-154	0.00000019	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				9					
PCB-155	0.00000016	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				6					
PCB-156/157	0.000000303	J	0.0000040	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				3					
PCB-158	0.000000337	J	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				6					
PCB-159	0.000000093	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				93					
PCB-160	0.00000020	U	0.000020	0.0000002	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				0					
PCB-161	0.00000019	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				9					
PCB-162	0.000000089	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				89					
PCB-164	0.00000019	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				9					
PCB-165	0.00000019	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				9					
PCB-167	0.000000086	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				86					
PCB-169	0.000000081	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				81					
PCB-170	0.000000481	J	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				0					
PCB-171/173	0.00000011	U	0.000040	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				1					
PCB-172	0.00000010	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				0					
PCB-174	0.000000198	J	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				1					
PCB-175	0.00000012	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				2					
PCB-176	0.000000088	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				88					
PCB-177	0.00000010	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				0					
PCB-178	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				3					
PCB-179	0.000000093	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
				93					

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-192576/1-A

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 192576

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-180/193	0.00000111	J	0.000040	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-181	0.000000093	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-182	0.00000011	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-183	0.000000353	J	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-184	0.000000097	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-185	0.000000099	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-186	0.000000093	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-187	0.000000628	J	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-188	0.00000010	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-189	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-190	0.000000140	J	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-191	0.000000077	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-192	0.000000080	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-194	0.00000279	J	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-195	0.00000019	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-196	0.00000011	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-197	0.000000081	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-198/199	0.00000012	U	0.000040	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-200	0.000000097	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-201	0.000000088	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-202	0.00000011	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-203	0.00000011	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-204	0.000000091	U	0.000020	0.0000000	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-205	0.00000013	U	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-206	0.000000039	U	0.000020	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-207	0.00000031	U	0.000020	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
PCB-208	0.00000036	U	0.000020	0.0000003	mg/Kg		11/02/17 12:52	11/21/17 18:53	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-192576/1-A

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 192576

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-209	0.00000115	J	0.000020	0.0000001	mg/Kg		11/02/17 12:52	11/21/17 18:53	1
2									

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	54		5 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-3L	61		5 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-4L	58		5 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-15L	64		5 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-19L	67		5 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-37L	62		5 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-54L	50		5 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-77L	72		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-81L	72		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-104L	62		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-105L	76		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-114L	78		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-118L	75		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-123L	74		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-126L	86		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-155L	63		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-156L/157L	81		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-167L	80		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-169L	85		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-188L	78		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-189L	96		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-202L	87		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-205L	96		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-206L	94		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-208L	99		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-209L	99		10 - 145	11/02/17 12:52	11/21/17 18:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	60		5 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-111L	73		10 - 145	11/02/17 12:52	11/21/17 18:53	1
PCB-178L	87		10 - 145	11/02/17 12:52	11/21/17 18:53	1

Lab Sample ID: LCS 320-192576/2-A

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 192576

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1	0.000200	0.000193		mg/Kg		97	60 - 135
PCB-3	0.000200	0.000195		mg/Kg		98	60 - 135
PCB-4	0.000200	0.000197		mg/Kg		99	60 - 135
PCB-15	0.000200	0.000192		mg/Kg		96	60 - 135
PCB-19	0.000200	0.000201		mg/Kg		101	60 - 135
PCB-37	0.000200	0.000182		mg/Kg		91	60 - 135
PCB-54	0.000200	0.000204		mg/Kg		102	60 - 135

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-192576/2-A

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 192576

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-77	0.000200	0.000192		mg/Kg		96	60 - 135
PCB-81	0.000200	0.000191		mg/Kg		96	60 - 135
PCB-104	0.000200	0.000217		mg/Kg		108	60 - 135
PCB-105	0.000200	0.000211		mg/Kg		105	60 - 135
PCB-114	0.000200	0.000196		mg/Kg		98	60 - 135
PCB-118	0.000200	0.000212		mg/Kg		106	60 - 135
PCB-123	0.000200	0.000205		mg/Kg		102	60 - 135
PCB-126	0.000200	0.000201		mg/Kg		100	60 - 135
PCB-155	0.000200	0.000201		mg/Kg		101	60 - 135
PCB-156/157	0.000400	0.000382		mg/Kg		95	60 - 135
PCB-167	0.000200	0.000191		mg/Kg		96	60 - 135
PCB-169	0.000200	0.000191		mg/Kg		96	60 - 135
PCB-188	0.000200	0.000186		mg/Kg		93	60 - 135
PCB-189	0.000200	0.000157		mg/Kg		78	60 - 135
PCB-202	0.000200	0.000190		mg/Kg		95	60 - 135
PCB-205	0.000200	0.000173		mg/Kg		87	60 - 135
PCB-206	0.000200	0.000190		mg/Kg		95	60 - 135
PCB-208	0.000200	0.000192		mg/Kg		96	60 - 135
PCB-209	0.000200	0.000185		mg/Kg		93	60 - 135

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-1L	51		15 - 145
PCB-3L	59		15 - 145
PCB-4L	56		15 - 145
PCB-15L	63		15 - 145
PCB-19L	66		15 - 145
PCB-37L	62		15 - 145
PCB-54L	51		15 - 145
PCB-77L	70		40 - 145
PCB-81L	71		40 - 145
PCB-104L	61		40 - 145
PCB-105L	72		40 - 145
PCB-114L	73		40 - 145
PCB-118L	71		40 - 145
PCB-123L	71		40 - 145
PCB-126L	80		40 - 145
PCB-155L	64		40 - 145
PCB-156L/157L	79		40 - 145
PCB-167L	76		40 - 145
PCB-169L	81		40 - 145
PCB-188L	69		40 - 145
PCB-189L	86		40 - 145
PCB-202L	75		40 - 145
PCB-205L	87		40 - 145
PCB-206L	86		40 - 145
PCB-208L	86		40 - 145
PCB-209L	92		40 - 145

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-192576/2-A

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 192576

Surrogate	LCS %Recovery	LCS Qualifier	Limits
PCB-28L	61		15 - 145
PCB-111L	69		40 - 145
PCB-178L	83		40 - 145

Lab Sample ID: 680-144854-12 MS

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: SB-204-1 (0-2) (102617)

Prep Type: Total/NA

Prep Batch: 192576

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
PCB-1	0.000029		0.000233	0.000221		mg/Kg	✱	82	60 - 135
PCB-3	0.000013	J	0.000233	0.000228		mg/Kg	✱	92	60 - 135
PCB-4	0.000097		0.000233	0.000241		mg/Kg	✱	62	60 - 135
PCB-15	0.000086		0.000233	0.000245		mg/Kg	✱	68	60 - 135
PCB-19	0.000080		0.000233	0.000244		mg/Kg	✱	71	60 - 135
PCB-37	0.00050	F1	0.000233	0.000337	F1	mg/Kg	✱	-71	60 - 135
PCB-54	0.0000065	J	0.000233	0.000226	q	mg/Kg	✱	94	60 - 135
PCB-77	0.0019	G	0.000233	0.000679	G 4	mg/Kg	✱	-506	60 - 135
PCB-81	0.00020	U G	0.000233	0.000227	G	mg/Kg	✱	98	60 - 135
PCB-104	0.0000048	J	0.000233	0.000260		mg/Kg	✱	110	60 - 135
PCB-114	0.0035	E G	0.000233	0.000808	G 4	mg/Kg	✱	-1137	60 - 135
PCB-123	0.0020	G	0.000233	0.000595	G 4	mg/Kg	✱	-590	60 - 135
PCB-126	0.00081	U G	0.000233	0.000363	G	mg/Kg	✱	NC	60 - 135
PCB-155	0.00018	U G	0.000233	0.000190	G	mg/Kg	✱	82	60 - 135
PCB-156/157	0.022	E G B F2	0.000465	0.00597	E G 4	mg/Kg	✱	-3526	60 - 135
PCB-167	0.0065	E G F2	0.000233	0.00173	G 4	mg/Kg	✱	-2065	60 - 135
PCB-169	0.00012	U G	0.000233	0.000219	G	mg/Kg	✱	94	60 - 135
PCB-188	0.0000051	U	0.000233	0.000224		mg/Kg	✱	96	60 - 135
PCB-189	0.00053	q F1	0.000233	0.000335	F1	mg/Kg	✱	-86	60 - 135
PCB-202	0.0011		0.000233	0.000492	4	mg/Kg	✱	-272	60 - 135
PCB-205	0.00023	F1	0.000233	0.000259	F1	mg/Kg	✱	10	60 - 135
PCB-206	0.0025	E F2	0.000233	0.000777	4	mg/Kg	✱	-728	60 - 135
PCB-208	0.00060	F1	0.000233	0.000360	F1	mg/Kg	✱	-102	60 - 135
PCB-209	0.00024	B F1	0.000233	0.000270	F1	mg/Kg	✱	13	60 - 135

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
PCB-1L	38		5 - 145
PCB-3L	41		5 - 145
PCB-4L	43		5 - 145
PCB-15L	50		5 - 145
PCB-19L	49		5 - 145
PCB-37L	54		5 - 145
PCB-54L	30	q	5 - 145
PCB-77L	73		10 - 145
PCB-81L	73		10 - 145
PCB-104L	46		10 - 145
PCB-105L	75		10 - 145
PCB-114L	79		10 - 145
PCB-118L	75		10 - 145

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: 680-144854-12 MS

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: SB-204-1 (0-2) (102617)

Prep Type: Total/NA

Prep Batch: 192576

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
PCB-123L	74		10 - 145
PCB-126L	87		10 - 145
PCB-155L	56		10 - 145
PCB-156L/157L	87		10 - 145
PCB-167L	92		10 - 145
PCB-169L	88		10 - 145
PCB-188L	62		10 - 145
PCB-189L	89		10 - 145
PCB-202L	71		10 - 145
PCB-205L	89		10 - 145
PCB-206L	85		10 - 145
PCB-208L	90		10 - 145
PCB-209L	91		10 - 145

Surrogate	MS %Recovery	MS Qualifier	Limits
PCB-28L	49		5 - 145
PCB-111L	67		10 - 145
PCB-178L	86		10 - 145

Lab Sample ID: 680-144854-12 MSD

Matrix: Solid

Analysis Batch: 195879

Client Sample ID: SB-204-1 (0-2) (102617)

Prep Type: Total/NA

Prep Batch: 192576

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1	0.000029		0.000232	0.000217		mg/Kg	✱	81	60 - 135	1	50
PCB-3	0.000013	J	0.000232	0.000227		mg/Kg	✱	92	60 - 135	0	50
PCB-4	0.000097		0.000232	0.000243		mg/Kg	✱	63	60 - 135	0	50
PCB-15	0.000086		0.000232	0.000237		mg/Kg	✱	65	60 - 135	3	50
PCB-19	0.000080		0.000232	0.000241		mg/Kg	✱	69	60 - 135	1	50
PCB-37	0.000050	F1	0.000232	0.000277	F1	mg/Kg	✱	-97	60 - 135	19	50
PCB-54	0.0000065	J	0.000232	0.000221	q	mg/Kg	✱	92	60 - 135	3	50
PCB-77	0.0019	G	0.000232	0.000414	G 4	mg/Kg	✱	-620	60 - 135	48	50
PCB-81	0.00020	U G	0.000232	0.000243	G	mg/Kg	✱	104	60 - 135	7	50
PCB-104	0.0000048	J	0.000232	0.000262		mg/Kg	✱	111	60 - 135	1	50
PCB-114	0.0035	E G	0.000232	0.000489	G 4	mg/Kg	✱	-1276	60 - 135	49	50
PCB-123	0.0020	G	0.000232	0.000469	G 4	mg/Kg	✱	-646	60 - 135	24	50
PCB-126	0.00081	U G	0.000232	0.000301	G	mg/Kg	✱	129	60 - 135	19	50
PCB-155	0.00018	U G	0.000232	0.000219	G	mg/Kg	✱	94	60 - 135	14	50
PCB-156/157	0.022	E G B F2	0.000465	0.00298	G 4 F2	mg/Kg	✱	-4175	60 - 135	67	50
PCB-167	0.0065	E G F2	0.000232	0.000950	G 4 F2	mg/Kg	✱	-2404	60 - 135	58	50
PCB-169	0.00012	U G	0.000232	0.000221	G	mg/Kg	✱	95	60 - 135	1	50
PCB-188	0.0000051	U	0.000232	0.000199	q	mg/Kg	✱	86	60 - 135	12	50
PCB-189	0.00053	q F1	0.000232	0.000245	F1	mg/Kg	✱	-125	60 - 135	31	50
PCB-202	0.0011		0.000232	0.000319	4	mg/Kg	✱	-346	60 - 135	43	50
PCB-205	0.00023	F1	0.000232	0.000213	F1	mg/Kg	✱	-9	60 - 135	20	50
PCB-206	0.0025	E F2	0.000232	0.000436	4 F2	mg/Kg	✱	-876	60 - 135	56	50
PCB-208	0.00060	F1	0.000232	0.000282	F1	mg/Kg	✱	-136	60 - 135	24	50
PCB-209	0.00024	B F1	0.000232	0.000249	F1	mg/Kg	✱	5	60 - 135	8	50

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

<i>Isotope Dilution</i>	<i>MSD</i> <i>%Recovery</i>	<i>MSD</i> <i>Qualifier</i>	<i>Limits</i>
PCB-1L	46		5 - 145
PCB-3L	53		5 - 145
PCB-4L	53		5 - 145
PCB-15L	64		5 - 145
PCB-19L	62		5 - 145
PCB-37L	63		5 - 145
PCB-54L	37	q	5 - 145
PCB-77L	88		10 - 145
PCB-81L	88		10 - 145
PCB-104L	50	q	10 - 145
PCB-105L	90		10 - 145
PCB-114L	91		10 - 145
PCB-118L	90		10 - 145
PCB-123L	88		10 - 145
PCB-126L	98		10 - 145
PCB-155L	68		10 - 145
PCB-156L/157L	98		10 - 145
PCB-167L	99		10 - 145
PCB-169L	96		10 - 145
PCB-188L	76		10 - 145
PCB-189L	96		10 - 145
PCB-202L	78		10 - 145
PCB-205L	96		10 - 145
PCB-206L	88		10 - 145
PCB-208L	96		10 - 145
PCB-209L	95		10 - 145
<i>Surrogate</i>	<i>MSD</i> <i>%Recovery</i>	<i>MSD</i> <i>Qualifier</i>	<i>Limits</i>
PCB-28L	58		5 - 145
PCB-111L	84		10 - 145
PCB-178L	101		10 - 145

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) - DL

Lab Sample ID: 680-144854-12 MS

Matrix: Solid

Analysis Batch: 197081

Client Sample ID: SB-204-1 (0-2) (102617)

Prep Type: Total/NA

Prep Batch: 192576

<i>Analyte</i>	<i>Sample</i> <i>Result</i>	<i>Sample</i> <i>Qualifier</i>	<i>Spike</i> <i>Added</i>	<i>MS</i> <i>Result</i>	<i>MS</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i> <i>Limits</i>
PCB-105 - DL	0.056	E G B F2	0.000233	0.0140	G 4	mg/Kg	☼	-1785	60 - 135
PCB-118 - DL	0.13	E G B F2	0.000233	0.0336	G 4	mg/Kg	☼	-4144	60 - 135
<i>Isotope Dilution</i>	<i>MS</i> <i>%Recovery</i>	<i>MS</i> <i>Qualifier</i>	<i>Limits</i>						
PCB-1L - DL	41		5 - 145						
PCB-3L - DL	43		5 - 145						
PCB-4L - DL	43		5 - 145						
PCB-15L - DL	51		5 - 145						
PCB-19L - DL	46		5 - 145						
PCB-37L - DL	51		5 - 145						
PCB-54L - DL	43		5 - 145						
PCB-77L - DL	65		10 - 145						
PCB-81L - DL	66		10 - 145						

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) - DL (Continued)

Lab Sample ID: 680-144854-12 MS

Matrix: Solid

Analysis Batch: 197081

Client Sample ID: SB-204-1 (0-2) (102617)

Prep Type: Total/NA

Prep Batch: 192576

	MS	MS	
Isotope Dilution	%Recovery	Qualifier	Limits
PCB-104L - DL	54		10 - 145
PCB-105L - DL	75		10 - 145
PCB-114L - DL	70		10 - 145
PCB-118L - DL	73		10 - 145
PCB-123L - DL	68		10 - 145
PCB-126L - DL	82		10 - 145
PCB-155L - DL	57		10 - 145
PCB-156L/157L - DL	83		10 - 145
PCB-167L - DL	82		10 - 145
PCB-169L - DL	90		10 - 145
PCB-188L - DL	70		10 - 145
PCB-189L - DL	82		10 - 145
PCB-202L - DL	79		10 - 145
PCB-205L - DL	90		10 - 145
PCB-206L - DL	85		10 - 145
PCB-208L - DL	83		10 - 145
PCB-209L - DL	91		10 - 145

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
PCB-28L - DL	45		5 - 145
PCB-111L - DL	67		10 - 145
PCB-178L - DL	92		10 - 145

Lab Sample ID: 680-144854-12 MSD

Matrix: Solid

Analysis Batch: 197081

Client Sample ID: SB-204-1 (0-2) (102617)

Prep Type: Total/NA

Prep Batch: 192576

	Sample	Sample	Spike	MSD	MSD						
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	%Rec.	RPD	RPD
PCB-105 - DL	0.056	E G B F2	0.000232	0.00692	G 4 F2	mg/Kg	☼	-2093 9	60 - 135	68	50
PCB-118 - DL	0.13	E G B F2	0.000232	0.0167	G 4 F2	mg/Kg	☼	-4874 4	60 - 135	67	50

	MSD	MSD	
Isotope Dilution	%Recovery	Qualifier	Limits
PCB-1L - DL	45		5 - 145
PCB-3L - DL	48		5 - 145
PCB-4L - DL	49		5 - 145
PCB-15L - DL	56		5 - 145
PCB-19L - DL	53		5 - 145
PCB-37L - DL	63		5 - 145
PCB-54L - DL	52		5 - 145
PCB-77L - DL	80		10 - 145
PCB-81L - DL	81		10 - 145
PCB-104L - DL	64		10 - 145
PCB-105L - DL	87		10 - 145
PCB-114L - DL	82		10 - 145
PCB-118L - DL	84		10 - 145
PCB-123L - DL	84		10 - 145

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) - DL (Continued)

Lab Sample ID: 680-144854-12 MSD

Matrix: Solid

Analysis Batch: 197081

Client Sample ID: SB-204-1 (0-2) (102617)

Prep Type: Total/NA

Prep Batch: 192576

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
PCB-126L - DL	86		10 - 145
PCB-155L - DL	73		10 - 145
PCB-156L/157L - DL	92		10 - 145
PCB-167L - DL	93		10 - 145
PCB-169L - DL	92		10 - 145
PCB-188L - DL	91		10 - 145
PCB-189L - DL	92		10 - 145
PCB-202L - DL	96		10 - 145
PCB-205L - DL	97		10 - 145
PCB-206L - DL	94		10 - 145
PCB-208L - DL	98		10 - 145
PCB-209L - DL	107		10 - 145

Surrogate	MSD %Recovery	MSD Qualifier	Limits
PCB-28L - DL	60		5 - 145
PCB-111L - DL	82		10 - 145
PCB-178L - DL	106		10 - 145

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 320-192583/1-A

Matrix: Solid

Analysis Batch: 195126

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 192583

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.00000015	U	0.0000010	0.0000001	mg/Kg		11/02/17 12:58	11/15/17 19:46	1
				5					
Isotope Dilution	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	83		40 - 135				11/02/17 12:58	11/15/17 19:46	1
13C-1,2,3,4,6,7,8-HpCDF	84		40 - 135				11/02/17 12:58	11/15/17 19:46	1
13C-1,2,3,4,7,8-HxCDF	81		40 - 135				11/02/17 12:58	11/15/17 19:46	1
13C-1,2,3,6,7,8-HxCDD	83		40 - 135				11/02/17 12:58	11/15/17 19:46	1
13C-1,2,3,7,8-PeCDD	85		40 - 135				11/02/17 12:58	11/15/17 19:46	1
13C-1,2,3,7,8-PeCDF	86		40 - 135				11/02/17 12:58	11/15/17 19:46	1
13C-2,3,7,8-TCDD	80		40 - 135				11/02/17 12:58	11/15/17 19:46	1
13C-2,3,7,8-TCDF	79		40 - 135				11/02/17 12:58	11/15/17 19:46	1
13C-OCDD	87		40 - 135				11/02/17 12:58	11/15/17 19:46	1

Lab Sample ID: LCS 320-192583/2-A

Matrix: Solid

Analysis Batch: 195126

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 192583

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
2,3,7,8-TCDD	0.0000200	0.0000188		mg/Kg		94	77 - 130
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits				
13C-1,2,3,4,6,7,8-HpCDD	82		40 - 135				

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-192583/2-A

Matrix: Solid

Analysis Batch: 195126

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 192583

	LCS %Recovery	LCS Qualifier	Limits
<i>Isotope Dilution</i>			
13C-1,2,3,4,6,7,8-HpCDF	79		40 - 135
13C-1,2,3,4,7,8-HxCDF	80		40 - 135
13C-1,2,3,6,7,8-HxCDD	78		40 - 135
13C-1,2,3,7,8-PeCDD	80		40 - 135
13C-1,2,3,7,8-PeCDF	80		40 - 135
13C-2,3,7,8-TCDD	77		40 - 135
13C-2,3,7,8-TCDF	77		40 - 135
13C-OCDD	84		40 - 135

Lab Sample ID: 680-144854-12 MS

Matrix: Solid

Analysis Batch: 195126

Client Sample ID: SB-204-1 (0-2) (102617)

Prep Type: Total/NA

Prep Batch: 192583

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	0.0000019	U G	0.0000233	0.0000248		mg/Kg	☼	107	77 - 130
<i>Isotope Dilution</i>									
13C-1,2,3,4,6,7,8-HpCDD	86	q							40 - 135
13C-1,2,3,4,6,7,8-HpCDF	81								40 - 135
13C-1,2,3,4,7,8-HxCDF	93								40 - 135
13C-1,2,3,6,7,8-HxCDD	91								40 - 135
13C-1,2,3,7,8-PeCDD	92								40 - 135
13C-1,2,3,7,8-PeCDF	94								40 - 135
13C-2,3,7,8-TCDD	70								40 - 135
13C-2,3,7,8-TCDF	90								40 - 135
13C-OCDD	97								40 - 135

Lab Sample ID: 680-144854-12 MSD

Matrix: Solid

Analysis Batch: 195126

Client Sample ID: SB-204-1 (0-2) (102617)

Prep Type: Total/NA

Prep Batch: 192583

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,3,7,8-TCDD	0.0000019	U G	0.0000232	0.0000226		mg/Kg	☼	97	77 - 130	9	20
<i>Isotope Dilution</i>											
13C-1,2,3,4,6,7,8-HpCDD	105	q									
13C-1,2,3,4,6,7,8-HpCDF	92										
13C-1,2,3,4,7,8-HxCDF	92										
13C-1,2,3,6,7,8-HxCDD	92										
13C-1,2,3,7,8-PeCDD	90										
13C-1,2,3,7,8-PeCDF	93										
13C-2,3,7,8-TCDD	84										
13C-2,3,7,8-TCDF	90										
13C-OCDD	119										

TestAmerica Savannah



## QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

### Method: 8290A - Dioxins and Furans (HRGC/HRMS) - RA

Lab Sample ID: 680-144854-12 MS

Matrix: Solid

Analysis Batch: 195319

Client Sample ID: SB-204-1 (0-2) (102617)

Prep Type: Total/NA

Prep Batch: 192583

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
13C-2,3,7,8-TCDF - RA	85		40 - 135

Lab Sample ID: 680-144854-12 MSD

Matrix: Solid

Analysis Batch: 195319

Client Sample ID: SB-204-1 (0-2) (102617)

Prep Type: Total/NA

Prep Batch: 192583

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MSD MSD Qualifier</i>	<i>Limits</i>
13C-2,3,7,8-TCDF - RA	83		40 - 135



# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Specialty Organics

### Prep Batch: 192576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-12	SB-204-1 (0-2) (102617)	Total/NA	Solid	HRMS-Sox	
680-144854-12 - DL	SB-204-1 (0-2) (102617)	Total/NA	Solid	HRMS-Sox	
680-144854-13	SB-204-2 (0-2) (102617)	Total/NA	Solid	HRMS-Sox	
680-144854-14	SB-204-3 (0-2) (102617)	Total/NA	Solid	HRMS-Sox	
680-144854-15	SB-207-1 (0-2) (102617)	Total/NA	Solid	HRMS-Sox	
680-144854-16	SB-207-2 (0-2) (102617)	Total/NA	Solid	HRMS-Sox	
680-144854-17	SB-207-3 (0-2) (102617)	Total/NA	Solid	HRMS-Sox	
MB 320-192576/1-A	Method Blank	Total/NA	Solid	HRMS-Sox	
LCS 320-192576/2-A	Lab Control Sample	Total/NA	Solid	HRMS-Sox	
680-144854-12 MS	SB-204-1 (0-2) (102617)	Total/NA	Solid	HRMS-Sox	
680-144854-12 MS - DL	SB-204-1 (0-2) (102617)	Total/NA	Solid	HRMS-Sox	
680-144854-12 MSD	SB-204-1 (0-2) (102617)	Total/NA	Solid	HRMS-Sox	
680-144854-12 MSD - DL	SB-204-1 (0-2) (102617)	Total/NA	Solid	HRMS-Sox	

### Prep Batch: 192583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-12	SB-204-1 (0-2) (102617)	Total/NA	Solid	8290	
680-144854-12 - RA	SB-204-1 (0-2) (102617)	Total/NA	Solid	8290	
680-144854-13	SB-204-2 (0-2) (102617)	Total/NA	Solid	8290	
680-144854-13 - RA	SB-204-2 (0-2) (102617)	Total/NA	Solid	8290	
680-144854-14	SB-204-3 (0-2) (102617)	Total/NA	Solid	8290	
680-144854-14 - RA	SB-204-3 (0-2) (102617)	Total/NA	Solid	8290	
680-144854-15	SB-207-1 (0-2) (102617)	Total/NA	Solid	8290	
680-144854-16	SB-207-2 (0-2) (102617)	Total/NA	Solid	8290	
680-144854-17	SB-207-3 (0-2) (102617)	Total/NA	Solid	8290	
680-144854-17 - RA	SB-207-3 (0-2) (102617)	Total/NA	Solid	8290	
MB 320-192583/1-A	Method Blank	Total/NA	Solid	8290	
LCS 320-192583/2-A	Lab Control Sample	Total/NA	Solid	8290	
680-144854-12 MS	SB-204-1 (0-2) (102617)	Total/NA	Solid	8290	
680-144854-12 MS - RA	SB-204-1 (0-2) (102617)	Total/NA	Solid	8290	
680-144854-12 MSD	SB-204-1 (0-2) (102617)	Total/NA	Solid	8290	
680-144854-12 MSD - RA	SB-204-1 (0-2) (102617)	Total/NA	Solid	8290	

### Analysis Batch: 195126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-12	SB-204-1 (0-2) (102617)	Total/NA	Solid	8290A	192583
680-144854-13	SB-204-2 (0-2) (102617)	Total/NA	Solid	8290A	192583
MB 320-192583/1-A	Method Blank	Total/NA	Solid	8290A	192583
LCS 320-192583/2-A	Lab Control Sample	Total/NA	Solid	8290A	192583
680-144854-12 MS	SB-204-1 (0-2) (102617)	Total/NA	Solid	8290A	192583
680-144854-12 MSD	SB-204-1 (0-2) (102617)	Total/NA	Solid	8290A	192583

### Analysis Batch: 195136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-14	SB-204-3 (0-2) (102617)	Total/NA	Solid	8290A	192583
680-144854-15	SB-207-1 (0-2) (102617)	Total/NA	Solid	8290A	192583
680-144854-16	SB-207-2 (0-2) (102617)	Total/NA	Solid	8290A	192583
680-144854-17	SB-207-3 (0-2) (102617)	Total/NA	Solid	8290A	192583

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# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Specialty Organics (Continued)

### Analysis Batch: 195319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-12 - RA	SB-204-1 (0-2) (102617)	Total/NA	Solid	8290A	192583
680-144854-13 - RA	SB-204-2 (0-2) (102617)	Total/NA	Solid	8290A	192583
680-144854-14 - RA	SB-204-3 (0-2) (102617)	Total/NA	Solid	8290A	192583
680-144854-17 - RA	SB-207-3 (0-2) (102617)	Total/NA	Solid	8290A	192583
680-144854-12 MS - RA	SB-204-1 (0-2) (102617)	Total/NA	Solid	8290A	192583
680-144854-12 MSD - RA	SB-204-1 (0-2) (102617)	Total/NA	Solid	8290A	192583

### Analysis Batch: 195879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-12	SB-204-1 (0-2) (102617)	Total/NA	Solid	1668C	192576
MB 320-192576/1-A	Method Blank	Total/NA	Solid	1668C	192576
LCS 320-192576/2-A	Lab Control Sample	Total/NA	Solid	1668C	192576
680-144854-12 MS	SB-204-1 (0-2) (102617)	Total/NA	Solid	1668C	192576
680-144854-12 MSD	SB-204-1 (0-2) (102617)	Total/NA	Solid	1668C	192576

### Analysis Batch: 197053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-15	SB-207-1 (0-2) (102617)	Total/NA	Solid	1668C	192576
680-144854-16	SB-207-2 (0-2) (102617)	Total/NA	Solid	1668C	192576
680-144854-17	SB-207-3 (0-2) (102617)	Total/NA	Solid	1668C	192576

### Analysis Batch: 197081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-12 - DL	SB-204-1 (0-2) (102617)	Total/NA	Solid	1668C	192576
680-144854-13	SB-204-2 (0-2) (102617)	Total/NA	Solid	1668C	192576
680-144854-14	SB-204-3 (0-2) (102617)	Total/NA	Solid	1668C	192576
680-144854-12 MS - DL	SB-204-1 (0-2) (102617)	Total/NA	Solid	1668C	192576
680-144854-12 MSD - DL	SB-204-1 (0-2) (102617)	Total/NA	Solid	1668C	192576

### Analysis Batch: 199021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-144854-12	SB-204-1 (0-2) (102617)	Total/NA	Solid	None	
680-144854-13	SB-204-2 (0-2) (102617)	Total/NA	Solid	None	
680-144854-14	SB-204-3 (0-2) (102617)	Total/NA	Solid	None	
680-144854-15	SB-207-1 (0-2) (102617)	Total/NA	Solid	None	
680-144854-16	SB-207-2 (0-2) (102617)	Total/NA	Solid	None	
680-144854-17	SB-207-3 (0-2) (102617)	Total/NA	Solid	None	



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-204-1 (0-2) (102617)**

**Date Collected: 10/26/17 15:00**

**Date Received: 10/27/17 13:50**

**Lab Sample ID: 680-144854-12**

**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	None		1			199021	12/08/17 11:12	SHK	TAL SAC

**Client Sample ID: SB-204-1 (0-2) (102617)**

**Date Collected: 10/26/17 15:00**

**Date Received: 10/27/17 13:50**

**Lab Sample ID: 680-144854-12**

**Matrix: Solid**

**Percent Solids: 85.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19.72 g	40.0 uL	192576	11/02/17 12:52	D1G	TAL SAC
Total/NA	Analysis	1668C		1			195879	11/21/17 23:53	KSS	TAL SAC
Total/NA	Prep	HRMS-Sox	DL		19.72 g	40.0 uL	192576	11/02/17 12:52	D1G	TAL SAC
Total/NA	Analysis	1668C	DL	20			197081	11/29/17 07:37	KSS	TAL SAC
Total/NA	Prep	8290			19.72 g	40.0 uL	192583	11/02/17 12:58	D1G	TAL SAC
Total/NA	Analysis	8290A		1			195126	11/15/17 23:48	SMA	TAL SAC
Total/NA	Prep	8290	RA		19.72 g	40.0 uL	192583	11/02/17 12:58	D1G	TAL SAC
Total/NA	Analysis	8290A	RA	1			195319	11/17/17 01:48	KSS	TAL SAC

**Client Sample ID: SB-204-2 (0-2) (102617)**

**Date Collected: 10/26/17 15:10**

**Date Received: 10/27/17 13:50**

**Lab Sample ID: 680-144854-13**

**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	None		1			199021	12/08/17 11:12	SHK	TAL SAC

**Client Sample ID: SB-204-2 (0-2) (102617)**

**Date Collected: 10/26/17 15:10**

**Date Received: 10/27/17 13:50**

**Lab Sample ID: 680-144854-13**

**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	HRMS-Sox			19.95 g	40.0 uL	192576	11/02/17 12:52	D1G	TAL SAC
Total/NA	Analysis	1668C		20			197081	11/29/17 11:22	KSS	TAL SAC
Total/NA	Prep	8290			19.95 g	40.0 uL	192583	11/02/17 12:58	D1G	TAL SAC
Total/NA	Analysis	8290A		1			195126	11/16/17 02:14	SMA	TAL SAC
Total/NA	Prep	8290	RA		19.95 g	40.0 uL	192583	11/02/17 12:58	D1G	TAL SAC
Total/NA	Analysis	8290A	RA	1			195319	11/17/17 03:42	KSS	TAL SAC

**Client Sample ID: SB-204-3 (0-2) (102617)**

**Date Collected: 10/26/17 15:20**

**Date Received: 10/27/17 13:50**

**Lab Sample ID: 680-144854-14**

**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	None		1			199021	12/08/17 11:12	SHK	TAL SAC

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-204-3 (0-2) (102617)**

**Lab Sample ID: 680-144854-14**

**Date Collected: 10/26/17 15:20**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 79.9**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19.89 g	40.0 uL	192576	11/02/17 12:52	D1G	TAL SAC
Total/NA	Analysis	1668C		20			197081	11/29/17 12:37	KSS	TAL SAC
Total/NA	Prep	8290			19.89 g	40.0 uL	192583	11/02/17 12:58	D1G	TAL SAC
Total/NA	Analysis	8290A		1			195136	11/16/17 10:00	SMA	TAL SAC
Total/NA	Prep	8290	RA		19.89 g	40.0 uL	192583	11/02/17 12:58	D1G	TAL SAC
Total/NA	Analysis	8290A	RA	1			195319	11/17/17 04:20	KSS	TAL SAC

**Client Sample ID: SB-207-1 (0-2) (102617)**

**Lab Sample ID: 680-144854-15**

**Date Collected: 10/26/17 15:30**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	None		1			199021	12/08/17 11:12	SHK	TAL SAC

**Client Sample ID: SB-207-1 (0-2) (102617)**

**Lab Sample ID: 680-144854-15**

**Date Collected: 10/26/17 15:30**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**Percent Solids: 83.6**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19.89 g	40.0 uL	192576	11/02/17 12:52	D1G	TAL SAC
Total/NA	Analysis	1668C		5			197053	11/28/17 17:29	KSS	TAL SAC
Total/NA	Prep	8290			19.89 g	40.0 uL	192583	11/02/17 12:58	D1G	TAL SAC
Total/NA	Analysis	8290A		1			195136	11/16/17 10:49	SMA	TAL SAC

**Client Sample ID: SB-207-2 (0-2) (102617)**

**Lab Sample ID: 680-144854-16**

**Date Collected: 10/26/17 15:40**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	None		1			199021	12/08/17 11:12	SHK	TAL SAC

**Client Sample ID: SB-207-2 (0-2) (102617)**

**Lab Sample ID: 680-144854-16**

**Date Collected: 10/26/17 15:40**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**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	HRMS-Sox			19.90 g	40.0 uL	192576	11/02/17 12:52	D1G	TAL SAC
Total/NA	Analysis	1668C		5			197053	11/28/17 18:44	KSS	TAL SAC
Total/NA	Prep	8290			19.90 g	40.0 uL	192583	11/02/17 12:58	D1G	TAL SAC
Total/NA	Analysis	8290A		1			195136	11/16/17 11:38	SMA	TAL SAC

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

**Client Sample ID: SB-207-3 (0-2) (102617)**

**Lab Sample ID: 680-144854-17**

**Date Collected: 10/26/17 15:50**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	None		1			199021	12/08/17 11:12	SHK	TAL SAC

**Client Sample ID: SB-207-3 (0-2) (102617)**

**Lab Sample ID: 680-144854-17**

**Date Collected: 10/26/17 15:50**

**Matrix: Solid**

**Date Received: 10/27/17 13:50**

**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	HRMS-Sox			20.01 g	40.0 uL	192576	11/02/17 12:52	D1G	TAL SAC
Total/NA	Analysis	1668C		5			197053	11/28/17 19:59	KSS	TAL SAC
Total/NA	Prep	8290			20.01 g	40.0 uL	192583	11/02/17 12:58	D1G	TAL SAC
Total/NA	Analysis	8290A		1			195136	11/16/17 12:26	SMA	TAL SAC
Total/NA	Prep	8290	RA		20.01 g	40.0 uL	192583	11/02/17 12:58	D1G	TAL SAC
Total/NA	Analysis	8290A	RA	1			195319	11/17/17 04:58	KSS	TAL SAC

## Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600







1520 METROPOLITAN AVENUE  
5102 LAFAYETTE AVENUE  
SARASOTA, FL 34234  
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Chain of Custody Record 204793

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING  
TestAmerica Laboratories, Inc.  
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Company Name:		Client Contact		Project Manager: <u>SWB</u>		Site Contact: <u>DAVE</u>		Date: <u>10/27/17</u>		COC No: _____ of _____ COCs			
Address:		Tel/Fax:		Analysis Turnaround Time		Site Contact:		Carrier:		Sampler: <u>M. C. JONES / B. M. JONES</u>			
City/State/Zip:		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		TAT if different from Below		No Contact:		For Lab Use Only:		Walk-in Client:			
Phone:		<input type="checkbox"/> 2 weeks		<input type="checkbox"/> 1 week				Lab Sampling:		Job / SDG No: _____			
Fax:		<input type="checkbox"/> 2 days		<input type="checkbox"/> 1 day									
Project Name: <u>SWB</u>													
Site:													
P O #:													
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PCB 80815 / 80814	TEO 1628 / 80814	1,1-BIPHENYL 82740	TCIP 57004	*Total PCBs *
SB-204-2 (0-2) (102617)	10/26/17	1510	G	So	2								
SB-204-3 (0-2) (102617)	10/26/17	1520	G	So	2								
SB-207-1 (0-2) (102617)	10/26/17	1530	G	So	1								
SB-207-2 (0-2) (102617)	10/26/17	1540	G	So	1								
SB-207-3 (0-2) (102617)	10/26/17	1550	G	So	1								
EB-3 (102617)	10/26/17	1615	G	WT	2								
DW-SOIL (102717)	10/27/17	1300	C	So	2								
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other													
Possible Hazard Identification: _____													
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.													
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown													
Special Instructions/QC Requirements & Comments:													
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____		Corrd: _____		Therm ID No.:					
Relinquished by: <u>ACE</u>		Company: <u>ACCORDS</u>		Date/Time: <u>10/27/17 1350</u>		Received by:		Company:		Date/Time:			
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:			
Relinquished by:		Company:		Date/Time:		Received in Laboratory by: <u>MR</u>		Company: <u>SWB</u>		Date/Time: <u>10/27/17 1300</u>			

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## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-144854-2

Login Number: 144854

List Source: TestAmerica Savannah

List Number: 1

Creator: Flanagan, Naomi V

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.	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	



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-144854-2

**Login Number: 144854**

**List Number: 2**

**Creator: Her, David A**

**List Source: TestAmerica Sacramento**

**List Creation: 11/01/17 10:36 AM**

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	414713
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.8 C
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?	False	Received project as a subcontract.
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	



# Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## 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	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



# Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Savannah Resins Plant

TestAmerica Job ID: 680-144854-2

## Laboratory: TestAmerica Sacramento

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
Alaska (UST)	State Program	10	UST-055	12-18-17
Arizona	State Program	9	AZ0708	08-11-18
Arkansas DEQ	State Program	6	88-0691	06-17-18
California	State Program	9	2897	01-31-18
Colorado	State Program	8	CA00044	08-31-18
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-18
Georgia	State Program	4	N/A	01-28-19
Hawaii	State Program	9	N/A	01-29-18
Illinois	NELAP	5	200060	03-17-18
Kansas	NELAP	7	E-10375	12-31-17
L-A-B	DoD ELAP		L2468	01-20-18
Louisiana	NELAP	6	30612	06-30-18
Maine	State Program	1	CA0004	04-18-18
Michigan	State Program	5	9947	01-31-18
Nevada	State Program	9	CA00044	07-31-18
New Hampshire	NELAP	1	2997	04-18-18
New Jersey	NELAP	2	CA005	06-30-18
New York	NELAP	2	11666	04-01-18
Oregon	NELAP	10	4040	01-28-18
Pennsylvania	NELAP	3	68-01272	03-31-18
Texas	NELAP	6	T104704399	05-31-18
US Fish & Wildlife	Federal		LE148388-0	07-31-18
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-18
Virginia	NELAP	3	460278	03-14-18
Washington	State Program	10	C581	05-05-18
West Virginia (DW)	State Program	3	9930C	12-31-17
Wyoming	State Program	8	8TMS-L	01-28-19



## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Tel: (912)354-7858

TestAmerica Job ID: 680-147306-1

Client Project/Site: Hercules Savannah / Savannah Resins Plan  
Revision: 1

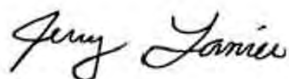
For:

ARCADIS U.S., Inc.

10 Patewood Drive, Suite 375

Greenville, South Carolina 29615

Attn: Andrew Davis



Authorized for release by:

2/12/2018 3:14:31 PM

Jerry Lanier, Project Manager I

(912)354-7858 e.3410

[jerry.lanier@testamericainc.com](mailto:jerry.lanier@testamericainc.com)

### LINKS

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



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# Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Job ID: 680-147306-1**

**Laboratory: TestAmerica Savannah**

## Narrative

### CASE NARRATIVE

**Client: ARCADIS U.S., Inc.**

**Project: Hercules Savannah / Savannah Resins Plan**

**Report Number: 680-147306-1**

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 12/28/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.3° C, 3.8° C, 15.2° C and 16.5° C.

The final report was revised to exclude samples 680-147306-10, 680-147306-12, and 680-147306-14 from the final report per client request.

#### VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples MW-F5 (122717) (680-147306-1), MW-F7 (122717) (680-147306-2), MW-F21 (122717) (680-147306-3), MW-27 (122717) (680-147306-4), MW-29 (122717) (680-147306-5), MWD-30 (122717) (680-147306-6), DUP-01 (122717) (680-147306-7) and MW-F15 (122817) (680-147306-9) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 01/03/2018 and 01/06/2018.

The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 680-508640 recovered outside control limits for the following analyte: Acrolein. This analyte was biased high in the LCS/LCSD and was not detected in the associated samples; therefore, the data have been reported.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 680-508640.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) - LOW LEVEL

Samples MW-F5 (122717) (680-147306-1), MW-F7 (122717) (680-147306-2), MW-F21 (122717) (680-147306-3), MW-27 (122717) (680-147306-4), MW-29 (122717) (680-147306-5), MWD-30 (122717) (680-147306-6), DUP-01 (122717) (680-147306-7), and TMW-22 (122817) (680-147306-13) were analyzed for Semivolatile Organic Compounds (GC/MS) - Low level in accordance with EPA SW-846 Method 8270D. The samples were prepared on 01/02/2018 and analyzed on 01/16/2018, 01/18/2018 and 01/19/2018.

The following analytes have been identified, in the reference method and/or via historical data, to be poor and/or erratic performers: 1,4-Dioxane. These analytes may have a %D >20%, but must be <50%. If >50%, 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.

Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: MW-29 (122717) (680-147306-5) and MWD-30 (122717) (680-147306-6). These results have been reported and qualified.

The following sample was diluted due to the nature of the sample matrix and abundance of target analytes: TMW-22 (122817)



## Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

### Job ID: 680-147306-1 (Continued)

#### Laboratory: TestAmerica Savannah (Continued)

(680-147306-13). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 680-508334 and analytical batch 680-509554 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 680-508334 and analytical batch 680-509554 was outside control limits. Sample matrix interference is suspected.

Refer to the QC report for details.

Sample TMW-22 (122817) (680-147306-13)[100X] 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.

#### **PESTICIDES AND PCBS**

Samples MW-F3R (122817) (680-147306-8), and TMW-19 (122817) (680-147306-11) were analyzed for Pesticides and PCBs in accordance with EPA SW-846 Method 8081B\_8082A. The samples were prepared on 01/02/2018 and analyzed on 01/05/2018.

This method incorporates 2nd column confirmation. Corrective action is not taken for surrogate/spike compounds unless results from both columns are unacceptable. Results outside criteria are qualified.

Surrogate recovery for the following sample was outside of acceptance limits: MW-F3R (122817) (680-147306-8). There was insufficient sample to perform a re-extraction; therefore, the data have been reported.

DCB Decachlorobiphenyl and Tetrachloro-m-xylene failed the surrogate recovery criteria low for MW-F3R (122817) (680-147306-8). 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.

#### **Subcontract Work**

Method Asbestos: This method was subcontracted to EMSL Analytical, Inc.. The subcontract laboratory certification is different from that of the facility issuing the final report.



## Sample Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-1

Project/Site: Hercules Savannah / Savannah Resins Plan

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-147306-1	MW-F5 (122717)	Water	12/27/17 16:30	12/28/17 15:17
680-147306-2	MW-F7 (122717)	Water	12/27/17 11:50	12/28/17 15:17
680-147306-3	MW-F21 (122717)	Water	12/27/17 14:55	12/28/17 15:17
680-147306-4	MW-27 (122717)	Water	12/27/17 09:55	12/28/17 15:17
680-147306-5	MW-29 (122717)	Water	12/27/17 13:05	12/28/17 15:17
680-147306-6	MWD-30 (122717)	Water	12/27/17 15:40	12/28/17 15:17
680-147306-7	DUP-01 (122717)	Water	12/27/17 00:00	12/28/17 15:17
680-147306-8	MW-F3R (122817)	Water	12/28/17 14:00	12/28/17 15:17
680-147306-9	MW-F15 (122817)	Water	12/28/17 13:35	12/28/17 15:17
680-147306-11	TMW-19 (122817)	Water	12/28/17 14:40	12/28/17 15:17
680-147306-13	TMW-22 (122817)	Water	12/28/17 12:00	12/28/17 15:17

TestAmerica Savannah



## Method Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-1

Project/Site: Hercules Savannah / Savannah Resins Plan

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL SAV
8082A	Polychlorinated Biphenyls (PCBs) by GC	SW846	TAL SAV
Asbestos	EPA 100.2 Asbestos in Drinking Water	NONE	EMSL

### Protocol References:

NONE = NONE

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

EMSL = EMSL Analytical, Inc., 200 Rt 130 North, Cinnaminson, NJ 08077

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858



# Definitions/Glossary

Client: ARCADIS U.S., Inc.

Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

## Qualifiers

### GC/MS 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.

### 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.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

### GC Semi VOA

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits

## 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)



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

## Client Sample ID: MW-F5 (122717)

Lab Sample ID: 680-147306-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	11		0.21	0.11	ug/L	1		8270D LL	Total/NA

## Client Sample ID: MW-F7 (122717)

Lab Sample ID: 680-147306-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	5.0		1.0	0.74	ug/L	1		8260B	Total/NA

## Client Sample ID: MW-F21 (122717)

Lab Sample ID: 680-147306-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.8		1.0	0.43	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	0.46	J	1.0	0.35	ug/L	1		8260B	Total/NA
Xylenes, Total	0.46	J	1.0	0.23	ug/L	1		8260B	Total/NA
Acenaphthene	1.3		0.22	0.11	ug/L	1		8270D LL	Total/NA
1,4-Dioxane	3.3		2.2	0.33	ug/L	1		8270D LL	Total/NA
Fluorene	0.11	J	0.22	0.11	ug/L	1		8270D LL	Total/NA
Naphthalene	4.5		0.22	0.11	ug/L	1		8270D LL	Total/NA
Phenol	3.1		1.1	0.14	ug/L	1		8270D LL	Total/NA

## Client Sample ID: MW-27 (122717)

Lab Sample ID: 680-147306-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.3		1.0	0.74	ug/L	1		8260B	Total/NA

## Client Sample ID: MW-29 (122717)

Lab Sample ID: 680-147306-5

No Detections.

## Client Sample ID: MWD-30 (122717)

Lab Sample ID: 680-147306-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dibenzofuran	0.15	J	1.0	0.10	ug/L	1		8270D LL	Total/NA
Fluorene	0.13	J	0.21	0.10	ug/L	1		8270D LL	Total/NA

## Client Sample ID: DUP-01 (122717)

Lab Sample ID: 680-147306-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.3		1.0	0.74	ug/L	1		8260B	Total/NA

## Client Sample ID: MW-F3R (122817)

Lab Sample ID: 680-147306-8

No Detections.

## Client Sample ID: MW-F15 (122817)

Lab Sample ID: 680-147306-9

No Detections.

## Client Sample ID: TMW-19 (122817)

Lab Sample ID: 680-147306-11

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



## Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Client Sample ID: TMW-22 (122817)**

**Lab Sample ID: 680-147306-13**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	1400		110	11	ug/L	100		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Client Sample ID: MW-F5 (122717)**

**Lab Sample ID: 680-147306-1**

**Date Collected: 12/27/17 16:30**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			01/06/18 16:00	1
Acetonitrile	20	U	40	20	ug/L			01/06/18 16:00	1
Acrolein	8.7	U *	20	8.7	ug/L			01/06/18 16:00	1
Benzene	0.43	U	1.0	0.43	ug/L			01/06/18 16:00	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			01/06/18 16:00	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			01/06/18 16:00	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			01/06/18 16:00	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			01/06/18 16:00	1
Ethyl methacrylate	0.40	U	1.0	0.40	ug/L			01/06/18 16:00	1
Isobutyl alcohol	20	U	50	20	ug/L			01/06/18 16:00	1
Methyl ethyl ketone (MEK)	3.4	U	10	3.4	ug/L			01/06/18 16:00	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			01/06/18 16:00	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			01/06/18 16:00	1
o-Xylene	0.23	U	1.0	0.23	ug/L			01/06/18 16:00	1
Styrene	0.27	U	1.0	0.27	ug/L			01/06/18 16:00	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			01/06/18 16:00	1
Toluene	0.48	U	1.0	0.48	ug/L			01/06/18 16:00	1
trans-1,4-Dichloro-2-butene	0.51	U	2.0	0.51	ug/L			01/06/18 16:00	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			01/06/18 16:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		80 - 120		01/06/18 16:00	1
1,2-Dichloroethane-d4 (Surr)	95		73 - 131		01/06/18 16:00	1
Dibromofluoromethane (Surr)	104		80 - 122		01/06/18 16:00	1
4-Bromofluorobenzene (Surr)	94		80 - 120		01/06/18 16:00	1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	11		0.21	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1
Acenaphthylene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1
Acetophenone	0.32	U	1.1	0.32	ug/L		01/02/18 15:09	01/16/18 22:39	1
Aniline	1.0	U	2.1	1.0	ug/L		01/02/18 15:09	01/16/18 22:39	1
Anthracene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1
Benzo[a]anthracene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1
Benzo[a]pyrene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1
Benzo[b]fluoranthene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1
Benzo[g,h,i]perylene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1
Benzo[k]fluoranthene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1
1,1'-Biphenyl	0.11	U	1.1	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1
Bis(2-chloroethyl)ether	0.11	U	1.1	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1
Bis(2-ethylhexyl) phthalate	2.1	U	5.3	2.1	ug/L		01/02/18 15:09	01/16/18 22:39	1
Butyl benzyl phthalate	0.13	U	1.1	0.13	ug/L		01/02/18 15:09	01/16/18 22:39	1
Chrysene	0.048	U	0.21	0.048	ug/L		01/02/18 15:09	01/16/18 22:39	1
Dibenz(a,h)anthracene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1
Dibenzofuran	0.11	U	1.1	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1
2,4-Dimethylphenol	0.74	U	2.1	0.74	ug/L		01/02/18 15:09	01/16/18 22:39	1
1,3-Dinitrobenzene	0.11	U	1.1	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1
Di-n-octyl phthalate	0.18	U	1.1	0.18	ug/L		01/02/18 15:09	01/16/18 22:39	1
1,4-Dioxane	0.33	U	2.1	0.33	ug/L		01/02/18 15:09	01/16/18 22:39	1
Fluoranthene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Client Sample ID: MW-F5 (122717)**

**Lab Sample ID: 680-147306-1**

**Date Collected: 12/27/17 16:30**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1
Indeno[1,2,3-cd]pyrene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1
2-Methylphenol	0.79	U	2.1	0.79	ug/L		01/02/18 15:09	01/16/18 22:39	1
3 & 4 Methylphenol	0.71	U	2.1	0.71	ug/L		01/02/18 15:09	01/16/18 22:39	1
Naphthalene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1
N-Nitrosodi-n-butylamine	0.11	U	1.1	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1
N-Nitrosomethylethylamine	0.11	U	2.1	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1
Parathion	0.11	U	2.1	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1
Phenanthrene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1
Phenol	0.14	U	1.1	0.14	ug/L		01/02/18 15:09	01/16/18 22:39	1
Pyrene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/16/18 22:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	98		39 - 133	01/02/18 15:09	01/16/18 22:39	1
2-Fluorobiphenyl (Surr)	83		31 - 107	01/02/18 15:09	01/16/18 22:39	1
2-Fluorophenol (Surr)	70		18 - 112	01/02/18 15:09	01/16/18 22:39	1
Terphenyl-d14 (Surr)	73		22 - 121	01/02/18 15:09	01/16/18 22:39	1
Phenol-d5 (Surr)	75		20 - 113	01/02/18 15:09	01/16/18 22:39	1
Nitrobenzene-d5 (Surr)	82		37 - 103	01/02/18 15:09	01/16/18 22:39	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Client Sample ID: MW-F7 (122717)**

**Date Collected: 12/27/17 11:50**

**Date Received: 12/28/17 15:17**

**Lab Sample ID: 680-147306-2**

**Matrix: Water**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			01/06/18 16:23	1
Acetonitrile	20	U	40	20	ug/L			01/06/18 16:23	1
Acrolein	8.7	U *	20	8.7	ug/L			01/06/18 16:23	1
Benzene	0.43	U	1.0	0.43	ug/L			01/06/18 16:23	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			01/06/18 16:23	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			01/06/18 16:23	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			01/06/18 16:23	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			01/06/18 16:23	1
Ethyl methacrylate	0.40	U	1.0	0.40	ug/L			01/06/18 16:23	1
Isobutyl alcohol	20	U	50	20	ug/L			01/06/18 16:23	1
Methyl ethyl ketone (MEK)	3.4	U	10	3.4	ug/L			01/06/18 16:23	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			01/06/18 16:23	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			01/06/18 16:23	1
o-Xylene	0.23	U	1.0	0.23	ug/L			01/06/18 16:23	1
Styrene	0.27	U	1.0	0.27	ug/L			01/06/18 16:23	1
<b>Tetrachloroethene</b>	<b>5.0</b>		1.0	0.74	ug/L			01/06/18 16:23	1
Toluene	0.48	U	1.0	0.48	ug/L			01/06/18 16:23	1
trans-1,4-Dichloro-2-butene	0.51	U	2.0	0.51	ug/L			01/06/18 16:23	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			01/06/18 16:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		80 - 120		01/06/18 16:23	1
1,2-Dichloroethane-d4 (Surr)	97		73 - 131		01/06/18 16:23	1
Dibromofluoromethane (Surr)	104		80 - 122		01/06/18 16:23	1
4-Bromofluorobenzene (Surr)	94		80 - 120		01/06/18 16:23	1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1
Acenaphthylene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1
Acetophenone	0.30	U	1.0	0.30	ug/L		01/02/18 15:09	01/16/18 23:04	1
Aniline	0.97	U	2.0	0.97	ug/L		01/02/18 15:09	01/16/18 23:04	1
Anthracene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1
Benzo[a]anthracene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1
Benzo[a]pyrene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1
Benzo[b]fluoranthene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1
Benzo[g,h,i]perylene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1
Benzo[k]fluoranthene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1
1,1'-Biphenyl	0.10	U	1.0	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1
Bis(2-chloroethyl)ether	0.10	U	1.0	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1
Bis(2-ethylhexyl) phthalate	2.0	U	5.0	2.0	ug/L		01/02/18 15:09	01/16/18 23:04	1
Butyl benzyl phthalate	0.12	U	1.0	0.12	ug/L		01/02/18 15:09	01/16/18 23:04	1
Chrysene	0.045	U	0.20	0.045	ug/L		01/02/18 15:09	01/16/18 23:04	1
Dibenz(a,h)anthracene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1
Dibenzofuran	0.10	U	1.0	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1
2,4-Dimethylphenol	0.69	U	2.0	0.69	ug/L		01/02/18 15:09	01/16/18 23:04	1
1,3-Dinitrobenzene	0.10	U	1.0	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1
Di-n-octyl phthalate	0.17	U	1.0	0.17	ug/L		01/02/18 15:09	01/16/18 23:04	1
1,4-Dioxane	0.31	U	2.0	0.31	ug/L		01/02/18 15:09	01/16/18 23:04	1
Fluoranthene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-1

Project/Site: Hercules Savannah / Savannah Resins Plan

**Client Sample ID: MW-F7 (122717)**

**Lab Sample ID: 680-147306-2**

**Date Collected: 12/27/17 11:50**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1
Indeno[1,2,3-cd]pyrene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1
2-Methylphenol	0.74	U	2.0	0.74	ug/L		01/02/18 15:09	01/16/18 23:04	1
3 & 4 Methylphenol	0.66	U	2.0	0.66	ug/L		01/02/18 15:09	01/16/18 23:04	1
Naphthalene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1
N-Nitrosodi-n-butylamine	0.10	U	1.0	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1
N-Nitrosomethylethylamine	0.10	U	2.0	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1
Parathion	0.10	U	2.0	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1
Phenanthrene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1
Phenol	0.13	U	1.0	0.13	ug/L		01/02/18 15:09	01/16/18 23:04	1
Pyrene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 23:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	91		39 - 133	01/02/18 15:09	01/16/18 23:04	1
2-Fluorobiphenyl (Surr)	75		31 - 107	01/02/18 15:09	01/16/18 23:04	1
2-Fluorophenol (Surr)	61		18 - 112	01/02/18 15:09	01/16/18 23:04	1
Terphenyl-d14 (Surr)	87		22 - 121	01/02/18 15:09	01/16/18 23:04	1
Phenol-d5 (Surr)	69		20 - 113	01/02/18 15:09	01/16/18 23:04	1
Nitrobenzene-d5 (Surr)	72		37 - 103	01/02/18 15:09	01/16/18 23:04	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Client Sample ID: MW-F21 (122717)**

**Lab Sample ID: 680-147306-3**

**Date Collected: 12/27/17 14:55**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			01/06/18 16:45	1
Acetonitrile	20	U	40	20	ug/L			01/06/18 16:45	1
Acrolein	8.7	U *	20	8.7	ug/L			01/06/18 16:45	1
<b>Benzene</b>	<b>1.8</b>		1.0	0.43	ug/L			01/06/18 16:45	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			01/06/18 16:45	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			01/06/18 16:45	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			01/06/18 16:45	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			01/06/18 16:45	1
Ethyl methacrylate	0.40	U	1.0	0.40	ug/L			01/06/18 16:45	1
Isobutyl alcohol	20	U	50	20	ug/L			01/06/18 16:45	1
Methyl ethyl ketone (MEK)	3.4	U	10	3.4	ug/L			01/06/18 16:45	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			01/06/18 16:45	1
<b>m-Xylene &amp; p-Xylene</b>	<b>0.46</b>	<b>J</b>	1.0	0.35	ug/L			01/06/18 16:45	1
o-Xylene	0.23	U	1.0	0.23	ug/L			01/06/18 16:45	1
Styrene	0.27	U	1.0	0.27	ug/L			01/06/18 16:45	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			01/06/18 16:45	1
Toluene	0.48	U	1.0	0.48	ug/L			01/06/18 16:45	1
trans-1,4-Dichloro-2-butene	0.51	U	2.0	0.51	ug/L			01/06/18 16:45	1
<b>Xylenes, Total</b>	<b>0.46</b>	<b>J</b>	1.0	0.23	ug/L			01/06/18 16:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120		01/06/18 16:45	1
1,2-Dichloroethane-d4 (Surr)	91		73 - 131		01/06/18 16:45	1
Dibromofluoromethane (Surr)	98		80 - 122		01/06/18 16:45	1
4-Bromofluorobenzene (Surr)	96		80 - 120		01/06/18 16:45	1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acenaphthene</b>	<b>1.3</b>		0.22	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1
Acenaphthylene	0.11	U	0.22	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1
Acetophenone	0.32	U	1.1	0.32	ug/L		01/02/18 15:09	01/16/18 23:28	1
Aniline	1.0	U	2.2	1.0	ug/L		01/02/18 15:09	01/16/18 23:28	1
Anthracene	0.11	U	0.22	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1
Benzo[a]anthracene	0.11	U	0.22	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1
Benzo[a]pyrene	0.11	U	0.22	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1
Benzo[b]fluoranthene	0.11	U	0.22	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1
Benzo[g,h,i]perylene	0.11	U	0.22	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1
Benzo[k]fluoranthene	0.11	U	0.22	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1
1,1'-Biphenyl	0.11	U	1.1	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1
Bis(2-chloroethyl)ether	0.11	U	1.1	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1
Bis(2-ethylhexyl) phthalate	2.2	U	5.4	2.2	ug/L		01/02/18 15:09	01/16/18 23:28	1
Butyl benzyl phthalate	0.13	U	1.1	0.13	ug/L		01/02/18 15:09	01/16/18 23:28	1
Chrysene	0.048	U	0.22	0.048	ug/L		01/02/18 15:09	01/16/18 23:28	1
Dibenz(a,h)anthracene	0.11	U	0.22	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1
Dibenzofuran	0.11	U	1.1	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1
2,4-Dimethylphenol	0.74	U	2.2	0.74	ug/L		01/02/18 15:09	01/16/18 23:28	1
1,3-Dinitrobenzene	0.11	U	1.1	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1
Di-n-octyl phthalate	0.18	U	1.1	0.18	ug/L		01/02/18 15:09	01/16/18 23:28	1
<b>1,4-Dioxane</b>	<b>3.3</b>		2.2	0.33	ug/L		01/02/18 15:09	01/16/18 23:28	1
Fluoranthene	0.11	U	0.22	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Client Sample ID: MW-F21 (122717)**

**Lab Sample ID: 680-147306-3**

**Date Collected: 12/27/17 14:55**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Fluorene</b>	<b>0.11</b>	<b>J</b>	0.22	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1
Indeno[1,2,3-cd]pyrene	0.11	U	0.22	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1
2-Methylphenol	0.80	U	2.2	0.80	ug/L		01/02/18 15:09	01/16/18 23:28	1
3 & 4 Methylphenol	0.71	U	2.2	0.71	ug/L		01/02/18 15:09	01/16/18 23:28	1
<b>Naphthalene</b>	<b>4.5</b>		0.22	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1
N-Nitrosodi-n-butylamine	0.11	U	1.1	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1
N-Nitrosomethylethylamine	0.11	U	2.2	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1
Parathion	0.11	U	2.2	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1
Phenanthrene	0.11	U	0.22	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1
<b>Phenol</b>	<b>3.1</b>		1.1	0.14	ug/L		01/02/18 15:09	01/16/18 23:28	1
Pyrene	0.11	U	0.22	0.11	ug/L		01/02/18 15:09	01/16/18 23:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	96		39 - 133	01/02/18 15:09	01/16/18 23:28	1
2-Fluorobiphenyl (Surr)	81		31 - 107	01/02/18 15:09	01/16/18 23:28	1
2-Fluorophenol (Surr)	68		18 - 112	01/02/18 15:09	01/16/18 23:28	1
Terphenyl-d14 (Surr)	71		22 - 121	01/02/18 15:09	01/16/18 23:28	1
Phenol-d5 (Surr)	66		20 - 113	01/02/18 15:09	01/16/18 23:28	1
Nitrobenzene-d5 (Surr)	84		37 - 103	01/02/18 15:09	01/16/18 23:28	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Client Sample ID: MW-27 (122717)**

**Lab Sample ID: 680-147306-4**

**Date Collected: 12/27/17 09:55**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			01/06/18 17:07	1
Acetonitrile	20	U	40	20	ug/L			01/06/18 17:07	1
Acrolein	8.7	U *	20	8.7	ug/L			01/06/18 17:07	1
Benzene	0.43	U	1.0	0.43	ug/L			01/06/18 17:07	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			01/06/18 17:07	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			01/06/18 17:07	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			01/06/18 17:07	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			01/06/18 17:07	1
Ethyl methacrylate	0.40	U	1.0	0.40	ug/L			01/06/18 17:07	1
Isobutyl alcohol	20	U	50	20	ug/L			01/06/18 17:07	1
Methyl ethyl ketone (MEK)	3.4	U	10	3.4	ug/L			01/06/18 17:07	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			01/06/18 17:07	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			01/06/18 17:07	1
o-Xylene	0.23	U	1.0	0.23	ug/L			01/06/18 17:07	1
Styrene	0.27	U	1.0	0.27	ug/L			01/06/18 17:07	1
<b>Tetrachloroethene</b>	<b>1.3</b>		1.0	0.74	ug/L			01/06/18 17:07	1
Toluene	0.48	U	1.0	0.48	ug/L			01/06/18 17:07	1
trans-1,4-Dichloro-2-butene	0.51	U	2.0	0.51	ug/L			01/06/18 17:07	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			01/06/18 17:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		80 - 120		01/06/18 17:07	1
1,2-Dichloroethane-d4 (Surr)	95		73 - 131		01/06/18 17:07	1
Dibromofluoromethane (Surr)	104		80 - 122		01/06/18 17:07	1
4-Bromofluorobenzene (Surr)	92		80 - 120		01/06/18 17:07	1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1
Acenaphthylene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1
Acetophenone	0.31	U	1.0	0.31	ug/L		01/02/18 15:09	01/18/18 18:27	1
Aniline	1.0	U	2.1	1.0	ug/L		01/02/18 15:09	01/18/18 18:27	1
Anthracene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1
Benzo[a]anthracene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1
Benzo[a]pyrene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1
Benzo[b]fluoranthene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1
Benzo[g,h,i]perylene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1
Benzo[k]fluoranthene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1
1,1'-Biphenyl	0.10	U	1.0	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1
Bis(2-chloroethyl)ether	0.10	U	1.0	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1
Bis(2-ethylhexyl) phthalate	2.1	U	5.2	2.1	ug/L		01/02/18 15:09	01/18/18 18:27	1
Butyl benzyl phthalate	0.13	U	1.0	0.13	ug/L		01/02/18 15:09	01/18/18 18:27	1
Chrysene	0.047	U	0.21	0.047	ug/L		01/02/18 15:09	01/18/18 18:27	1
Dibenz(a,h)anthracene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1
Dibenzofuran	0.10	U	1.0	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1
2,4-Dimethylphenol	0.72	U	2.1	0.72	ug/L		01/02/18 15:09	01/18/18 18:27	1
1,3-Dinitrobenzene	0.10	U	1.0	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1
Di-n-octyl phthalate	0.18	U	1.0	0.18	ug/L		01/02/18 15:09	01/18/18 18:27	1
1,4-Dioxane	0.32	U	2.1	0.32	ug/L		01/02/18 15:09	01/18/18 18:27	1
Fluoranthene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Client Sample ID: MW-27 (122717)**

**Lab Sample ID: 680-147306-4**

**Date Collected: 12/27/17 09:55**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1
Indeno[1,2,3-cd]pyrene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1
2-Methylphenol	0.77	U	2.1	0.77	ug/L		01/02/18 15:09	01/18/18 18:27	1
3 & 4 Methylphenol	0.69	U	2.1	0.69	ug/L		01/02/18 15:09	01/18/18 18:27	1
Naphthalene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1
N-Nitrosodi-n-butylamine	0.10	U	1.0	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1
N-Nitrosomethylethylamine	0.10	U	2.1	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1
Parathion	0.10	U	2.1	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1
Phenanthrene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1
Phenol	0.14	U	1.0	0.14	ug/L		01/02/18 15:09	01/18/18 18:27	1
Pyrene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 18:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	105		39 - 133	01/02/18 15:09	01/18/18 18:27	1
2-Fluorobiphenyl (Surr)	90		31 - 107	01/02/18 15:09	01/18/18 18:27	1
2-Fluorophenol (Surr)	66		18 - 112	01/02/18 15:09	01/18/18 18:27	1
Terphenyl-d14 (Surr)	85		22 - 121	01/02/18 15:09	01/18/18 18:27	1
Phenol-d5 (Surr)	109		20 - 113	01/02/18 15:09	01/18/18 18:27	1
Nitrobenzene-d5 (Surr)	84		37 - 103	01/02/18 15:09	01/18/18 18:27	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Client Sample ID: MW-29 (122717)**

**Date Collected: 12/27/17 13:05**

**Date Received: 12/28/17 15:17**

**Lab Sample ID: 680-147306-5**

**Matrix: Water**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			01/06/18 17:29	1
Acetonitrile	20	U	40	20	ug/L			01/06/18 17:29	1
Acrolein	8.7	U *	20	8.7	ug/L			01/06/18 17:29	1
Benzene	0.43	U	1.0	0.43	ug/L			01/06/18 17:29	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			01/06/18 17:29	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			01/06/18 17:29	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			01/06/18 17:29	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			01/06/18 17:29	1
Ethyl methacrylate	0.40	U	1.0	0.40	ug/L			01/06/18 17:29	1
Isobutyl alcohol	20	U	50	20	ug/L			01/06/18 17:29	1
Methyl ethyl ketone (MEK)	3.4	U	10	3.4	ug/L			01/06/18 17:29	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			01/06/18 17:29	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			01/06/18 17:29	1
o-Xylene	0.23	U	1.0	0.23	ug/L			01/06/18 17:29	1
Styrene	0.27	U	1.0	0.27	ug/L			01/06/18 17:29	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			01/06/18 17:29	1
Toluene	0.48	U	1.0	0.48	ug/L			01/06/18 17:29	1
trans-1,4-Dichloro-2-butene	0.51	U	2.0	0.51	ug/L			01/06/18 17:29	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			01/06/18 17:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		80 - 120		01/06/18 17:29	1
1,2-Dichloroethane-d4 (Surr)	96		73 - 131		01/06/18 17:29	1
Dibromofluoromethane (Surr)	103		80 - 122		01/06/18 17:29	1
4-Bromofluorobenzene (Surr)	97		80 - 120		01/06/18 17:29	1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1
Acenaphthylene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1
Acetophenone	0.32	U	1.1	0.32	ug/L		01/02/18 15:09	01/18/18 18:52	1
Aniline	1.0	U	2.1	1.0	ug/L		01/02/18 15:09	01/18/18 18:52	1
Anthracene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1
Benzo[a]anthracene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1
Benzo[a]pyrene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1
Benzo[b]fluoranthene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1
Benzo[g,h,i]perylene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1
Benzo[k]fluoranthene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1
1,1'-Biphenyl	0.11	U	1.1	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1
Bis(2-chloroethyl)ether	0.11	U	1.1	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1
Bis(2-ethylhexyl) phthalate	2.1	U	5.4	2.1	ug/L		01/02/18 15:09	01/18/18 18:52	1
Butyl benzyl phthalate	0.13	U	1.1	0.13	ug/L		01/02/18 15:09	01/18/18 18:52	1
Chrysene	0.048	U	0.21	0.048	ug/L		01/02/18 15:09	01/18/18 18:52	1
Dibenz(a,h)anthracene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1
Dibenzofuran	0.11	U	1.1	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1
2,4-Dimethylphenol	0.74	U	2.1	0.74	ug/L		01/02/18 15:09	01/18/18 18:52	1
1,3-Dinitrobenzene	0.11	U	1.1	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1
Di-n-octyl phthalate	0.18	U	1.1	0.18	ug/L		01/02/18 15:09	01/18/18 18:52	1
1,4-Dioxane	0.33	U	2.1	0.33	ug/L		01/02/18 15:09	01/18/18 18:52	1
Fluoranthene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Client Sample ID: MW-29 (122717)**

**Lab Sample ID: 680-147306-5**

**Date Collected: 12/27/17 13:05**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1
Indeno[1,2,3-cd]pyrene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1
2-Methylphenol	0.79	U	2.1	0.79	ug/L		01/02/18 15:09	01/18/18 18:52	1
3 & 4 Methylphenol	0.71	U	2.1	0.71	ug/L		01/02/18 15:09	01/18/18 18:52	1
Naphthalene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1
N-Nitrosodi-n-butylamine	0.11	U	1.1	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1
N-Nitrosomethylethylamine	0.11	U	2.1	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1
Parathion	0.11	U	2.1	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1
Phenanthrene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1
Phenol	0.14	U	1.1	0.14	ug/L		01/02/18 15:09	01/18/18 18:52	1
Pyrene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 18:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	103		39 - 133	01/02/18 15:09	01/18/18 18:52	1
2-Fluorobiphenyl (Surr)	88		31 - 107	01/02/18 15:09	01/18/18 18:52	1
2-Fluorophenol (Surr)	72		18 - 112	01/02/18 15:09	01/18/18 18:52	1
Terphenyl-d14 (Surr)	98		22 - 121	01/02/18 15:09	01/18/18 18:52	1
Phenol-d5 (Surr)	149	X	20 - 113	01/02/18 15:09	01/18/18 18:52	1
Nitrobenzene-d5 (Surr)	82		37 - 103	01/02/18 15:09	01/18/18 18:52	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Client Sample ID: MWD-30 (122717)**

**Lab Sample ID: 680-147306-6**

**Date Collected: 12/27/17 15:40**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			01/06/18 17:51	1
Acetonitrile	20	U	40	20	ug/L			01/06/18 17:51	1
Acrolein	8.7	U *	20	8.7	ug/L			01/06/18 17:51	1
Benzene	0.43	U	1.0	0.43	ug/L			01/06/18 17:51	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			01/06/18 17:51	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			01/06/18 17:51	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			01/06/18 17:51	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			01/06/18 17:51	1
Ethyl methacrylate	0.40	U	1.0	0.40	ug/L			01/06/18 17:51	1
Isobutyl alcohol	20	U	50	20	ug/L			01/06/18 17:51	1
Methyl ethyl ketone (MEK)	3.4	U	10	3.4	ug/L			01/06/18 17:51	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			01/06/18 17:51	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			01/06/18 17:51	1
o-Xylene	0.23	U	1.0	0.23	ug/L			01/06/18 17:51	1
Styrene	0.27	U	1.0	0.27	ug/L			01/06/18 17:51	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			01/06/18 17:51	1
Toluene	0.48	U	1.0	0.48	ug/L			01/06/18 17:51	1
trans-1,4-Dichloro-2-butene	0.51	U	2.0	0.51	ug/L			01/06/18 17:51	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			01/06/18 17:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120		01/06/18 17:51	1
1,2-Dichloroethane-d4 (Surr)	96		73 - 131		01/06/18 17:51	1
Dibromofluoromethane (Surr)	103		80 - 122		01/06/18 17:51	1
4-Bromofluorobenzene (Surr)	94		80 - 120		01/06/18 17:51	1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1
Acenaphthylene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1
Acetophenone	0.31	U	1.0	0.31	ug/L		01/02/18 15:09	01/18/18 19:17	1
Aniline	1.0	U	2.1	1.0	ug/L		01/02/18 15:09	01/18/18 19:17	1
Anthracene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1
Benzo[a]anthracene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1
Benzo[a]pyrene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1
Benzo[b]fluoranthene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1
Benzo[g,h,i]perylene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1
Benzo[k]fluoranthene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1
1,1'-Biphenyl	0.10	U	1.0	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1
Bis(2-chloroethyl)ether	0.10	U	1.0	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1
Bis(2-ethylhexyl) phthalate	2.1	U	5.2	2.1	ug/L		01/02/18 15:09	01/18/18 19:17	1
Butyl benzyl phthalate	0.12	U	1.0	0.12	ug/L		01/02/18 15:09	01/18/18 19:17	1
Chrysene	0.047	U	0.21	0.047	ug/L		01/02/18 15:09	01/18/18 19:17	1
Dibenz(a,h)anthracene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1
Dibenzofuran	0.15	J	1.0	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1
2,4-Dimethylphenol	0.72	U	2.1	0.72	ug/L		01/02/18 15:09	01/18/18 19:17	1
1,3-Dinitrobenzene	0.10	U	1.0	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1
Di-n-octyl phthalate	0.18	U	1.0	0.18	ug/L		01/02/18 15:09	01/18/18 19:17	1
1,4-Dioxane	0.32	U	2.1	0.32	ug/L		01/02/18 15:09	01/18/18 19:17	1
Fluoranthene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Client Sample ID: MWD-30 (122717)**

**Lab Sample ID: 680-147306-6**

**Date Collected: 12/27/17 15:40**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Fluorene</b>	<b>0.13</b>	<b>J</b>	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1
Indeno[1,2,3-cd]pyrene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1
2-Methylphenol	0.77	U	2.1	0.77	ug/L		01/02/18 15:09	01/18/18 19:17	1
3 & 4 Methylphenol	0.69	U	2.1	0.69	ug/L		01/02/18 15:09	01/18/18 19:17	1
Naphthalene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1
N-Nitrosodi-n-butylamine	0.10	U	1.0	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1
N-Nitrosomethylethylamine	0.10	U	2.1	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1
Parathion	0.10	U	2.1	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1
Phenanthrene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1
Phenol	0.14	U	1.0	0.14	ug/L		01/02/18 15:09	01/18/18 19:17	1
Pyrene	0.10	U	0.21	0.10	ug/L		01/02/18 15:09	01/18/18 19:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	92		39 - 133	01/02/18 15:09	01/18/18 19:17	1
2-Fluorobiphenyl (Surr)	73		31 - 107	01/02/18 15:09	01/18/18 19:17	1
2-Fluorophenol (Surr)	64		18 - 112	01/02/18 15:09	01/18/18 19:17	1
Terphenyl-d14 (Surr)	88		22 - 121	01/02/18 15:09	01/18/18 19:17	1
Phenol-d5 (Surr)	130	X	20 - 113	01/02/18 15:09	01/18/18 19:17	1
Nitrobenzene-d5 (Surr)	68		37 - 103	01/02/18 15:09	01/18/18 19:17	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Client Sample ID: DUP-01 (122717)**

**Date Collected: 12/27/17 00:00**

**Date Received: 12/28/17 15:17**

**Lab Sample ID: 680-147306-7**

**Matrix: Water**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			01/06/18 18:13	1
Acetonitrile	20	U	40	20	ug/L			01/06/18 18:13	1
Acrolein	8.7	U *	20	8.7	ug/L			01/06/18 18:13	1
Benzene	0.43	U	1.0	0.43	ug/L			01/06/18 18:13	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			01/06/18 18:13	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			01/06/18 18:13	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			01/06/18 18:13	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			01/06/18 18:13	1
Ethyl methacrylate	0.40	U	1.0	0.40	ug/L			01/06/18 18:13	1
Isobutyl alcohol	20	U	50	20	ug/L			01/06/18 18:13	1
Methyl ethyl ketone (MEK)	3.4	U	10	3.4	ug/L			01/06/18 18:13	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			01/06/18 18:13	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			01/06/18 18:13	1
o-Xylene	0.23	U	1.0	0.23	ug/L			01/06/18 18:13	1
Styrene	0.27	U	1.0	0.27	ug/L			01/06/18 18:13	1
<b>Tetrachloroethene</b>	<b>1.3</b>		1.0	0.74	ug/L			01/06/18 18:13	1
Toluene	0.48	U	1.0	0.48	ug/L			01/06/18 18:13	1
trans-1,4-Dichloro-2-butene	0.51	U	2.0	0.51	ug/L			01/06/18 18:13	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			01/06/18 18:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		80 - 120		01/06/18 18:13	1
1,2-Dichloroethane-d4 (Surr)	93		73 - 131		01/06/18 18:13	1
Dibromofluoromethane (Surr)	100		80 - 122		01/06/18 18:13	1
4-Bromofluorobenzene (Surr)	95		80 - 120		01/06/18 18:13	1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1
Acenaphthylene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1
Acetophenone	0.32	U	1.1	0.32	ug/L		01/02/18 15:09	01/18/18 19:41	1
Aniline	1.0	U	2.1	1.0	ug/L		01/02/18 15:09	01/18/18 19:41	1
Anthracene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1
Benzo[a]anthracene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1
Benzo[a]pyrene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1
Benzo[b]fluoranthene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1
Benzo[g,h,i]perylene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1
Benzo[k]fluoranthene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1
1,1'-Biphenyl	0.11	U	1.1	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1
Bis(2-chloroethyl)ether	0.11	U	1.1	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1
Bis(2-ethylhexyl) phthalate	2.1	U	5.3	2.1	ug/L		01/02/18 15:09	01/18/18 19:41	1
Butyl benzyl phthalate	0.13	U	1.1	0.13	ug/L		01/02/18 15:09	01/18/18 19:41	1
Chrysene	0.047	U	0.21	0.047	ug/L		01/02/18 15:09	01/18/18 19:41	1
Dibenz(a,h)anthracene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1
Dibenzofuran	0.11	U	1.1	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1
2,4-Dimethylphenol	0.73	U	2.1	0.73	ug/L		01/02/18 15:09	01/18/18 19:41	1
1,3-Dinitrobenzene	0.11	U	1.1	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1
Di-n-octyl phthalate	0.18	U	1.1	0.18	ug/L		01/02/18 15:09	01/18/18 19:41	1
1,4-Dioxane	0.33	U	2.1	0.33	ug/L		01/02/18 15:09	01/18/18 19:41	1
Fluoranthene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Client Sample ID: DUP-01 (122717)**

**Lab Sample ID: 680-147306-7**

**Date Collected: 12/27/17 00:00**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1
Indeno[1,2,3-cd]pyrene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1
2-Methylphenol	0.78	U	2.1	0.78	ug/L		01/02/18 15:09	01/18/18 19:41	1
3 & 4 Methylphenol	0.70	U	2.1	0.70	ug/L		01/02/18 15:09	01/18/18 19:41	1
Naphthalene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1
N-Nitrosodi-n-butylamine	0.11	U	1.1	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1
N-Nitrosomethylethylamine	0.11	U	2.1	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1
Parathion	0.11	U	2.1	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1
Phenanthrene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1
Phenol	0.14	U	1.1	0.14	ug/L		01/02/18 15:09	01/18/18 19:41	1
Pyrene	0.11	U	0.21	0.11	ug/L		01/02/18 15:09	01/18/18 19:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	88		39 - 133	01/02/18 15:09	01/18/18 19:41	1
2-Fluorobiphenyl (Surr)	75		31 - 107	01/02/18 15:09	01/18/18 19:41	1
2-Fluorophenol (Surr)	59		18 - 112	01/02/18 15:09	01/18/18 19:41	1
Terphenyl-d14 (Surr)	71		22 - 121	01/02/18 15:09	01/18/18 19:41	1
Phenol-d5 (Surr)	72		20 - 113	01/02/18 15:09	01/18/18 19:41	1
Nitrobenzene-d5 (Surr)	63		37 - 103	01/02/18 15:09	01/18/18 19:41	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Client Sample ID: MW-F3R (122817)**

**Lab Sample ID: 680-147306-8**

**Date Collected: 12/28/17 14:00**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by GC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DDT	0.0070	U	0.050	0.0070	ug/L		01/02/18 14:22	01/05/18 19:24	1
Endrin	0.0053	U	0.050	0.0053	ug/L		01/02/18 14:22	01/05/18 19:24	1
Endrin aldehyde	0.0061	U	0.050	0.0061	ug/L		01/02/18 14:22	01/05/18 19:24	1
Methoxychlor	0.0098	U	0.050	0.0098	ug/L		01/02/18 14:22	01/05/18 19:24	1
PCB-1254	0.11	U	1.0	0.11	ug/L		01/02/18 14:22	01/05/18 19:24	1
PCB-1260	0.12	U	1.0	0.12	ug/L		01/02/18 14:22	01/05/18 19:24	1
PCB-1262	0.19	U	1.0	0.19	ug/L		01/02/18 14:22	01/05/18 19:24	1
PCB-1268	0.24	U	1.0	0.24	ug/L		01/02/18 14:22	01/05/18 19:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	5	p X	14 - 130				01/02/18 14:22	01/05/18 19:24	1
Tetrachloro-m-xylene	35	p X	40 - 130				01/02/18 14:22	01/05/18 19:24	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Client Sample ID: MW-F15 (122817)**

**Lab Sample ID: 680-147306-9**

**Date Collected: 12/28/17 13:35**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

## 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			01/03/18 01:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		80 - 120					01/03/18 01:54	1
Dibromofluoromethane (Surr)	104		80 - 122					01/03/18 01:54	1
1,2-Dichloroethane-d4 (Surr)	99		73 - 131					01/03/18 01:54	1
Toluene-d8 (Surr)	98		80 - 120					01/03/18 01:54	1



# Client Sample Results

Client: ARCADIS U.S., Inc.

Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Client Sample ID: TMW-19 (122817)**

**Date Collected: 12/28/17 14:40**

**Date Received: 12/28/17 15:17**

**Lab Sample ID: 680-147306-11**

**Matrix: Water**

**Method: 8082A - Polychlorinated Biphenyls (PCBs) by GC**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	0.11	U	0.99	0.11	ug/L		01/02/18 14:22	01/05/18 19:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	16	p	14 - 130				01/02/18 14:22	01/05/18 19:52	1
Tetrachloro-m-xylene	46	p	40 - 130				01/02/18 14:22	01/05/18 19:52	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Client Sample ID: TMW-22 (122817)**

**Lab Sample ID: 680-147306-13**

**Date Collected: 12/28/17 12:00**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	1400		110	11	ug/L		01/02/18 15:09	01/19/18 13:02	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	39		31 - 107	01/02/18 15:09	01/18/18 20:31	1
2-Fluorobiphenyl (Surr)	0	D	31 - 107	01/02/18 15:09	01/19/18 13:02	100
2-Fluorophenol (Surr)	64		18 - 112	01/02/18 15:09	01/18/18 20:31	1
2-Fluorophenol (Surr)	0	D	18 - 112	01/02/18 15:09	01/19/18 13:02	100
Nitrobenzene-d5 (Surr)	70		37 - 103	01/02/18 15:09	01/18/18 20:31	1
Nitrobenzene-d5 (Surr)	0	D	37 - 103	01/02/18 15:09	01/19/18 13:02	100
Phenol-d5 (Surr)	68		20 - 113	01/02/18 15:09	01/18/18 20:31	1
Phenol-d5 (Surr)	0	D	20 - 113	01/02/18 15:09	01/19/18 13:02	100
Terphenyl-d14 (Surr)	65		22 - 121	01/02/18 15:09	01/18/18 20:31	1
Terphenyl-d14 (Surr)	0	D	22 - 121	01/02/18 15:09	01/19/18 13:02	100
2,4,6-Tribromophenol (Surr)	109		39 - 133	01/02/18 15:09	01/18/18 20:31	1
2,4,6-Tribromophenol (Surr)	0	D	39 - 133	01/02/18 15:09	01/19/18 13:02	100

TestAmerica Savannah



# Surrogate Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TOL (80-120)	DCA (73-131)	DBFM (80-122)	BFB (80-120)
680-147306-1	MW-F5 (122717)	104	95	104	94
680-147306-2	MW-F7 (122717)	103	97	104	94
680-147306-3	MW-F21 (122717)	102	91	98	96
680-147306-4	MW-27 (122717)	103	95	104	92
680-147306-5	MW-29 (122717)	105	96	103	97
680-147306-6	MWD-30 (122717)	102	96	103	94
680-147306-7	DUP-01 (122717)	99	93	100	95
680-147306-9	MW-F15 (122817)	98	99	104	97

### Surrogate Legend

TOL = Toluene-d8 (Surr)  
DCA = 1,2-Dichloroethane-d4 (Surr)  
DBFM = Dibromofluoromethane (Surr)  
BFB = 4-Bromofluorobenzene (Surr)

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (39-133)	FBP (31-107)	2FP (18-112)	TPHL (22-121)	PHL (20-113)	NBZ (37-103)
680-147306-1	MW-F5 (122717)	98	83	70	73	75	82
680-147306-2	MW-F7 (122717)	91	75	61	87	69	72
680-147306-3	MW-F21 (122717)	96	81	68	71	66	84
680-147306-4	MW-27 (122717)	105	90	66	85	109	84
680-147306-5	MW-29 (122717)	103	88	72	98	149 X	82
680-147306-6	MWD-30 (122717)	92	73	64	88	130 X	68
680-147306-7	DUP-01 (122717)	88	75	59	71	72	63
680-147306-13	TMW-22 (122817)	109	39	64	65	68	70
680-147306-13	TMW-22 (122817)	0 D	0 D	0 D	0 D	0 D	0 D

### Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)  
FBP = 2-Fluorobiphenyl (Surr)  
2FP = 2-Fluorophenol (Surr)  
TPHL = Terphenyl-d14 (Surr)  
PHL = Phenol-d5 (Surr)  
NBZ = Nitrobenzene-d5 (Surr)

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by GC

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCBP1 (14-130)	TCX1 (40-130)
680-147306-8	MW-F3R (122817)	5 p X	35 p X
680-147306-11	TMW-19 (122817)	16 p	46 p

### Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TestAmerica Savannah



# Surrogate Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

TCX = Tetrachloro-m-xylene

1
2
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15



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-508573/9

Matrix: Water

Analysis Batch: 508573

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	-		01/02/18 23:01	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		80 - 120					01/02/18 23:01	1
Dibromofluoromethane (Surr)	105		80 - 122					01/02/18 23:01	1
1,2-Dichloroethane-d4 (Surr)	100		73 - 131					01/02/18 23:01	1
Toluene-d8 (Surr)	99		80 - 120					01/02/18 23:01	1

Lab Sample ID: LCS 680-508573/4

Matrix: Water

Analysis Batch: 508573

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	52.3		ug/L	-	105	80 - 120		
Surrogate	%Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	105		80 - 120						
Dibromofluoromethane (Surr)	105		80 - 122						
1,2-Dichloroethane-d4 (Surr)	100		73 - 131						
Toluene-d8 (Surr)	102		80 - 120						

Lab Sample ID: LCSD 680-508573/5

Matrix: Water

Analysis Batch: 508573

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	52.3		ug/L	-	105	80 - 120	0	20
Surrogate	%Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	102		80 - 120						
Dibromofluoromethane (Surr)	104		80 - 122						
1,2-Dichloroethane-d4 (Surr)	99		73 - 131						
Toluene-d8 (Surr)	101		80 - 120						

Lab Sample ID: MB 680-508640/9

Matrix: Water

Analysis Batch: 508640

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L	-		01/06/18 12:20	1
Acetonitrile	20	U	40	20	ug/L	-		01/06/18 12:20	1
Acrolein	8.7	U	20	8.7	ug/L	-		01/06/18 12:20	1
Benzene	0.43	U	1.0	0.43	ug/L	-		01/06/18 12:20	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L	-		01/06/18 12:20	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L	-		01/06/18 12:20	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L	-		01/06/18 12:20	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L	-		01/06/18 12:20	1

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# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-508640/9

Matrix: Water

Analysis Batch: 508640

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	0.40	U	1.0	0.40	ug/L			01/06/18 12:20	1
Isobutyl alcohol	20	U	50	20	ug/L			01/06/18 12:20	1
Methyl ethyl ketone (MEK)	3.4	U	10	3.4	ug/L			01/06/18 12:20	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			01/06/18 12:20	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			01/06/18 12:20	1
o-Xylene	0.23	U	1.0	0.23	ug/L			01/06/18 12:20	1
Styrene	0.27	U	1.0	0.27	ug/L			01/06/18 12:20	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			01/06/18 12:20	1
Toluene	0.48	U	1.0	0.48	ug/L			01/06/18 12:20	1
trans-1,4-Dichloro-2-butene	0.51	U	2.0	0.51	ug/L			01/06/18 12:20	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			01/06/18 12:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		80 - 120		01/06/18 12:20	1
Dibromofluoromethane (Surr)	103		80 - 122		01/06/18 12:20	1
1,2-Dichloroethane-d4 (Surr)	95		73 - 131		01/06/18 12:20	1
Toluene-d8 (Surr)	104		80 - 120		01/06/18 12:20	1

Lab Sample ID: LCS 680-508640/4

Matrix: Water

Analysis Batch: 508640

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	250	242		ug/L		97	68 - 132
Acrolein	1000	1380	*	ug/L		138	72 - 136
Benzene	50.0	52.9		ug/L		106	80 - 120
Carbon disulfide	50.0	54.2		ug/L		108	77 - 129
Chlorobenzene	50.0	52.1		ug/L		104	80 - 120
1,2-Dichloropropane	50.0	50.5		ug/L		101	80 - 120
Ethylbenzene	50.0	53.8		ug/L		108	80 - 120
Ethyl methacrylate	50.0	53.1		ug/L		106	71 - 142
Isobutyl alcohol	1250	1170		ug/L		94	61 - 151
Methyl ethyl ketone (MEK)	250	232		ug/L		93	79 - 125
4-Methyl-2-pentanone (MIBK)	250	243		ug/L		97	80 - 134
m-Xylene & p-Xylene	50.0	53.3		ug/L		107	80 - 120
o-Xylene	50.0	52.9		ug/L		106	80 - 120
Styrene	50.0	53.6		ug/L		107	80 - 126
Tetrachloroethene	50.0	55.9		ug/L		112	71 - 123
Toluene	50.0	53.8		ug/L		108	80 - 120
trans-1,4-Dichloro-2-butene	50.0	42.5		ug/L		85	48 - 138
Xylenes, Total	100	106		ug/L		106	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	108		80 - 122
1,2-Dichloroethane-d4 (Surr)	98		73 - 131
Toluene-d8 (Surr)	104		80 - 120

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# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-508640/5

Matrix: Water

Analysis Batch: 508640

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
Acetone	250	221		ug/L		88	68 - 132	9	30
Acrolein	1000	1550	*	ug/L		155	72 - 136	12	30
Benzene	50.0	48.7		ug/L		97	80 - 120	8	20
Carbon disulfide	50.0	49.8		ug/L		100	77 - 129	9	20
Chlorobenzene	50.0	48.3		ug/L		97	80 - 120	8	20
1,2-Dichloropropane	50.0	47.9		ug/L		96	80 - 120	5	20
Ethylbenzene	50.0	49.4		ug/L		99	80 - 120	8	20
Ethyl methacrylate	50.0	48.6		ug/L		97	71 - 142	9	20
Isobutyl alcohol	1250	1060		ug/L		85	61 - 151	10	40
Methyl ethyl ketone (MEK)	250	214		ug/L		86	79 - 125	8	20
4-Methyl-2-pentanone (MIBK)	250	222		ug/L		89	80 - 134	9	20
m-Xylene & p-Xylene	50.0	49.2		ug/L		98	80 - 120	8	20
o-Xylene	50.0	49.4		ug/L		99	80 - 120	7	30
Styrene	50.0	50.3		ug/L		101	80 - 126	6	20
Tetrachloroethene	50.0	51.8		ug/L		104	71 - 123	8	20
Toluene	50.0	49.3		ug/L		99	80 - 120	9	20
trans-1,4-Dichloro-2-butene	50.0	38.8		ug/L		78	48 - 138	9	30
Xylenes, Total	100	98.6		ug/L		99	80 - 120	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		80 - 120
Dibromofluoromethane (Surr)	101		80 - 122
1,2-Dichloroethane-d4 (Surr)	92		73 - 131
Toluene-d8 (Surr)	97		80 - 120

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 680-508334/13-A

Matrix: Water

Analysis Batch: 509554

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 508334

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1
Acenaphthylene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1
Acetophenone	0.30	U	1.0	0.30	ug/L		01/02/18 15:09	01/16/18 20:13	1
Aniline	0.97	U	2.0	0.97	ug/L		01/02/18 15:09	01/16/18 20:13	1
Anthracene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1
Benzo[a]anthracene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1
Benzo[a]pyrene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1
Benzo[b]fluoranthene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1
Benzo[g,h,i]perylene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1
Benzo[k]fluoranthene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1
1,1'-Biphenyl	0.10	U	1.0	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1
Bis(2-chloroethyl)ether	0.10	U	1.0	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1
Bis(2-ethylhexyl) phthalate	2.0	U	5.0	2.0	ug/L		01/02/18 15:09	01/16/18 20:13	1
Butyl benzyl phthalate	0.12	U	1.0	0.12	ug/L		01/02/18 15:09	01/16/18 20:13	1
Chrysene	0.045	U	0.20	0.045	ug/L		01/02/18 15:09	01/16/18 20:13	1

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# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 680-508334/13-A

Matrix: Water

Analysis Batch: 509554

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 508334

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1
Dibenzofuran	0.10	U	1.0	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1
2,4-Dimethylphenol	0.69	U	2.0	0.69	ug/L		01/02/18 15:09	01/16/18 20:13	1
1,3-Dinitrobenzene	0.10	U	1.0	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1
Di-n-octyl phthalate	0.17	U	1.0	0.17	ug/L		01/02/18 15:09	01/16/18 20:13	1
1,4-Dioxane	0.31	U	2.0	0.31	ug/L		01/02/18 15:09	01/16/18 20:13	1
Fluoranthene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1
Fluorene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1
Indeno[1,2,3-cd]pyrene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1
2-Methylphenol	0.74	U	2.0	0.74	ug/L		01/02/18 15:09	01/16/18 20:13	1
3 & 4 Methylphenol	0.66	U	2.0	0.66	ug/L		01/02/18 15:09	01/16/18 20:13	1
Naphthalene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1
N-Nitrosodi-n-butylamine	0.10	U	1.0	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1
N-Nitrosomethylethylamine	0.10	U	2.0	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1
Parathion	0.10	U	2.0	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1
Phenanthrene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1
Phenol	0.13	U	1.0	0.13	ug/L		01/02/18 15:09	01/16/18 20:13	1
Pyrene	0.10	U	0.20	0.10	ug/L		01/02/18 15:09	01/16/18 20:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	74		31 - 107	01/02/18 15:09	01/16/18 20:13	1
2-Fluorophenol (Surr)	72		18 - 112	01/02/18 15:09	01/16/18 20:13	1
Nitrobenzene-d5 (Surr)	79		37 - 103	01/02/18 15:09	01/16/18 20:13	1
Phenol-d5 (Surr)	88		20 - 113	01/02/18 15:09	01/16/18 20:13	1
Terphenyl-d14 (Surr)	88		22 - 121	01/02/18 15:09	01/16/18 20:13	1
2,4,6-Tribromophenol (Surr)	84		39 - 133	01/02/18 15:09	01/16/18 20:13	1

Lab Sample ID: LCS 680-508334/14-A

Matrix: Water

Analysis Batch: 509554

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 508334

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	10.0	8.58		ug/L		86	41 - 130
Acenaphthylene	10.0	8.96		ug/L		90	37 - 130
Acetophenone	10.0	8.36		ug/L		84	45 - 130
Aniline	10.0	6.66		ug/L		67	10 - 130
Anthracene	10.0	8.72		ug/L		87	48 - 130
Benzo[a]anthracene	10.0	8.03		ug/L		80	52 - 130
Benzo[a]pyrene	10.0	8.47		ug/L		85	44 - 130
Benzo[b]fluoranthene	10.0	8.55		ug/L		86	44 - 130
Benzo[g,h,i]perylene	10.0	8.65		ug/L		86	31 - 130
Benzo[k]fluoranthene	10.0	8.32		ug/L		83	39 - 131
1,1'-Biphenyl	10.0	8.73		ug/L		87	35 - 130
Bis(2-chloroethyl)ether	10.0	9.74		ug/L		97	29 - 130
Bis(2-ethylhexyl) phthalate	10.0	8.25		ug/L		83	40 - 130
Butyl benzyl phthalate	10.0	8.87		ug/L		89	42 - 130
Chrysene	10.0	8.36		ug/L		84	47 - 130
Dibenz(a,h)anthracene	10.0	8.90		ug/L		89	36 - 130

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# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 680-508334/14-A

Matrix: Water

Analysis Batch: 509554

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 508334

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibenzofuran	10.0	9.35		ug/L		94	38 - 130
2,4-Dimethylphenol	10.0	9.23		ug/L		92	37 - 130
1,3-Dinitrobenzene	10.0	9.28		ug/L		93	52 - 130
Di-n-octyl phthalate	10.0	9.30		ug/L		93	43 - 130
1,4-Dioxane	10.0	6.83		ug/L		68	27 - 130
Fluoranthene	10.0	9.33		ug/L		93	50 - 130
Fluorene	10.0	9.32		ug/L		93	43 - 130
Indeno[1,2,3-cd]pyrene	10.0	9.23		ug/L		92	30 - 130
2-Methylphenol	10.0	8.73		ug/L		87	42 - 130
Naphthalene	10.0	7.80		ug/L		78	40 - 130
Phenanthrene	10.0	8.87		ug/L		89	49 - 130
Phenol	10.0	8.74		ug/L		87	37 - 130
Pyrene	10.0	8.06		ug/L		81	45 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	81		31 - 107
2-Fluorophenol (Surr)	73		18 - 112
Nitrobenzene-d5 (Surr)	79		37 - 103
Phenol-d5 (Surr)	85		20 - 113
Terphenyl-d14 (Surr)	79		22 - 121
2,4,6-Tribromophenol (Surr)	96		39 - 133

Lab Sample ID: 680-147306-12 MS

Matrix: Water

Analysis Batch: 509554

Client Sample ID: TMW-21 (122817)

Prep Type: Total/NA

Prep Batch: 508334

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	0.10	U F2	10.0	7.58		ug/L		76	41 - 130
Acenaphthylene	0.10	U	10.0	7.93		ug/L		79	37 - 130
Acetophenone	0.31	U	10.0	8.06		ug/L		81	45 - 130
Aniline	1.0	U F2	10.0	2.72	J	ug/L		27	10 - 130
Anthracene	0.23		10.0	8.74		ug/L		85	48 - 130
Benzo[a]anthracene	0.10	U	10.0	8.28		ug/L		83	52 - 130
Benzo[a]pyrene	0.10	U	10.0	9.35		ug/L		94	44 - 130
Benzo[b]fluoranthene	0.10	U	10.0	12.3		ug/L		123	44 - 130
Benzo[g,h,i]perylene	0.10	U F2 F1	10.0	2.23	F1	ug/L		22	31 - 130
Benzo[k]fluoranthene	0.10	U	10.0	9.42		ug/L		94	39 - 131
1,1'-Biphenyl	0.10	U	10.0	11.0		ug/L		110	35 - 130
Bis(2-chloroethyl)ether	0.10	U	10.0	8.66		ug/L		87	29 - 130
Bis(2-ethylhexyl) phthalate	2.1	U	10.0	8.35	J	ug/L		83	40 - 130
Butyl benzyl phthalate	0.12	U	10.0	8.57		ug/L		86	42 - 130
Chrysene	0.047	U	10.0	8.74		ug/L		87	47 - 130
Dibenz(a,h)anthracene	0.10	U F2 F1	10.0	2.73	F1	ug/L		27	36 - 130
Dibenzofuran	0.10	U F2	10.0	8.32		ug/L		83	38 - 130
2,4-Dimethylphenol	0.72	U	10.0	9.11		ug/L		91	37 - 130
1,3-Dinitrobenzene	0.10	U F2	10.0	8.53		ug/L		85	52 - 130
Di-n-octyl phthalate	0.18	U	10.0	8.72		ug/L		87	43 - 130
1,4-Dioxane	0.32	U	10.0	6.77		ug/L		68	27 - 130

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-1

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 680-147306-12 MS

Matrix: Water

Analysis Batch: 509554

Client Sample ID: TMW-21 (122817)

Prep Type: Total/NA

Prep Batch: 508334

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Fluoranthene	0.10	U	10.0	9.41		ug/L		94	50 - 130
Fluorene	0.10	U F2	10.0	8.29		ug/L		83	43 - 130
Indeno[1,2,3-cd]pyrene	0.10	U F2 F1	10.0	2.22	F1	ug/L		22	30 - 130
2-Methylphenol	0.77	U	10.0	8.03		ug/L		80	42 - 130
Naphthalene	0.10	U	10.0	7.45		ug/L		75	40 - 130
Phenanthrene	0.10	U	10.0	8.74		ug/L		87	49 - 130
Phenol	0.14	U	10.0	9.12		ug/L		91	37 - 130
Pyrene	0.10	U	10.0	7.57		ug/L		76	45 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl (Surr)	69		31 - 107
2-Fluorophenol (Surr)	60		18 - 112
Nitrobenzene-d5 (Surr)	69		37 - 103
Phenol-d5 (Surr)	89		20 - 113
Terphenyl-d14 (Surr)	59		22 - 121
2,4,6-Tribromophenol (Surr)	79		39 - 133

Lab Sample ID: 680-147306-12 MSD

Matrix: Water

Analysis Batch: 509554

Client Sample ID: TMW-21 (122817)

Prep Type: Total/NA

Prep Batch: 508334

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	0.10	U F2	11.6	9.60	F4	ug/L		83	41 - 130	24	20
Acenaphthylene	0.10	U	11.6	9.88		ug/L		85	37 - 130	22	30
Acetophenone	0.31	U	11.6	9.52		ug/L		82	45 - 130	17	30
Aniline	1.0	U F2	11.6	5.19	F4	ug/L		45	10 - 130	62	50
Anthracene	0.23		11.6	10.2		ug/L		86	48 - 130	15	20
Benzo[a]anthracene	0.10	U	11.6	9.67		ug/L		83	52 - 130	15	20
Benzo[a]pyrene	0.10	U	11.6	10.9		ug/L		94	44 - 130	15	30
Benzo[b]fluoranthene	0.10	U	11.6	11.9		ug/L		102	44 - 130	3	40
Benzo[g,h,i]perylene	0.10	U F2 F1	11.6	3.47	F1 F4	ug/L		30	31 - 130	44	40
Benzo[k]fluoranthene	0.10	U	11.6	10.3		ug/L		88	39 - 131	8	30
1,1'-Biphenyl	0.10	U	11.6	13.3		ug/L		115	35 - 130	19	30
Bis(2-chloroethyl)ether	0.10	U	11.6	10.2		ug/L		88	29 - 130	16	50
Bis(2-ethylhexyl) phthalate	2.1	U	11.6	9.40	J	ug/L		81	40 - 130	12	30
Butyl benzyl phthalate	0.12	U	11.6	9.55		ug/L		82	42 - 130	11	20
Chrysene	0.047	U	11.6	10.5		ug/L		91	47 - 130	18	30
Dibenz(a,h)anthracene	0.10	U F2 F1	11.6	4.83	F4	ug/L		42	36 - 130	56	30
Dibenzofuran	0.10	U F2	11.6	10.6	F4	ug/L		91	38 - 130	24	20
2,4-Dimethylphenol	0.72	U	11.6	10.7		ug/L		93	37 - 130	16	30
1,3-Dinitrobenzene	0.10	U F2	11.6	11.3	F4	ug/L		97	52 - 130	28	20
Di-n-octyl phthalate	0.18	U	11.6	10.6		ug/L		91	43 - 130	19	30
1,4-Dioxane	0.32	U	11.6	7.36		ug/L		63	27 - 130	8	30
Fluoranthene	0.10	U	11.6	10.4		ug/L		89	50 - 130	10	20
Fluorene	0.10	U F2	11.6	10.5	F4	ug/L		90	43 - 130	23	20
Indeno[1,2,3-cd]pyrene	0.10	U F2 F1	11.6	4.97	F4	ug/L		43	30 - 130	76	30
2-Methylphenol	0.77	U	11.6	9.19		ug/L		79	42 - 130	14	30
Naphthalene	0.10	U	11.6	9.18		ug/L		79	40 - 130	21	30

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 680-147306-12 MSD

Matrix: Water

Analysis Batch: 509554

Client Sample ID: TMW-21 (122817)

Prep Type: Total/NA

Prep Batch: 508334

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenanthrene	0.10	U	11.6	10.3		ug/L		89	49 - 130	17	20
Phenol	0.14	U	11.6	9.78		ug/L		84	37 - 130	7	40
Pyrene	0.10	U	11.6	9.25		ug/L		80	45 - 130	20	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	74		31 - 107
2-Fluorophenol (Surr)	64		18 - 112
Nitrobenzene-d5 (Surr)	70		37 - 103
Phenol-d5 (Surr)	94		20 - 113
Terphenyl-d14 (Surr)	55		22 - 121
2,4,6-Tribromophenol (Surr)	87		39 - 133

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by GC

Lab Sample ID: MB 680-508336/7-A

Matrix: Water

Analysis Batch: 508588

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 508336

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DDT	0.0070	U	0.050	0.0070	ug/L		01/02/18 14:22	01/05/18 18:41	1
Endrin	0.0053	U	0.050	0.0053	ug/L		01/02/18 14:22	01/05/18 18:41	1
Endrin aldehyde	0.0061	U	0.050	0.0061	ug/L		01/02/18 14:22	01/05/18 18:41	1
Methoxychlor	0.0098	U	0.050	0.0098	ug/L		01/02/18 14:22	01/05/18 18:41	1
PCB-1254	0.11	U	1.0	0.11	ug/L		01/02/18 14:22	01/05/18 18:41	1
PCB-1260	0.12	U	1.0	0.12	ug/L		01/02/18 14:22	01/05/18 18:41	1
PCB-1262	0.19	U	1.0	0.19	ug/L		01/02/18 14:22	01/05/18 18:41	1
PCB-1268	0.24	U	1.0	0.24	ug/L		01/02/18 14:22	01/05/18 18:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	69		14 - 130	01/02/18 14:22	01/05/18 18:41	1
Tetrachloro-m-xylene	80		40 - 130	01/02/18 14:22	01/05/18 18:41	1

Lab Sample ID: LCS 680-508336/11-A

Matrix: Water

Analysis Batch: 508588

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 508336

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1260	6.00	5.05		ug/L		84	35 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	60		14 - 130
Tetrachloro-m-xylene	75		40 - 130

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by GC (Continued)

Lab Sample ID: LCS 680-508336/8-A  
Matrix: Water  
Analysis Batch: 508588

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 508336

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
DDT	0.100	0.0907		ug/L		91	47 - 134
Endrin	0.100	0.0798		ug/L		80	59 - 143
Endrin aldehyde	0.100	0.0909		ug/L		91	45 - 166
Methoxychlor	0.100	0.0996		ug/L		100	52 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	48		14 - 130
Tetrachloro-m-xylene	76		40 - 130

Lab Sample ID: 680-147306-10 MS  
Matrix: Water  
Analysis Batch: 508588

Client Sample ID: TMW-18 (122817)  
Prep Type: Total/NA  
Prep Batch: 508336

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
PCB-1260	0.12	U	6.00	3.40		ug/L		57	35 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	27		14 - 130
Tetrachloro-m-xylene	67		40 - 130

Lab Sample ID: 680-147306-10 MSD  
Matrix: Water  
Analysis Batch: 508588

Client Sample ID: TMW-18 (122817)  
Prep Type: Total/NA  
Prep Batch: 508336

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
PCB-1260	0.12	U	5.77	3.05		ug/L		53	35 - 130	11	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	26		14 - 130
Tetrachloro-m-xylene	68		40 - 130



# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

## GC/MS VOA

### Analysis Batch: 508573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147306-9	MW-F15 (122817)	Total/NA	Water	8260B	

### Analysis Batch: 508640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147306-1	MW-F5 (122717)	Total/NA	Water	8260B	
680-147306-2	MW-F7 (122717)	Total/NA	Water	8260B	
680-147306-3	MW-F21 (122717)	Total/NA	Water	8260B	
680-147306-4	MW-27 (122717)	Total/NA	Water	8260B	
680-147306-5	MW-29 (122717)	Total/NA	Water	8260B	
680-147306-6	MWD-30 (122717)	Total/NA	Water	8260B	
680-147306-7	DUP-01 (122717)	Total/NA	Water	8260B	

## GC/MS Semi VOA

### Prep Batch: 508334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147306-1	MW-F5 (122717)	Total/NA	Water	3520C	
680-147306-2	MW-F7 (122717)	Total/NA	Water	3520C	
680-147306-3	MW-F21 (122717)	Total/NA	Water	3520C	
680-147306-4	MW-27 (122717)	Total/NA	Water	3520C	
680-147306-5	MW-29 (122717)	Total/NA	Water	3520C	
680-147306-6	MWD-30 (122717)	Total/NA	Water	3520C	
680-147306-7	DUP-01 (122717)	Total/NA	Water	3520C	
680-147306-13	TMW-22 (122817)	Total/NA	Water	3520C	

### Analysis Batch: 509554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147306-1	MW-F5 (122717)	Total/NA	Water	8270D LL	508334
680-147306-2	MW-F7 (122717)	Total/NA	Water	8270D LL	508334
680-147306-3	MW-F21 (122717)	Total/NA	Water	8270D LL	508334

### Analysis Batch: 509703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147306-4	MW-27 (122717)	Total/NA	Water	8270D LL	508334
680-147306-5	MW-29 (122717)	Total/NA	Water	8270D LL	508334
680-147306-6	MWD-30 (122717)	Total/NA	Water	8270D LL	508334
680-147306-7	DUP-01 (122717)	Total/NA	Water	8270D LL	508334
680-147306-13	TMW-22 (122817)	Total/NA	Water	8270D LL	508334

### Analysis Batch: 509896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147306-13	TMW-22 (122817)	Total/NA	Water	8270D LL	508334

## GC Semi VOA

### Prep Batch: 508336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147306-8	MW-F3R (122817)	Total/NA	Water	3520C	
680-147306-11	TMW-19 (122817)	Total/NA	Water	3520C	

TestAmerica Savannah



## QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

### GC Semi VOA (Continued)

#### Analysis Batch: 508588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147306-8	MW-F3R (122817)	Total/NA	Water	8082A	508336
680-147306-11	TMW-19 (122817)	Total/NA	Water	8082A	508336



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Client Sample ID: MW-F5 (122717)**

**Date Collected: 12/27/17 16:30**

**Date Received: 12/28/17 15:17**

**Lab Sample ID: 680-147306-1**

**Matrix: Water**

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	508640	01/06/18 16:00	UI	TAL SAV
Total/NA	Prep	3520C			935.2 mL	1 mL	508334	01/02/18 15:09	CEW	TAL SAV
Total/NA	Analysis	8270D LL		1			509554	01/16/18 22:39	NED	TAL SAV

**Client Sample ID: MW-F7 (122717)**

**Date Collected: 12/27/17 11:50**

**Date Received: 12/28/17 15:17**

**Lab Sample ID: 680-147306-2**

**Matrix: Water**

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	508640	01/06/18 16:23	UI	TAL SAV
Total/NA	Prep	3520C			999.6 mL	1 mL	508334	01/02/18 15:09	CEW	TAL SAV
Total/NA	Analysis	8270D LL		1			509554	01/16/18 23:04	NED	TAL SAV

**Client Sample ID: MW-F21 (122717)**

**Date Collected: 12/27/17 14:55**

**Date Received: 12/28/17 15:17**

**Lab Sample ID: 680-147306-3**

**Matrix: Water**

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	508640	01/06/18 16:45	UI	TAL SAV
Total/NA	Prep	3520C			928.7 mL	1 mL	508334	01/02/18 15:09	CEW	TAL SAV
Total/NA	Analysis	8270D LL		1			509554	01/16/18 23:28	NED	TAL SAV

**Client Sample ID: MW-27 (122717)**

**Date Collected: 12/27/17 09:55**

**Date Received: 12/28/17 15:17**

**Lab Sample ID: 680-147306-4**

**Matrix: Water**

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	508640	01/06/18 17:07	UI	TAL SAV
Total/NA	Prep	3520C			959.5 mL	1 mL	508334	01/02/18 15:09	CEW	TAL SAV
Total/NA	Analysis	8270D LL		1			509703	01/18/18 18:27	NED	TAL SAV

**Client Sample ID: MW-29 (122717)**

**Date Collected: 12/27/17 13:05**

**Date Received: 12/28/17 15:17**

**Lab Sample ID: 680-147306-5**

**Matrix: Water**

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	508640	01/06/18 17:29	UI	TAL SAV
Total/NA	Prep	3520C			933.8 mL	1 mL	508334	01/02/18 15:09	CEW	TAL SAV
Total/NA	Analysis	8270D LL		1			509703	01/18/18 18:52	NED	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Client Sample ID: MWD-30 (122717)**

**Lab Sample ID: 680-147306-6**

**Date Collected: 12/27/17 15:40**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

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	508640	01/06/18 17:51	UI	TAL SAV
Total/NA	Prep	3520C			961.6 mL	1 mL	508334	01/02/18 15:09	CEW	TAL SAV
Total/NA	Analysis	8270D LL		1			509703	01/18/18 19:17	NED	TAL SAV

**Client Sample ID: DUP-01 (122717)**

**Lab Sample ID: 680-147306-7**

**Date Collected: 12/27/17 00:00**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

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	508640	01/06/18 18:13	UI	TAL SAV
Total/NA	Prep	3520C			949.6 mL	1 mL	508334	01/02/18 15:09	CEW	TAL SAV
Total/NA	Analysis	8270D LL		1			509703	01/18/18 19:41	NED	TAL SAV

**Client Sample ID: MW-F3R (122817)**

**Lab Sample ID: 680-147306-8**

**Date Collected: 12/28/17 14:00**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1000.8 mL	10 mL	508336	01/02/18 14:22	CEW	TAL SAV
Total/NA	Analysis	8082A		1			508588	01/05/18 19:24	GEM	TAL SAV

**Client Sample ID: MW-F15 (122817)**

**Lab Sample ID: 680-147306-9**

**Date Collected: 12/28/17 13:35**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

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	508573	01/03/18 01:54	JLK	TAL SAV

**Client Sample ID: TMW-19 (122817)**

**Lab Sample ID: 680-147306-11**

**Date Collected: 12/28/17 14:40**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1008 mL	10 mL	508336	01/02/18 14:22	CEW	TAL SAV
Total/NA	Analysis	8082A		1			508588	01/05/18 19:52	GEM	TAL SAV

**Client Sample ID: TMW-22 (122817)**

**Lab Sample ID: 680-147306-13**

**Date Collected: 12/28/17 12:00**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			942.7 mL	1 mL	508334	01/02/18 15:09	CEW	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-1

**Client Sample ID: TMW-22 (122817)**

**Lab Sample ID: 680-147306-13**

**Date Collected: 12/28/17 12:00**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

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			509703	01/18/18 20:31	NED	TAL SAV
Total/NA	Prep	3520C			942.7 mL	1 mL	508334	01/02/18 15:09	CEW	TAL SAV
Total/NA	Analysis	8270D LL		100			509896	01/19/18 13:02	OK	TAL SAV

## Laboratory References:

EMSL = EMSL Analytical, Inc., 200 Rt 130 North, Cinnaminson, NJ 08077

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858



681-Atlanta

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Company Name: <b>ATCAPIS</b>		Client Contact		Project Manager: <b>ANDY DAVIS</b>		Site Contact: <b>ANDY DAVIS</b>		Date: <b>12/28/17</b>		COC No: <b>1</b> of <b>2</b> COCs	
Address: <b>10 PATEWISSE DR. STE 375</b>		Tel/Fax: <b>864.987.3900</b>		Analysis Turnaround Time		Carrier:		Sampler:		For Lab Use Only:	
City/State/Zip: <b>GREENVILLE, SC 29615</b>		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		TAT if different from Below <b>STANDARD</b>		Lab Contact: <b>ANDY DAVIS</b>		Walk-in Client:		Lab Sampling:	
Phone: <b>864.987.3900</b>		<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day				Job / SDG No.:					
Fax:											
Project Name: <b>ASHLAND SAVANNAH</b>											
Site: <b>ASHLAND</b>											
PO# <b>0401000.6461</b>											

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Analysis	Carrier	Date
MW-F5 (122717)	12/27/17	1630	G	WT	5			VOCs (8260-B)		
MW-F7 (122717)	12/27/17	1150	G	WT	5			SVOCs (8270-C)		
MW-F21 (122717)	12/27/17	1455	G	WT	5			Asbestos (600-R-93-116)		
MW-27 (122717)	12/27/17	0955	G	WT	5			PCB Analysis (254-8082)		
MW-29 (122717)	12/27/17	1305	G	WT	5			TEA (1167, 8260)		
MWD-30 (122717)	12/27/17	1540	G	WT	5			1,1-BIPHENYL (8270-D)		
DUP-01 (122717)	12/27/17	-	G	WT	5			BENZENE		
MW-F3R (122817)	12/28/17	1400	G	WT	2					
MW-F15 (122817)	12/28/17	1335	G	WT	4					
TMW-18 (122817)	12/28/17	1300	G	WT	6					
TMW-19 (122817)	12/28/17	1440	G	WT	2					
TMW-20			G	WT	6					

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☒ Unknown ☐ Poison B

Special Instructions/QC Requirements & Comments:



680-147306 Chain of Custody

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for \_\_\_\_\_ Months

Custody Seal No.:	Relinquished by:	Relinquished by:	Relinquished by:
Company: <b>ATCAPIS</b>	Company: <b>ATCAPIS</b>	Company: <b>ATCAPIS</b>	Company: <b>ATCAPIS</b>
Date/Time: <b>12/28/17 1530</b>	Date/Time: <b>12/28/17 1530</b>	Date/Time: <b>12/28/17 1530</b>	Date/Time: <b>12/28/17 1530</b>
Received by:	Received by:	Received by:	Received by:
Company: <b>ATCAPIS</b>	Company: <b>ATCAPIS</b>	Company: <b>ATCAPIS</b>	Company: <b>ATCAPIS</b>
Date/Time: <b>12/28/17 1530</b>	Date/Time: <b>12/28/17 1530</b>	Date/Time: <b>12/28/17 1530</b>	Date/Time: <b>12/28/17 1530</b>
Received in Laboratory by:	Received in Laboratory by:	Received in Laboratory by:	Received in Laboratory by:
Company: <b>ATCAPIS</b>	Company: <b>ATCAPIS</b>	Company: <b>ATCAPIS</b>	Company: <b>ATCAPIS</b>
Date/Time: <b>12/28/17 1530</b>	Date/Time: <b>12/28/17 1530</b>	Date/Time: <b>12/28/17 1530</b>	Date/Time: <b>12/28/17 1530</b>



[illegible]



# Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-147306-1

**Login Number: 147306**

**List Number: 1**

**Creator: Tyler, Matthew M**

**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	Received same day of collection; chilling process has begun.
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").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-1

Project/Site: Hercules Savannah / Savannah Resins Plan

## 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	AZ0808	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	12-31-18
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



# 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: 680-147306-2

Client Project/Site: Hercules Savannah / Savannah Resins Plan  
Revision: 1

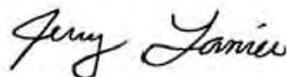
For:

ARCADIS U.S., Inc.

10 Patewood Drive, Suite 375

Greenville, South Carolina 29615

Attn: Andrew Davis



Authorized for release by:

2/12/2018 3:19:10 PM

Jerry Lanier, Project Manager I

(912)354-7858 e.3410

[jerry.lanier@testamericainc.com](mailto:jerry.lanier@testamericainc.com)

### LINKS

Review your project  
results through

**TotalAccess**

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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## Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-2

**Job ID: 680-147306-2**

**Laboratory: TestAmerica Savannah**

### Narrative

## CASE NARRATIVE

**Client: ARCADIS U.S., Inc.**

**Project: Hercules Savannah / Savannah Resins Plan**

**Report Number: 680-147306-2**

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 12/28/2017 3:17 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.3° C, 3.8° C, 15.2° C and 16.5° C.

The final report was revised to exclude sample 680-147306-10 from the final report per client request.

### CHLORINATED BIPHENYL CONGENERS

Sample MW-F3R (122817) (680-147306-8) was analyzed for chlorinated biphenyl congeners in accordance with EPA method 1668C. The sample was prepared on 01/09/2018 and 01/12/2018 and analyzed on 01/10/2018 and 01/16/2018.

PCB-180/193, PCB-183, PCB-44/47/65, PCB-52 and PCB-61/70/74/76 were detected in method blank MB 320-203109/1-A 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.

PCB-118 was detected in method blank MB 320-203709/1-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Several analytes were detected in method blank MB 320-203709/1-A 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.

### POLYCHLORINATED BIPHENYLS (PCBS)

Samples MW-F3R (122817) (680-147306-8) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 1668. The samples were analyzed on 01/19/2018.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



## Sample Summary

Client: ARCADIS U.S., Inc.

Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-147306-8	MW-F3R (122817)	Water	12/28/17 14:00	12/28/17 15:17



# Method Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Method	Method Description	Protocol	Laboratory
1668C	Chlorinated Biphenyl Congeners (HRGC/HRMS)	EPA	TAL SAC
None	Total PCB Calculation from HRMS PCB-Congeners	TAL SOP	TAL SAC

## Protocol References:

EPA = US Environmental Protection Agency

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

## Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



## Definitions/Glossary

Client: ARCADIS U.S., Inc.

Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-2

### Qualifiers

#### Dioxin

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.
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	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)



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-2

**Client Sample ID: MW-F3R (122817)**

**Lab Sample ID: 680-147306-8**

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1	7.8	J	200	0.87	pg/L	1		1668C	Total/NA
PCB-3	2.5	J	200	0.67	pg/L	1		1668C	Total/NA
PCB-44/47/65	47	J B	590	0.65	pg/L	1		1668C	Total/NA
PCB-49/69	1.8	J	390	0.57	pg/L	1		1668C	Total/NA
PCB-51	9.2	J	200	0.65	pg/L	1		1668C	Total/NA
PCB-52	2.1	J B	200	0.69	pg/L	1		1668C	Total/NA
PCB-61/70/74/76	2.2	J B	790	0.84	pg/L	1		1668C	Total/NA
PCB-68	2.6	J	200	0.76	pg/L	1		1668C	Total/NA
PCB-95	3.0	J	200	1.6	pg/L	1		1668C	Total/NA
PCB-110/115	6.5	J	390	1.2	pg/L	1		1668C	Total/NA
PCB-118	4.7	J	20	1.3	pg/L	1		1668C	Total/NA
PCB-129/138/163	6.0	J	590	1.4	pg/L	1		1668C	Total/NA
PCB-147/149	2.9	J	390	1.4	pg/L	1		1668C	Total/NA
PCB-153/168	3.7	J	390	1.2	pg/L	1		1668C	Total/NA
PCB-180/193	1.2	J B	390	0.44	pg/L	1		1668C	Total/NA
PCB-183	1.3	J B	200	0.42	pg/L	1		1668C	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Polychlorinated biphenyls, Total	100	J	200	20	pg/L	1		None	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-2

**Client Sample ID: MW-F3R (122817)**

**Lab Sample ID: 680-147306-8**

**Date Collected: 12/28/17 14:00**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>PCB-1</b>	<b>7.8</b>	<b>J</b>	200	0.87	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-2	0.66	U	200	0.66	pg/L		01/09/18 07:42	01/10/18 21:01	1
<b>PCB-3</b>	<b>2.5</b>	<b>J</b>	200	0.67	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-4	7.6	U	200	7.6	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-5	6.6	U	200	6.6	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-6	6.9	U	200	6.9	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-7	6.6	U	200	6.6	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-8	6.8	U	200	6.8	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-9	6.9	U	200	6.9	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-10	5.2	U	200	5.2	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-11	6.7	U	200	6.7	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-12/13	6.6	U	390	6.6	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-14	5.8	U	200	5.8	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-15	6.6	U	200	6.6	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-16	2.1	U	200	2.1	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-17	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-18/30	1.4	U	390	1.4	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-19	1.9	U	200	1.9	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-20/28	1.5	U	390	1.5	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-21/33	1.4	U	390	1.4	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-22	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-23	1.5	U	200	1.5	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-24	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-25	1.5	U	200	1.5	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-26/29	1.5	U	390	1.5	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-27	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-31	1.4	U	200	1.4	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-32	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-34	1.5	U	200	1.5	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-35	1.5	U	200	1.5	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-36	1.4	U	200	1.4	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-37	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-38	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-39	1.4	U	200	1.4	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-40/71	0.69	U	390	0.69	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-41	0.80	U	200	0.80	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-42	0.75	U	200	0.75	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-43	0.82	U	200	0.82	pg/L		01/09/18 07:42	01/10/18 21:01	1
<b>PCB-44/47/65</b>	<b>47</b>	<b>J B</b>	590	0.65	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-45	0.78	U	200	0.78	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-46	0.81	U	200	0.81	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-48	0.69	U	200	0.69	pg/L		01/09/18 07:42	01/10/18 21:01	1
<b>PCB-49/69</b>	<b>1.8</b>	<b>J</b>	390	0.57	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-50/53	0.66	U	390	0.66	pg/L		01/09/18 07:42	01/10/18 21:01	1
<b>PCB-51</b>	<b>9.2</b>	<b>J</b>	200	0.65	pg/L		01/09/18 07:42	01/10/18 21:01	1
<b>PCB-52</b>	<b>2.1</b>	<b>J B</b>	200	0.69	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-54	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-55	0.86	U	200	0.86	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-56	0.90	U	200	0.90	pg/L		01/09/18 07:42	01/10/18 21:01	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-2

**Client Sample ID: MW-F3R (122817)**

**Lab Sample ID: 680-147306-8**

**Date Collected: 12/28/17 14:00**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	0.86	U	200	0.86	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-58	0.84	U	200	0.84	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-59/62/75	0.51	U	590	0.51	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-60	0.86	U	200	0.86	pg/L		01/09/18 07:42	01/10/18 21:01	1
<b>PCB-61/70/74/76</b>	<b>2.2</b>	<b>J B</b>	790	0.84	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-63	0.77	U	200	0.77	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-64	0.48	U	200	0.48	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-66	0.88	U	200	0.88	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-67	0.81	U	200	0.81	pg/L		01/09/18 07:42	01/10/18 21:01	1
<b>PCB-68</b>	<b>2.6</b>	<b>J</b>	200	0.76	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-72	0.81	U	200	0.81	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-73	0.52	U	200	0.52	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-77	0.86	U	20	0.86	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-78	0.88	U	200	0.88	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-79	0.77	U	200	0.77	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-80	0.75	U	200	0.75	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-81	0.89	U	20	0.89	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-82	2.0	U	200	2.0	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-83	2.1	U	200	2.1	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-84	1.8	U	200	1.8	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-85/116/117	1.4	U	590	1.4	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-86/87/97/108/119/125	1.4	U	1200	1.4	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-88/91	1.6	U	390	1.6	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-89	1.7	U	200	1.7	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-90/101/113	1.4	U	590	1.4	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-92	1.7	U	200	1.7	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-93/100	1.6	U	390	1.6	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-107/124	1.3	U	390	1.3	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-94	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 21:01	1
<b>PCB-95</b>	<b>3.0</b>	<b>J</b>	200	1.6	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-96	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-98/102	1.5	U	390	1.5	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-99	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-103	1.4	U	200	1.4	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-104	0.98	U	200	0.98	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-105	1.3	U	20	1.3	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-106	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 21:01	1
<b>PCB-110/115</b>	<b>6.5</b>	<b>J</b>	390	1.2	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-109	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-111	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-112	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-114	1.3	U	20	1.3	pg/L		01/09/18 07:42	01/10/18 21:01	1
<b>PCB-118</b>	<b>4.7</b>	<b>J</b>	20	1.3	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-120	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-121	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-122	1.4	U	200	1.4	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-123	1.3	U	20	1.3	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-126	1.5	U	20	1.5	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-127	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 21:01	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-2

**Client Sample ID: MW-F3R (122817)**

**Lab Sample ID: 680-147306-8**

**Date Collected: 12/28/17 14:00**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	1.3	U	390	1.3	pg/L		01/09/18 07:42	01/10/18 21:01	1
<b>PCB-129/138/163</b>	<b>6.0</b>	<b>J</b>	590	1.4	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-130	1.7	U	200	1.7	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-131	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-132	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-133	1.5	U	200	1.5	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-134/143	1.6	U	390	1.6	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-135/151	1.4	U	390	1.4	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-136	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-137	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-139/140	1.4	U	390	1.4	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-141	1.5	U	200	1.5	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-142	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-144	1.4	U	200	1.4	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-145	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-146	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 21:01	1
<b>PCB-147/149</b>	<b>2.9</b>	<b>J</b>	390	1.4	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-148	1.4	U	200	1.4	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-150	0.99	U	200	0.99	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-152	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 21:01	1
<b>PCB-153/168</b>	<b>3.7</b>	<b>J</b>	390	1.2	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-154	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-155	0.85	U	200	0.85	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-156/157	1.4	U	39	1.4	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-158	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-159	0.89	U	200	0.89	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-160	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-161	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-162	0.86	U	200	0.86	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-164	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-165	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-167	0.80	U	20	0.80	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-169	0.85	U	20	0.85	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-170	0.54	U	200	0.54	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-171/173	0.55	U	390	0.55	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-172	0.54	U	200	0.54	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-174	0.59	U	200	0.59	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-175	1.5	U	200	1.5	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-176	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-177	0.54	U	200	0.54	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-178	1.5	U	200	1.5	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-179	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 21:01	1
<b>PCB-180/193</b>	<b>1.2</b>	<b>J B</b>	390	0.44	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-181	0.48	U	200	0.48	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-182	1.4	U	200	1.4	pg/L		01/09/18 07:42	01/10/18 21:01	1
<b>PCB-183</b>	<b>1.3</b>	<b>J B</b>	200	0.42	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-184	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-185	0.51	U	200	0.51	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-186	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 21:01	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-2

**Client Sample ID: MW-F3R (122817)**

**Lab Sample ID: 680-147306-8**

**Date Collected: 12/28/17 14:00**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	1.4	U	200	1.4	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-188	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-189	0.71	U	20	0.71	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-190	0.39	U	200	0.39	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-191	0.40	U	200	0.40	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-192	0.42	U	200	0.42	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-194	0.99	U	200	0.99	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-195	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-196	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-197	0.78	U	200	0.78	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-198/199	1.2	U	390	1.2	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-200	0.95	U	200	0.95	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-201	0.86	U	200	0.86	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-202	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-203	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-204	0.89	U	200	0.89	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-205	0.74	U	200	0.74	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-206	1.4	U	200	1.4	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-207	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-208	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 21:01	1
PCB-209	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 21:01	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	60		5 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-3L	72		5 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-4L	73		5 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-15L	89		5 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-19L	90		5 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-37L	84		5 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-54L	66		5 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-77L	104		10 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-81L	102		10 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-104L	78		10 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-105L	93		10 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-114L	90		10 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-118L	91		10 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-123L	92		10 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-126L	86		10 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-155L	96		10 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-156L/157L	92		10 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-167L	94		10 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-169L	92		10 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-188L	99		10 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-189L	101		10 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-202L	89		10 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-205L	101		10 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-206L	90		10 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-208L	95		10 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-209L	96		10 - 145	01/09/18 07:42	01/10/18 21:01	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-2

**Client Sample ID: MW-F3R (122817)**

**Lab Sample ID: 680-147306-8**

**Date Collected: 12/28/17 14:00**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	81		5 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-111L	93		10 - 145	01/09/18 07:42	01/10/18 21:01	1
PCB-178L	98		10 - 145	01/09/18 07:42	01/10/18 21:01	1

## Method: None - Total PCB Calculation from HRMS PCB-Congeners

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	100	J	200	20	pg/L			01/19/18 07:42	1



# Toxicity Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-2

Client Sample ID: MW-F3R (122817)

Lab Sample ID: 680-147306-8

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	EDL	Unit	TEF	TEQ	Method
PCB-77	0.86	U	20	0.86	pg/L	0.0001	0.00	1668C
PCB-81	0.89	U	20	0.89	pg/L	0.0003	0.00	1668C
PCB-105	1.3	U	20	1.3	pg/L	0.00003	0.00	1668C
PCB-114	1.3	U	20	1.3	pg/L	0.00003	0.00	1668C
PCB-118	4.7	J	20	1.3	pg/L	0.00003	0.00014	1668C
PCB-123	1.3	U	20	1.3	pg/L	0.00003	0.00	1668C
PCB-126	1.5	U	20	1.5	pg/L	0.1	0.00	1668C
PCB-156/157	1.4	U	39	1.4	pg/L	0.00003	0.00	1668C
PCB-167	0.80	U	20	0.80	pg/L	0.00003	0.00	1668C
PCB-169	0.85	U	20	0.85	pg/L	0.03	0.00	1668C
PCB-189	0.71	U	20	0.71	pg/L	0.00003	0.00	1668C

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	NONE	NONE	Unit	TEF	TEQ	Method
Total PCB TEQ					pg/L		0.00014	TEQ
Total TEQ					pg/L		0.00014	TEQ

## TEF Reference:

WHO 2005 = World Health Organization (WHO) 2005 TEF, Dioxins, Furans and PCB Congeners

Note: The analytes PCB-156 and PCB-157 coelute as a single peak.

TestAmerica Savannah



# Surrogate Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-2

**Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)**

**Matrix: Water**

**Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	PCB28L (5-145)	PCB111L (10-145)	PCB178L (10-145)				
680-147306-8	MW-F3R (122817)	81	93	98				
<b>Surrogate Legend</b>								
PCB28L = PCB-28L								
PCB111L = PCB-111L								
PCB178L = PCB-178L								



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB1L (5-145)	PCB3L (5-145)	PCB4L (5-145)	PCB15L (5-145)	PCB19L (5-145)	PCB37L (5-145)	PCB54L (5-145)	PCB77L (10-145)
680-147306-8	MW-F3R (122817)	60	72	73	89	90	84	66	104

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB81L (10-145)	PCB104L (10-145)	PCB105L (10-145)	P114L (10-145)	PCB118L (10-145)	PCB123L (10-145)	PCB126L (10-145)	PCB155L (10-145)
680-147306-8	MW-F3R (122817)	102	78	93	90	91	92	86	96

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	B-156L/157L (10-145)	PCB167L (10-145)	PCB169L (10-145)	PCB188L (10-145)	PCB189L (10-145)	PCB202L (10-145)	PCB205L (10-145)	PCB206L (10-145)
680-147306-8	MW-F3R (122817)	92	94	92	99	101	89	101	90

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB208L (10-145)	PCB209L (10-145)						
680-147306-8	MW-F3R (122817)	95	96						

### Surrogate Legend

PCB1L = PCB-1L  
 PCB3L = PCB-3L  
 PCB4L = PCB-4L  
 PCB15L = PCB-15L  
 PCB19L = PCB-19L  
 PCB37L = PCB-37L  
 PCB54L = PCB-54L  
 PCB77L = PCB-77L  
 PCB81L = PCB-81L  
 PCB104L = PCB-104L  
 PCB105L = PCB-105L  
 P114L = PCB-114L  
 PCB118L = PCB-118L  
 PCB123L = PCB-123L  
 PCB126L = PCB-126L  
 PCB155L = PCB-155L  
 PCB-156L/157L = PCB-156L/157L  
 PCB167L = PCB-167L  
 PCB169L = PCB-169L  
 PCB188L = PCB-188L  
 PCB189L = PCB-189L  
 PCB202L = PCB-202L  
 PCB205L = PCB-205L  
 PCB206L = PCB-206L  
 PCB208L = PCB-208L  
 PCB209L = PCB-209L

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Lab Sample ID: MB 320-203109/1-A

Matrix: Water

Analysis Batch: 203414

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 203109

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.67	U	200	0.67	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-2	0.52	U	200	0.52	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-3	0.54	U	200	0.54	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-4	5.8	U	200	5.8	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-5	5.5	U	200	5.5	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-6	5.8	U	200	5.8	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-7	5.5	U	200	5.5	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-8	5.7	U	200	5.7	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-9	5.7	U	200	5.7	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-10	4.3	U	200	4.3	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-11	5.6	U	200	5.6	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-12/13	5.5	U	400	5.5	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-14	4.8	U	200	4.8	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-15	5.7	U	200	5.7	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-16	1.9	U	200	1.9	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-17	1.4	U	200	1.4	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-18/30	1.3	U	400	1.3	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-19	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-20/28	1.0	U	400	1.0	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-21/33	0.95	U	400	0.95	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-22	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-23	0.97	U	200	0.97	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-24	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-25	0.97	U	200	0.97	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-26/29	0.97	U	400	0.97	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-27	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-31	0.92	U	200	0.92	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-32	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-34	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-35	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-36	0.94	U	200	0.94	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-37	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-38	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-39	0.92	U	200	0.92	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-40/71	0.85	U	400	0.85	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-41	0.99	U	200	0.99	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-42	0.92	U	200	0.92	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-43	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-44/47/65	2.79	J	600	0.80	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-45	0.96	U	200	0.96	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-46	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-48	0.85	U	200	0.85	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-49/69	0.70	U	400	0.70	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-50/53	0.81	U	400	0.81	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-51	0.80	U	200	0.80	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-52	1.94	J	200	0.85	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-54	0.67	U	200	0.67	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-55	0.92	U	200	0.92	pg/L		01/09/18 07:42	01/10/18 17:16	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-203109/1-A

Matrix: Water

Analysis Batch: 203414

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 203109

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-56	0.96	U	200	0.96	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-57	0.92	U	200	0.92	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-58	0.90	U	200	0.90	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-59/62/75	0.62	U	600	0.62	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-60	0.92	U	200	0.92	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-61/70/74/76	1.31	J	800	0.90	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-63	0.82	U	200	0.82	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-64	0.59	U	200	0.59	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-66	0.94	U	200	0.94	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-67	0.86	U	200	0.86	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-68	0.81	U	200	0.81	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-72	0.87	U	200	0.87	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-73	0.64	U	200	0.64	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-77	1.0	U	20	1.0	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-78	0.94	U	200	0.94	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-79	0.83	U	200	0.83	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-80	0.80	U	200	0.80	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-81	1.0	U	20	1.0	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-82	2.4	U	200	2.4	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-83	2.6	U	200	2.6	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-84	2.3	U	200	2.3	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-85/116/117	1.7	U	600	1.7	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-86/87/97/108/119/125	1.7	U	1200	1.7	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-88/91	1.9	U	400	1.9	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-89	2.1	U	200	2.1	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-90/101/113	1.8	U	600	1.8	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-92	2.0	U	200	2.0	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-93/100	1.9	U	400	1.9	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-107/124	1.6	U	400	1.6	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-94	2.0	U	200	2.0	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-95	1.9	U	200	1.9	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-96	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-98/102	1.9	U	400	1.9	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-99	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-103	1.8	U	200	1.8	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-104	0.97	U	200	0.97	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-105	1.8	U	20	1.8	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-106	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-110/115	1.5	U	400	1.5	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-109	1.5	U	200	1.5	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-111	1.5	U	200	1.5	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-112	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-114	1.7	U	20	1.7	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-118	1.7	U	20	1.7	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-120	1.4	U	200	1.4	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-121	1.4	U	200	1.4	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-122	1.7	U	200	1.7	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-123	1.7	U	20	1.7	pg/L		01/09/18 07:42	01/10/18 17:16	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-203109/1-A

Matrix: Water

Analysis Batch: 203414

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 203109

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-126	1.9	U	20	1.9	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-127	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-128/166	1.6	U	400	1.6	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-129/138/163	1.7	U	600	1.7	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-130	2.1	U	200	2.1	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-131	1.9	U	200	1.9	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-132	1.9	U	200	1.9	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-133	1.9	U	200	1.9	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-134/143	1.9	U	400	1.9	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-135/151	1.8	U	400	1.8	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-136	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-137	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-139/140	1.7	U	400	1.7	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-141	1.9	U	200	1.9	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-142	2.0	U	200	2.0	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-144	1.7	U	200	1.7	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-145	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-146	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-147/149	1.7	U	400	1.7	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-148	1.7	U	200	1.7	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-150	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-152	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-153/168	1.4	U	400	1.4	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-154	1.5	U	200	1.5	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-155	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-156/157	1.2	U	40	1.2	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-158	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-159	0.82	U	200	0.82	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-160	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-161	1.5	U	200	1.5	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-162	0.79	U	200	0.79	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-164	1.5	U	200	1.5	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-165	1.5	U	200	1.5	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-167	0.70	U	20	0.70	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-169	0.80	U	20	0.80	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-170	0.83	U	200	0.83	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-171/173	0.85	U	400	0.85	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-172	0.83	U	200	0.83	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-174	0.91	U	200	0.91	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-175	1.8	U	200	1.8	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-176	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-177	0.84	U	200	0.84	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-178	1.8	U	200	1.8	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-179	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-180/193	1.51	J	400	0.69	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-181	0.75	U	200	0.75	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-182	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-183	1.26	J	200	0.65	pg/L		01/09/18 07:42	01/10/18 17:16	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-203109/1-A

Matrix: Water

Analysis Batch: 203414

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 203109

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-184	1.4	U	200	1.4	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-185	0.79	U	200	0.79	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-186	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-187	1.7	U	200	1.7	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-188	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-189	1.1	U	20	1.1	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-190	0.60	U	200	0.60	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-191	0.62	U	200	0.62	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-192	0.65	U	200	0.65	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-194	1.5	U	200	1.5	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-195	1.5	U	200	1.5	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-196	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-197	0.79	U	200	0.79	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-198/199	1.2	U	400	1.2	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-200	0.95	U	200	0.95	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-201	0.86	U	200	0.86	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-202	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-203	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-204	0.89	U	200	0.89	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-205	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-206	2.0	U	200	2.0	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-207	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-208	1.9	U	200	1.9	pg/L		01/09/18 07:42	01/10/18 17:16	1
PCB-209	1.7	U	200	1.7	pg/L		01/09/18 07:42	01/10/18 17:16	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	64		5 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-3L	71		5 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-4L	74		5 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-15L	81		5 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-19L	86		5 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-37L	80		5 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-54L	69		5 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-77L	82		10 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-81L	82		10 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-104L	83		10 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-105L	84		10 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-114L	83		10 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-118L	84		10 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-123L	83		10 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-126L	81		10 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-155L	91		10 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-156L/157L	103		10 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-167L	106		10 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-169L	98		10 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-188L	77		10 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-189L	99		10 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-202L	76		10 - 145	01/09/18 07:42	01/10/18 17:16	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-203109/1-A

Matrix: Water

Analysis Batch: 203414

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 203109

<i>Isotope Dilution</i>	<i>MB</i> <i>%Recovery</i>	<i>MB</i> <i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
PCB-205L	93		10 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-206L	85		10 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-208L	85		10 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-209L	89		10 - 145	01/09/18 07:42	01/10/18 17:16	1

<i>Surrogate</i>	<i>MB</i> <i>%Recovery</i>	<i>MB</i> <i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
PCB-28L	87		5 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-111L	91		10 - 145	01/09/18 07:42	01/10/18 17:16	1
PCB-178L	101		10 - 145	01/09/18 07:42	01/10/18 17:16	1

Lab Sample ID: LCS 320-203109/2-A

Matrix: Water

Analysis Batch: 203414

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 203109

<i>Analyte</i>	<i>Spike</i> <i>Added</i>	<i>LCS</i> <i>Result</i>	<i>LCS</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i> <i>Limits</i>
PCB-1	2000	1910		pg/L		96	60 - 135
PCB-3	2000	1970		pg/L		99	60 - 135
PCB-4	2000	2030		pg/L		102	60 - 135
PCB-15	2000	1940		pg/L		97	60 - 135
PCB-19	2000	2030		pg/L		102	60 - 135
PCB-37	2000	1940		pg/L		97	60 - 135
PCB-54	2000	2210		pg/L		111	60 - 135
PCB-77	2000	2060		pg/L		103	60 - 135
PCB-81	2000	2070		pg/L		104	60 - 135
PCB-104	2000	2310		pg/L		115	60 - 135
PCB-105	2000	2300		pg/L		115	60 - 135
PCB-114	2000	2260		pg/L		113	60 - 135
PCB-118	2000	2340		pg/L		117	60 - 135
PCB-123	2000	2280		pg/L		114	60 - 135
PCB-126	2000	2230		pg/L		111	60 - 135
PCB-155	2000	2350		pg/L		117	60 - 135
PCB-156/157	4000	4230		pg/L		106	60 - 135
PCB-167	2000	2090		pg/L		104	60 - 135
PCB-169	2000	2100		pg/L		105	60 - 135
PCB-188	2000	1990		pg/L		99	60 - 135
PCB-189	2000	1810		pg/L		90	60 - 135
PCB-202	2000	2190		pg/L		109	60 - 135
PCB-205	2000	1960		pg/L		98	60 - 135
PCB-206	2000	2220		pg/L		111	60 - 135
PCB-208	2000	2250		pg/L		112	60 - 135
PCB-209	2000	2090		pg/L		104	60 - 135

<i>Isotope Dilution</i>	<i>LCS</i> <i>%Recovery</i>	<i>LCS</i> <i>Qualifier</i>	<i>Limits</i>
PCB-1L	61		15 - 145
PCB-3L	70		15 - 145
PCB-4L	69		15 - 145
PCB-15L	81		15 - 145
PCB-19L	83		15 - 145

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-203109/2-A

Matrix: Water

Analysis Batch: 203414

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 203109

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
PCB-37L	92		15 - 145
PCB-54L	59		15 - 145
PCB-77L	113		40 - 145
PCB-81L	114		40 - 145
PCB-104L	77		40 - 145
PCB-105L	97		40 - 145
PCB-114L	95		40 - 145
PCB-118L	95		40 - 145
PCB-123L	95		40 - 145
PCB-126L	93		40 - 145
PCB-155L	84		40 - 145
PCB-156L/157L	102		40 - 145
PCB-167L	104		40 - 145
PCB-169L	95		40 - 145
PCB-188L	89		40 - 145
PCB-189L	100		40 - 145
PCB-202L	85		40 - 145
PCB-205L	99		40 - 145
PCB-206L	87		40 - 145
PCB-208L	92		40 - 145
PCB-209L	96		40 - 145

Surrogate	LCS		Limits
	%Recovery	Qualifier	
PCB-28L	81		15 - 145
PCB-111L	95		40 - 145
PCB-178L	103		40 - 145

Lab Sample ID: LCSD 320-203109/3-A

Matrix: Water

Analysis Batch: 203516

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 203109

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
							Limits		RPD	Limit
PCB-1	2000	1920		pg/L		96	60 - 135		1	50
PCB-3	2000	1990		pg/L		99	60 - 135		1	50
PCB-4	2000	2070		pg/L		103	60 - 135		2	50
PCB-15	2000	1950		pg/L		97	60 - 135		1	50
PCB-19	2000	2070		pg/L		103	60 - 135		2	50
PCB-37	2000	1900		pg/L		95	60 - 135		2	50
PCB-54	2000	2260		pg/L		113	60 - 135		2	50
PCB-77	2000	2090		pg/L		104	60 - 135		1	50
PCB-81	2000	2090		pg/L		104	60 - 135		1	50
PCB-104	2000	2380		pg/L		119	60 - 135		3	50
PCB-105	2000	2310		pg/L		116	60 - 135		1	50
PCB-114	2000	2310		pg/L		116	60 - 135		3	50
PCB-118	2000	2380		pg/L		119	60 - 135		2	50
PCB-123	2000	2360		pg/L		118	60 - 135		3	50
PCB-126	2000	2290		pg/L		115	60 - 135		3	50
PCB-155	2000	2330		pg/L		117	60 - 135		1	50

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 320-203109/3-A

Matrix: Water

Analysis Batch: 203516

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 203109

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-156/157	4000	4280		pg/L		107	60 - 135	1	50
PCB-167	2000	2150		pg/L		107	60 - 135	3	50
PCB-169	2000	2180		pg/L		109	60 - 135	4	50
PCB-188	2000	2060		pg/L		103	60 - 135	4	50
PCB-189	2000	1820		pg/L		91	60 - 135	1	50
PCB-202	2000	2170		pg/L		108	60 - 135	1	50
PCB-205	2000	2030		pg/L		102	60 - 135	3	50
PCB-206	2000	2270		pg/L		113	60 - 135	2	50
PCB-208	2000	2280		pg/L		114	60 - 135	1	50
PCB-209	2000	2120		pg/L		106	60 - 135	1	50

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
PCB-1L	50		15 - 145
PCB-3L	62		15 - 145
PCB-4L	67		15 - 145
PCB-15L	77		15 - 145
PCB-19L	78		15 - 145
PCB-37L	77		15 - 145
PCB-54L	57		15 - 145
PCB-77L	81		40 - 145
PCB-81L	81		40 - 145
PCB-104L	80		40 - 145
PCB-105L	80		40 - 145
PCB-114L	84		40 - 145
PCB-118L	84		40 - 145
PCB-123L	83		40 - 145
PCB-126L	83		40 - 145
PCB-155L	87		40 - 145
PCB-156L/157L	93		40 - 145
PCB-167L	93		40 - 145
PCB-169L	81		40 - 145
PCB-188L	94		40 - 145
PCB-189L	96		40 - 145
PCB-202L	89		40 - 145
PCB-205L	89		40 - 145
PCB-206L	79		40 - 145
PCB-208L	88		40 - 145
PCB-209L	87		40 - 145

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
PCB-28L	75		15 - 145
PCB-111L	86		40 - 145
PCB-178L	97		40 - 145

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-203709/1-A

Matrix: Water

Analysis Batch: 204192

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 203709

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	2.18	J	200	0.44	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-2	0.35	U	200	0.35	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-3	1.30	J	200	0.37	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-4	6.4	U	200	6.4	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-5	2.9	U	200	2.9	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-6	3.0	U	200	3.0	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-7	2.9	U	200	2.9	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-8	2.9	U	200	2.9	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-9	3.0	U	200	3.0	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-10	4.8	U	200	4.8	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-11	2.9	U	200	2.9	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-12/13	2.9	U	400	2.9	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-14	2.5	U	200	2.5	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-15	3.0	U	200	3.0	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-16	1.6	U	200	1.6	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-17	3.14	J	200	1.2	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-18/30	4.16	J	400	1.1	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-19	1.3	U	200	1.3	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-20/28	6.97	J	400	0.88	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-21/33	3.14	J	400	0.83	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-22	0.90	U	200	0.90	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-23	0.85	U	200	0.85	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-24	0.96	U	200	0.96	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-25	0.85	U	200	0.85	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-26/29	0.85	U	400	0.85	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-27	0.91	U	200	0.91	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-31	4.26	J	200	0.80	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-32	6.25	J	200	0.87	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-34	0.88	U	200	0.88	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-35	0.89	U	200	0.89	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-36	0.82	U	200	0.82	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-37	1.0	U	200	1.0	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-38	0.90	U	200	0.90	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-39	0.80	U	200	0.80	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-40/71	7.81	J	400	0.71	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-41	0.83	U	200	0.83	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-42	5.09	J	200	0.77	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-43	0.85	U	200	0.85	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-44/47/65	43.4	J	600	0.67	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-45	0.80	U	200	0.80	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-46	2.04	J	200	0.84	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-48	1.99	J	200	0.71	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-49/69	24.6	J	400	0.59	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-50/53	9.63	J	400	0.68	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-51	5.86	J	200	0.67	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-52	89.6	J	200	0.72	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-54	1.37	J	200	0.48	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-55	0.81	U	200	0.81	pg/L		01/12/18 13:15	01/16/18 18:30	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-203709/1-A

Matrix: Water

Analysis Batch: 204192

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 203709

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-56	3.49	J	200	0.85	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-57	0.81	U	200	0.81	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-58	2.44	J	200	0.79	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-59/62/75	0.52	U	600	0.52	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-60	1.48	J	200	0.81	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-61/70/74/76	36.3	J	800	0.79	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-63	0.72	U	200	0.72	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-64	8.21	J	200	0.50	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-66	11.8	J	200	0.83	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-67	0.76	U	200	0.76	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-68	0.71	U	200	0.71	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-72	0.76	U	200	0.76	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-73	0.54	U	200	0.54	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-77	0.94	U	20	0.94	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-78	0.82	U	200	0.82	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-79	0.73	U	200	0.73	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-80	0.70	U	200	0.70	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-81	0.93	U	20	0.93	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-82	6.01	J	200	2.0	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-83	2.2	U	200	2.2	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-84	25.9	J	200	1.9	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-85/116/117	9.25	J	600	1.4	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-86/87/97/108/119/125	45.7	J	1200	1.5	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-88/91	12.2	J	400	1.6	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-89	1.8	U	200	1.8	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-90/101/113	78.5	J	600	1.5	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-92	16.2	J	200	1.7	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-93/100	1.6	U	400	1.6	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-107/124	1.3	U	400	1.3	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-94	1.7	U	200	1.7	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-95	87.8	J	200	1.6	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-96	0.55	U	200	0.55	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-98/102	1.6	U	400	1.6	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-99	30.2	J	200	1.4	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-103	1.5	U	200	1.5	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-104	0.45	U	200	0.45	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-105	14.3	J	20	1.4	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-106	1.3	U	200	1.3	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-110/115	69.6	J	400	1.3	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-109	1.2	U	200	1.2	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-111	1.2	U	200	1.2	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-112	1.3	U	200	1.3	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-114	1.4	U	20	1.4	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-118	37.6		20	1.4	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-120	1.2	U	200	1.2	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-121	1.2	U	200	1.2	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-122	1.4	U	200	1.4	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-123	1.4	U	20	1.4	pg/L		01/12/18 13:15	01/16/18 18:30	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-203709/1-A

Matrix: Water

Analysis Batch: 204192

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 203709

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-126	1.5	U	20	1.5	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-127	1.3	U	200	1.3	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-128/166	5.61	J	400	1.1	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-129/138/163	29.9	J	600	1.1	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-130	1.4	U	200	1.4	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-131	1.3	U	200	1.3	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-132	15.0	J	200	1.3	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-133	1.3	U	200	1.3	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-134/143	1.3	U	400	1.3	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-135/151	12.4	J	400	1.2	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-136	9.24	J	200	0.89	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-137	1.1	U	200	1.1	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-139/140	1.2	U	400	1.2	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-141	4.44	J	200	1.3	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-142	1.4	U	200	1.4	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-144	2.06	J	200	1.2	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-145	0.87	U	200	0.87	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-146	3.75	J	200	1.1	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-147/149	30.0	J	400	1.2	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-148	1.2	U	200	1.2	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-150	0.82	U	200	0.82	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-152	0.85	U	200	0.85	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-153/168	19.2	J	400	0.98	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-154	1.0	U	200	1.0	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-155	0.74	U	200	0.74	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-156/157	2.84	J	40	0.55	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-158	2.91	J	200	0.89	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-159	0.39	U	200	0.39	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-160	1.1	U	200	1.1	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-161	1.0	U	200	1.0	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-162	0.37	U	200	0.37	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-164	1.1	U	200	1.1	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-165	1.0	U	200	1.0	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-167	0.743	J	20	0.34	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-169	0.39	U	20	0.39	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-170	2.12	J	200	0.37	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-171/173	0.905	J	400	0.38	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-172	0.37	U	200	0.37	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-174	2.15	J	200	0.41	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-175	0.94	U	200	0.94	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-176	0.68	U	200	0.68	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-177	1.44	J	200	0.37	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-178	0.98	U	200	0.98	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-179	1.51	J	200	0.71	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-180/193	2.92	J	400	0.31	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-181	0.33	U	200	0.33	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-182	0.88	U	200	0.88	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-183	1.45	J	200	0.29	pg/L		01/12/18 13:15	01/16/18 18:30	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-203709/1-A

Matrix: Water

Analysis Batch: 204192

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 203709

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-184	0.74	U	200	0.74	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-185	0.35	U	200	0.35	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-186	0.71	U	200	0.71	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-187	1.85	J	200	0.89	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-188	0.70	U	200	0.70	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-189	0.49	U	20	0.49	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-190	0.27	U	200	0.27	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-191	0.28	U	200	0.28	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-192	0.29	U	200	0.29	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-194	0.59	U	200	0.59	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-195	0.62	U	200	0.62	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-196	0.63	U	200	0.63	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-197	0.44	U	200	0.44	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-198/199	0.67	U	400	0.67	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-200	0.53	U	200	0.53	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-201	0.48	U	200	0.48	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-202	0.52	U	200	0.52	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-203	0.63	U	200	0.63	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-204	0.50	U	200	0.50	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-205	0.48	U	200	0.48	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-206	0.86	U	200	0.86	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-207	0.63	U	200	0.63	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-208	0.71	U	200	0.71	pg/L		01/12/18 13:15	01/16/18 18:30	1
PCB-209	0.69	U	200	0.69	pg/L		01/12/18 13:15	01/16/18 18:30	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	71		5 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-3L	80		5 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-4L	86		5 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-15L	89		5 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-19L	103		5 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-37L	78		5 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-54L	80		5 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-77L	82		10 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-81L	83		10 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-104L	95		10 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-105L	95		10 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-114L	94		10 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-118L	94		10 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-123L	92		10 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-126L	96		10 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-155L	83		10 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-156L/157L	86		10 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-167L	86		10 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-169L	78		10 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-188L	97		10 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-189L	92		10 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-202L	109		10 - 145	01/12/18 13:15	01/16/18 18:30	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-203709/1-A

Matrix: Water

Analysis Batch: 204192

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 203709

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
PCB-205L	97		10 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-206L	95		10 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-208L	105		10 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-209L	101		10 - 145	01/12/18 13:15	01/16/18 18:30	1

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
PCB-28L	80		5 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-111L	94		10 - 145	01/12/18 13:15	01/16/18 18:30	1
PCB-178L	100		10 - 145	01/12/18 13:15	01/16/18 18:30	1

Lab Sample ID: LCS 320-203709/2-A

Matrix: Water

Analysis Batch: 204192

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 203709

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>
PCB-1	2000	1820		pg/L		91	60 - 135
PCB-3	2000	1900		pg/L		95	60 - 135
PCB-4	2000	2070		pg/L		104	60 - 135
PCB-15	2000	1980		pg/L		99	60 - 135
PCB-19	2000	2070		pg/L		104	60 - 135
PCB-37	2000	1950		pg/L		97	60 - 135
PCB-54	2000	2170		pg/L		109	60 - 135
PCB-77	2000	2010		pg/L		101	60 - 135
PCB-81	2000	2010		pg/L		100	60 - 135
PCB-104	2000	2100		pg/L		105	60 - 135
PCB-105	2000	2260		pg/L		113	60 - 135
PCB-114	2000	2190		pg/L		109	60 - 135
PCB-118	2000	2440		pg/L		122	60 - 135
PCB-123	2000	2240		pg/L		112	60 - 135
PCB-126	2000	2210		pg/L		110	60 - 135
PCB-155	2000	2070		pg/L		103	60 - 135
PCB-156/157	4000	4150		pg/L		104	60 - 135
PCB-167	2000	2060		pg/L		103	60 - 135
PCB-169	2000	2040		pg/L		102	60 - 135
PCB-188	2000	2090		pg/L		104	60 - 135
PCB-189	2000	1830		pg/L		92	60 - 135
PCB-202	2000	2080		pg/L		104	60 - 135
PCB-205	2000	1940		pg/L		97	60 - 135
PCB-206	2000	2070		pg/L		103	60 - 135
PCB-208	2000	2080		pg/L		104	60 - 135
PCB-209	2000	2100		pg/L		105	60 - 135

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
PCB-1L	63		15 - 145
PCB-3L	73		15 - 145
PCB-4L	81		15 - 145
PCB-15L	83		15 - 145
PCB-19L	95		15 - 145

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-203709/2-A

Matrix: Water

Analysis Batch: 204192

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 203709

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
PCB-37L	74		15 - 145
PCB-54L	72		15 - 145
PCB-77L	79		40 - 145
PCB-81L	79		40 - 145
PCB-104L	89		40 - 145
PCB-105L	91		40 - 145
PCB-114L	89		40 - 145
PCB-118L	89		40 - 145
PCB-123L	89		40 - 145
PCB-126L	91		40 - 145
PCB-155L	81		40 - 145
PCB-156L/157L	80		40 - 145
PCB-167L	82		40 - 145
PCB-169L	74		40 - 145
PCB-188L	97		40 - 145
PCB-189L	85		40 - 145
PCB-202L	109		40 - 145
PCB-205L	95		40 - 145
PCB-206L	94		40 - 145
PCB-208L	103		40 - 145
PCB-209L	102		40 - 145

Surrogate	LCS		Limits
	%Recovery	Qualifier	
PCB-28L	73		15 - 145
PCB-111L	90		40 - 145
PCB-178L	95		40 - 145

Lab Sample ID: LCSD 320-203709/3-A

Matrix: Water

Analysis Batch: 204192

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 203709

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
							Limits		RPD	Limit
PCB-1	2000	1790		pg/L		89	60 - 135		2	50
PCB-3	2000	1860		pg/L		93	60 - 135		2	50
PCB-4	2000	2020		pg/L		101	60 - 135		2	50
PCB-15	2000	1940		pg/L		97	60 - 135		2	50
PCB-19	2000	2000		pg/L		100	60 - 135		3	50
PCB-37	2000	1960		pg/L		98	60 - 135		1	50
PCB-54	2000	2140		pg/L		107	60 - 135		1	50
PCB-77	2000	2030		pg/L		102	60 - 135		1	50
PCB-81	2000	2050		pg/L		103	60 - 135		2	50
PCB-104	2000	2100		pg/L		105	60 - 135		0	50
PCB-105	2000	2340		pg/L		117	60 - 135		3	50
PCB-114	2000	2190		pg/L		110	60 - 135		0	50
PCB-118	2000	2570		pg/L		129	60 - 135		5	50
PCB-123	2000	2260		pg/L		113	60 - 135		1	50
PCB-126	2000	2190		pg/L		110	60 - 135		1	50
PCB-155	2000	2060		pg/L		103	60 - 135		1	50

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 320-203709/3-A

Matrix: Water

Analysis Batch: 204192

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 203709

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-156/157	4000	4150		pg/L		104	60 - 135	0	50
PCB-167	2000	2050		pg/L		102	60 - 135	1	50
PCB-169	2000	2070		pg/L		104	60 - 135	2	50
PCB-188	2000	2090		pg/L		105	60 - 135	0	50
PCB-189	2000	1820		pg/L		91	60 - 135	1	50
PCB-202	2000	2080		pg/L		104	60 - 135	0	50
PCB-205	2000	1940		pg/L		97	60 - 135	0	50
PCB-206	2000	2050		pg/L		103	60 - 135	1	50
PCB-208	2000	2070		pg/L		103	60 - 135	1	50
PCB-209	2000	2110		pg/L		105	60 - 135	0	50

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
PCB-1L	73		15 - 145
PCB-3L	82		15 - 145
PCB-4L	92		15 - 145
PCB-15L	90		15 - 145
PCB-19L	106		15 - 145
PCB-37L	77		15 - 145
PCB-54L	80		15 - 145
PCB-77L	82		40 - 145
PCB-81L	81		40 - 145
PCB-104L	92		40 - 145
PCB-105L	94		40 - 145
PCB-114L	92		40 - 145
PCB-118L	93		40 - 145
PCB-123L	92		40 - 145
PCB-126L	96		40 - 145
PCB-155L	82		40 - 145
PCB-156L/157L	83		40 - 145
PCB-167L	83		40 - 145
PCB-169L	77		40 - 145
PCB-188L	95		40 - 145
PCB-189L	84		40 - 145
PCB-202L	106		40 - 145
PCB-205L	96		40 - 145
PCB-206L	97		40 - 145
PCB-208L	102		40 - 145
PCB-209L	103		40 - 145

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
PCB-28L	80		15 - 145
PCB-111L	94		40 - 145
PCB-178L	99		40 - 145

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-2

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 320-203711/1-A

Matrix: Water

Analysis Batch: 204024

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 203711

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.36	U	10	0.36	pg/L		01/12/18 13:17	01/15/18 21:55	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	83		40 - 135				01/12/18 13:17	01/15/18 21:55	1
13C-1,2,3,7,8-PeCDD	94		40 - 135				01/12/18 13:17	01/15/18 21:55	1
13C-1,2,3,6,7,8-HxCDD	87		40 - 135				01/12/18 13:17	01/15/18 21:55	1
13C-1,2,3,4,6,7,8-HpCDD	79		40 - 135				01/12/18 13:17	01/15/18 21:55	1
13C-OCDD	81		40 - 135				01/12/18 13:17	01/15/18 21:55	1
13C-2,3,7,8-TCDF	98		40 - 135				01/12/18 13:17	01/15/18 21:55	1
13C-1,2,3,7,8-PeCDF	92		40 - 135				01/12/18 13:17	01/15/18 21:55	1
13C-1,2,3,4,7,8-HxCDF	89		40 - 135				01/12/18 13:17	01/15/18 21:55	1
13C-1,2,3,4,6,7,8-HpCDF	77		40 - 135				01/12/18 13:17	01/15/18 21:55	1

Lab Sample ID: LCS 320-203711/2-A

Matrix: Water

Analysis Batch: 204024

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 203711

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	200	201		pg/L		101	64 - 142
Isotope Dilution	%Recovery	Qualifier	Limits				
13C-2,3,7,8-TCDD	85		40 - 135				
13C-1,2,3,7,8-PeCDD	99		40 - 135				
13C-1,2,3,6,7,8-HxCDD	87		40 - 135				
13C-1,2,3,4,6,7,8-HpCDD	79		40 - 135				
13C-OCDD	82		40 - 135				
13C-2,3,7,8-TCDF	97		40 - 135				
13C-1,2,3,7,8-PeCDF	90		40 - 135				
13C-1,2,3,4,7,8-HxCDF	91		40 - 135				
13C-1,2,3,4,6,7,8-HpCDF	79		40 - 135				

Lab Sample ID: LCSD 320-203711/3-A

Matrix: Water

Analysis Batch: 204024

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 203711

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,3,7,8-TCDD	200	209		pg/L		104	64 - 142	4	20
Isotope Dilution	%Recovery	Qualifier	Limits						
13C-2,3,7,8-TCDD	82		40 - 135						
13C-1,2,3,7,8-PeCDD	90		40 - 135						
13C-1,2,3,6,7,8-HxCDD	87		40 - 135						
13C-1,2,3,4,6,7,8-HpCDD	77		40 - 135						
13C-OCDD	77		40 - 135						
13C-2,3,7,8-TCDF	100		40 - 135						
13C-1,2,3,7,8-PeCDF	91		40 - 135						
13C-1,2,3,4,7,8-HxCDF	92		40 - 135						
13C-1,2,3,4,6,7,8-HpCDF	79		40 - 135						

TestAmerica Savannah



## QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-2

### Specialty Organics

#### Prep Batch: 203109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147306-8	MW-F3R (122817)	Total/NA	Water	HRMS-Sep	

#### Analysis Batch: 203414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147306-8	MW-F3R (122817)	Total/NA	Water	1668C	203109

#### Analysis Batch: 204585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147306-8	MW-F3R (122817)	Total/NA	Water	None	



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-2

**Client Sample ID: MW-F3R (122817)**

**Date Collected: 12/28/17 14:00**

**Date Received: 12/28/17 15:17**

**Lab Sample ID: 680-147306-8**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sep			1013.5 mL	20.0 uL	203109	01/09/18 07:42	DXD	TAL SAC
Total/NA	Analysis	1668C		1			203414	01/10/18 21:01	KSS	TAL SAC
Total/NA	Analysis	None		1			204585	01/19/18 07:42	SHK	TAL SAC

## Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



681-Atlanta

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Company Name: <b>ATCAPIS</b>		Client Contact		Project Manager: <b>ANDY DAVIS</b>		Site Contact: <b>ANDY DAVIS</b>		Date: <b>12/28/17</b>		COC No: <b>1</b> of <b>2</b> COCs	
Address: <b>10 PATEWISSE DR. STE 375</b>		Tel/Fax: <b>864.987.3900</b>		Analysis Turnaround Time		Carrier:		Sampler:		For Lab Use Only:	
City/State/Zip: <b>GREENVILLE, SC 29615</b>		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		TAT if different from Below: <b>STANDARD</b>		Lab Contact: <b>ANDY DAVIS</b>		Walk-in Client:		Lab Sampling:	
Phone: <b>864.987.3900</b>		<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day				Job / SDG No.:					
Fax:											
Project Name: <b>ASHLAND SAVANNAH</b>											
Site: <b>ASHLAND</b>											
PO# <b>0401000.6461</b>											

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOCs (8260-B)	SVOCs (8270-C)	8082A, 1662, 1268, 1668 (8270-C)	ASBESTOS (600-R-93-116)	PCB Analysis (1254-8082)	TEQ (1662, 8260)	1,1-BIPHENYL (8270-D)	BENZENE
MW-F5 (122717)	12/28/17	1630	G	WT	5			✓	✓						
MW-F7 (122717)	12/28/17	1150	G	WT	5			✓	✓						
MW-F21 (122717)	12/28/17	1455	G	WT	5			✓	✓						
MW-27 (122717)	12/28/17	0955	G	WT	5			✓	✓						
MW-29 (122717)	12/28/17	1305	G	WT	5			✓	✓						
MWD-30 (122717)	12/28/17	1540	G	WT	5			✓	✓						
DUP-01 (122717)	12/28/17	-	G	WT	5			✓	✓						
MW-F3R (122817)	12/28/17	1400	G	WT	2										
MW-F15 (122817)	12/28/17	1335	G	WT	4										
TMW-18 (122817)	12/28/17	1300	G	WT	6										
TMW-19 (122817)	12/28/17	1440	G	WT	2										
TMW-20			G	WT	6										

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Special Instructions/QC Requirements & Comments:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for \_\_\_\_\_ Months

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17



Regulatory Program: ☐ RCRA ☐ NPDES ☐ DW ☐ Other: ☐

Project Manager: SEE PAGE 1, 2 Date: 12/28/17 COC No: 2 of 2 COCs

TellFax: SEE PAGE 1, 2 Site Contact: SEE PAGE 1, 2 Carrier: SEE PAGE 1, 2

Company Name: 1, 2 Address: SEE PAGE 1, 2 City/State/Zip: SEE PAGE 1, 2 Phone: SEE PAGE 1, 2 Fax: SEE PAGE 1, 2

Project Name: SEE PAGE 1, 2 Site: SEE PAGE 1, 2 P.O.#: SEE PAGE 1, 2

Analysis Turnaround Time: ☐ CALENDAR DAYS ☐ WORKING DAYS

TAT if different from Below: STANDARD

☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.
TMW-21 (122817)	12/28/17	1045	G	WT	2
TMW-22 (122817)	12/28/17	1200	G	WT	2
TMW-23 (122817)	12/28/17	1435	G	WT	2

Filtered Sample (Y/N) 1, 2 Perform MS / MSD (Y/N) 1, 2

Sample Specific Notes: SEE PAGE 1, 2

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other SEE PAGE 1, 2

Possible Hazard Identification: SEE PAGE 1, 2

Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Special Instructions/QC Requirements & Comments: SEE PAGE 1, 2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for SEE PAGE 1, 2 Months

Cooler Temp. (°C): SEE PAGE 1, 2 Cor'd: SEE PAGE 1, 2 Therm ID No.: SEE PAGE 1, 2

Received by: SEE PAGE 1, 2 Date/Time: 12/28/17 1520

Received by: SEE PAGE 1, 2 Date/Time: 12/28/17 1520

Received by: SEE PAGE 1, 2 Date/Time: 12/28/17 1520



## Chain of Custody Record

<b>Client Information (Sub Contract Lab)</b> Company: TestAmerica Laboratories, Inc. Address: 880 Riverside Parkway, City: West Sacramento State, Zip: CA, 95605 Phone: 916-373-5600(Tel) 916-372-1059(Fax) Email: Project Name: Hercules Savannah / Savannah Resins Plan Site:		Lab PM: Lanier, Jerry A E-Mail: jerry.lanier@testamericainc.com State of Origin: Georgia Carrier Tracking No(s): Page: Page 1 of 1 Job #: 680-147306-1	
<b>Due Date Requested:</b> 1/16/2018 <b>TAT Requested (days):</b>		<b>Analysis Requested</b> M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify) Other:	
<b>Sample Identification - Client ID (Lab ID)</b> MW-F3R (122817) (680-147306-8)		<b>Field Filtered Sample (Yes or No)</b> Perform MS/MSD (Yes or No) 1668C/HRMS_Sep_P Full List (209 Comb/Coel) Total PCB Cong Total TEQ	
<b>Sample Date</b> 12/28/17		<b>Sample Time</b> 14:00 Eastern	
<b>Sample Type (C=Comp, G=grab)</b> Preservation Code:		<b>Matrix</b> (W=water, B=soil, O=oil) Water	
<b>Special Instructions/Note:</b>		<b>Total Number of containers</b> 1	
Note: Since laboratory accreditation is subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.			
<b>Possible Hazard Identification</b> Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify)			
<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months			
<b>Special Instructions/QC Requirements:</b>			
<b>Empty Kit Relinquished by:</b> Relinquished by: [Signature] Date/Time: 12/29/17 18:00		<b>Method of Shipment:</b> Received by: [Signature] Date/Time: 1/30/18 9:10 Company: Thermo	
<b>Relinquished by:</b> Relinquished by: [Signature] Date/Time:		Received by: [Signature] Date/Time:	
<b>Relinquished by:</b> Relinquished by: [Signature] Date/Time:		Received by: [Signature] Date/Time:	
<b>Custody Seal No.:</b> Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks:	



# TestAmerica Savannah

5102 LaRoche Avenue  
Savannah, GA 31404  
Phone (912) 354-7858 Fax (912) 352-0165

## Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



<b>Client Information (Sub Contract Lab)</b> Shipping/Receiving Company: TestAmerica Laboratories, Inc. Address: 880 Riverside Parkway, West Sacramento, CA, 95605 Phone: 916-373-5600 (Tel) 916-372-1059 (Fax) Email: Project Name: Hercules Savannah / Savannah Resins Plan Site:		Sampler: Lab PM: Lanier, Jerry A Phone: E-Mail: jerry.lanier@testamericainc.com Accreditations Required (See note): State Program - Georgia		Carrier Tracking No(s): 680-504324.1 State of Origin: Georgia Page: Page 1 of 1 Job #: 680-147306-2	
Due Date Requested: 1/16/2018 TAT Requested (days):		<b>Analysis Requested</b> A - HCL M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 L - EDA Other:			
PO #: WO #: Project #: SSOW #:		Total Number of containers: 2 Special Instructions/Note: run as straight as possible			
Sample Identification - Client ID (Lab ID) TMW-18 (122817) (680-147306-10)		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Perform ILS/MSD (Yes or No) <input checked="" type="checkbox"/> 1668C/HRMS_Sep_P Full List (209 Comb/Coel) <input checked="" type="checkbox"/> 8790A/8290_P_Sep 17 Isomers & Totals <input checked="" type="checkbox"/> Total PCB Cong <input checked="" type="checkbox"/> Total TEQ <input checked="" type="checkbox"/>			
Sample Date: 12/28/17 Sample Time: 13:00 Eastern Matrix (W=water, S=solid, O=overfill, BT=Tissue, AA=Air) Sample Type (C=Comp, G=grab) Preservation Code: Water		Special Instructions/Note:			
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any charges to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2		Special Instructions/QC Requirements:			
Empty Kit Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by: [Signature]		Date/Time: 1/16/18 18:00 Date/Time: 1/16/18 10:20 Date/Time:			
Company: [Signature] Company: [Signature] Company: [Signature]		Date/Time: 1/16/18 10:20 Date/Time: 1/16/18 10:20 Date/Time:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 1.2			



## Chain of Custody Record

<b>Client Information (Sub Contract Lab)</b> Client Contact: _____ Shipping/Receiving: _____ Company: TestAmerica Laboratories, Inc. Address: 880 Riverside Parkway, City: West Sacramento State: Zip: CA, 95605 Phone: 916-373-5600(Tel) 916-372-1059(Fax) Email: _____ Project Name: Hercules Savannah / Savannah Resins Plan Site: _____		Lab PM: Lanier, Jerry A E-Mail: jerry.lanier@testamericainc.com State of Origin: Georgia Accredited Program: Georgia State Program - Georgia		Carrier Tracking No(s): 680-506357.1 Page: Page 1 of 1 Job #: 680-147306-4	
<b>Due Date Requested:</b> 2/14/2018 <b>TAT Requested (days):</b> _____ <b>PO #:</b> _____ <b>WO #:</b> _____ <b>Project #:</b> 68001205 <b>SSOW#:</b> _____		<b>Analysis Requested</b> 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 - Na2SO3 S - H2SO4 T - TSP Dodecanhydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)			
<b>Sample Identification - Client ID (Lab ID)</b> TMW-19 (122817) (680-147306-11)		<b>Special Instructions/Note:</b> 1 run as straight as possible			
<b>Sample Date</b> 12/28/17		<b>Sample Time</b> 14:40 Eastern		<b>Matrix</b> (W=water, S=solid, O=oil, BT=Tissue, Ash)	
<b>Sample Type</b> (C=Comp, G=grab)		<b>Preservation Code:</b>		<b>Field Filtered Sample (Yes or No)</b>	
<b>Perform MS/MSD (Yes or No)</b>		<b>8290A/8290_P_Sep 17 Isomers &amp; Totals</b>		<b>1668C/HRMS_Sep_P Full List (209 Comb/Coal)</b>	
<b>Total Number of containers</b>		<b>Special Instructions/Note:</b>		<b>Preservation Codes:</b>	
<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		<b>Special Instructions/QC Requirements:</b>			
<b>Possible Hazard Identification</b> Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) _____		<b>Primary Deliverable Rank: 2</b>			
<b>Empty Kit Relinquished by:</b> _____ Relinquished by: _____ Relinquished by: _____ Relinquished by: _____		<b>Date:</b> 1/30/18 1700 Company: _____ Date/Time: _____ Date/Time: _____ Date/Time: _____ Date/Time: _____			
<b>Custody Seals Intact:</b> Δ Yes Δ No		<b>Cooler Temperature(s) °C and Other Remarks:</b> 1-3			



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-147306-2

**Login Number: 147306**

**List Source: TestAmerica Savannah**

**List Number: 1**

**Creator: Tyler, Matthew M**

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	Received same day of collection; chilling process has begun.
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").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-147306-2

**Login Number: 147306**

**List Source: TestAmerica Sacramento**

**List Number: 2**

**List Creation: 12/30/17 11:15 AM**

**Creator: Her, David A**

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	43811
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7 C
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?	False	Received project as a subcontract.
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	



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-147306-2

**Login Number: 147306**

**List Number: 3**

**Creator: Aguayo, Alonso**

**List Source: TestAmerica Sacramento**

**List Creation: 01/11/18 04:18 PM**

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.	N/A	
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.2
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?	False	Received project as a subcontract.
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	



# Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## 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	AZ0808	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	12-31-18
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



# Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Laboratory: TestAmerica Sacramento

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
Alaska (UST)	State Program	10	17-020	01-20-21
Arizona	State Program	9	AZ0708	08-11-18
Arkansas DEQ	State Program	6	88-0691	06-17-18
California	State Program	9	2897	01-31-19
Colorado	State Program	8	CA00044	08-31-18
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-18
Georgia	State Program	4	N/A	01-28-19
Hawaii	State Program	9	N/A	01-29-19
Illinois	NELAP	5	200060	03-17-18
Kansas	NELAP	7	E-10375	10-31-18
L-A-B	DoD ELAP		L2468	01-20-21
Louisiana	NELAP	6	30612	06-30-18
Maine	State Program	1	CA0004	04-14-18
Michigan	State Program	5	9947	01-31-18 *
Nevada	State Program	9	CA00044	07-31-18
New Hampshire	NELAP	1	2997	04-18-18
New Jersey	NELAP	2	CA005	06-30-18
New York	NELAP	2	11666	04-01-18
Oregon	NELAP	10	4040	01-29-19
Pennsylvania	NELAP	3	68-01272	03-31-18
Texas	NELAP	6	T104704399	05-31-18
US Fish & Wildlife	Federal		LE148388-0	07-31-18
USDA	Federal		P330-11-00436	01-17-21
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-18
Virginia	NELAP	3	460278	03-14-18
Washington	State Program	10	C581	05-05-18
West Virginia (DW)	State Program	3	9930C	12-31-18
Wyoming	State Program	8	8TMS-L	01-28-19

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Savannah



## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Tel: (912)354-7858

TestAmerica Job ID: 680-147306-3

Client Project/Site: Hercules Savannah / Savannah Resins Plan

For:

ARCADIS U.S., Inc.

10 Patewood Drive, Suite 375

Greenville, South Carolina 29615

Attn: Andrew Davis

*Kathryn Smith*

Authorized for release by:

2/2/2018 3:20:57 PM

Kathryn Smith, Manager of Project Management

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[jerry.lanier@testamericainc.com](mailto:jerry.lanier@testamericainc.com)

### LINKS

Review your project  
results through

**TotalAccess**

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



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## Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-3

**Job ID: 680-147306-3**

**Laboratory: TestAmerica Savannah**

### Narrative

## CASE NARRATIVE

**Client: ARCADIS U.S., Inc.**

**Project: Hercules Savannah / Savannah Resins Plan**

**Report Number: 680-147306-3**

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 12/28/2017; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 2.3° C, 3.8° C, 15.2° C and 16.5° C.

### SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) - LOW LEVEL

Sample TMW-18 (122817) (680-147306-10) was analyzed for Semivolatile Organic Compounds (GC/MS) - Low level in accordance with EPA SW-846 Method 8270D. The samples were prepared on 01/02/2018 and analyzed on 01/30/2018.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### PESTICIDES AND PCBS

Sample TMW-23 (122817) (680-147306-14) was analyzed for Pesticides and PCBs in accordance with EPA SW-846 Method 8081B\_8082A. The samples were prepared on 01/31/2018 and analyzed on 02/02/2018.

This method incorporates 2nd column confirmation. Corrective action is not taken for surrogate/spike compounds unless results from both columns are unacceptable. Results outside criteria are qualified.

Two surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: TMW-23 (122817) (680-147306-14). These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



## Sample Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-3

Project/Site: Hercules Savannah / Savannah Resins Plan

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-147306-10	TMW-18 (122817)	Water	12/28/17 13:00	12/28/17 15:17
680-147306-14	TMW-23 (122817)	Water	12/28/17 14:35	12/28/17 15:17



## Method Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-3

Project/Site: Hercules Savannah / Savannah Resins Plan

Method	Method Description	Protocol	Laboratory
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL SAV
8081B/8082A	Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography	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



## Definitions/Glossary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-3

Project/Site: Hercules Savannah / Savannah Resins Plan

### Qualifiers

#### GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

#### GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
$\alpha$	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)



## Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-3

Project/Site: Hercules Savannah / Savannah Resins Plan

**Client Sample ID: TMW-18 (122817)**

**Lab Sample ID: 680-147306-10**

No Detections.

**Client Sample ID: TMW-23 (122817)**

**Lab Sample ID: 680-147306-14**

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-3

Project/Site: Hercules Savannah / Savannah Resins Plan

**Client Sample ID: TMW-18 (122817)**

**Lab Sample ID: 680-147306-10**

**Date Collected: 12/28/17 13:00**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.10	U	1.0	0.10	ug/L		01/02/18 15:09	01/30/18 14:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	79		31 - 107				01/02/18 15:09	01/30/18 14:39	1
2-Fluorophenol (Surr)	72		18 - 112				01/02/18 15:09	01/30/18 14:39	1
Nitrobenzene-d5 (Surr)	76		37 - 103				01/02/18 15:09	01/30/18 14:39	1
Phenol-d5 (Surr)	84		20 - 113				01/02/18 15:09	01/30/18 14:39	1
Terphenyl-d14 (Surr)	86		22 - 121				01/02/18 15:09	01/30/18 14:39	1
2,4,6-Tribromophenol (Surr)	99		39 - 133				01/02/18 15:09	01/30/18 14:39	1



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-3

Project/Site: Hercules Savannah / Savannah Resins Plan

**Client Sample ID: TMW-23 (122817)**

**Lab Sample ID: 680-147306-14**

**Date Collected: 12/28/17 14:35**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	0.11	U	1.0	0.11	ug/L		01/31/18 13:21	02/02/18 00:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	11	X	14 - 130				01/31/18 13:21	02/02/18 00:54	1
Tetrachloro-m-xylene	62		40 - 130				01/31/18 13:21	02/02/18 00:54	1



## Surrogate Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-3

Project/Site: Hercules Savannah / Savannah Resins Plan

### Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (31-107)	2FP (18-112)	NBZ (37-103)	PHL (20-113)	TPHL (22-121)	TBP (39-133)
680-147306-10	TMW-18 (122817)	79	72	76	84	86	99

#### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

TBP = 2,4,6-Tribromophenol (Surr)

### Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas

#### Chromatography

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCBP2 (14-130)	TCX2 (40-130)
680-147306-14	TMW-23 (122817)	11 X	62

#### Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

### Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas

#### Chromatography

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCBP2 (14-130)	TCX1 (40-130)
LCS 680-511018/15-A	Lab Control Sample	51	79
LCSD 680-511018/16-A	Lab Control Sample Dup	45	78
MB 680-511018/8-A	Method Blank	51	56

#### Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-3

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Lab Sample ID: MB 680-511018/8-A

Matrix: Water

Analysis Batch: 511287

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 511018

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	0.11	U	1.0	0.11	ug/L		01/31/18 13:21	02/01/18 21:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	51		14 - 130	01/31/18 13:21	02/01/18 21:02	1
Tetrachloro-m-xylene	56		40 - 130	01/31/18 13:21	02/01/18 21:02	1

Lab Sample ID: LCS 680-511018/15-A

Matrix: Water

Analysis Batch: 511287

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 511018

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1254	6.00	4.99		ug/L		83	50 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	51		14 - 130
Tetrachloro-m-xylene	79		40 - 130

Lab Sample ID: LCSD 680-511018/16-A

Matrix: Water

Analysis Batch: 511287

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 511018

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1254	6.00	4.99		ug/L		83	50 - 150	0	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	45		14 - 130
Tetrachloro-m-xylene	78		40 - 130



## QC Association Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-3

Project/Site: Hercules Savannah / Savannah Resins Plan

### GC/MS Semi VOA

#### Prep Batch: 508334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147306-10	TMW-18 (122817)	Total/NA	Water	3520C	

#### Analysis Batch: 510892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147306-10	TMW-18 (122817)	Total/NA	Water	8270D LL	508334

### GC Semi VOA

#### Prep Batch: 511018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147306-14	TMW-23 (122817)	Total/NA	Water	3520C	
MB 680-511018/8-A	Method Blank	Total/NA	Water	3520C	
LCS 680-511018/15-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-511018/16-A	Lab Control Sample Dup	Total/NA	Water	3520C	

#### Analysis Batch: 511287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-511018/8-A	Method Blank	Total/NA	Water	8081B/8082A	511018
LCS 680-511018/15-A	Lab Control Sample	Total/NA	Water	8081B/8082A	511018
LCSD 680-511018/16-A	Lab Control Sample Dup	Total/NA	Water	8081B/8082A	511018

#### Analysis Batch: 511292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147306-14	TMW-23 (122817)	Total/NA	Water	8081B/8082A	511018



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-3

**Client Sample ID: TMW-18 (122817)**

**Date Collected: 12/28/17 13:00**

**Date Received: 12/28/17 15:17**

**Lab Sample ID: 680-147306-10**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			986.8 mL	1 mL	508334	01/02/18 15:09	CEW	TAL SAV
Total/NA	Analysis	8270D LL		1			510892	01/30/18 14:39	NED	TAL SAV

**Client Sample ID: TMW-23 (122817)**

**Date Collected: 12/28/17 14:35**

**Date Received: 12/28/17 15:17**

**Lab Sample ID: 680-147306-14**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			977.5 mL	10 mL	511018	01/31/18 13:21	CEW	TAL SAV
Total/NA	Analysis	8081B/8082A		1			511292	02/02/18 00:54	JCK	TAL SAV

## Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858



681-Atlanta

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Company Name: <b>ATCAPIS</b>		Client Contact		Project Manager: <b>ANDY DAVIS</b>		Site Contact: <b>ANDY DAVIS</b>		Date: <b>12/28/17</b>		COC No: <b>1</b> of <b>2</b> COCs	
Address: <b>10 PATEWISSE DR. STE 375</b>		Tel/Fax: <b>864.987.3900</b>		Analysis Turnaround Time		Carrier:		Sampler:		For Lab Use Only:	
City/State/Zip: <b>GREENVILLE, SC 29615</b>		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		TAT if different from Below <b>STANDARD</b>		Lab Contact: <b>ANDY DAVIS</b>		Walk-in Client:		Lab Sampling:	
Phone: <b>864.987.3900</b>		<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day				Job / SDG No.:					
Fax:											
Project Name: <b>ASHLAND SAVANNAH</b>											
Site: <b>ASHLAND</b>											
PO# <b>0401000.6461</b>											

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VCs (820-B)	SVOCs (8270-C)	Asbestos (600-R-93-116)	PCB Analysis (254-8082)	TEQ (1167, 820-B)	1,1-DIBENZOYL (8270-D)	BENZENE
MW-F5 (122717)	12/28/17	1630	G	WT	5			✓	✓					
MW-F7 (122717)	12/28/17	1150	G	WT	5			✓	✓					
MW-F21 (122717)	12/28/17	1455	G	WT	5			✓	✓					
MW-27 (122717)	12/28/17	0955	G	WT	5			✓	✓					
MW-29 (122717)	12/28/17	1305	G	WT	5			✓	✓					
MWD-30 (122717)	12/28/17	1540	G	WT	5			✓	✓					
DUP-01 (122717)	12/28/17	-	G	WT	5			✓	✓					
MW-F3R (122817)	12/28/17	1400	G	WT	2									
MW-F15 (122817)	12/28/17	1335	G	WT	4									
TMW-18 (122817)	12/28/17	1300	G	WT	6									
TMW-19 (122817)	12/28/17	1440	G	WT	2									
TMW-20			G	WT	6									

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☒ Unknown ☐ Poison B

Special Instructions/QC Requirements & Comments:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for \_\_\_\_\_ Months

Custody Seal No.:	Company: <b>ATCAPIS</b>	Date/Time: <b>12/28/17 1530</b>	Received by: <b>AD</b>	Company: <b>TASAV</b>	Date/Time: <b>12/28</b>	Received by: <b>1517</b>
Relinquished by: <b>AD</b>	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:	
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:	

15.7 17.0 4.3 3.8



Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Company Name:		Client Contact:		Project Manager:		Site Contact:		Date:		COC No:	
Address:		Tel/Fax:		Tel/Fax:		Lab Contact:		Carrier:		Z of Z COCs	
City/State/Zip:		Analysis Turnaround Time		Analysis Turnaround Time		Analysis Turnaround Time		Analysis Turnaround Time		Analysis Turnaround Time	
Phone:		TAT if different from Below		TAT if different from Below		TAT if different from Below		TAT if different from Below		TAT if different from Below	
Fax:		2 weeks		2 weeks		2 weeks		2 weeks		2 weeks	
Project Name:		1 week		1 week		1 week		1 week		1 week	
Site:		2 days		2 days		2 days		2 days		2 days	
PO #		1 day		1 day		1 day		1 day		1 day	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	1,1-DIBENYLHYDROCARBON	Sample Specific Notes:	
TMW-21 (122817)	12/28/17	1045	G	WT	Z						
TMW-22 (122817)	12/28/17	1200	G	WT	Z						
TMW-23 (122817)	12/28/17	1435	G	WT	Z						
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other											
Possible Hazard Identification:											
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.											
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown											
Special Instructions/QC Requirements & Comments:											
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											

Custody Seal No.:		Cooler Temp. (°C):		Obs'd:		Corrd:		Therm ID No.:	
Relinquished by:		Company:		Company:		Company:		Date/Time:	
Relinquished by:		Company:		Company:		Company:		Date/Time:	
Relinquished by:		Company:		Company:		Company:		Date/Time:	

15.7 CT: 15.7 17.0 CT: 16.5 4.3 3.8: CT



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-147306-3

**Login Number: 147306**

**List Source: TestAmerica Savannah**

**List Number: 1**

**Creator: Tyler, Matthew M**

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	Received same day of collection; chilling process has begun.
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").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-3

Project/Site: Hercules Savannah / Savannah Resins Plan

### 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	AZ0808	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



## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Tel: (912)354-7858

TestAmerica Job ID: 680-147306-4

Client Project/Site: Hercules Savannah / Savannah Resins Plan

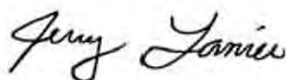
For:

ARCADIS U.S., Inc.

10 Patewood Drive, Suite 375

Greenville, South Carolina 29615

Attn: Andrew Davis



Authorized for release by:

2/20/2018 5:05:37 PM

Jerry Lanier, Project Manager I

(912)354-7858 e.3410

[jerry.lanier@testamericainc.com](mailto:jerry.lanier@testamericainc.com)

### LINKS

Review your project  
results through

**TotalAccess**

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[www.testamericainc.com](http://www.testamericainc.com)

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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## Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-4

**Job ID: 680-147306-4**

**Laboratory: TestAmerica Savannah**

**Narrative**

### CASE NARRATIVE

**Client: ARCADIS U.S., Inc.**

**Project: Hercules Savannah / Savannah Resins Plan**

**Report Number: 680-147306-4**

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 12/28/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.3° C, 3.8° C, 15.2° C and 16.5° C.

#### DIOXINS AND FURANS

Sample TMW-19 (122817) (680-147306-11) was analyzed for dioxins and furans in accordance with EPA SW-846 8290A. The samples were prepared on 02/14/2018 and analyzed on 02/15/2018.

The request to analyze sample TMW-19 (122817) (680-147306-11) in preparation batch 320-208645 was made after the sample holding time had elapsed.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-208277.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



## Sample Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-4

Project/Site: Hercules Savannah / Savannah Resins Plan

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-147306-11	TMW-19 (122817)	Water	12/28/17 14:40	12/28/17 15:17



## Method Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-4

Project/Site: Hercules Savannah / Savannah Resins Plan

Method	Method Description	Protocol	Laboratory
8290A	Dioxins and Furans (HRGC/HRMS)	SW846	TAL SAC

### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



## Definitions/Glossary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-4

Project/Site: Hercules Savannah / Savannah Resins Plan

### Qualifiers

#### Dioxin

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
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)



## Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-4

Project/Site: Hercules Savannah / Savannah Resins Plan

**Client Sample ID: TMW-19 (122817)**

**Lab Sample ID: 680-147306-11**

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-4

Project/Site: Hercules Savannah / Savannah Resins Plan

**Client Sample ID: TMW-19 (122817)**

**Lab Sample ID: 680-147306-11**

**Date Collected: 12/28/17 14:40**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.20	U H	10	0.20	pg/L		02/14/18 08:30	02/15/18 20:30	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	96		40 - 135				02/14/18 08:30	02/15/18 20:30	1
13C-1,2,3,7,8-PeCDD	91		40 - 135				02/14/18 08:30	02/15/18 20:30	1
13C-1,2,3,6,7,8-HxCDD	92		40 - 135				02/14/18 08:30	02/15/18 20:30	1
13C-1,2,3,4,6,7,8-HpCDD	90		40 - 135				02/14/18 08:30	02/15/18 20:30	1
13C-OCDD	88		40 - 135				02/14/18 08:30	02/15/18 20:30	1
13C-2,3,7,8-TCDF	98		40 - 135				02/14/18 08:30	02/15/18 20:30	1
13C-1,2,3,7,8-PeCDF	97		40 - 135				02/14/18 08:30	02/15/18 20:30	1
13C-1,2,3,4,7,8-HxCDF	82		40 - 135				02/14/18 08:30	02/15/18 20:30	1
13C-1,2,3,4,6,7,8-HpCDF	91		40 - 135				02/14/18 08:30	02/15/18 20:30	1



# Toxicity Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-4

**Client Sample ID: TMW-19 (122817)**

**Lab Sample ID: 680-147306-11**

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	EDL	Unit	TEF	TEQ	Method
2,3,7,8-TCDD	0.20	U H	10	0.20	pg/L	1	0.00	8290A
						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	NONE	NONE	Unit	TEF	TEQ	Method
Total Dioxin/Furan TEQ					pg/L		0.27	TEQ
Total TEQ					pg/L		0.27	TEQ

## TEF Reference:

WHO 2005 = World Health Organization (WHO) 2005 TEF, Dioxins, Furans and PCB Congeners

Note: The analytes PCB-156 and PCB-157 coelute as a single peak.

TestAmerica Savannah



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-4

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCDD (40-135)	PeCDD (40-135)	HxDD (40-135)	HpCDD (40-135)	OCDD (40-135)	TCDF (40-135)	PeCDF (40-135)	HxCDF (40-135)
680-147306-11	TMW-19 (122817)	96	91	92	90	88	98	97	82
LCS 320-208645/2-A	Lab Control Sample	96	95	90	75	71	100	101	82
LCSD 320-208645/3-A	Lab Control Sample Dup	97	93	96	78	73	100	100	80
MB 320-208645/1-A	Method Blank	92	88	90	70	67	97	95	77

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HpCDF (40-135)
680-147306-11	TMW-19 (122817)	91
LCS 320-208645/2-A	Lab Control Sample	77
LCSD 320-208645/3-A	Lab Control Sample Dup	77
MB 320-208645/1-A	Method Blank	73

### Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD

PeCDD = 13C-1,2,3,7,8-PeCDD

HxDD = 13C-1,2,3,6,7,8-HxCDD

HpCDD = 13C-1,2,3,4,6,7,8-HpCDD

OCDD = 13C-OCDD

TCDF = 13C-2,3,7,8-TCDF

PeCDF = 13C-1,2,3,7,8-PeCDF

HxCDF = 13C-1,2,3,4,7,8-HxCDF

HpCDF = 13C-1,2,3,4,6,7,8-HpCDF



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147306-4

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 320-208645/1-A

Matrix: Water

Analysis Batch: 208689

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 208645

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.28	U	10	0.28	pg/L		02/14/18 08:30	02/15/18 15:54	1
Isotope Dilution	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	92		40 - 135				02/14/18 08:30	02/15/18 15:54	1
13C-1,2,3,7,8-PeCDD	88		40 - 135				02/14/18 08:30	02/15/18 15:54	1
13C-1,2,3,6,7,8-HxCDD	90		40 - 135				02/14/18 08:30	02/15/18 15:54	1
13C-1,2,3,4,6,7,8-HpCDD	70		40 - 135				02/14/18 08:30	02/15/18 15:54	1
13C-OCDD	67		40 - 135				02/14/18 08:30	02/15/18 15:54	1
13C-2,3,7,8-TCDF	97		40 - 135				02/14/18 08:30	02/15/18 15:54	1
13C-1,2,3,7,8-PeCDF	95		40 - 135				02/14/18 08:30	02/15/18 15:54	1
13C-1,2,3,4,7,8-HxCDF	77		40 - 135				02/14/18 08:30	02/15/18 15:54	1
13C-1,2,3,4,6,7,8-HpCDF	73		40 - 135				02/14/18 08:30	02/15/18 15:54	1

Lab Sample ID: LCS 320-208645/2-A

Matrix: Water

Analysis Batch: 208689

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 208645

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	200	209		pg/L		104	64 - 142
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits				
13C-2,3,7,8-TCDD	96		40 - 135				
13C-1,2,3,7,8-PeCDD	95		40 - 135				
13C-1,2,3,6,7,8-HxCDD	90		40 - 135				
13C-1,2,3,4,6,7,8-HpCDD	75		40 - 135				
13C-OCDD	71		40 - 135				
13C-2,3,7,8-TCDF	100		40 - 135				
13C-1,2,3,7,8-PeCDF	101		40 - 135				
13C-1,2,3,4,7,8-HxCDF	82		40 - 135				
13C-1,2,3,4,6,7,8-HpCDF	77		40 - 135				

Lab Sample ID: LCSD 320-208645/3-A

Matrix: Water

Analysis Batch: 208689

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 208645

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,3,7,8-TCDD	200	210		pg/L		105	64 - 142	1	20
Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits						
13C-2,3,7,8-TCDD	97		40 - 135						
13C-1,2,3,7,8-PeCDD	93		40 - 135						
13C-1,2,3,6,7,8-HxCDD	96		40 - 135						
13C-1,2,3,4,6,7,8-HpCDD	78		40 - 135						
13C-OCDD	73		40 - 135						
13C-2,3,7,8-TCDF	100		40 - 135						
13C-1,2,3,7,8-PeCDF	100		40 - 135						
13C-1,2,3,4,7,8-HxCDF	80		40 - 135						
13C-1,2,3,4,6,7,8-HpCDF	77		40 - 135						

TestAmerica Savannah



## QC Association Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-4

Project/Site: Hercules Savannah / Savannah Resins Plan

### Specialty Organics

#### Prep Batch: 208645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147306-11	TMW-19 (122817)	Total/NA	Water	8290	
MB 320-208645/1-A	Method Blank	Total/NA	Water	8290	
LCS 320-208645/2-A	Lab Control Sample	Total/NA	Water	8290	
LCSD 320-208645/3-A	Lab Control Sample Dup	Total/NA	Water	8290	

#### Analysis Batch: 208689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147306-11	TMW-19 (122817)	Total/NA	Water	8290A	208645
MB 320-208645/1-A	Method Blank	Total/NA	Water	8290A	208645
LCS 320-208645/2-A	Lab Control Sample	Total/NA	Water	8290A	208645
LCSD 320-208645/3-A	Lab Control Sample Dup	Total/NA	Water	8290A	208645



## Lab Chronicle

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-4

Project/Site: Hercules Savannah / Savannah Resins Plan

**Client Sample ID: TMW-19 (122817)**

**Lab Sample ID: 680-147306-11**

**Date Collected: 12/28/17 14:40**

**Matrix: Water**

**Date Received: 12/28/17 15:17**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8290			985.8 mL	20 uL	208645	02/14/18 08:30	KQT	TAL SAC
Total/NA	Analysis	8290A		1			208689	02/15/18 20:30	ALM	TAL SAC

### Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



## Chain of Custody Record



<b>Client Information (Sub Contract Lab)</b> Client Contact: Shipping/Receiving Company: TestAmerica Laboratories, Inc. Address: 880 Riverside Parkway, City: West Sacramento State: Zip: CA, 95605 Phone: 916-373-5600(Tel) 916-372-1059(Fax) Email: Project Name: Hercules Savannah / Savannah Resins Plan Site:		Lab PM: Lanier, Jerry A E-Mail: jerry.lanier@testamericainc.com State of Origin: Georgia Accreditation Required (See note): State Program - Georgia	Carrier Tracking No(s): 680-506357.1 Page: Page 1 of 1 Job #: 680-147306-4
<b>Due Date Requested:</b> 2/14/2018 <b>TAT Requested (days):</b>		<b>Analysis Requested</b> 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:	
<b>Sample Identification - Client ID (Lab ID)</b> TMW-19 (122817) (680-147306-11)		<b>Preservation Codes:</b> M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecanhydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)	
<b>Sample Date</b> 12/28/17	<b>Sample Time</b> 14:40 Eastern	<b>Sample Type (C=Comp, G=grab)</b> G=grab	<b>Matrix (W=water, S=solid, O=oil, BT=Tissue, Ash)</b> Water
<b>Field Filtered Sample (Yes or No)</b> 1668C/HRMS_Sep_P Full List (209 Comb/Coel)		<b>Field Filtered Sample (Yes or No)</b> 8290A/8290_P_Sep 17 Isomers & Totals	
<b>Perform MS/MSD (Yes or No)</b> 1668C/HRMS_Sep_P Full List (209 Comb/Coel)		<b>Perform MS/MSD (Yes or No)</b> 8290A/8290_P_Sep 17 Isomers & Totals	
<b>Special Instructions/Note:</b> run as straight as possible		<b>Special Instructions/Note:</b> run as straight as possible	
<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months		<b>Special Instructions/QC Requirements:</b>	
<b>Possible Hazard Identification</b> Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2		<b>Empty Kit Relinquished by:</b> Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by: [Signature]	
<b>Date:</b> 1/30/18 1700		<b>Date/Time:</b> 1/31/18 930	
<b>Company:</b> [Signature]		<b>Company:</b> [Signature]	
<b>Date/Time:</b>		<b>Date/Time:</b>	
<b>Date/Time:</b>		<b>Date/Time:</b>	
<b>Custody Seal No.:</b>		<b>Cooler Temperature(s) °C and Other Remarks:</b> 1-3	



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-147306-4

**Login Number: 147306**

**List Source: TestAmerica Savannah**

**List Number: 1**

**Creator: Tyler, Matthew M**

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	Received same day of collection; chilling process has begun.
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").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-147306-4

**Login Number: 147306**

**List Source: TestAmerica Sacramento**

**List Number: 2**

**List Creation: 12/30/17 11:15 AM**

**Creator: Her, David A**

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	43811
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7 C
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?	False	Received project as a subcontract.
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	



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-147306-4

**Login Number: 147306**

**List Source: TestAmerica Sacramento**

**List Number: 3**

**List Creation: 01/11/18 04:18 PM**

**Creator: Aguayo, Alonso**

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.	N/A	
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.2
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?	False	Received project as a subcontract.
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	



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-147306-4

**Login Number: 147306**

**List Source: TestAmerica Sacramento**

**List Number: 4**

**List Creation: 01/31/18 05:48 PM**

**Creator: Her, David A**

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	440639
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	1.3
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?	False	Received project as a subcontract.
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	



# Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-4

Project/Site: Hercules Savannah / Savannah Resins Plan

## 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	AZ0808	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	12-31-18
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



## Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147306-4

Project/Site: Hercules Savannah / Savannah Resins Plan

### Laboratory: TestAmerica Sacramento

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
Alaska (UST)	State Program	10	17-020	01-20-21
Arizona	State Program	9	AZ0708	08-11-18
Arkansas DEQ	State Program	6	88-0691	06-17-18
California	State Program	9	2897	01-31-19
Colorado	State Program	8	CA00044	08-31-18
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-18
Georgia	State Program	4	N/A	01-28-19
Hawaii	State Program	9	N/A	01-29-19
Illinois	NELAP	5	200060	03-17-18
Kansas	NELAP	7	E-10375	10-31-18
L-A-B	DoD ELAP		L2468	01-20-21
Louisiana	NELAP	6	30612	06-30-18
Maine	State Program	1	CA0004	04-14-18
Michigan	State Program	5	9947	01-31-18 *
Nevada	State Program	9	CA00044	07-31-18
New Hampshire	NELAP	1	2997	04-18-18
New Jersey	NELAP	2	CA005	06-30-18
New York	NELAP	2	11666	04-01-18
Oregon	NELAP	10	4040	01-29-19
Pennsylvania	NELAP	3	68-01272	03-31-18
Texas	NELAP	6	T104704399	05-31-18
US Fish & Wildlife	Federal		LE148388-0	07-31-18
USDA	Federal		P330-11-00436	01-17-21
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-18
Virginia	NELAP	3	460278	03-14-18
Washington	State Program	10	C581	05-05-18
West Virginia (DW)	State Program	3	9930C	12-31-18
Wyoming	State Program	8	8TMS-L	01-28-19

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Savannah



## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Tel: (912)354-7858

TestAmerica Job ID: 680-147344-1

Client Project/Site: Hercules Savannah / Savannah Resins Plan  
Revision: 1

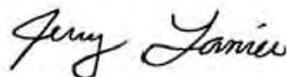
For:

ARCADIS U.S., Inc.

10 Patewood Drive, Suite 375

Greenville, South Carolina 29615

Attn: Andrew Davis



Authorized for release by:

2/12/2018 3:25:07 PM

Jerry Lanier, Project Manager I

(912)354-7858 e.3410

[jerry.lanier@testamericainc.com](mailto:jerry.lanier@testamericainc.com)

### LINKS

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*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



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## Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

**Job ID: 680-147344-1**

**Laboratory: TestAmerica Savannah**

### Narrative

## CASE NARRATIVE

**Client: ARCADIS U.S., Inc.**

**Project: Hercules Savannah / Savannah Resins Plan**

**Report Number: 680-147344-1**

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 12/29/2017 2:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 6.9° C, 7.1° C, 11.2° C and 11.4° C.

The final report was revised to exclude sample 680-147344-21 from the final report per client request.

### VOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample EB-1 (12282017) (680-147344-22) was analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 01/02/2018.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) - LOW LEVEL

Samples DS-9-2A (12292017) (680-147344-6), EX-21-1A (12292017) (680-147344-7), SB-128-1A (12292017) (680-147344-8), SB-159-1A (12292017) (680-147344-9) and DUP-2 (12292017) (680-147344-12) were analyzed for Semivolatile Organic Compounds (GC/MS) - Low level in accordance with EPA SW846 Method 8270D. The samples were prepared on 01/08/2018 and analyzed on 01/18/2018 and 01/19/2018.

Surrogate recovery for the following sample was outside control limits: DUP-2 (12292017) (680-147344-12). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

The following sample was diluted due to the nature of the sample matrix: EX-21-1A (12292017) (680-147344-7). Elevated reporting limits (RLs) are provided.

The following samples were diluted due to the nature of the sample matrix and abundance of target analytes: SB-128-1A (12292017) (680-147344-8) and DUP-2 (12292017) (680-147344-12). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

The following sample was diluted due to the nature of the sample matrix: SB-159-1A (12292017) (680-147344-9). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) - LOW LEVEL

Sample EB-1 (12292017) (680-147344-10) was analyzed for Semivolatile Organic Compounds (GC/MS) - Low level in accordance with EPA SW-846 Method 8270D. The samples were prepared on 01/02/2018 and analyzed on 01/18/2018.



## Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

### Job ID: 680-147344-1 (Continued)

#### Laboratory: TestAmerica Savannah (Continued)

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### PESTICIDES AND PCBS

Samples SB-204-1A (12292017) (680-147344-1), SB-204-2A (12292017) (680-147344-2), SB-137-1A (12292017) (680-147344-4), SB-202-1A (12292017) (680-147344-5) and DUP-1 (12292017) (680-147344-11) were analyzed for Pesticides and PCBs in accordance with EPA SW-846 Method 8081B\_8082A. The samples were prepared on 01/05/2018 and analyzed on 01/08/2018 and 01/09/2018.

This method incorporates 2nd column confirmation. Corrective action is not taken for surrogate/spike compounds unless results from both columns are unacceptable. Results outside criteria are qualified.

PCB-1254 exceeded the recovery criteria high for the MS of sample SB-204-1A (12292017)MS (680-147344-1) in batch 680-508744.

PCB-1254 exceeded the RPD limit for the MSD of sample SB-204-1A (12292017)MSD (680-147344-1) in batch 680-508744.

Samples SB-204-2A (12292017) (680-147344-2)[5X], SB-137-1A (12292017) (680-147344-4)[5X] and DUP-1 (12292017) (680-147344-11)[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.

#### PESTICIDES AND PCBS

Sample EB-1 (12292017) (680-147344-10) was analyzed for Pesticides and PCBs in accordance with EPA SW-846 Method 8081B\_8082A. The sample was prepared on 01/03/2018 and analyzed on 01/06/2018.

This method incorporates 2nd column confirmation. Corrective action is not taken for surrogate/spike compounds unless results from both columns are unacceptable. Results outside criteria are qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



# Sample Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-1

Project/Site: Hercules Savannah / Savannah Resins Plan

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-147344-1	SB-204-1A (12292017)	Solid	12/29/17 12:10	12/29/17 14:00
680-147344-2	SB-204-2A (12292017)	Solid	12/29/17 12:20	12/29/17 14:00
680-147344-4	SB-137-1A (12292017)	Solid	12/29/17 10:50	12/29/17 14:00
680-147344-5	SB-202-1A (12292017)	Solid	12/29/17 11:05	12/29/17 14:00
680-147344-6	DS-9-2A (12292017)	Solid	12/29/17 11:20	12/29/17 14:00
680-147344-7	EX-21-1A (12292017)	Solid	12/29/17 11:40	12/29/17 14:00
680-147344-8	SB-128-1A (12292017)	Solid	12/29/17 10:00	12/29/17 14:00
680-147344-9	SB-159-1A (12292017)	Solid	12/29/17 10:25	12/29/17 14:00
680-147344-10	EB-1 (12292017)	Water	12/29/17 13:00	12/29/17 14:00
680-147344-11	DUP-1 (12292017)	Solid	12/29/17 00:00	12/29/17 14:00
680-147344-12	DUP-2 (12292017)	Solid	12/29/17 00:00	12/29/17 14:00
680-147344-22	EB-1 (12282017)	Water	12/28/17 16:00	12/29/17 14:00

TestAmerica Savannah



# Method Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-1

Project/Site: Hercules Savannah / Savannah Resins Plan

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL SAV
8081B/8082A	Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography	SW846	TAL SAV
8082A	Polychlorinated Biphenyls (PCBs) by GC	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



# Definitions/Glossary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

## 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.
X	Surrogate is outside control limits
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.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### GC Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
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.

## 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)



# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

## Client Sample ID: SB-204-1A (12292017)

Lab Sample ID: 680-147344-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	0.25		0.037	0.011	mg/Kg	1	✱	8081B/8082A	Total/NA

## Client Sample ID: SB-204-2A (12292017)

Lab Sample ID: 680-147344-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	3.5		0.19	0.059	mg/Kg	5	✱	8081B/8082A	Total/NA

## Client Sample ID: SB-137-1A (12292017)

Lab Sample ID: 680-147344-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	3.7		0.20	0.061	mg/Kg	5	✱	8081B/8082A	Total/NA

## Client Sample ID: SB-202-1A (12292017)

Lab Sample ID: 680-147344-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	0.33		0.036	0.011	mg/Kg	1	✱	8081B/8082A	Total/NA

## Client Sample ID: DS-9-2A (12292017)

Lab Sample ID: 680-147344-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.11		0.036	0.0078	mg/Kg	1	✱	8270D LL	Total/NA

## Client Sample ID: EX-21-1A (12292017)

Lab Sample ID: 680-147344-7

No Detections.

## Client Sample ID: SB-128-1A (12292017)

Lab Sample ID: 680-147344-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	210		38	8.3	mg/Kg	1000	✱	8270D LL	Total/NA

## Client Sample ID: SB-159-1A (12292017)

Lab Sample ID: 680-147344-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	0.30	J	0.70	0.15	mg/Kg	20	✱	8270D LL	Total/NA

## Client Sample ID: EB-1 (12292017)

Lab Sample ID: 680-147344-10

No Detections.

## Client Sample ID: DUP-1 (12292017)

Lab Sample ID: 680-147344-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	2.9		0.20	0.061	mg/Kg	5	✱	8081B/8082A	Total/NA

## Client Sample ID: DUP-2 (12292017)

Lab Sample ID: 680-147344-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	180		39	8.5	mg/Kg	1000	✱	8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



## Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

**Client Sample ID: EB-1 (12282017)**

**Lab Sample ID: 680-147344-22**

☐ No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

**Client Sample ID: SB-204-1A (12292017)**

**Lab Sample ID: 680-147344-1**

**Date Collected: 12/29/17 12:10**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 84.5**

**Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	0.25		0.037	0.011	mg/Kg	☼	01/05/18 17:42	01/08/18 17:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	91		54 - 133				01/05/18 17:42	01/08/18 17:55	1
Tetrachloro-m-xylene	86		46 - 130				01/05/18 17:42	01/08/18 17:55	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

**Client Sample ID: SB-204-2A (12292017)**

**Lab Sample ID: 680-147344-2**

**Date Collected: 12/29/17 12:20**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 81.4**

**Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	3.5		0.19	0.059	mg/Kg	☼	01/05/18 17:42	01/09/18 18:05	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	91		54 - 133				01/05/18 17:42	01/08/18 18:10	1
Tetrachloro-m-xylene	82		46 - 130				01/05/18 17:42	01/08/18 18:10	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

**Client Sample ID: SB-137-1A (12292017)**

**Lab Sample ID: 680-147344-4**

**Date Collected: 12/29/17 10:50**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 77.0**

**Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	3.7		0.20	0.061	mg/Kg	☼	01/05/18 17:42	01/09/18 18:19	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	68		54 - 133				01/05/18 17:42	01/08/18 18:24	1
Tetrachloro-m-xylene	73		46 - 130				01/05/18 17:42	01/08/18 18:24	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

**Client Sample ID: SB-202-1A (12292017)**

**Lab Sample ID: 680-147344-5**

**Date Collected: 12/29/17 11:05**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 85.5**

**Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	0.33		0.036	0.011	mg/Kg	☼	01/05/18 17:42	01/08/18 18:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	81		54 - 133				01/05/18 17:42	01/08/18 18:39	1
Tetrachloro-m-xylene	88		46 - 130				01/05/18 17:42	01/08/18 18:39	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

**Client Sample ID: DS-9-2A (12292017)**

**Lab Sample ID: 680-147344-6**

**Date Collected: 12/29/17 11:20**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**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
1,1'-Biphenyl	0.11		0.036	0.0078	mg/Kg	☼	01/08/18 11:55	01/18/18 23:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	77		11 - 130				01/08/18 11:55	01/18/18 23:48	1
2-Fluorophenol (Surr)	69		10 - 130				01/08/18 11:55	01/18/18 23:48	1
Nitrobenzene-d5 (Surr)	75		18 - 130				01/08/18 11:55	01/18/18 23:48	1
Phenol-d5 (Surr)	67		10 - 130				01/08/18 11:55	01/18/18 23:48	1
Terphenyl-d14 (Surr)	54		27 - 130				01/08/18 11:55	01/18/18 23:48	1
2,4,6-Tribromophenol (Surr)	91		24 - 130				01/08/18 11:55	01/18/18 23:48	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

**Client Sample ID: EX-21-1A (12292017)**

**Lab Sample ID: 680-147344-7**

**Date Collected: 12/29/17 11:40**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 83.6**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.042	U	0.19	0.042	mg/Kg	☼	01/08/18 11:55	01/19/18 00:13	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	52		11 - 130				01/08/18 11:55	01/19/18 00:13	5
2-Fluorophenol (Surr)	46		10 - 130				01/08/18 11:55	01/19/18 00:13	5
Nitrobenzene-d5 (Surr)	43		18 - 130				01/08/18 11:55	01/19/18 00:13	5
Phenol-d5 (Surr)	44		10 - 130				01/08/18 11:55	01/19/18 00:13	5
Terphenyl-d14 (Surr)	46		27 - 130				01/08/18 11:55	01/19/18 00:13	5
2,4,6-Tribromophenol (Surr)	60		24 - 130				01/08/18 11:55	01/19/18 00:13	5



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

**Client Sample ID: SB-128-1A (12292017)**

**Date Collected: 12/29/17 10:00**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-8**

**Matrix: Solid**

**Percent Solids: 85.2**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	210		38	8.3	mg/Kg	☼	01/08/18 11:55	01/19/18 14:15	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	110		11 - 130	01/08/18 11:55	01/19/18 01:02	1
2-Fluorobiphenyl (Surr)	0	D	11 - 130	01/08/18 11:55	01/19/18 14:15	1000
2-Fluorophenol (Surr)	68		10 - 130	01/08/18 11:55	01/19/18 01:02	1
2-Fluorophenol (Surr)	0	D	10 - 130	01/08/18 11:55	01/19/18 14:15	1000
Nitrobenzene-d5 (Surr)	79		18 - 130	01/08/18 11:55	01/19/18 01:02	1
Nitrobenzene-d5 (Surr)	0	D	18 - 130	01/08/18 11:55	01/19/18 14:15	1000
Phenol-d5 (Surr)	68		10 - 130	01/08/18 11:55	01/19/18 01:02	1
Phenol-d5 (Surr)	0	D	10 - 130	01/08/18 11:55	01/19/18 14:15	1000
Terphenyl-d14 (Surr)	62		27 - 130	01/08/18 11:55	01/19/18 01:02	1
Terphenyl-d14 (Surr)	0	D	27 - 130	01/08/18 11:55	01/19/18 14:15	1000
2,4,6-Tribromophenol (Surr)	111		24 - 130	01/08/18 11:55	01/19/18 01:02	1
2,4,6-Tribromophenol (Surr)	0	D	24 - 130	01/08/18 11:55	01/19/18 14:15	1000

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

**Client Sample ID: SB-159-1A (12292017)**

**Lab Sample ID: 680-147344-9**

**Date Collected: 12/29/17 10:25**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 91.8**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.30	J	0.70	0.15	mg/Kg	☼	01/08/18 11:55	01/19/18 12:38	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	0	D	11 - 130				01/08/18 11:55	01/19/18 12:38	20
2-Fluorophenol (Surr)	0	D	10 - 130				01/08/18 11:55	01/19/18 12:38	20
Nitrobenzene-d5 (Surr)	0	D	18 - 130				01/08/18 11:55	01/19/18 12:38	20
Phenol-d5 (Surr)	0	D	10 - 130				01/08/18 11:55	01/19/18 12:38	20
Terphenyl-d14 (Surr)	0	D	27 - 130				01/08/18 11:55	01/19/18 12:38	20
2,4,6-Tribromophenol (Surr)	0	D	24 - 130				01/08/18 11:55	01/19/18 12:38	20



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

**Client Sample ID: EB-1 (12292017)**

**Lab Sample ID: 680-147344-10**

**Date Collected: 12/29/17 13:00**

**Matrix: Water**

**Date Received: 12/29/17 14:00**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.098	U	0.98	0.098	ug/L	—	01/02/18 15:09	01/18/18 21:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	79		31 - 107				01/02/18 15:09	01/18/18 21:20	1
2-Fluorophenol (Surr)	71		18 - 112				01/02/18 15:09	01/18/18 21:20	1
Nitrobenzene-d5 (Surr)	79		37 - 103				01/02/18 15:09	01/18/18 21:20	1
Phenol-d5 (Surr)	69		20 - 113				01/02/18 15:09	01/18/18 21:20	1
Terphenyl-d14 (Surr)	81		22 - 121				01/02/18 15:09	01/18/18 21:20	1
2,4,6-Tribromophenol (Surr)	93		39 - 133				01/02/18 15:09	01/18/18 21:20	1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by GC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	0.11	U	1.0	0.11	ug/L	—	01/03/18 13:41	01/06/18 14:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	21		14 - 130				01/03/18 13:41	01/06/18 14:20	1
Tetrachloro-m-xylene	62		40 - 130				01/03/18 13:41	01/06/18 14:20	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

**Client Sample ID: DUP-1 (12292017)**

**Lab Sample ID: 680-147344-11**

**Date Collected: 12/29/17 00:00**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 80.5**

**Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	2.9		0.20	0.061	mg/Kg	☼	01/05/18 17:42	01/09/18 18:33	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		54 - 133				01/05/18 17:42	01/08/18 18:53	1
Tetrachloro-m-xylene	88		46 - 130				01/05/18 17:42	01/08/18 18:53	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

**Client Sample ID: DUP-2 (12292017)**

**Lab Sample ID: 680-147344-12**

**Date Collected: 12/29/17 00:00**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**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
1,1'-Biphenyl	180		39	8.5	mg/Kg	☼	01/08/18 11:55	01/19/18 15:03	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	131	X	11 - 130	01/08/18 11:55	01/19/18 00:38	1
2-Fluorobiphenyl (Surr)	0	D	11 - 130	01/08/18 11:55	01/19/18 15:03	1000
2-Fluorophenol (Surr)	62		10 - 130	01/08/18 11:55	01/19/18 00:38	1
2-Fluorophenol (Surr)	0	D	10 - 130	01/08/18 11:55	01/19/18 15:03	1000
Nitrobenzene-d5 (Surr)	59		18 - 130	01/08/18 11:55	01/19/18 00:38	1
Nitrobenzene-d5 (Surr)	0	D	18 - 130	01/08/18 11:55	01/19/18 15:03	1000
Phenol-d5 (Surr)	60		10 - 130	01/08/18 11:55	01/19/18 00:38	1
Phenol-d5 (Surr)	0	D	10 - 130	01/08/18 11:55	01/19/18 15:03	1000
Terphenyl-d14 (Surr)	69		27 - 130	01/08/18 11:55	01/19/18 00:38	1
Terphenyl-d14 (Surr)	0	D	27 - 130	01/08/18 11:55	01/19/18 15:03	1000
2,4,6-Tribromophenol (Surr)	110		24 - 130	01/08/18 11:55	01/19/18 00:38	1
2,4,6-Tribromophenol (Surr)	0	D	24 - 130	01/08/18 11:55	01/19/18 15:03	1000

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

**Client Sample ID: EB-1 (12282017)**

**Lab Sample ID: 680-147344-22**

**Date Collected: 12/28/17 16:00**

**Matrix: Water**

**Date Received: 12/29/17 14:00**

## 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			01/02/18 12:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		80 - 120					01/02/18 12:38	1
Dibromofluoromethane (Surr)	104		80 - 122					01/02/18 12:38	1
1,2-Dichloroethane-d4 (Surr)	98		73 - 131					01/02/18 12:38	1
Toluene-d8 (Surr)	98		80 - 120					01/02/18 12:38	1



# Surrogate Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (80-120)	DBFM (80-122)	DCA (73-131)	TOL (80-120)
680-147344-22	EB-1 (12282017)	96	104	98	98

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
DCA = 1,2-Dichloroethane-d4 (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (11-130)	2FP (10-130)	NBZ (18-130)	PHL (10-130)	TPHL (27-130)	TBP (24-130)
680-147344-6	DS-9-2A (12292017)	77	69	75	67	54	91
680-147344-6 MS	DS-9-2A (12292017)	69	63	62	65	44	77
680-147344-6 MSD	DS-9-2A (12292017)	69	64	62	64	63	78
680-147344-7	EX-21-1A (12292017)	52	46	43	44	46	60
680-147344-8	SB-128-1A (12292017)	110	68	79	68	62	111
680-147344-8	SB-128-1A (12292017)	0 D	0 D	0 D	0 D	0 D	0 D
680-147344-9	SB-159-1A (12292017)	0 D	0 D	0 D	0 D	0 D	0 D
680-147344-12	DUP-2 (12292017)	131 X	62	59	60	69	110
680-147344-12	DUP-2 (12292017)	0 D	0 D	0 D	0 D	0 D	0 D

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
2FP = 2-Fluorophenol (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
PHL = Phenol-d5 (Surr)  
TPHL = Terphenyl-d14 (Surr)  
TBP = 2,4,6-Tribromophenol (Surr)

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (31-107)	2FP (18-112)	NBZ (37-103)	PHL (20-113)	TPHL (22-121)	TBP (39-133)
680-147344-10	EB-1 (12292017)	79	71	79	69	81	93

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
2FP = 2-Fluorophenol (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
PHL = Phenol-d5 (Surr)  
TPHL = Terphenyl-d14 (Surr)  
TBP = 2,4,6-Tribromophenol (Surr)

TestAmerica Savannah



# Surrogate Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCBP1 (54-133)	TCX1 (46-130)
680-147344-1	SB-204-1A (12292017)	91	86
680-147344-1 MS	SB-204-1A (12292017)	93	105
680-147344-1 MSD	SB-204-1A (12292017)	87	63

#### Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCBP2 (54-133)	TCX1 (46-130)
680-147344-11	DUP-1 (12292017)	87	88

#### Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCBP2 (54-133)	TCX2 (46-130)
680-147344-2	SB-204-2A (12292017)	91	82
680-147344-4	SB-137-1A (12292017)	68	73
680-147344-5	SB-202-1A (12292017)	81	88

#### Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by GC

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCBP2 (14-130)	TCX1 (40-130)
680-147344-10	EB-1 (12292017)	21	62

#### Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: 680-147344-6 MS

Matrix: Solid

Analysis Batch: 509703

Client Sample ID: DS-9-2A (12292017)

Prep Type: Total/NA

Prep Batch: 508769

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1,1'-Biphenyl	0.11		0.361	0.359		mg/Kg	☼	69	10 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
2-Fluorobiphenyl (Surr)	69		11 - 130						
2-Fluorophenol (Surr)	63		10 - 130						
Nitrobenzene-d5 (Surr)	62		18 - 130						
Phenol-d5 (Surr)	65		10 - 130						
Terphenyl-d14 (Surr)	44		27 - 130						
2,4,6-Tribromophenol (Surr)	77		24 - 130						

Lab Sample ID: 680-147344-6 MSD

Matrix: Solid

Analysis Batch: 509703

Client Sample ID: DS-9-2A (12292017)

Prep Type: Total/NA

Prep Batch: 508769

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1'-Biphenyl	0.11		0.359	0.242		mg/Kg	☼	37	10 - 130	39	50
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
2-Fluorobiphenyl (Surr)	69		11 - 130								
2-Fluorophenol (Surr)	64		10 - 130								
Nitrobenzene-d5 (Surr)	62		18 - 130								
Phenol-d5 (Surr)	64		10 - 130								
Terphenyl-d14 (Surr)	63		27 - 130								
2,4,6-Tribromophenol (Surr)	78		24 - 130								

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Lab Sample ID: 680-147344-1 MS

Matrix: Solid

Analysis Batch: 508744

Client Sample ID: SB-204-1A (12292017)

Prep Type: Total/NA

Prep Batch: 508607

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
PCB-1254	0.25		0.450	1.08	E F1	mg/Kg	☼	185	50 - 150
Surrogate	MS %Recovery	MS Qualifier	Limits						
DCB Decachlorobiphenyl	93		54 - 133						
Tetrachloro-m-xylene	105		46 - 130						

Lab Sample ID: 680-147344-1 MSD

Matrix: Solid

Analysis Batch: 508744

Client Sample ID: SB-204-1A (12292017)

Prep Type: Total/NA

Prep Batch: 508607

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
PCB-1254	0.25		0.457	0.596	F2	mg/Kg	☼	76	50 - 150	58	50

TestAmerica Savannah



## QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

### Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Lab Sample ID: 680-147344-1 MSD

Matrix: Solid

Analysis Batch: 508744

Client Sample ID: SB-204-1A (12292017)

Prep Type: Total/NA

Prep Batch: 508607

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	87		54 - 133
Tetrachloro-m-xylene	63		46 - 130



# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

## GC/MS VOA

### Analysis Batch: 508513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-22	EB-1 (12282017)	Total/NA	Water	8260B	

## GC/MS Semi VOA

### Prep Batch: 508334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-10	EB-1 (12292017)	Total/NA	Water	3520C	

### Prep Batch: 508769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-6	DS-9-2A (12292017)	Total/NA	Solid	3546	
680-147344-7	EX-21-1A (12292017)	Total/NA	Solid	3546	
680-147344-8	SB-128-1A (12292017)	Total/NA	Solid	3546	
680-147344-9	SB-159-1A (12292017)	Total/NA	Solid	3546	
680-147344-12	DUP-2 (12292017)	Total/NA	Solid	3546	
680-147344-6 MS	DS-9-2A (12292017)	Total/NA	Solid	3546	
680-147344-6 MSD	DS-9-2A (12292017)	Total/NA	Solid	3546	

### Analysis Batch: 509703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-6	DS-9-2A (12292017)	Total/NA	Solid	8270D LL	508769
680-147344-7	EX-21-1A (12292017)	Total/NA	Solid	8270D LL	508769
680-147344-8	SB-128-1A (12292017)	Total/NA	Solid	8270D LL	508769
680-147344-10	EB-1 (12292017)	Total/NA	Water	8270D LL	508334
680-147344-12	DUP-2 (12292017)	Total/NA	Solid	8270D LL	508769
680-147344-6 MS	DS-9-2A (12292017)	Total/NA	Solid	8270D LL	508769
680-147344-6 MSD	DS-9-2A (12292017)	Total/NA	Solid	8270D LL	508769

### Analysis Batch: 509896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-8	SB-128-1A (12292017)	Total/NA	Solid	8270D LL	508769
680-147344-9	SB-159-1A (12292017)	Total/NA	Solid	8270D LL	508769
680-147344-12	DUP-2 (12292017)	Total/NA	Solid	8270D LL	508769

## GC Semi VOA

### Prep Batch: 508444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-10	EB-1 (12292017)	Total/NA	Water	3520C	

### Prep Batch: 508607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-1	SB-204-1A (12292017)	Total/NA	Solid	3546	
680-147344-2	SB-204-2A (12292017)	Total/NA	Solid	3546	
680-147344-4	SB-137-1A (12292017)	Total/NA	Solid	3546	
680-147344-5	SB-202-1A (12292017)	Total/NA	Solid	3546	
680-147344-11	DUP-1 (12292017)	Total/NA	Solid	3546	
680-147344-1 MS	SB-204-1A (12292017)	Total/NA	Solid	3546	
680-147344-1 MSD	SB-204-1A (12292017)	Total/NA	Solid	3546	

TestAmerica Savannah



# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

## GC Semi VOA (Continued)

### Analysis Batch: 508645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-10	EB-1 (12292017)	Total/NA	Water	8082A	508444

### Analysis Batch: 508744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-1	SB-204-1A (12292017)	Total/NA	Solid	8081B/8082A	508607
680-147344-2	SB-204-2A (12292017)	Total/NA	Solid	8081B/8082A	508607
680-147344-4	SB-137-1A (12292017)	Total/NA	Solid	8081B/8082A	508607
680-147344-5	SB-202-1A (12292017)	Total/NA	Solid	8081B/8082A	508607
680-147344-11	DUP-1 (12292017)	Total/NA	Solid	8081B/8082A	508607
680-147344-1 MS	SB-204-1A (12292017)	Total/NA	Solid	8081B/8082A	508607
680-147344-1 MSD	SB-204-1A (12292017)	Total/NA	Solid	8081B/8082A	508607

### Analysis Batch: 508910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-2	SB-204-2A (12292017)	Total/NA	Solid	8081B/8082A	508607
680-147344-4	SB-137-1A (12292017)	Total/NA	Solid	8081B/8082A	508607
680-147344-11	DUP-1 (12292017)	Total/NA	Solid	8081B/8082A	508607

## General Chemistry

### Analysis Batch: 508258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-1	SB-204-1A (12292017)	Total/NA	Solid	Moisture	
680-147344-2	SB-204-2A (12292017)	Total/NA	Solid	Moisture	
680-147344-4	SB-137-1A (12292017)	Total/NA	Solid	Moisture	
680-147344-5	SB-202-1A (12292017)	Total/NA	Solid	Moisture	
680-147344-6	DS-9-2A (12292017)	Total/NA	Solid	Moisture	
680-147344-7	EX-21-1A (12292017)	Total/NA	Solid	Moisture	
680-147344-8	SB-128-1A (12292017)	Total/NA	Solid	Moisture	
680-147344-9	SB-159-1A (12292017)	Total/NA	Solid	Moisture	
680-147344-11	DUP-1 (12292017)	Total/NA	Solid	Moisture	
680-147344-12	DUP-2 (12292017)	Total/NA	Solid	Moisture	
680-147344-1 MS	SB-204-1A (12292017)	Total/NA	Solid	Moisture	
680-147344-1 MSD	SB-204-1A (12292017)	Total/NA	Solid	Moisture	
680-147344-6 MS	DS-9-2A (12292017)	Total/NA	Solid	Moisture	
680-147344-6 MSD	DS-9-2A (12292017)	Total/NA	Solid	Moisture	

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

**Client Sample ID: SB-204-1A (12292017)**

**Date Collected: 12/29/17 12:10**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-1**

**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			508258	12/30/17 09:50	EAB	TAL SAV

**Client Sample ID: SB-204-1A (12292017)**

**Date Collected: 12/29/17 12:10**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-1**

**Matrix: Solid**

**Percent Solids: 84.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.91 g	10 mL	508607	01/05/18 17:42	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		1			508744	01/08/18 17:55	GEM	TAL SAV

**Client Sample ID: SB-204-2A (12292017)**

**Date Collected: 12/29/17 12:20**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-2**

**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			508258	12/30/17 09:50	EAB	TAL SAV

**Client Sample ID: SB-204-2A (12292017)**

**Date Collected: 12/29/17 12:20**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-2**

**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	3546			15.71 g	10 mL	508607	01/05/18 17:42	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		1			508744	01/08/18 18:10	GEM	TAL SAV
Total/NA	Prep	3546			15.71 g	10 mL	508607	01/05/18 17:42	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		5			508910	01/09/18 18:05	GEM	TAL SAV

**Client Sample ID: SB-137-1A (12292017)**

**Date Collected: 12/29/17 10:50**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-4**

**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			508258	12/30/17 09:50	EAB	TAL SAV

**Client Sample ID: SB-137-1A (12292017)**

**Date Collected: 12/29/17 10:50**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-4**

**Matrix: Solid**

**Percent Solids: 77.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.85 g	10 mL	508607	01/05/18 17:42	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		1			508744	01/08/18 18:24	GEM	TAL SAV
Total/NA	Prep	3546			15.85 g	10 mL	508607	01/05/18 17:42	JAM	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

**Client Sample ID: SB-137-1A (12292017)**

**Lab Sample ID: 680-147344-4**

**Date Collected: 12/29/17 10:50**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 77.0**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8081B/8082A		5			508910	01/09/18 18:19	GEM	TAL SAV

**Client Sample ID: SB-202-1A (12292017)**

**Lab Sample ID: 680-147344-5**

**Date Collected: 12/29/17 11:05**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

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			508258	12/30/17 09:50	EAB	TAL SAV

**Client Sample ID: SB-202-1A (12292017)**

**Lab Sample ID: 680-147344-5**

**Date Collected: 12/29/17 11:05**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**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			15.94 g	10 mL	508607	01/05/18 17:42	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		1			508744	01/08/18 18:39	GEM	TAL SAV

**Client Sample ID: DS-9-2A (12292017)**

**Lab Sample ID: 680-147344-6**

**Date Collected: 12/29/17 11:20**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

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			508258	12/30/17 09:50	EAB	TAL SAV

**Client Sample ID: DS-9-2A (12292017)**

**Lab Sample ID: 680-147344-6**

**Date Collected: 12/29/17 11:20**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**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			30.87 g	1 mL	508769	01/08/18 11:55	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			509703	01/18/18 23:48	NED	TAL SAV

**Client Sample ID: EX-21-1A (12292017)**

**Lab Sample ID: 680-147344-7**

**Date Collected: 12/29/17 11:40**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

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			508258	12/30/17 09:50	EAB	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

**Client Sample ID: EX-21-1A (12292017)**

**Lab Sample ID: 680-147344-7**

Date Collected: 12/29/17 11:40

Matrix: Solid

Date Received: 12/29/17 14:00

Percent Solids: 83.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.73 g	1 mL	508769	01/08/18 11:55	JAM	TAL SAV
Total/NA	Analysis	8270D LL		5			509703	01/19/18 00:13	NED	TAL SAV

**Client Sample ID: SB-128-1A (12292017)**

**Lab Sample ID: 680-147344-8**

Date Collected: 12/29/17 10:00

Matrix: Solid

Date Received: 12/29/17 14:00

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			508258	12/30/17 09:50	EAB	TAL SAV

**Client Sample ID: SB-128-1A (12292017)**

**Lab Sample ID: 680-147344-8**

Date Collected: 12/29/17 10:00

Matrix: Solid

Date Received: 12/29/17 14:00

Percent Solids: 85.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.52 g	1 mL	508769	01/08/18 11:55	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			509703	01/19/18 01:02	NED	TAL SAV
Total/NA	Prep	3546			30.52 g	1 mL	508769	01/08/18 11:55	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1000			509896	01/19/18 14:15	OK	TAL SAV

**Client Sample ID: SB-159-1A (12292017)**

**Lab Sample ID: 680-147344-9**

Date Collected: 12/29/17 10:25

Matrix: Solid

Date Received: 12/29/17 14:00

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			508258	12/30/17 09:50	EAB	TAL SAV

**Client Sample ID: SB-159-1A (12292017)**

**Lab Sample ID: 680-147344-9**

Date Collected: 12/29/17 10:25

Matrix: Solid

Date Received: 12/29/17 14:00

Percent Solids: 91.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			30.79 g	1 mL	508769	01/08/18 11:55	JAM	TAL SAV
Total/NA	Analysis	8270D LL		20			509896	01/19/18 12:38	OK	TAL SAV

**Client Sample ID: EB-1 (12292017)**

**Lab Sample ID: 680-147344-10**

Date Collected: 12/29/17 13:00

Matrix: Water

Date Received: 12/29/17 14:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1020.3 mL	1 mL	508334	01/02/18 15:09	CEW	TAL SAV
Total/NA	Analysis	8270D LL		1			509703	01/18/18 21:20	NED	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

## Client Sample ID: EB-1 (12292017)

Date Collected: 12/29/17 13:00

Date Received: 12/29/17 14:00

## Lab Sample ID: 680-147344-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			992.3 mL	10 mL	508444	01/03/18 13:41	CEW	TAL SAV
Total/NA	Analysis	8082A		1			508645	01/06/18 14:20	GEM	TAL SAV

## Client Sample ID: DUP-1 (12292017)

Date Collected: 12/29/17 00:00

Date Received: 12/29/17 14:00

## Lab Sample ID: 680-147344-11

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			508258	12/30/17 09:50	EAB	TAL SAV

## Client Sample ID: DUP-1 (12292017)

Date Collected: 12/29/17 00:00

Date Received: 12/29/17 14:00

## Lab Sample ID: 680-147344-11

Matrix: Solid

Percent Solids: 80.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.25 g	10 mL	508607	01/05/18 17:42	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		1			508744	01/08/18 18:53	GEM	TAL SAV
Total/NA	Prep	3546			15.25 g	10 mL	508607	01/05/18 17:42	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		5			508910	01/09/18 18:33	GEM	TAL SAV

## Client Sample ID: DUP-2 (12292017)

Date Collected: 12/29/17 00:00

Date Received: 12/29/17 14:00

## Lab Sample ID: 680-147344-12

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			508258	12/30/17 09:50	EAB	TAL SAV

## Client Sample ID: DUP-2 (12292017)

Date Collected: 12/29/17 00:00

Date Received: 12/29/17 14:00

## Lab Sample ID: 680-147344-12

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			30.15 g	1 mL	508769	01/08/18 11:55	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1			509703	01/19/18 00:38	NED	TAL SAV
Total/NA	Prep	3546			30.15 g	1 mL	508769	01/08/18 11:55	JAM	TAL SAV
Total/NA	Analysis	8270D LL		1000			509896	01/19/18 15:03	OK	TAL SAV

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-1

**Client Sample ID: EB-1 (12282017)**

**Lab Sample ID: 680-147344-22**

**Date Collected: 12/28/17 16:00**

**Matrix: Water**

**Date Received: 12/29/17 14:00**

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	508513	01/02/18 12:38	JLK	TAL SAV

## Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858



Company Name:		Client Contact		Project Manager:		Site Contact:		Date: 12/29/17		COC No:	
Address:		City/State/Zip:		Phone:		Fax:		Project Name:		P.O. #	
Site:		PO #		Sample Identification		Sample Date		Sample Time		Sample Type	
Analysis Turnaround Time		Sample Date		Sample Time		Sample Type		Matrix		# of Cont.	
Calendar Days		Sample Date		Sample Time		Sample Type		Matrix		# of Cont.	
Working Days		Sample Date		Sample Time		Sample Type		Matrix		# of Cont.	
TAT if different from Below		Sample Date		Sample Time		Sample Type		Matrix		# of Cont.	
2 weeks		Sample Date		Sample Time		Sample Type		Matrix		# of Cont.	
1 week		Sample Date		Sample Time		Sample Type		Matrix		# of Cont.	
2 days		Sample Date		Sample Time		Sample Type		Matrix		# of Cont.	
1 day		Sample Date		Sample Time		Sample Type		Matrix		# of Cont.	
SB-204-1B (122917)		12/29/17		1155		G		So		2	
SB-204-2B (122917)		12/29/17		1200		G		So		2	
SB-204-3B (122917)		12/29/17		1215		G		So		2	
SB-207-1B (122917)		12/29/17		1045		G		So		2	
DS-9-2B (122917)		12/29/17		1115		G		So		1	
EX-21-1B (122917)		12/29/17		1245		G		So		1	
SB-128-1B (122917)		12/29/17		1010		G		So		1	
SB-159-3B (122917)		12/29/17		1020		G		So		1	
TMW-20 (122917)		12/29/17		0920		G		WT		6	
EB-1 (122817)		12/28/17		1600		G		WT		3	
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other		12/29/17		1155		G		So		2	
Possible Hazard Identification:		12/29/17		1200		G		So		2	
Are any samples from a listed EPA Hazardous Waste?		12/29/17		1215		G		So		2	
Comments Section if the lab is to dispose of the sample.		12/29/17		1045		G		So		2	
Special Instructions/QC Requirements & Comments:		12/29/17		1115		G		So		1	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		12/29/17		1245		G		So		1	
Relinquished by: Mary Giv		12/29/17		1010		G		So		1	
Relinquished by:		12/29/17		1020		G		So		1	
Relinquished by:		12/29/17		0920		G		WT		6	
Relinquished by:		12/29/17		1600		G		WT		3	



<b>Company Name:</b> ARCADIS <b>Address:</b> 10 PATEWICK DR. STE-375 <b>City/State/Zip:</b> GREENVILLE, SC 29615 <b>Phone:</b> 864.987-3300 <b>Fax:</b> 864.987-3300		<b>Client Contact</b> <b>Project Manager:</b> ANDY DAVIS <b>Tel/Fax:</b> 864.987-3300		<b>Regulatory Program:</b> <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other:		<b>Site Contact:</b> JEN SWEET <b>Lab Contact:</b> JEN SWEET		<b>Date:</b> 12/21/17 <b>Carrier:</b>		<b>COC No:</b> 1 of 2 COCs	
<b>Project Name:</b> ASHLAND SAVANNAH <b>Site:</b> ASHLAND <b>PO #:</b> 0801000.6461		<b>Analysis Turnaround Time</b> <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below: STANDARD <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		<b>Sample Type</b> (C=Comp, G=Grab)		<b>Sample Time</b>		<b>Matrix</b>		<b># of Cont.</b>	
<b>Sample Identification</b>		<b>Sample Date</b>		<b>Sample Time</b>		<b>Matrix</b>		<b># of Cont.</b>		<b>Filtered Sample (Y/N)</b>	
SB-204-1A (122917)		12/19/17		1710		G		SD		6	
SB-204-2A (122917)		12/19/17		1720		G		SD		2	
SB-204-3A (122917)		12/19/17		1700		G		SD		2	
SB-137-1A (122917)		12/19/17		1050		G		SD		1	
SB-202-1A (122917)		12/19/17		1105		G		SD		2	
DS-9-2A (122917)		12/19/17		1120		G		SD		3	
EK-21-1A (122917)		12/19/17		1140		G		SD		1	
SB-128-1A (122917)		12/19/17		1000		G		SD		1	
SB-159-3A (122917)		12/19/17		1025		G		SD		1	
EB-1 (122917)		12/19/17		1300		G		WT		8	
DUP-1 (122917)		12/29/17		-		G		SD		2	
DUP-2 (122917)		12/29/17		-		G		SD		1	
<b>Preservation Used:</b> 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other											
<b>Possible Hazard Identification:</b> Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.											
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown											
<b>Special Instructions/QC Requirements &amp; Comments:</b>											
11.7/17.9/17.6/11.9/17.5/17.1/11.4											
<b>Custody Seal Intact:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>Custody Seal No.:</b>		<b>Received by:</b>		<b>Company:</b>		<b>Date/Time:</b>		<b>Received by:</b>	
Relinquished by: Maryam		Relinquished by:		Relinquished by:		Relinquished by:		Relinquished by:		Relinquished by:	
Relinquished by:		Relinquished by:		Relinquished by:		Relinquished by:		Relinquished by:		Relinquished by:	
Relinquished by:		Relinquished by:		Relinquished by:		Relinquished by:		Relinquished by:		Relinquished by:	



## Chain of Custody Record



<b>Client Information (Sub Contract Lab)</b>		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:
Client Contact: Shipping/Receiving		Phone:	Lanier, Jerry A		320-110756.1
Company: TestAmerica Laboratories, Inc.		E-Mail:	jerry.lanier@testamericainc.com	State of Origin: Georgia	Page: Page 1 of 1
Address: 5102 LaRoche Avenue, Savannah State, Zip: GA, 31404 Phone: 912-354-7858(Tel) 912-352-0165(Fax) Email:		Accreditations Required (See note): State Program - Georgia		Job #	680-147344-1
Due Date Requested: 1/17/2018 TAT Requested (days):		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:			
PO #:		Analysis Requested			
WO #:		Total Number of Containers			
Project #: 88001205 SOW#:		Perform MS/MSD (Yes or No)			
Site: Hercules Savannah / Savannah Resins Plan		Field Filtered Sample (Yes or No)			
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=comp, G=grab) (BT=Tissue, AAU)	Matrix (W=water, S=solid, O=waste/oil)
TMW-20 (12292017) (680-147344-21)	12/29/17	09:20 Eastern	Water	Preservation Code:	8081B, 8082A/3520C Aroclor 1254
Special Instructions/Note:					2
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.					
<b>Possible Hazard Identification</b>					
Unconfirmed					
Deliverable Requested: I, II, III, IV, Other (specify)					
Primary Deliverable Rank: 2					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months					
Special Instructions/QC Requirements:					
Empty Kit Relinquished by:					
Date:					
Relinquished by: <i>Larry A. G. Turner</i>					
Date/Time: 1/29/18					
Relinquished by:					
Date/Time:					
Relinquished by:					
Date/Time:					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No					
Custody Seal No.:					
Cooler Temperature(s) °C and Other Remarks: 0.7°C / 1.0°C					



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-147344-1

**Login Number: 147344**

**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.	False	Received same day of collection; chilling process has begun.
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-1

Project/Site: Hercules Savannah / Savannah Resins Plan

## 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	AZ0808	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	12-31-18
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



## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Tel: (912)354-7858

TestAmerica Job ID: 680-147344-2

Client Project/Site: Hercules Savannah / Savannah Resins Plan  
Revision: 1

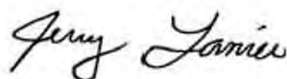
For:

ARCADIS U.S., Inc.

10 Patewood Drive, Suite 375

Greenville, South Carolina 29615

Attn: Andrew Davis



Authorized for release by:

2/12/2018 3:29:31 PM

Jerry Lanier, Project Manager I

(912)354-7858 e.3410

[jerry.lanier@testamericainc.com](mailto:jerry.lanier@testamericainc.com)

### LINKS

Review your project  
results through

**TotalAccess**

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[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



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# Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Job ID: 680-147344-2**

**Laboratory: TestAmerica Savannah**

## Narrative

### CASE NARRATIVE

**Client: ARCADIS U.S., Inc.**

**Project: Hercules Savannah / Savannah Resins Plan**

**Report Number: 680-147344-2**

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 12/29/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 6.9° C, 7.1° C, 11.2° C and 11.4° C

The final report was revised to exclude sample 680-147344-21 from the final report per client request.

#### CHLORINATED BIPHENYL CONGENERS

Samples SB-204-1A (12292017) (680-147344-1), SB-204-2A (12292017) (680-147344-2), SB-204-3A (12292017) (680-147344-3), SB-202-1A (12292017) (680-147344-5) and DUP-1 (12292017) (680-147344-11) were analyzed for chlorinated biphenyl congeners in accordance with epa method 1668C. The samples were prepared on 01/09/2018 and analyzed on 01/17/2018 and 01/20/2018.

Several of the Isotope Dilution Analyte (IDA) recoveries associated with the following laboratory control spike (LCS) are below the method recommended limit: (LCS 320-203179/2-A). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the LCS. All native spike recoveries are within control limits.

Ion abundance ratios are outside criteria for the Isotope Dilution Analyte (IDA) PCB-54L associated with the following sample: SB-204-1A (12292017) (680-147344-1[MSD]). The theoretical area for the IDA was used to quantitate recovery and target concentration.

PCB-105 and PCB-118 were detected in method blank MB 320-203179/1-A at levels exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Several analytes were detected in method blank MB 320-203179/1-A 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.

The following samples exhibited elevated noise or matrix interferences for one or more analytes causing elevation of the detection limit (EDL): SB-204-1A (12292017) (680-147344-1), SB-204-1A (12292017) (680-147344-1[MS]), SB-204-1A (12292017) (680-147344-1[MSD]), SB-204-2A (12292017) (680-147344-2), SB-204-3A (12292017) (680-147344-3), SB-202-1A (12292017) (680-147344-5) and DUP-1 (12292017) (680-147344-11). The reporting limit (RL) for the affected analytes has been raised to be equal to the EDL, and a "G" qualifier applied.

The following samples were diluted in an attempt to bring the concentration of target analytes within the calibration range: SB-204-1A (12292017) (680-147344-1), SB-204-1A (12292017) (680-147344-1[MS]), SB-204-1A (12292017) (680-147344-1[MSD]), SB-204-2A (12292017) (680-147344-2), SB-204-3A (12292017) (680-147344-3), SB-202-1A (12292017) (680-147344-5) and DUP-1 (12292017) (680-147344-11) at 10.0, 10.0, 10.0, 10.0, 10.0, 5.0 and 20.0. Where the calibration range is exceeded, the analyte is appropriately flagged. Elevated reporting limits (RLs) are provided.

The concentration of one or more analytes associated with the following sample exceeded the instrument calibration range: SB-204-1A (12292017) (680-147344-1[MS]), SB-204-1A (12292017) (680-147344-1[MSD]), SB-204-2A (12292017) (680-147344-2), SB-204-3A (12292017) (680-147344-3), SB-202-1A (12292017) (680-147344-5) and DUP-1 (12292017) (680-147344-11). These analytes have



## Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

### Job ID: 680-147344-2 (Continued)

#### Laboratory: TestAmerica Savannah (Continued)

been qualified; however, the peaks did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 320-203179 and analytical batch 320-204748 were outside control limits. Sample matrix interference and/or non-homogeneity and high analyte levels are suspected because the associated laboratory control sample (LCS) was within acceptance limits.

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.

#### **CHLORINATED BIPHENYL CONGENERS**

Sample EB-1 (12292017) (680-147344-10) was analyzed for chlorinated biphenyl congeners in accordance with EPA method 1668C. The sample was prepared on 01/09/2018 and analyzed on 01/10/2018.

PCB-180/193, PCB-183, PCB-44/47/65, PCB-52 and PCB-61/70/74/76 were detected in method blank MB 320-203109/1-A 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.

#### **DIOXINS AND FURANS**

Sample SB-204-3A (12292017) (680-147344-3) was analyzed for dioxins and furans in accordance with EPA Method 8290A. The samples were prepared on 01/08/2018 and analyzed on 01/12/2018.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **DIOXINS AND FURANS**

Samples EB-1 (12292017) (680-147344-10) was analyzed for dioxins and furans in accordance with EPA SW-846 8290A. The sample was prepared on 01/09/2018 and analyzed on 01/11/2018.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **CHLORINATED BIPHENYL CONGENERS**

Samples SB-204-1A (12292017) (680-147344-1), SB-204-2A (12292017) (680-147344-2), SB-204-3A (12292017) (680-147344-3), SB-202-1A (12292017) (680-147344-5) and DUP-1 (12292017) (680-147344-11) were analyzed for chlorinated biphenyl congeners in accordance with EPA method 1668C. The samples were analyzed on 01/24/2018.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **POLYCHLORINATED BIPHENYLS (PCBS)**

Samples EB-1 (12292017) (680-147344-10) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 1668. The sample was analyzed on 01/24/2018.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **PERCENT SOLIDS/MOISTURE**

Sample SB-204-3A (12292017) (680-147344-3) was analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 01/05/2018.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



## Sample Summary

Client: ARCADIS U.S., Inc.

Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-147344-1	SB-204-1A (12292017)	Solid	12/29/17 12:10	12/29/17 14:00
680-147344-2	SB-204-2A (12292017)	Solid	12/29/17 12:20	12/29/17 14:00
680-147344-3	SB-204-3A (12292017)	Solid	12/29/17 12:00	12/29/17 14:00
680-147344-5	SB-202-1A (12292017)	Solid	12/29/17 11:05	12/29/17 14:00
680-147344-10	EB-1 (12292017)	Water	12/29/17 13:00	12/29/17 14:00
680-147344-11	DUP-1 (12292017)	Solid	12/29/17 00:00	12/29/17 14:00



# Method Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Method	Method Description	Protocol	Laboratory
1668C	Chlorinated Biphenyl Congeners (HRGC/HRMS)	EPA	TAL SAC
8290A	Dioxins and Furans (HRGC/HRMS)	SW846	TAL SAC
None	Total PCB Calculation from HRMS PCB-Congeners	TAL SOP	TAL SAC
D 2216	Percent Moisture	ASTM	TAL SAC

## Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

## Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



## Definitions/Glossary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-2

Project/Site: Hercules Savannah / Savannah Resins Plan

### Qualifiers

#### Dioxin

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.
B	Compound was found in the blank and sample.
F2	MS/MSD RPD exceeds control limits
G	The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference
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.
E	Result exceeded calibration range.
q	The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.

### 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)



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: SB-204-1A (12292017)

Lab Sample ID: 680-147344-1

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-1	0.0000037	J	0.00023	0.0000008	mg/Kg	10		✱	1668C	Total/NA
PCB-2	0.0000030	J	0.00023	0.0000007	mg/Kg	10		✱	1668C	Total/NA
PCB-3	0.0000039	J	0.00023	0.0000008	mg/Kg	10		✱	1668C	Total/NA
PCB-8	0.000037	J	0.00023	0.0000046	mg/Kg	10		✱	1668C	Total/NA
PCB-15	0.000014	J	0.00023	0.0000047	mg/Kg	10		✱	1668C	Total/NA
PCB-16	0.000024	J	0.00023	0.0000035	mg/Kg	10		✱	1668C	Total/NA
PCB-17	0.000024	J	0.00023	0.0000026	mg/Kg	10		✱	1668C	Total/NA
PCB-18/30	0.000070	J	0.00046	0.0000023	mg/Kg	10		✱	1668C	Total/NA
PCB-19	0.0000083	J	0.00023	0.0000035	mg/Kg	10		✱	1668C	Total/NA
PCB-20/28	0.00012	J B	0.00046	0.0000045	mg/Kg	10		✱	1668C	Total/NA
PCB-21/33	0.00031	J B	0.00046	0.0000043	mg/Kg	10		✱	1668C	Total/NA
PCB-22	0.000038	J	0.00023	0.0000046	mg/Kg	10		✱	1668C	Total/NA
PCB-26/29	0.000018	J	0.00046	0.0000044	mg/Kg	10		✱	1668C	Total/NA
PCB-31	0.00014	J B	0.00023	0.0000041	mg/Kg	10		✱	1668C	Total/NA
PCB-32	0.000023	J	0.00023	0.0000019	mg/Kg	10		✱	1668C	Total/NA
PCB-37	0.000068	J F1	0.00023	0.0000044	mg/Kg	10		✱	1668C	Total/NA
PCB-40/71	0.00037	J B	0.00046	0.0000088	mg/Kg	10		✱	1668C	Total/NA
PCB-41	0.000025	J	0.00023	0.0000010	mg/Kg	10		✱	1668C	Total/NA
PCB-42	0.00017	J B	0.00023	0.0000095	mg/Kg	10		✱	1668C	Total/NA
PCB-43	0.000028	J	0.00023	0.0000010	mg/Kg	10		✱	1668C	Total/NA
PCB-44/47/65	0.0024	B	0.00069	0.0000083	mg/Kg	10		✱	1668C	Total/NA
PCB-45	0.000052	J B	0.00023	0.0000099	mg/Kg	10		✱	1668C	Total/NA
PCB-48	0.00010	J B	0.00023	0.0000088	mg/Kg	10		✱	1668C	Total/NA
PCB-49/69	0.0012	B	0.00046	0.0000073	mg/Kg	10		✱	1668C	Total/NA
PCB-50/53	0.00012	J B	0.00046	0.0000084	mg/Kg	10		✱	1668C	Total/NA
PCB-51	0.000014	J B	0.00023	0.0000083	mg/Kg	10		✱	1668C	Total/NA
PCB-52	0.0071	B	0.00023	0.0000088	mg/Kg	10		✱	1668C	Total/NA
PCB-56	0.00063	B	0.00023	0.000026	mg/Kg	10		✱	1668C	Total/NA
PCB-59/62/75	0.000053	J	0.00069	0.0000064	mg/Kg	10		✱	1668C	Total/NA
PCB-60	0.00027		0.00023	0.000025	mg/Kg	10		✱	1668C	Total/NA
PCB-61/70/74/76	0.0067	B	0.00091	0.000024	mg/Kg	10		✱	1668C	Total/NA
PCB-63	0.000058	J	0.00023	0.000022	mg/Kg	10		✱	1668C	Total/NA
PCB-64	0.00074	B	0.00023	0.0000061	mg/Kg	10		✱	1668C	Total/NA
PCB-66	0.0019	B	0.00023	0.000026	mg/Kg	10		✱	1668C	Total/NA
PCB-77	0.00028	G F1 F2	0.00024	0.000024	mg/Kg	10		✱	1668C	Total/NA
PCB-79	0.00012	J	0.00023	0.000023	mg/Kg	10		✱	1668C	Total/NA
PCB-80	0.000090	J	0.00023	0.000022	mg/Kg	10		✱	1668C	Total/NA
PCB-82	0.0020	G B	0.00026	0.000026	mg/Kg	10		✱	1668C	Total/NA
PCB-84	0.0045	G B	0.00024	0.000024	mg/Kg	10		✱	1668C	Total/NA
PCB-85/116/117	0.0035	B	0.00069	0.000018	mg/Kg	10		✱	1668C	Total/NA
PCB-86/87/97/108/119/125	0.014	B	0.0014	0.000019	mg/Kg	10		✱	1668C	Total/NA
PCB-88/91	0.0019	B	0.00046	0.000021	mg/Kg	10		✱	1668C	Total/NA
PCB-90/101/113	0.021	B	0.00069	0.000019	mg/Kg	10		✱	1668C	Total/NA
PCB-92	0.0038	B	0.00023	0.000022	mg/Kg	10		✱	1668C	Total/NA
PCB-107/124	0.00083		0.00046	0.000017	mg/Kg	10		✱	1668C	Total/NA
PCB-95	0.013	B	0.00023	0.000021	mg/Kg	10		✱	1668C	Total/NA
PCB-96	0.000068	J	0.00023	0.0000014	mg/Kg	10		✱	1668C	Total/NA
PCB-98/102	0.00027	J	0.00046	0.000020	mg/Kg	10		✱	1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: SB-204-1A (12292017) (Continued)

Lab Sample ID: 680-147344-1

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-99	0.0082	B	0.00023	0.00018	mg/Kg	10	✱	1668C	Total/NA
PCB-105	0.0090	G B F2	0.00016	0.00016	mg/Kg	10	✱	1668C	Total/NA
PCB-110/115	0.024	B	0.00046	0.00017	mg/Kg	10	✱	1668C	Total/NA
PCB-109	0.0014	B	0.00023	0.00016	mg/Kg	10	✱	1668C	Total/NA
PCB-114	0.00030	G F2 F1	0.00017	0.00017	mg/Kg	10	✱	1668C	Total/NA
PCB-118	0.022	G B F2	0.00017	0.00017	mg/Kg	10	✱	1668C	Total/NA
PCB-123	0.00024	G F1	0.00017	0.00017	mg/Kg	10	✱	1668C	Total/NA
PCB-128/166	0.0042	B	0.00046	0.000093	mg/Kg	10	✱	1668C	Total/NA
PCB-129/138/163	0.025	B	0.00069	0.000099	mg/Kg	10	✱	1668C	Total/NA
PCB-130	0.0016	B	0.00023	0.00012	mg/Kg	10	✱	1668C	Total/NA
PCB-131	0.00029		0.00023	0.00011	mg/Kg	10	✱	1668C	Total/NA
PCB-132	0.0066	B	0.00023	0.00011	mg/Kg	10	✱	1668C	Total/NA
PCB-133	0.00023		0.00023	0.00011	mg/Kg	10	✱	1668C	Total/NA
PCB-134/143	0.0010	B	0.00046	0.00012	mg/Kg	10	✱	1668C	Total/NA
PCB-135/151	0.0041	B	0.00046	0.00010	mg/Kg	10	✱	1668C	Total/NA
PCB-136	0.0017	B	0.00023	0.000078	mg/Kg	10	✱	1668C	Total/NA
PCB-137	0.0012	B	0.00023	0.000094	mg/Kg	10	✱	1668C	Total/NA
PCB-139/140	0.00038	J	0.00046	0.00010	mg/Kg	10	✱	1668C	Total/NA
PCB-141	0.0034	B	0.00023	0.00011	mg/Kg	10	✱	1668C	Total/NA
PCB-144	0.00067	B	0.00023	0.00010	mg/Kg	10	✱	1668C	Total/NA
PCB-146	0.0023	B	0.00023	0.000096	mg/Kg	10	✱	1668C	Total/NA
PCB-147/149	0.012	B	0.00046	0.00010	mg/Kg	10	✱	1668C	Total/NA
PCB-153/168	0.015	B	0.00046	0.000086	mg/Kg	10	✱	1668C	Total/NA
PCB-154	0.00011	J	0.00023	0.000092	mg/Kg	10	✱	1668C	Total/NA
PCB-156/157	0.0037	B F2	0.000046	0.000024	mg/Kg	10	✱	1668C	Total/NA
PCB-158	0.0026	B	0.00023	0.000078	mg/Kg	10	✱	1668C	Total/NA
PCB-159	0.000047	J	0.00023	0.000018	mg/Kg	10	✱	1668C	Total/NA
PCB-162	0.000091	J	0.00023	0.000017	mg/Kg	10	✱	1668C	Total/NA
PCB-164	0.0015	B	0.00023	0.000092	mg/Kg	10	✱	1668C	Total/NA
PCB-167	0.0011	B F2	0.000023	0.000015	mg/Kg	10	✱	1668C	Total/NA
PCB-170	0.0026	B	0.00023	0.0000032	mg/Kg	10	✱	1668C	Total/NA
PCB-171/173	0.00085	B	0.00046	0.0000033	mg/Kg	10	✱	1668C	Total/NA
PCB-172	0.00039	B	0.00023	0.0000032	mg/Kg	10	✱	1668C	Total/NA
PCB-174	0.0022	B	0.00023	0.0000035	mg/Kg	10	✱	1668C	Total/NA
PCB-175	0.000087	J	0.00023	0.0000021	mg/Kg	10	✱	1668C	Total/NA
PCB-176	0.00020	J	0.00023	0.0000015	mg/Kg	10	✱	1668C	Total/NA
PCB-177	0.0012	B	0.00023	0.0000033	mg/Kg	10	✱	1668C	Total/NA
PCB-178	0.00031		0.00023	0.0000022	mg/Kg	10	✱	1668C	Total/NA
PCB-179	0.00057	B	0.00023	0.0000016	mg/Kg	10	✱	1668C	Total/NA
PCB-180/193	0.0042	B	0.00046	0.0000027	mg/Kg	10	✱	1668C	Total/NA
PCB-181	0.000059	J	0.00023	0.0000029	mg/Kg	10	✱	1668C	Total/NA
PCB-182	0.000014	J	0.00023	0.0000020	mg/Kg	10	✱	1668C	Total/NA
PCB-183	0.0010	B	0.00023	0.0000025	mg/Kg	10	✱	1668C	Total/NA
PCB-184	0.0000031	J	0.00023	0.0000017	mg/Kg	10	✱	1668C	Total/NA
PCB-185	0.00018	J	0.00023	0.0000031	mg/Kg	10	✱	1668C	Total/NA
PCB-187	0.0017	B	0.00023	0.0000020	mg/Kg	10	✱	1668C	Total/NA
PCB-188	0.0000034	J	0.00023	0.0000018	mg/Kg	10	✱	1668C	Total/NA
PCB-189	0.00011	F1	0.000023	0.0000013	mg/Kg	10	✱	1668C	Total/NA
PCB-190	0.00045		0.00023	0.0000023	mg/Kg	10	✱	1668C	Total/NA
PCB-191	0.000098	J	0.00023	0.0000024	mg/Kg	10	✱	1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Client Sample ID: SB-204-1A (12292017) (Continued)

## Lab Sample ID: 680-147344-1

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-194	0.00052		0.00023	0.0000015	mg/Kg	10	✱	1668C	Total/NA
PCB-195	0.00020	J	0.00023	0.0000016	mg/Kg	10	✱	1668C	Total/NA
PCB-196	0.00029		0.00023	0.0000048	mg/Kg	10	✱	1668C	Total/NA
PCB-197	0.000022	J	0.00023	0.0000033	mg/Kg	10	✱	1668C	Total/NA
PCB-198/199	0.00064		0.00046	0.0000051	mg/Kg	10	✱	1668C	Total/NA
PCB-200	0.000081	J	0.00023	0.0000040	mg/Kg	10	✱	1668C	Total/NA
PCB-201	0.000078	J	0.00023	0.0000037	mg/Kg	10	✱	1668C	Total/NA
PCB-202	0.00012	J F1	0.00023	0.0000043	mg/Kg	10	✱	1668C	Total/NA
PCB-203	0.00042		0.00023	0.0000048	mg/Kg	10	✱	1668C	Total/NA
PCB-205	0.000031	J	0.00023	0.0000011	mg/Kg	10	✱	1668C	Total/NA
PCB-206	0.00028	F1	0.00023	0.0000028	mg/Kg	10	✱	1668C	Total/NA
PCB-207	0.000038	J	0.00023	0.0000021	mg/Kg	10	✱	1668C	Total/NA
PCB-208	0.000074	J F1	0.00023	0.0000023	mg/Kg	10	✱	1668C	Total/NA
PCB-209	0.000031	J	0.00023	0.0000014	mg/Kg	10	✱	1668C	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Polychlorinated biphenyls, Total	0.26		0.0000020	0.0000050	mg/Kg	1		None	Total/NA

## Client Sample ID: SB-204-2A (12292017)

## Lab Sample ID: 680-147344-2

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1	0.000089	J	0.00024	0.0000027	mg/Kg	10	✱	1668C	Total/NA
PCB-2	0.000010	J	0.00024	0.0000022	mg/Kg	10	✱	1668C	Total/NA
PCB-3	0.000042	J	0.00024	0.0000022	mg/Kg	10	✱	1668C	Total/NA
PCB-4	0.00023	J	0.00024	0.000015	mg/Kg	10	✱	1668C	Total/NA
PCB-5	0.000019	J	0.00024	0.0000095	mg/Kg	10	✱	1668C	Total/NA
PCB-6	0.00011	J	0.00024	0.000010	mg/Kg	10	✱	1668C	Total/NA
PCB-7	0.000024	J	0.00024	0.0000096	mg/Kg	10	✱	1668C	Total/NA
PCB-8	0.00055		0.00024	0.0000098	mg/Kg	10	✱	1668C	Total/NA
PCB-9	0.000037	J	0.00024	0.0000099	mg/Kg	10	✱	1668C	Total/NA
PCB-10	0.000012	J	0.00024	0.000010	mg/Kg	10	✱	1668C	Total/NA
PCB-12/13	0.000053	J	0.00049	0.0000096	mg/Kg	10	✱	1668C	Total/NA
PCB-15	0.00022	J	0.00024	0.0000096	mg/Kg	10	✱	1668C	Total/NA
PCB-16	0.00043		0.00024	0.0000077	mg/Kg	10	✱	1668C	Total/NA
PCB-17	0.00060		0.00024	0.0000058	mg/Kg	10	✱	1668C	Total/NA
PCB-18/30	0.0011		0.00049	0.0000051	mg/Kg	10	✱	1668C	Total/NA
PCB-19	0.00024		0.00024	0.0000088	mg/Kg	10	✱	1668C	Total/NA
PCB-20/28	0.0023	B	0.00049	0.000058	mg/Kg	10	✱	1668C	Total/NA
PCB-21/33	0.0033	B	0.00049	0.000055	mg/Kg	10	✱	1668C	Total/NA
PCB-22	0.00053		0.00024	0.000060	mg/Kg	10	✱	1668C	Total/NA
PCB-24	0.000021	J	0.00024	0.0000046	mg/Kg	10	✱	1668C	Total/NA
PCB-25	0.00012	J	0.00024	0.000056	mg/Kg	10	✱	1668C	Total/NA
PCB-26/29	0.00032	J	0.00049	0.000056	mg/Kg	10	✱	1668C	Total/NA
PCB-27	0.000072	J	0.00024	0.0000044	mg/Kg	10	✱	1668C	Total/NA
PCB-31	0.0025	B	0.00024	0.000053	mg/Kg	10	✱	1668C	Total/NA
PCB-32	0.00061		0.00024	0.0000042	mg/Kg	10	✱	1668C	Total/NA
PCB-34	0.00014	J	0.00024	0.000058	mg/Kg	10	✱	1668C	Total/NA
PCB-37	0.00094		0.00024	0.000053	mg/Kg	10	✱	1668C	Total/NA
PCB-40/71	0.0078	B	0.00049	0.00011	mg/Kg	10	✱	1668C	Total/NA
PCB-41	0.00029		0.00024	0.00012	mg/Kg	10	✱	1668C	Total/NA
PCB-42	0.0040	B	0.00024	0.00011	mg/Kg	10	✱	1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: SB-204-2A (12292017) (Continued)

Lab Sample ID: 680-147344-2

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-43	0.00050		0.00024	0.00013	mg/Kg	10	✱	1668C	Total/NA
PCB-44/47/65	0.044	B	0.00073	0.00010	mg/Kg	10	✱	1668C	Total/NA
PCB-45	0.00065	B	0.00024	0.00012	mg/Kg	10	✱	1668C	Total/NA
PCB-46	0.00078		0.00024	0.00012	mg/Kg	10	✱	1668C	Total/NA
PCB-48	0.0014	B	0.00024	0.00011	mg/Kg	10	✱	1668C	Total/NA
PCB-49/69	0.028	B	0.00049	0.000088	mg/Kg	10	✱	1668C	Total/NA
PCB-50/53	0.0034	B	0.00049	0.00010	mg/Kg	10	✱	1668C	Total/NA
PCB-51	0.0011	B	0.00024	0.000099	mg/Kg	10	✱	1668C	Total/NA
PCB-52	0.13	E B	0.00024	0.00011	mg/Kg	10	✱	1668C	Total/NA
PCB-54	0.00012	J	0.00024	0.0000023	mg/Kg	10	✱	1668C	Total/NA
PCB-56	0.011	G B	0.00046	0.00046	mg/Kg	10	✱	1668C	Total/NA
PCB-59/62/75	0.0010		0.00073	0.000077	mg/Kg	10	✱	1668C	Total/NA
PCB-60	0.0042	G	0.00044	0.00044	mg/Kg	10	✱	1668C	Total/NA
PCB-61/70/74/76	0.13	E B	0.00097	0.00043	mg/Kg	10	✱	1668C	Total/NA
PCB-63	0.0014	G	0.00039	0.00039	mg/Kg	10	✱	1668C	Total/NA
PCB-64	0.013	B	0.00024	0.000074	mg/Kg	10	✱	1668C	Total/NA
PCB-66	0.038	E G B	0.00045	0.00045	mg/Kg	10	✱	1668C	Total/NA
PCB-68	0.00049	G B	0.00039	0.00039	mg/Kg	10	✱	1668C	Total/NA
PCB-72	0.0011	G	0.00041	0.00041	mg/Kg	10	✱	1668C	Total/NA
PCB-77	0.0045	G	0.00042	0.00042	mg/Kg	10	✱	1668C	Total/NA
PCB-79	0.0024	G	0.00040	0.00040	mg/Kg	10	✱	1668C	Total/NA
PCB-82	0.033	E G B	0.0040	0.0040	mg/Kg	10	✱	1668C	Total/NA
PCB-84	0.066	E G B	0.0037	0.0037	mg/Kg	10	✱	1668C	Total/NA
PCB-85/116/117	0.055	G B	0.0028	0.0028	mg/Kg	10	✱	1668C	Total/NA
PCB-86/87/97/108/119/125	0.23	E G B	0.0029	0.0029	mg/Kg	10	✱	1668C	Total/NA
PCB-88/91	0.032	G B	0.0032	0.0032	mg/Kg	10	✱	1668C	Total/NA
PCB-90/101/113	0.34	E G B	0.0029	0.0029	mg/Kg	10	✱	1668C	Total/NA
PCB-92	0.063	E G B	0.0034	0.0034	mg/Kg	10	✱	1668C	Total/NA
PCB-107/124	0.014	G	0.0026	0.0026	mg/Kg	10	✱	1668C	Total/NA
PCB-95	0.21	E G B	0.0032	0.0032	mg/Kg	10	✱	1668C	Total/NA
PCB-96	0.0011		0.00024	0.0000028	mg/Kg	10	✱	1668C	Total/NA
PCB-98/102	0.0041	G	0.0031	0.0031	mg/Kg	10	✱	1668C	Total/NA
PCB-99	0.13	E G B	0.0027	0.0027	mg/Kg	10	✱	1668C	Total/NA
PCB-104	0.000027	J	0.00024	0.0000037	mg/Kg	10	✱	1668C	Total/NA
PCB-105	0.15	E G B	0.0025	0.0025	mg/Kg	10	✱	1668C	Total/NA
PCB-110/115	0.41	E G B	0.0026	0.0026	mg/Kg	10	✱	1668C	Total/NA
PCB-109	0.026	E G B	0.0024	0.0024	mg/Kg	10	✱	1668C	Total/NA
PCB-114	0.0066	G	0.0027	0.0027	mg/Kg	10	✱	1668C	Total/NA
PCB-118	0.32	E G B	0.0021	0.0021	mg/Kg	10	✱	1668C	Total/NA
PCB-123	0.0047	G	0.0028	0.0028	mg/Kg	10	✱	1668C	Total/NA
PCB-128/166	0.088	E G B	0.0018	0.0018	mg/Kg	10	✱	1668C	Total/NA
PCB-129/138/163	0.50	E G B	0.0019	0.0019	mg/Kg	10	✱	1668C	Total/NA
PCB-130	0.033	E G B	0.0024	0.0024	mg/Kg	10	✱	1668C	Total/NA
PCB-131	0.0061	G	0.0022	0.0022	mg/Kg	10	✱	1668C	Total/NA
PCB-132	0.14	E G B	0.0022	0.0022	mg/Kg	10	✱	1668C	Total/NA
PCB-133	0.0052	G	0.0022	0.0022	mg/Kg	10	✱	1668C	Total/NA
PCB-134/143	0.024	G B	0.0022	0.0022	mg/Kg	10	✱	1668C	Total/NA
PCB-135/151	0.091	E G B	0.0020	0.0020	mg/Kg	10	✱	1668C	Total/NA
PCB-136	0.037	E G B	0.0015	0.0015	mg/Kg	10	✱	1668C	Total/NA
PCB-137	0.024	G B	0.0018	0.0018	mg/Kg	10	✱	1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: SB-204-2A (12292017) (Continued)

Lab Sample ID: 680-147344-2

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-139/140	0.0081	G	0.0019	0.0019	mg/Kg	10	✱	1668C	Total/NA
PCB-141	0.070	E G B	0.0021	0.0021	mg/Kg	10	✱	1668C	Total/NA
PCB-144	0.014	G B	0.0020	0.0020	mg/Kg	10	✱	1668C	Total/NA
PCB-146	0.050	E G B	0.0019	0.0019	mg/Kg	10	✱	1668C	Total/NA
PCB-147/149	0.26	E G B	0.0020	0.0020	mg/Kg	10	✱	1668C	Total/NA
PCB-153/168	0.30	E G B	0.0017	0.0017	mg/Kg	10	✱	1668C	Total/NA
PCB-154	0.0023	G	0.0018	0.0018	mg/Kg	10	✱	1668C	Total/NA
PCB-156/157	0.069	E G B	0.00044	0.00044	mg/Kg	10	✱	1668C	Total/NA
PCB-158	0.053	E G B	0.0015	0.0015	mg/Kg	10	✱	1668C	Total/NA
PCB-159	0.00094	G	0.00032	0.00032	mg/Kg	10	✱	1668C	Total/NA
PCB-162	0.0015	G	0.00031	0.00031	mg/Kg	10	✱	1668C	Total/NA
PCB-164	0.034	E G B	0.0018	0.0018	mg/Kg	10	✱	1668C	Total/NA
PCB-167	0.020	G B	0.00027	0.00027	mg/Kg	10	✱	1668C	Total/NA
PCB-170	0.044	E B	0.00024	0.000067	mg/Kg	10	✱	1668C	Total/NA
PCB-171/173	0.014	B	0.00049	0.000068	mg/Kg	10	✱	1668C	Total/NA
PCB-172	0.0065	B	0.00024	0.000066	mg/Kg	10	✱	1668C	Total/NA
PCB-174	0.037	E B	0.00024	0.000072	mg/Kg	10	✱	1668C	Total/NA
PCB-175	0.0016		0.00024	0.000020	mg/Kg	10	✱	1668C	Total/NA
PCB-176	0.0041		0.00024	0.000014	mg/Kg	10	✱	1668C	Total/NA
PCB-177	0.020	B	0.00024	0.000067	mg/Kg	10	✱	1668C	Total/NA
PCB-178	0.0060		0.00024	0.000020	mg/Kg	10	✱	1668C	Total/NA
PCB-179	0.012	B	0.00024	0.000015	mg/Kg	10	✱	1668C	Total/NA
PCB-180/193	0.072	E B	0.00049	0.000055	mg/Kg	10	✱	1668C	Total/NA
PCB-181	0.00095		0.00024	0.000060	mg/Kg	10	✱	1668C	Total/NA
PCB-182	0.00035		0.00024	0.000018	mg/Kg	10	✱	1668C	Total/NA
PCB-183	0.017	B	0.00024	0.000052	mg/Kg	10	✱	1668C	Total/NA
PCB-184	0.000041	J	0.00024	0.000016	mg/Kg	10	✱	1668C	Total/NA
PCB-185	0.0028		0.00024	0.000063	mg/Kg	10	✱	1668C	Total/NA
PCB-186	0.000020	J	0.00024	0.000015	mg/Kg	10	✱	1668C	Total/NA
PCB-187	0.034	E B	0.00024	0.000018	mg/Kg	10	✱	1668C	Total/NA
PCB-188	0.000045	J	0.00024	0.000015	mg/Kg	10	✱	1668C	Total/NA
PCB-189	0.0019		0.000024	0.0000068	mg/Kg	10	✱	1668C	Total/NA
PCB-190	0.0077		0.00024	0.000048	mg/Kg	10	✱	1668C	Total/NA
PCB-191	0.0017		0.00024	0.000049	mg/Kg	10	✱	1668C	Total/NA
PCB-194	0.0095		0.00024	0.0000051	mg/Kg	10	✱	1668C	Total/NA
PCB-195	0.0035		0.00024	0.0000054	mg/Kg	10	✱	1668C	Total/NA
PCB-196	0.0057		0.00024	0.000018	mg/Kg	10	✱	1668C	Total/NA
PCB-197	0.00040		0.00024	0.000013	mg/Kg	10	✱	1668C	Total/NA
PCB-198/199	0.013		0.00049	0.000020	mg/Kg	10	✱	1668C	Total/NA
PCB-200	0.0016		0.00024	0.000016	mg/Kg	10	✱	1668C	Total/NA
PCB-201	0.0015		0.00024	0.000014	mg/Kg	10	✱	1668C	Total/NA
PCB-202	0.0024		0.00024	0.000016	mg/Kg	10	✱	1668C	Total/NA
PCB-203	0.0088		0.00024	0.000018	mg/Kg	10	✱	1668C	Total/NA
PCB-205	0.00058		0.00024	0.0000040	mg/Kg	10	✱	1668C	Total/NA
PCB-206	0.0066		0.00024	0.0000043	mg/Kg	10	✱	1668C	Total/NA
PCB-207	0.00088		0.00024	0.0000031	mg/Kg	10	✱	1668C	Total/NA
PCB-208	0.0015		0.00024	0.0000034	mg/Kg	10	✱	1668C	Total/NA
PCB-209	0.00046		0.00024	0.0000020	mg/Kg	10	✱	1668C	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Polychlorinated biphenyls, Total	4.7		0.0000020	0.0000050	mg/Kg	1		None	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: SB-204-3A (12292017)

Lab Sample ID: 680-147344-3

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-1	0.00025		0.00023	0.0000039	mg/Kg	10	☆		1668C	Total/NA
PCB-2	0.000024	J	0.00023	0.0000031	mg/Kg	10	☆		1668C	Total/NA
PCB-3	0.00011	J	0.00023	0.0000032	mg/Kg	10	☆		1668C	Total/NA
PCB-4	0.0018		0.00023	0.000033	mg/Kg	10	☆		1668C	Total/NA
PCB-5	0.00016	J	0.00023	0.000051	mg/Kg	10	☆		1668C	Total/NA
PCB-6	0.00032		0.00023	0.000054	mg/Kg	10	☆		1668C	Total/NA
PCB-7	0.00010	J	0.00023	0.000051	mg/Kg	10	☆		1668C	Total/NA
PCB-8	0.0061		0.00023	0.000053	mg/Kg	10	☆		1668C	Total/NA
PCB-9	0.000085	J	0.00023	0.000053	mg/Kg	10	☆		1668C	Total/NA
PCB-10	0.000054	J	0.00023	0.000022	mg/Kg	10	☆		1668C	Total/NA
PCB-12/13	0.00018	J	0.00045	0.000051	mg/Kg	10	☆		1668C	Total/NA
PCB-15	0.00061		0.00023	0.000050	mg/Kg	10	☆		1668C	Total/NA
PCB-16	0.0031		0.00023	0.000099	mg/Kg	10	☆		1668C	Total/NA
PCB-17	0.013		0.00023	0.000075	mg/Kg	10	☆		1668C	Total/NA
PCB-18/30	0.013		0.00045	0.000066	mg/Kg	10	☆		1668C	Total/NA
PCB-19	0.0051		0.00023	0.00011	mg/Kg	10	☆		1668C	Total/NA
PCB-20/28	0.055	E B	0.00045	0.00037	mg/Kg	10	☆		1668C	Total/NA
PCB-21/33	0.0083	B	0.00045	0.00035	mg/Kg	10	☆		1668C	Total/NA
PCB-22	0.0058	G	0.00038	0.00038	mg/Kg	10	☆		1668C	Total/NA
PCB-25	0.00049	G	0.00036	0.00036	mg/Kg	10	☆		1668C	Total/NA
PCB-26/29	0.0013		0.00045	0.00036	mg/Kg	10	☆		1668C	Total/NA
PCB-27	0.00068		0.00023	0.000057	mg/Kg	10	☆		1668C	Total/NA
PCB-31	0.023	E G B	0.00034	0.00034	mg/Kg	10	☆		1668C	Total/NA
PCB-32	0.037	E	0.00023	0.000054	mg/Kg	10	☆		1668C	Total/NA
PCB-37	0.0033	G	0.00035	0.00035	mg/Kg	10	☆		1668C	Total/NA
PCB-40/71	0.057	E B	0.00045	0.00033	mg/Kg	10	☆		1668C	Total/NA
PCB-41	0.0016	G	0.00039	0.00039	mg/Kg	10	☆		1668C	Total/NA
PCB-42	0.031	E G B	0.00036	0.00036	mg/Kg	10	☆		1668C	Total/NA
PCB-43	0.0023	G	0.00040	0.00040	mg/Kg	10	☆		1668C	Total/NA
PCB-44/47/65	0.20	E B	0.00068	0.00032	mg/Kg	10	☆		1668C	Total/NA
PCB-46	0.013	G	0.00039	0.00039	mg/Kg	10	☆		1668C	Total/NA
PCB-48	0.0056	G B	0.00033	0.00033	mg/Kg	10	☆		1668C	Total/NA
PCB-49/69	0.14	E B	0.00045	0.00028	mg/Kg	10	☆		1668C	Total/NA
PCB-50/53	0.050	E B	0.00045	0.00032	mg/Kg	10	☆		1668C	Total/NA
PCB-51	0.034	E G B	0.00031	0.00031	mg/Kg	10	☆		1668C	Total/NA
PCB-52	0.25	E G B	0.00034	0.00034	mg/Kg	10	☆		1668C	Total/NA
PCB-54	0.0049		0.00023	0.0000038	mg/Kg	10	☆		1668C	Total/NA
PCB-56	0.024	E G B	0.00092	0.00092	mg/Kg	10	☆		1668C	Total/NA
PCB-59/62/75	0.0056		0.00068	0.00025	mg/Kg	10	☆		1668C	Total/NA
PCB-60	0.0094	G	0.00088	0.00088	mg/Kg	10	☆		1668C	Total/NA
PCB-61/70/74/76	0.21	E B	0.00091	0.00086	mg/Kg	10	☆		1668C	Total/NA
PCB-63	0.0050	G	0.00078	0.00078	mg/Kg	10	☆		1668C	Total/NA
PCB-64	0.027	E B	0.00023	0.00023	mg/Kg	10	☆		1668C	Total/NA
PCB-66	0.10	E G B	0.00090	0.00090	mg/Kg	10	☆		1668C	Total/NA
PCB-68	0.0026	G B	0.00077	0.00077	mg/Kg	10	☆		1668C	Total/NA
PCB-72	0.0020	G	0.00083	0.00083	mg/Kg	10	☆		1668C	Total/NA
PCB-73	0.0016	G	0.00025	0.00025	mg/Kg	10	☆		1668C	Total/NA
PCB-77	0.0087	G	0.00084	0.00084	mg/Kg	10	☆		1668C	Total/NA
PCB-79	0.0030	G	0.00079	0.00079	mg/Kg	10	☆		1668C	Total/NA
PCB-82	0.041	E G B	0.0043	0.0043	mg/Kg	10	☆		1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: SB-204-3A (12292017) (Continued)

Lab Sample ID: 680-147344-3

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-84	0.096	E G B	0.0040	0.0040	mg/Kg	10	✱	1668C	Total/NA
PCB-85/116/117	0.060	G B	0.0030	0.0030	mg/Kg	10	✱	1668C	Total/NA
PCB-86/87/97/108/119/125	0.28	E G B	0.0031	0.0031	mg/Kg	10	✱	1668C	Total/NA
PCB-88/91	0.056	E G B	0.0035	0.0035	mg/Kg	10	✱	1668C	Total/NA
PCB-90/101/113	0.40	E G B	0.0032	0.0032	mg/Kg	10	✱	1668C	Total/NA
PCB-92	0.082	E G B	0.0037	0.0037	mg/Kg	10	✱	1668C	Total/NA
PCB-93/100	0.0040	G	0.0034	0.0034	mg/Kg	10	✱	1668C	Total/NA
PCB-107/124	0.017	G	0.0028	0.0028	mg/Kg	10	✱	1668C	Total/NA
PCB-94	0.0039	G	0.0036	0.0036	mg/Kg	10	✱	1668C	Total/NA
PCB-95	0.28	E G B	0.0034	0.0034	mg/Kg	10	✱	1668C	Total/NA
PCB-96	0.0029		0.00023	0.0000059	mg/Kg	10	✱	1668C	Total/NA
PCB-98/102	0.0084	G	0.0033	0.0033	mg/Kg	10	✱	1668C	Total/NA
PCB-99	0.16	E G B	0.0029	0.0029	mg/Kg	10	✱	1668C	Total/NA
PCB-103	0.0033	G	0.0032	0.0032	mg/Kg	10	✱	1668C	Total/NA
PCB-104	0.00038		0.00023	0.0000071	mg/Kg	10	✱	1668C	Total/NA
PCB-105	0.15	E G B	0.0029	0.0029	mg/Kg	10	✱	1668C	Total/NA
PCB-110/115	0.45	E G B	0.0028	0.0028	mg/Kg	10	✱	1668C	Total/NA
PCB-109	0.026	E G B	0.0026	0.0026	mg/Kg	10	✱	1668C	Total/NA
PCB-114	0.0069	G	0.0030	0.0030	mg/Kg	10	✱	1668C	Total/NA
PCB-118	0.33	E G B	0.0024	0.0024	mg/Kg	10	✱	1668C	Total/NA
PCB-123	0.0067	G	0.0029	0.0029	mg/Kg	10	✱	1668C	Total/NA
PCB-128/166	0.084	E G B	0.00089	0.00089	mg/Kg	10	✱	1668C	Total/NA
PCB-129/138/163	0.51	E G B	0.00094	0.00094	mg/Kg	10	✱	1668C	Total/NA
PCB-130	0.034	E G B	0.0012	0.0012	mg/Kg	10	✱	1668C	Total/NA
PCB-131	0.0076	G	0.0011	0.0011	mg/Kg	10	✱	1668C	Total/NA
PCB-132	0.16	E G B	0.0011	0.0011	mg/Kg	10	✱	1668C	Total/NA
PCB-133	0.0058	G	0.0011	0.0011	mg/Kg	10	✱	1668C	Total/NA
PCB-134/143	0.028	G B	0.0011	0.0011	mg/Kg	10	✱	1668C	Total/NA
PCB-135/151	0.12	E G B	0.0010	0.0010	mg/Kg	10	✱	1668C	Total/NA
PCB-136	0.050	E G B	0.00074	0.00074	mg/Kg	10	✱	1668C	Total/NA
PCB-137	0.026	E G B	0.00089	0.00089	mg/Kg	10	✱	1668C	Total/NA
PCB-139/140	0.0090	G	0.00096	0.00096	mg/Kg	10	✱	1668C	Total/NA
PCB-141	0.087	E G B	0.0011	0.0011	mg/Kg	10	✱	1668C	Total/NA
PCB-144	0.019	G B	0.00096	0.00096	mg/Kg	10	✱	1668C	Total/NA
PCB-146	0.055	E G B	0.00092	0.00092	mg/Kg	10	✱	1668C	Total/NA
PCB-147/149	0.31	E G B	0.00097	0.00097	mg/Kg	10	✱	1668C	Total/NA
PCB-153/168	0.34	E G B	0.00082	0.00082	mg/Kg	10	✱	1668C	Total/NA
PCB-154	0.0029	G	0.00087	0.00087	mg/Kg	10	✱	1668C	Total/NA
PCB-156/157	0.066	E G B	0.00045	0.00045	mg/Kg	10	✱	1668C	Total/NA
PCB-158	0.057	E G B	0.00074	0.00074	mg/Kg	10	✱	1668C	Total/NA
PCB-159	0.0019	G	0.00033	0.00033	mg/Kg	10	✱	1668C	Total/NA
PCB-162	0.0015	G	0.00032	0.00032	mg/Kg	10	✱	1668C	Total/NA
PCB-164	0.036	E G B	0.00087	0.00087	mg/Kg	10	✱	1668C	Total/NA
PCB-167	0.020	G B	0.00028	0.00028	mg/Kg	10	✱	1668C	Total/NA
PCB-170	0.058	E B	0.00023	0.000092	mg/Kg	10	✱	1668C	Total/NA
PCB-171/173	0.021	B	0.00045	0.000094	mg/Kg	10	✱	1668C	Total/NA
PCB-172	0.010	B	0.00023	0.000092	mg/Kg	10	✱	1668C	Total/NA
PCB-174	0.069	E B	0.00023	0.00010	mg/Kg	10	✱	1668C	Total/NA
PCB-175	0.0030		0.00023	0.000026	mg/Kg	10	✱	1668C	Total/NA
PCB-176	0.0082		0.00023	0.000019	mg/Kg	10	✱	1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: SB-204-3A (12292017) (Continued)

Lab Sample ID: 680-147344-3

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-177	0.033	E B	0.00023	0.000093	mg/Kg	10	✱	1668C	Total/NA
PCB-178	0.012		0.00023	0.000028	mg/Kg	10	✱	1668C	Total/NA
PCB-179	0.026	E B	0.00023	0.000020	mg/Kg	10	✱	1668C	Total/NA
PCB-180/193	0.13	E B	0.00045	0.000076	mg/Kg	10	✱	1668C	Total/NA
PCB-181	0.00091		0.00023	0.000082	mg/Kg	10	✱	1668C	Total/NA
PCB-182	0.00042		0.00023	0.000025	mg/Kg	10	✱	1668C	Total/NA
PCB-183	0.033	E B	0.00023	0.000072	mg/Kg	10	✱	1668C	Total/NA
PCB-184	0.000068	J	0.00023	0.000021	mg/Kg	10	✱	1668C	Total/NA
PCB-185	0.0062		0.00023	0.000088	mg/Kg	10	✱	1668C	Total/NA
PCB-186	0.000023	J	0.00023	0.000020	mg/Kg	10	✱	1668C	Total/NA
PCB-187	0.070	E B	0.00023	0.000025	mg/Kg	10	✱	1668C	Total/NA
PCB-188	0.00011	J	0.00023	0.000019	mg/Kg	10	✱	1668C	Total/NA
PCB-189	0.0021		0.00023	0.000087	mg/Kg	10	✱	1668C	Total/NA
PCB-190	0.011		0.00023	0.000067	mg/Kg	10	✱	1668C	Total/NA
PCB-191	0.0026		0.00023	0.000068	mg/Kg	10	✱	1668C	Total/NA
PCB-194	0.018		0.00023	0.000011	mg/Kg	10	✱	1668C	Total/NA
PCB-195	0.0077		0.00023	0.000012	mg/Kg	10	✱	1668C	Total/NA
PCB-196	0.012		0.00023	0.000012	mg/Kg	10	✱	1668C	Total/NA
PCB-197	0.00094		0.00023	0.000082	mg/Kg	10	✱	1668C	Total/NA
PCB-198/199	0.026		0.00045	0.000012	mg/Kg	10	✱	1668C	Total/NA
PCB-200	0.0036		0.00023	0.000099	mg/Kg	10	✱	1668C	Total/NA
PCB-201	0.0036		0.00023	0.000089	mg/Kg	10	✱	1668C	Total/NA
PCB-202	0.0050		0.00023	0.000010	mg/Kg	10	✱	1668C	Total/NA
PCB-203	0.016		0.00023	0.000012	mg/Kg	10	✱	1668C	Total/NA
PCB-205	0.0010		0.00023	0.000088	mg/Kg	10	✱	1668C	Total/NA
PCB-206	0.0076		0.00023	0.000039	mg/Kg	10	✱	1668C	Total/NA
PCB-207	0.0012		0.00023	0.000029	mg/Kg	10	✱	1668C	Total/NA
PCB-208	0.0022		0.00023	0.000034	mg/Kg	10	✱	1668C	Total/NA
PCB-209	0.00082		0.00023	0.000023	mg/Kg	10	✱	1668C	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Polychlorinated biphenyls, Total	6.5		0.000020	0.000050	mg/Kg	1		None	Total/NA

Client Sample ID: SB-202-1A (12292017)

Lab Sample ID: 680-147344-5

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1	0.000029	J	0.00011	0.000006	mg/Kg	5	✱	1668C	Total/NA
PCB-2	0.000020	J	0.00011	0.000005	mg/Kg	5	✱	1668C	Total/NA
PCB-3	0.000025	J	0.00011	0.000006	mg/Kg	5	✱	1668C	Total/NA
PCB-4	0.000090	J	0.00011	0.000082	mg/Kg	5	✱	1668C	Total/NA
PCB-8	0.000020	J	0.00011	0.000017	mg/Kg	5	✱	1668C	Total/NA
PCB-11	0.000066	J B	0.00011	0.000017	mg/Kg	5	✱	1668C	Total/NA
PCB-15	0.000015	J	0.00011	0.000017	mg/Kg	5	✱	1668C	Total/NA
PCB-16	0.000022	J	0.00011	0.000015	mg/Kg	5	✱	1668C	Total/NA
PCB-17	0.000029	J	0.00011	0.000011	mg/Kg	5	✱	1668C	Total/NA
PCB-18/30	0.000056	J	0.00022	0.000010	mg/Kg	5	✱	1668C	Total/NA
PCB-19	0.000013	J	0.00011	0.000016	mg/Kg	5	✱	1668C	Total/NA
PCB-20/28	0.00012	J B	0.00022	0.000026	mg/Kg	5	✱	1668C	Total/NA
PCB-21/33	0.000057	J B	0.00022	0.000025	mg/Kg	5	✱	1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: SB-202-1A (12292017) (Continued)

Lab Sample ID: 680-147344-5

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-22	0.000028	J	0.00011	0.0000027	mg/Kg	5	✱	1668C	Total/NA	
PCB-25	0.0000081	J	0.00011	0.0000025	mg/Kg	5	✱	1668C	Total/NA	
PCB-26/29	0.000013	J	0.00022	0.0000025	mg/Kg	5	✱	1668C	Total/NA	
PCB-27	0.0000046	J	0.00011	0.0000008	mg/Kg	5	✱	1668C	Total/NA	
PCB-31	0.000093	J B	0.00011	0.0000024	mg/Kg	5	✱	1668C	Total/NA	
PCB-32	0.000048	J	0.00011	0.0000008	mg/Kg	5	✱	1668C	Total/NA	
PCB-35	0.0000055	J	0.00011	0.0000026	mg/Kg	5	✱	1668C	Total/NA	
PCB-37	0.000040	J	0.00011	0.0000025	mg/Kg	5	✱	1668C	Total/NA	
PCB-40/71	0.00030	B	0.00022	0.0000044	mg/Kg	5	✱	1668C	Total/NA	
PCB-42	0.00015	B	0.00011	0.0000048	mg/Kg	5	✱	1668C	Total/NA	
PCB-43	0.0000078	J	0.00011	0.0000053	mg/Kg	5	✱	1668C	Total/NA	
PCB-44/47/65	0.0015	B	0.00034	0.0000042	mg/Kg	5	✱	1668C	Total/NA	
PCB-45	0.000043	J B	0.00011	0.0000050	mg/Kg	5	✱	1668C	Total/NA	
PCB-46	0.000029	J	0.00011	0.0000052	mg/Kg	5	✱	1668C	Total/NA	
PCB-48	0.000054	J B	0.00011	0.0000044	mg/Kg	5	✱	1668C	Total/NA	
PCB-49/69	0.00088	B	0.00022	0.0000037	mg/Kg	5	✱	1668C	Total/NA	
PCB-50/53	0.00013	J B	0.00022	0.0000042	mg/Kg	5	✱	1668C	Total/NA	
PCB-51	0.000043	J B	0.00011	0.0000042	mg/Kg	5	✱	1668C	Total/NA	
PCB-52	0.0047	B	0.00011	0.0000045	mg/Kg	5	✱	1668C	Total/NA	
PCB-54	0.0000056	J	0.00011	0.0000005	mg/Kg	5	✱	1668C	Total/NA	
PCB-56	0.00041	B	0.00011	0.000019	mg/Kg	5	✱	1668C	Total/NA	
PCB-59/62/75	0.000039	J	0.00034	0.0000033	mg/Kg	5	✱	1668C	Total/NA	
PCB-60	0.00012		0.00011	0.000018	mg/Kg	5	✱	1668C	Total/NA	
PCB-61/70/74/76	0.0035	B	0.00045	0.000017	mg/Kg	5	✱	1668C	Total/NA	
PCB-63	0.000027	J	0.00011	0.000016	mg/Kg	5	✱	1668C	Total/NA	
PCB-64	0.00054	B	0.00011	0.0000031	mg/Kg	5	✱	1668C	Total/NA	
PCB-66	0.0011	B	0.00011	0.000018	mg/Kg	5	✱	1668C	Total/NA	
PCB-77	0.00019	G	0.00018	0.000018	mg/Kg	5	✱	1668C	Total/NA	
PCB-79	0.00012		0.00011	0.000016	mg/Kg	5	✱	1668C	Total/NA	
PCB-80	0.000083	J	0.00011	0.000015	mg/Kg	5	✱	1668C	Total/NA	
PCB-82	0.0021	G B	0.00030	0.00030	mg/Kg	5	✱	1668C	Total/NA	
PCB-84	0.0039	G B	0.00028	0.00028	mg/Kg	5	✱	1668C	Total/NA	
PCB-85/116/117	0.0032	B	0.00034	0.00021	mg/Kg	5	✱	1668C	Total/NA	
PCB-86/87/97/108/119/125	0.013	B	0.00067	0.00022	mg/Kg	5	✱	1668C	Total/NA	
PCB-88/91	0.0020	G B	0.00024	0.00024	mg/Kg	5	✱	1668C	Total/NA	
PCB-90/101/113	0.019	B	0.00034	0.00022	mg/Kg	5	✱	1668C	Total/NA	
PCB-92	0.0035	G B	0.00025	0.00025	mg/Kg	5	✱	1668C	Total/NA	
PCB-107/124	0.00086		0.00022	0.00019	mg/Kg	5	✱	1668C	Total/NA	
PCB-95	0.012	E G B	0.00024	0.00024	mg/Kg	5	✱	1668C	Total/NA	
PCB-96	0.000069	J	0.00011	0.0000005	mg/Kg	5	✱	1668C	Total/NA	
PCB-98/102	0.00025	G	0.00023	0.00023	mg/Kg	5	✱	1668C	Total/NA	
PCB-99	0.0076	G B	0.00020	0.00020	mg/Kg	5	✱	1668C	Total/NA	
PCB-105	0.0072	G B	0.00020	0.00020	mg/Kg	5	✱	1668C	Total/NA	
PCB-110/115	0.026	E B	0.00022	0.00019	mg/Kg	5	✱	1668C	Total/NA	
PCB-109	0.0012	G B	0.00018	0.00018	mg/Kg	5	✱	1668C	Total/NA	
PCB-114	0.00026	G	0.00020	0.00020	mg/Kg	5	✱	1668C	Total/NA	
PCB-118	0.018	E G B	0.00018	0.00018	mg/Kg	5	✱	1668C	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: SB-202-1A (12292017) (Continued)

Lab Sample ID: 680-147344-5

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-123	0.00029	G	0.00019	0.00019	mg/Kg	5	✱		1668C	Total/NA
PCB-128/166	0.0046	B	0.00022	0.000059	mg/Kg	5	✱		1668C	Total/NA
PCB-129/138/163	0.026	B	0.00034	0.000062	mg/Kg	5	✱		1668C	Total/NA
PCB-130	0.0017	B	0.00011	0.000078	mg/Kg	5	✱		1668C	Total/NA
PCB-131	0.00033		0.00011	0.000072	mg/Kg	5	✱		1668C	Total/NA
PCB-132	0.0078	B	0.00011	0.000071	mg/Kg	5	✱		1668C	Total/NA
PCB-133	0.00023		0.00011	0.000070	mg/Kg	5	✱		1668C	Total/NA
PCB-134/143	0.0012	B	0.00022	0.000073	mg/Kg	5	✱		1668C	Total/NA
PCB-135/151	0.0045	B	0.00022	0.000066	mg/Kg	5	✱		1668C	Total/NA
PCB-136	0.0020	B	0.00011	0.000049	mg/Kg	5	✱		1668C	Total/NA
PCB-137	0.0014	B	0.00011	0.000059	mg/Kg	5	✱		1668C	Total/NA
PCB-139/140	0.00042		0.00022	0.000064	mg/Kg	5	✱		1668C	Total/NA
PCB-141	0.0038	B	0.00011	0.000070	mg/Kg	5	✱		1668C	Total/NA
PCB-144	0.00073	B	0.00011	0.000064	mg/Kg	5	✱		1668C	Total/NA
PCB-146	0.0024	B	0.00011	0.000061	mg/Kg	5	✱		1668C	Total/NA
PCB-147/149	0.013	B	0.00022	0.000064	mg/Kg	5	✱		1668C	Total/NA
PCB-153/168	0.015	B	0.00022	0.000054	mg/Kg	5	✱		1668C	Total/NA
PCB-154	0.000089	J	0.00011	0.000058	mg/Kg	5	✱		1668C	Total/NA
PCB-156/157	0.0036	B	0.00022	0.000022	mg/Kg	5	✱		1668C	Total/NA
PCB-158	0.0028	B	0.00011	0.000049	mg/Kg	5	✱		1668C	Total/NA
PCB-159	0.000054	J	0.00011	0.000017	mg/Kg	5	✱		1668C	Total/NA
PCB-162	0.000087	J	0.00011	0.000016	mg/Kg	5	✱		1668C	Total/NA
PCB-164	0.0016	B	0.00011	0.000058	mg/Kg	5	✱		1668C	Total/NA
PCB-167	0.0011	G B	0.000014	0.000014	mg/Kg	5	✱		1668C	Total/NA
PCB-170	0.0028	B	0.00011	0.0000044	mg/Kg	5	✱		1668C	Total/NA
PCB-171/173	0.00091	B	0.00022	0.0000045	mg/Kg	5	✱		1668C	Total/NA
PCB-172	0.00041	B	0.00011	0.0000044	mg/Kg	5	✱		1668C	Total/NA
PCB-174	0.0024	B	0.00011	0.0000048	mg/Kg	5	✱		1668C	Total/NA
PCB-175	0.000098	J	0.00011	0.0000012	mg/Kg	5	✱		1668C	Total/NA
PCB-176	0.00024		0.00011	0.0000008	mg/Kg	5	✱		1668C	Total/NA
PCB-177	0.0013	B	0.00011	0.0000044	mg/Kg	5	✱		1668C	Total/NA
PCB-178	0.00033		0.00011	0.0000013	mg/Kg	5	✱		1668C	Total/NA
PCB-179	0.00065	B	0.00011	0.0000009	mg/Kg	5	✱		1668C	Total/NA
PCB-180/193	0.0046	B	0.00022	0.0000036	mg/Kg	5	✱		1668C	Total/NA
PCB-181	0.000059	J	0.00011	0.0000039	mg/Kg	5	✱		1668C	Total/NA
PCB-182	0.000015	J	0.00011	0.0000011	mg/Kg	5	✱		1668C	Total/NA
PCB-183	0.0011	B	0.00011	0.0000034	mg/Kg	5	✱		1668C	Total/NA
PCB-184	0.0000024	J	0.00011	0.0000009	mg/Kg	5	✱		1668C	Total/NA
PCB-185	0.00019		0.00011	0.0000042	mg/Kg	5	✱		1668C	Total/NA
PCB-187	0.0019	B	0.00011	0.0000011	mg/Kg	5	✱		1668C	Total/NA
PCB-188	0.0000025	J	0.00011	0.0000008	mg/Kg	5	✱		1668C	Total/NA
PCB-189	0.00011		0.000011	0.0000007	mg/Kg	5	✱		1668C	Total/NA
PCB-190	0.00048		0.00011	0.0000032	mg/Kg	5	✱		1668C	Total/NA
PCB-191	0.00011		0.00011	0.0000032	mg/Kg	5	✱		1668C	Total/NA
PCB-194	0.00054		0.00011	0.0000013	mg/Kg	5	✱		1668C	Total/NA
PCB-195	0.00021		0.00011	0.0000014	mg/Kg	5	✱		1668C	Total/NA
PCB-196	0.00031		0.00011	0.0000014	mg/Kg	5	✱		1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Client Sample ID: SB-202-1A (12292017) (Continued)

Lab Sample ID: 680-147344-5

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-197	0.000024	J	0.00011	0.0000010	mg/Kg	5	✱	1668C	Total/NA
PCB-198/199	0.00064		0.00022	0.0000015	mg/Kg	5	✱	1668C	Total/NA
PCB-200	0.000082	J	0.00011	0.0000012	mg/Kg	5	✱	1668C	Total/NA
PCB-201	0.000082	J	0.00011	0.0000011	mg/Kg	5	✱	1668C	Total/NA
PCB-202	0.00012		0.00011	0.0000012	mg/Kg	5	✱	1668C	Total/NA
PCB-203	0.00043		0.00011	0.0000014	mg/Kg	5	✱	1668C	Total/NA
PCB-205	0.000032	J	0.00011	0.0000011	mg/Kg	5	✱	1668C	Total/NA
PCB-206	0.00035		0.00011	0.0000014	mg/Kg	5	✱	1668C	Total/NA
PCB-207	0.000036	J	0.00011	0.0000010	mg/Kg	5	✱	1668C	Total/NA
PCB-208	0.000095	J	0.00011	0.0000011	mg/Kg	5	✱	1668C	Total/NA
PCB-209	0.00012		0.00011	0.0000007	mg/Kg	5	✱	1668C	Total/NA
1									
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Polychlorinated biphenyls, Total	0.25		0.0000020	0.0000050	mg/Kg	1		None	Total/NA

## Client Sample ID: EB-1 (12292017)

Lab Sample ID: 680-147344-10

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-44/47/65	3.6	J B	600	0.61	pg/L	1		1668C	Total/NA
PCB-52	2.8	J B	200	0.65	pg/L	1		1668C	Total/NA
PCB-61/70/74/76	2.3	J B	800	0.77	pg/L	1		1668C	Total/NA
PCB-90/101/113	4.7	J	600	1.2	pg/L	1		1668C	Total/NA
PCB-95	2.7	J	200	1.3	pg/L	1		1668C	Total/NA
PCB-105	2.3	J	20	1.1	pg/L	1		1668C	Total/NA
PCB-110/115	6.2	J	400	1.1	pg/L	1		1668C	Total/NA
PCB-118	4.7	J	20	1.3	pg/L	1		1668C	Total/NA
PCB-129/138/163	6.4	J	600	1.3	pg/L	1		1668C	Total/NA
PCB-147/149	3.0	J	400	1.3	pg/L	1		1668C	Total/NA
PCB-153/168	3.9	J	400	1.1	pg/L	1		1668C	Total/NA
PCB-174	1.0	J	200	0.56	pg/L	1		1668C	Total/NA
PCB-180/193	1.8	J B	400	0.43	pg/L	1		1668C	Total/NA
PCB-183	1.2	J B	200	0.40	pg/L	1		1668C	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Polychlorinated biphenyls, Total	47	J	200	20	pg/L	1		None	Total/NA

## Client Sample ID: DUP-1 (12292017)

Lab Sample ID: 680-147344-11

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1	0.000090	J	0.00051	0.0000057	mg/Kg	20	✱	1668C	Total/NA
PCB-2	0.000011	J	0.00051	0.0000048	mg/Kg	20	✱	1668C	Total/NA
PCB-3	0.000035	J	0.00051	0.0000053	mg/Kg	20	✱	1668C	Total/NA
PCB-6	0.000074	J	0.00051	0.000027	mg/Kg	20	✱	1668C	Total/NA
PCB-8	0.00039	J	0.00051	0.000026	mg/Kg	20	✱	1668C	Total/NA
PCB-15	0.00016	J	0.00051	0.000026	mg/Kg	20	✱	1668C	Total/NA
PCB-16	0.00025	J	0.00051	0.000016	mg/Kg	20	✱	1668C	Total/NA
PCB-17	0.00038	J	0.00051	0.000012	mg/Kg	20	✱	1668C	Total/NA
PCB-18/30	0.00069	J	0.0010	0.000010	mg/Kg	20	✱	1668C	Total/NA
PCB-19	0.00014	J	0.00051	0.000018	mg/Kg	20	✱	1668C	Total/NA
PCB-20/28	0.0014	B	0.0010	0.000040	mg/Kg	20	✱	1668C	Total/NA
PCB-21/33	0.0021	B	0.0010	0.000037	mg/Kg	20	✱	1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: DUP-1 (12292017) (Continued)

Lab Sample ID: 680-147344-11

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-22	0.00030	J	0.00051	0.000041	mg/Kg	20	✱	1668C	Total/NA
PCB-25	0.000051	J	0.00051	0.000038	mg/Kg	20	✱	1668C	Total/NA
PCB-26/29	0.00019	J	0.0010	0.000038	mg/Kg	20	✱	1668C	Total/NA
PCB-27	0.000041	J	0.00051	0.0000091	mg/Kg	20	✱	1668C	Total/NA
PCB-31	0.0014	B	0.00051	0.000036	mg/Kg	20	✱	1668C	Total/NA
PCB-32	0.00041	J	0.00051	0.0000087	mg/Kg	20	✱	1668C	Total/NA
PCB-34	0.000087	J	0.00051	0.000040	mg/Kg	20	✱	1668C	Total/NA
PCB-37	0.00060		0.00051	0.000037	mg/Kg	20	✱	1668C	Total/NA
PCB-40/71	0.0039	B	0.0010	0.000061	mg/Kg	20	✱	1668C	Total/NA
PCB-41	0.00014	J	0.00051	0.000071	mg/Kg	20	✱	1668C	Total/NA
PCB-42	0.0019	B	0.00051	0.000066	mg/Kg	20	✱	1668C	Total/NA
PCB-43	0.00018	J	0.00051	0.000072	mg/Kg	20	✱	1668C	Total/NA
PCB-44/47/65	0.021	B	0.0015	0.000057	mg/Kg	20	✱	1668C	Total/NA
PCB-45	0.00045	J B	0.00051	0.000068	mg/Kg	20	✱	1668C	Total/NA
PCB-46	0.00041	J	0.00051	0.000072	mg/Kg	20	✱	1668C	Total/NA
PCB-48	0.00068	B	0.00051	0.000061	mg/Kg	20	✱	1668C	Total/NA
PCB-49/69	0.014	B	0.0010	0.000050	mg/Kg	20	✱	1668C	Total/NA
PCB-50/53	0.0019	B	0.0010	0.000058	mg/Kg	20	✱	1668C	Total/NA
PCB-51	0.00060	B	0.00051	0.000057	mg/Kg	20	✱	1668C	Total/NA
PCB-52	0.062	E B	0.00051	0.000061	mg/Kg	20	✱	1668C	Total/NA
PCB-54	0.000086	J	0.00051	0.0000078	mg/Kg	20	✱	1668C	Total/NA
PCB-56	0.0053	B	0.00051	0.000026	mg/Kg	20	✱	1668C	Total/NA
PCB-59/62/75	0.00054	J	0.0015	0.000045	mg/Kg	20	✱	1668C	Total/NA
PCB-60	0.0021		0.00051	0.000024	mg/Kg	20	✱	1668C	Total/NA
PCB-61/70/74/76	0.064	B	0.0020	0.000024	mg/Kg	20	✱	1668C	Total/NA
PCB-63	0.00075		0.00051	0.000022	mg/Kg	20	✱	1668C	Total/NA
PCB-64	0.0066	B	0.00051	0.000042	mg/Kg	20	✱	1668C	Total/NA
PCB-66	0.019	B	0.00051	0.000025	mg/Kg	20	✱	1668C	Total/NA
PCB-68	0.00027	J B	0.00051	0.000022	mg/Kg	20	✱	1668C	Total/NA
PCB-72	0.00059		0.00051	0.000023	mg/Kg	20	✱	1668C	Total/NA
PCB-77	0.0022	G	0.00024	0.000024	mg/Kg	20	✱	1668C	Total/NA
PCB-79	0.0011		0.00051	0.000022	mg/Kg	20	✱	1668C	Total/NA
PCB-82	0.015	G B	0.0021	0.0021	mg/Kg	20	✱	1668C	Total/NA
PCB-84	0.030	G B	0.0019	0.0019	mg/Kg	20	✱	1668C	Total/NA
PCB-85/116/117	0.027	B	0.0015	0.0015	mg/Kg	20	✱	1668C	Total/NA
PCB-86/87/97/108/119/125	0.10	B	0.0031	0.0015	mg/Kg	20	✱	1668C	Total/NA
PCB-88/91	0.015	G B	0.0017	0.0017	mg/Kg	20	✱	1668C	Total/NA
PCB-90/101/113	0.16	E B	0.0015	0.0015	mg/Kg	20	✱	1668C	Total/NA
PCB-92	0.030	G B	0.0018	0.0018	mg/Kg	20	✱	1668C	Total/NA
PCB-107/124	0.0068	G	0.0013	0.0013	mg/Kg	20	✱	1668C	Total/NA
PCB-95	0.096	E G B	0.0017	0.0017	mg/Kg	20	✱	1668C	Total/NA
PCB-96	0.00052		0.00051	0.0000076	mg/Kg	20	✱	1668C	Total/NA
PCB-98/102	0.0019	G	0.0016	0.0016	mg/Kg	20	✱	1668C	Total/NA
PCB-99	0.064	E G B	0.0014	0.0014	mg/Kg	20	✱	1668C	Total/NA
PCB-104	0.000010	J	0.00051	0.000010	mg/Kg	20	✱	1668C	Total/NA
PCB-105	0.074	E G B	0.0013	0.0013	mg/Kg	20	✱	1668C	Total/NA
PCB-110/115	0.20	E G B	0.0013	0.0013	mg/Kg	20	✱	1668C	Total/NA
PCB-109	0.012	G B	0.0013	0.0013	mg/Kg	20	✱	1668C	Total/NA
PCB-114	0.0027	G	0.0014	0.0014	mg/Kg	20	✱	1668C	Total/NA
PCB-118	0.17	E G B	0.0011	0.0011	mg/Kg	20	✱	1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: DUP-1 (12292017) (Continued)

Lab Sample ID: 680-147344-11

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-123	0.0022	G	0.0014	0.0014	mg/Kg	20	✱	1668C	Total/NA
PCB-128/166	0.039	B	0.0010	0.00085	mg/Kg	20	✱	1668C	Total/NA
PCB-129/138/163	0.23	E B	0.0015	0.00090	mg/Kg	20	✱	1668C	Total/NA
PCB-130	0.015	G B	0.0011	0.0011	mg/Kg	20	✱	1668C	Total/NA
PCB-131	0.0026	G	0.0010	0.0010	mg/Kg	20	✱	1668C	Total/NA
PCB-132	0.062	E G B	0.0010	0.0010	mg/Kg	20	✱	1668C	Total/NA
PCB-133	0.0023	G	0.0010	0.0010	mg/Kg	20	✱	1668C	Total/NA
PCB-134/143	0.010	G B	0.0011	0.0011	mg/Kg	20	✱	1668C	Total/NA
PCB-135/151	0.041	B	0.0010	0.00096	mg/Kg	20	✱	1668C	Total/NA
PCB-136	0.016	G B	0.00071	0.00071	mg/Kg	20	✱	1668C	Total/NA
PCB-137	0.010	G B	0.00085	0.00085	mg/Kg	20	✱	1668C	Total/NA
PCB-139/140	0.0035		0.0010	0.00092	mg/Kg	20	✱	1668C	Total/NA
PCB-141	0.030	G B	0.0010	0.0010	mg/Kg	20	✱	1668C	Total/NA
PCB-144	0.0060	G B	0.00092	0.00092	mg/Kg	20	✱	1668C	Total/NA
PCB-146	0.022	G B	0.00088	0.00088	mg/Kg	20	✱	1668C	Total/NA
PCB-147/149	0.11	B	0.0010	0.00093	mg/Kg	20	✱	1668C	Total/NA
PCB-153/168	0.14	E B	0.0010	0.00078	mg/Kg	20	✱	1668C	Total/NA
PCB-156/157	0.029	G B	0.00021	0.00021	mg/Kg	20	✱	1668C	Total/NA
PCB-158	0.023	G B	0.00071	0.00071	mg/Kg	20	✱	1668C	Total/NA
PCB-159	0.00043	J	0.00051	0.00015	mg/Kg	20	✱	1668C	Total/NA
PCB-162	0.00069		0.00051	0.00015	mg/Kg	20	✱	1668C	Total/NA
PCB-164	0.015	G B	0.00084	0.00084	mg/Kg	20	✱	1668C	Total/NA
PCB-167	0.0091	G B	0.00013	0.00013	mg/Kg	20	✱	1668C	Total/NA
PCB-170	0.019	B	0.00051	0.000026	mg/Kg	20	✱	1668C	Total/NA
PCB-171/173	0.0060	B	0.0010	0.000027	mg/Kg	20	✱	1668C	Total/NA
PCB-172	0.0027	B	0.00051	0.000026	mg/Kg	20	✱	1668C	Total/NA
PCB-174	0.016	B	0.00051	0.000029	mg/Kg	20	✱	1668C	Total/NA
PCB-175	0.00069		0.00051	0.000014	mg/Kg	20	✱	1668C	Total/NA
PCB-176	0.0017		0.00051	0.000010	mg/Kg	20	✱	1668C	Total/NA
PCB-177	0.0087	B	0.00051	0.000026	mg/Kg	20	✱	1668C	Total/NA
PCB-178	0.0025		0.00051	0.000015	mg/Kg	20	✱	1668C	Total/NA
PCB-179	0.0048	B	0.00051	0.000011	mg/Kg	20	✱	1668C	Total/NA
PCB-180/193	0.029	B	0.0010	0.000022	mg/Kg	20	✱	1668C	Total/NA
PCB-181	0.00041	J	0.00051	0.000024	mg/Kg	20	✱	1668C	Total/NA
PCB-182	0.00016	J	0.00051	0.000013	mg/Kg	20	✱	1668C	Total/NA
PCB-183	0.0070	B	0.00051	0.000020	mg/Kg	20	✱	1668C	Total/NA
PCB-184	0.000019	J	0.00051	0.000011	mg/Kg	20	✱	1668C	Total/NA
PCB-185	0.0012		0.00051	0.000025	mg/Kg	20	✱	1668C	Total/NA
PCB-187	0.014	B	0.00051	0.000013	mg/Kg	20	✱	1668C	Total/NA
PCB-188	0.000019	J	0.00051	0.000010	mg/Kg	20	✱	1668C	Total/NA
PCB-189	0.00079		0.000051	0.000012	mg/Kg	20	✱	1668C	Total/NA
PCB-190	0.0032		0.00051	0.000019	mg/Kg	20	✱	1668C	Total/NA
PCB-191	0.00074		0.00051	0.000019	mg/Kg	20	✱	1668C	Total/NA
PCB-194	0.0039		0.00051	0.0000098	mg/Kg	20	✱	1668C	Total/NA
PCB-195	0.0015		0.00051	0.000010	mg/Kg	20	✱	1668C	Total/NA
PCB-196	0.0022		0.00051	0.000013	mg/Kg	20	✱	1668C	Total/NA
PCB-197	0.00017	J	0.00051	0.0000088	mg/Kg	20	✱	1668C	Total/NA
PCB-198/199	0.0051		0.0010	0.000013	mg/Kg	20	✱	1668C	Total/NA
PCB-200	0.00068		0.00051	0.000011	mg/Kg	20	✱	1668C	Total/NA
PCB-201	0.00061		0.00051	0.0000096	mg/Kg	20	✱	1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: DUP-1 (12292017) (Continued)

Lab Sample ID: 680-147344-11

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-202	0.00090		0.00051	0.000010	mg/Kg	20		✱	1668C	Total/NA
PCB-203	0.0034		0.00051	0.000013	mg/Kg	20		✱	1668C	Total/NA
PCB-205	0.00025	J	0.00051	0.0000082	mg/Kg	20		✱	1668C	Total/NA
PCB-206	0.0025		0.00051	0.000012	mg/Kg	20		✱	1668C	Total/NA
PCB-207	0.00033	J	0.00051	0.0000088	mg/Kg	20		✱	1668C	Total/NA
PCB-208	0.00060		0.00051	0.0000098	mg/Kg	20		✱	1668C	Total/NA
PCB-209	0.00023	J	0.00051	0.0000066	mg/Kg	20		✱	1668C	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Polychlorinated biphenyls, Total	2.2		0.0000020	0.0000050	mg/Kg	1			None	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-204-1A (12292017)**

**Date Collected: 12/29/17 12:10**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-1**

**Matrix: Solid**

**Percent Solids: 84.5**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0000037	J	0.00023	0.0000008	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-2	0.0000030	J	0.00023	0.0000007	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-3	0.0000039	J	0.00023	0.0000008	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-4	0.000011	U	0.00023	0.000011	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-5	0.0000045	U	0.00023	0.0000045	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-6	0.0000047	U	0.00023	0.0000047	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-7	0.0000045	U	0.00023	0.0000045	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-8	0.000037	J	0.00023	0.0000046	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-9	0.0000047	U	0.00023	0.0000047	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-10	0.0000082	U	0.00023	0.0000082	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-11	0.0000045	U	0.00023	0.0000045	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-12/13	0.0000045	U	0.00046	0.0000045	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-14	0.0000039	U	0.00023	0.0000039	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-15	0.000014	J	0.00023	0.0000047	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-16	0.000024	J	0.00023	0.0000035	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-17	0.000024	J	0.00023	0.0000026	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-18/30	0.000070	J	0.00046	0.0000023	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-19	0.0000083	J	0.00023	0.0000035	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-20/28	0.00012	J B	0.00046	0.0000045	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-21/33	0.00031	J B	0.00046	0.0000043	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-22	0.000038	J	0.00023	0.0000046	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-23	0.0000044	U	0.00023	0.0000044	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-24	0.0000021	U	0.00023	0.0000021	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-25	0.0000044	U	0.00023	0.0000044	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-26/29	0.000018	J	0.00046	0.0000044	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-27	0.0000020	U	0.00023	0.0000020	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-31	0.00014	J B	0.00023	0.0000041	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-32	0.000023	J	0.00023	0.0000019	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-34	0.0000045	U	0.00023	0.0000045	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-35	0.0000046	U	0.00023	0.0000046	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-36	0.0000042	U	0.00023	0.0000042	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-37	0.000068	J F1	0.00023	0.0000044	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-38	0.0000046	U	0.00023	0.0000046	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-39	0.0000041	U	0.00023	0.0000041	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-40/71	0.00037	J B	0.00046	0.0000088	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-41	0.000025	J	0.00023	0.000010	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-42	0.00017	J B	0.00023	0.0000095	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-43	0.000028	J	0.00023	0.000010	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-44/47/65	0.0024	B	0.00069	0.0000083	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-45	0.000052	J B	0.00023	0.0000099	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-46	0.000010	U	0.00023	0.000010	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-48	0.00010	J B	0.00023	0.0000088	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-49/69	0.0012	B	0.00046	0.0000073	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-50/53	0.00012	J B	0.00046	0.0000084	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-51	0.000014	J B	0.00023	0.0000083	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-52	0.0071	B	0.00023	0.0000088	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-54	0.0000015	U	0.00023	0.0000015	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-204-1A (12292017)**

**Lab Sample ID: 680-147344-1**

**Date Collected: 12/29/17 12:10**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 84.5**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-55	0.000025	U	0.00023	0.000025	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-56</b>	<b>0.00063</b>	<b>B</b>	0.00023	0.000026	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-57	0.000025	U	0.00023	0.000025	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-58	0.000025	U	0.00023	0.000025	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-59/62/75</b>	<b>0.000053</b>	<b>J</b>	0.00069	0.0000064	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-60</b>	<b>0.00027</b>		0.00023	0.000025	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-61/70/74/76</b>	<b>0.0067</b>	<b>B</b>	0.00091	0.000024	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-63</b>	<b>0.000058</b>	<b>J</b>	0.00023	0.000022	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-64</b>	<b>0.00074</b>	<b>B</b>	0.00023	0.0000061	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-66</b>	<b>0.0019</b>	<b>B</b>	0.00023	0.000026	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-67	0.000024	U	0.00023	0.000024	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-68	0.000022	U	0.00023	0.000022	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-72	0.000024	U	0.00023	0.000024	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-73	0.0000066	U	0.00023	0.0000066	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-77</b>	<b>0.00028</b>	<b>G F1 F2</b>	0.000024	0.000024	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-78	0.000026	U	0.00023	0.000026	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-79</b>	<b>0.00012</b>	<b>J</b>	0.00023	0.000023	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-80</b>	<b>0.000090</b>	<b>J</b>	0.00023	0.000022	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-81	0.000025	U G	0.000025	0.000025	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-82</b>	<b>0.0020</b>	<b>G B</b>	0.00026	0.00026	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-83	0.00028	U G	0.00028	0.00028	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-84</b>	<b>0.0045</b>	<b>G B</b>	0.00024	0.00024	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-85/116/117</b>	<b>0.0035</b>	<b>B</b>	0.00069	0.00018	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-86/87/97/108/119/125</b>	<b>0.014</b>	<b>B</b>	0.0014	0.00019	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-88/91</b>	<b>0.0019</b>	<b>B</b>	0.00046	0.00021	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-89	0.00023	U	0.00023	0.00023	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-90/101/113</b>	<b>0.021</b>	<b>B</b>	0.00069	0.00019	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-92</b>	<b>0.0038</b>	<b>B</b>	0.00023	0.00022	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-93/100	0.00021	U	0.00046	0.00021	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-107/124</b>	<b>0.00083</b>		0.00046	0.00017	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-94	0.00022	U	0.00023	0.00022	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-95</b>	<b>0.013</b>	<b>B</b>	0.00023	0.00021	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-96</b>	<b>0.000068</b>	<b>J</b>	0.00023	0.0000014	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-98/102</b>	<b>0.00027</b>	<b>J</b>	0.00046	0.00020	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-99</b>	<b>0.0082</b>	<b>B</b>	0.00023	0.00018	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-103	0.00019	U	0.00023	0.00019	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-104	0.0000016	U	0.00023	0.0000016	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-105</b>	<b>0.0090</b>	<b>G B F2</b>	0.00016	0.00016	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-106	0.00017	U	0.00023	0.00017	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-110/115</b>	<b>0.024</b>	<b>B</b>	0.00046	0.00017	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-109</b>	<b>0.0014</b>	<b>B</b>	0.00023	0.00016	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-111	0.00016	U	0.00023	0.00016	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-112	0.00017	U	0.00023	0.00017	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-114</b>	<b>0.00030</b>	<b>G F2 F1</b>	0.00017	0.00017	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-118</b>	<b>0.022</b>	<b>G B F2</b>	0.00017	0.00017	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-120	0.00015	U	0.00023	0.00015	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-121	0.00015	U	0.00023	0.00015	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-122	0.00018	U	0.00023	0.00018	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
<b>PCB-123</b>	<b>0.00024</b>	<b>G F1</b>	0.00017	0.00017	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-204-1A (12292017)**

**Lab Sample ID: 680-147344-1**

**Date Collected: 12/29/17 12:10**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 84.5**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-126	0.00016	U G	0.00016	0.00016	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-127	0.00017	U	0.00023	0.00017	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-128/166	0.0042	B	0.00046	0.000093	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-129/138/163	0.025	B	0.00069	0.000099	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-130	0.0016	B	0.00023	0.00012	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-131	0.00029		0.00023	0.00011	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-132	0.0066	B	0.00023	0.00011	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-133	0.00023		0.00023	0.00011	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-134/143	0.0010	B	0.00046	0.00012	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-135/151	0.0041	B	0.00046	0.00010	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-136	0.0017	B	0.00023	0.000078	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-137	0.0012	B	0.00023	0.000094	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-139/140	0.00038	J	0.00046	0.00010	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-141	0.0034	B	0.00023	0.00011	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-142	0.00012	U	0.00023	0.00012	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-144	0.00067	B	0.00023	0.00010	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-145	0.000076	U	0.00023	0.000076	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-146	0.0023	B	0.00023	0.000096	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-147/149	0.012	B	0.00046	0.00010	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-148	0.00010	U	0.00023	0.00010	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-150	0.000071	U	0.00023	0.000071	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-152	0.000074	U	0.00023	0.000074	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-153/168	0.015	B	0.00046	0.000086	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-154	0.00011	J	0.00023	0.000092	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-155	0.000094	U	0.00023	0.000094	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-156/157	0.0037	B F2	0.00046	0.000024	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-158	0.0026	B	0.00023	0.000078	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-159	0.000047	J	0.00023	0.000018	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-160	0.000095	U	0.00023	0.000095	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-161	0.000088	U	0.00023	0.000088	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-162	0.000091	J	0.00023	0.000017	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-164	0.0015	B	0.00023	0.000092	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-165	0.000091	U	0.00023	0.000091	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-167	0.0011	B F2	0.00023	0.000015	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-169	0.000016	U	0.00023	0.000016	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-170	0.0026	B	0.00023	0.000032	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-171/173	0.00085	B	0.00046	0.000033	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-172	0.00039	B	0.00023	0.000032	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-174	0.0022	B	0.00023	0.000035	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-175	0.000087	J	0.00023	0.000021	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-176	0.00020	J	0.00023	0.000015	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-177	0.0012	B	0.00023	0.000033	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-178	0.00031		0.00023	0.000022	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-179	0.00057	B	0.00023	0.000016	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-180/193	0.0042	B	0.00046	0.000027	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-181	0.000059	J	0.00023	0.000029	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-182	0.000014	J	0.00023	0.000020	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-183	0.0010	B	0.00023	0.000025	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-184	0.0000031	J	0.00023	0.000017	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-204-1A (12292017)**

**Lab Sample ID: 680-147344-1**

**Date Collected: 12/29/17 12:10**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 84.5**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-185	0.00018	J	0.00023	0.0000031	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-186	0.0000016	U	0.00023	0.0000016	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-187	0.0017	B	0.00023	0.0000020	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-188	0.0000034	J	0.00023	0.0000018	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-189	0.00011	F1	0.000023	0.0000013	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-190	0.00045		0.00023	0.0000023	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-191	0.000098	J	0.00023	0.0000024	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-192	0.0000025	U	0.00023	0.0000025	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-194	0.00052		0.00023	0.0000015	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-195	0.00020	J	0.00023	0.0000016	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-196	0.00029		0.00023	0.0000048	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-197	0.000022	J	0.00023	0.0000033	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-198/199	0.00064		0.00046	0.0000051	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-200	0.000081	J	0.00023	0.0000040	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-201	0.000078	J	0.00023	0.0000037	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-202	0.00012	J F1	0.00023	0.0000043	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-203	0.00042		0.00023	0.0000048	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-204	0.0000038	U	0.00023	0.0000038	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-205	0.000031	J	0.00023	0.0000011	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-206	0.00028	F1	0.00023	0.0000028	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-207	0.000038	J	0.00023	0.0000021	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-208	0.000074	J F1	0.00023	0.0000023	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10
PCB-209	0.000031	J	0.00023	0.0000014	mg/Kg	☼	01/09/18 10:14	01/17/18 21:07	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	45		5 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-3L	47		5 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-4L	45		5 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-15L	48		5 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-19L	47		5 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-37L	58		5 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-54L	38		5 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-77L	73		10 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-81L	72		10 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-104L	50		10 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-105L	78		10 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-114L	73		10 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-118L	74		10 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-123L	73		10 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-126L	84		10 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-155L	58		10 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-156L/157L	99		10 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-167L	98		10 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-169L	91		10 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-188L	71		10 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-189L	88		10 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-202L	86		10 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-205L	90		10 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-206L	83		10 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-208L	89		10 - 145	01/09/18 10:14	01/17/18 21:07	10

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-204-1A (12292017)**

**Date Collected: 12/29/17 12:10**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-1**

**Matrix: Solid**

**Percent Solids: 84.5**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
PCB-209L	89		10 - 145	01/09/18 10:14	01/17/18 21:07	10
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
PCB-28L	49		5 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-111L	70		10 - 145	01/09/18 10:14	01/17/18 21:07	10
PCB-178L	94		10 - 145	01/09/18 10:14	01/17/18 21:07	10

## Method: None - Total PCB Calculation from HRMS PCB-Congeners

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Polychlorinated biphenyls, Total	0.26		0.0000020	0.0000050	mg/Kg	-		01/24/18 08:56	1



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-204-2A (12292017)**

**Lab Sample ID: 680-147344-2**

**Date Collected: 12/29/17 12:20**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 81.4**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.000089	J	0.00024	0.0000027	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-2	0.000010	J	0.00024	0.0000022	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-3	0.000042	J	0.00024	0.0000022	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-4	0.00023	J	0.00024	0.000015	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-5	0.000019	J	0.00024	0.0000095	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-6	0.00011	J	0.00024	0.000010	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-7	0.000024	J	0.00024	0.0000096	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-8	0.00055		0.00024	0.0000098	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-9	0.000037	J	0.00024	0.0000099	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-10	0.000012	J	0.00024	0.000010	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-11	0.0000096	U	0.00024	0.0000096	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-12/13	0.000053	J	0.00049	0.0000096	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-14	0.0000084	U	0.00024	0.0000084	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-15	0.00022	J	0.00024	0.0000096	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-16	0.00043		0.00024	0.0000077	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-17	0.00060		0.00024	0.0000058	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-18/30	0.0011		0.00049	0.0000051	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-19	0.00024		0.00024	0.0000088	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-20/28	0.0023	B	0.00049	0.000058	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-21/33	0.0033	B	0.00049	0.000055	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-22	0.00053		0.00024	0.000060	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-23	0.000056	U	0.00024	0.000056	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-24	0.000021	J	0.00024	0.0000046	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-25	0.00012	J	0.00024	0.000056	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-26/29	0.00032	J	0.00049	0.000056	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-27	0.000072	J	0.00024	0.0000044	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-31	0.0025	B	0.00024	0.000053	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-32	0.00061		0.00024	0.0000042	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-34	0.00014	J	0.00024	0.000058	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-35	0.000059	U	0.00024	0.000059	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-36	0.000054	U	0.00024	0.000054	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-37	0.00094		0.00024	0.000053	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-38	0.000060	U	0.00024	0.000060	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-39	0.000053	U	0.00024	0.000053	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-40/71	0.0078	B	0.00049	0.00011	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-41	0.00029		0.00024	0.00012	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-42	0.0040	B	0.00024	0.00011	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-43	0.00050		0.00024	0.00013	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-44/47/65	0.044	B	0.00073	0.00010	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-45	0.00065	B	0.00024	0.00012	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-46	0.00078		0.00024	0.00012	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-48	0.0014	B	0.00024	0.00011	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-49/69	0.028	B	0.00049	0.000088	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-50/53	0.0034	B	0.00049	0.00010	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-51	0.0011	B	0.00024	0.000099	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-52	0.13	E B	0.00024	0.00011	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-54	0.00012	J	0.00024	0.0000023	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-55	0.00044	U G	0.00044	0.00044	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-56	0.011	G B	0.00046	0.00046	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-204-2A (12292017)**

**Lab Sample ID: 680-147344-2**

**Date Collected: 12/29/17 12:20**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 81.4**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	0.00044	U G	0.00044	0.00044	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-58	0.00043	U G	0.00043	0.00043	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-59/62/75</b>	<b>0.0010</b>		0.00073	0.000077	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-60</b>	<b>0.0042 G</b>		0.00044	0.00044	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-61/70/74/76</b>	<b>0.13 E B</b>		0.00097	0.00043	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-63</b>	<b>0.0014 G</b>		0.00039	0.00039	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-64</b>	<b>0.013 B</b>		0.00024	0.000074	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-66</b>	<b>0.038 E G B</b>		0.00045	0.00045	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-67	0.00041	U G	0.00041	0.00041	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-68</b>	<b>0.00049 G B</b>		0.00039	0.00039	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-72</b>	<b>0.0011 G</b>		0.00041	0.00041	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-73	0.000080	U	0.00024	0.000080	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-77</b>	<b>0.0045 G</b>		0.00042	0.00042	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-78	0.00045	U G	0.00045	0.00045	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-79</b>	<b>0.0024 G</b>		0.00040	0.00040	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-80	0.00038	U G	0.00038	0.00038	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-81	0.00040	U G	0.00040	0.00040	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-82</b>	<b>0.033 E G B</b>		0.0040	0.0040	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-83	0.0044	U G	0.0044	0.0044	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-84</b>	<b>0.066 E G B</b>		0.0037	0.0037	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-85/116/117</b>	<b>0.055 G B</b>		0.0028	0.0028	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-86/87/97/108/119/125</b>	<b>0.23 E G B</b>		0.0029	0.0029	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-88/91</b>	<b>0.032 G B</b>		0.0032	0.0032	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-89	0.0035	U G	0.0035	0.0035	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-90/101/113</b>	<b>0.34 E G B</b>		0.0029	0.0029	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-92</b>	<b>0.063 E G B</b>		0.0034	0.0034	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-93/100	0.0032	U G	0.0032	0.0032	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-107/124</b>	<b>0.014 G</b>		0.0026	0.0026	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-94	0.0034	U G	0.0034	0.0034	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-95</b>	<b>0.21 E G B</b>		0.0032	0.0032	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-96</b>	<b>0.0011</b>		0.00024	0.0000028	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-98/102</b>	<b>0.0041 G</b>		0.0031	0.0031	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-99</b>	<b>0.13 E G B</b>		0.0027	0.0027	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-103	0.0029	U G	0.0029	0.0029	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-104</b>	<b>0.000027 J</b>		0.00024	0.0000037	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-105</b>	<b>0.15 E G B</b>		0.0025	0.0025	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-106	0.0027	U G	0.0027	0.0027	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-110/115</b>	<b>0.41 E G B</b>		0.0026	0.0026	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-109</b>	<b>0.026 E G B</b>		0.0024	0.0024	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-111	0.0025	U G	0.0025	0.0025	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-112	0.0026	U G	0.0026	0.0026	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-114</b>	<b>0.0066 G</b>		0.0027	0.0027	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-118</b>	<b>0.32 E G B</b>		0.0021	0.0021	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-120	0.0024	U G	0.0024	0.0024	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-121	0.0024	U G	0.0024	0.0024	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-122	0.0028	U G	0.0028	0.0028	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
<b>PCB-123</b>	<b>0.0047 G</b>		0.0028	0.0028	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-126	0.0026	U G	0.0026	0.0026	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-127	0.0026	U G	0.0026	0.0026	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-204-2A (12292017)**

**Lab Sample ID: 680-147344-2**

**Date Collected: 12/29/17 12:20**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 81.4**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	0.088	E G B	0.0018	0.0018	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-129/138/163	0.50	E G B	0.0019	0.0019	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-130	0.033	E G B	0.0024	0.0024	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-131	0.0061	G	0.0022	0.0022	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-132	0.14	E G B	0.0022	0.0022	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-133	0.0052	G	0.0022	0.0022	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-134/143	0.024	G B	0.0022	0.0022	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-135/151	0.091	E G B	0.0020	0.0020	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-136	0.037	E G B	0.0015	0.0015	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-137	0.024	G B	0.0018	0.0018	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-139/140	0.0081	G	0.0019	0.0019	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-141	0.070	E G B	0.0021	0.0021	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-142	0.0023	U G	0.0023	0.0023	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-144	0.014	G B	0.0020	0.0020	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-145	0.0015	U G	0.0015	0.0015	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-146	0.050	E G B	0.0019	0.0019	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-147/149	0.26	E G B	0.0020	0.0020	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-148	0.0019	U G	0.0019	0.0019	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-150	0.0014	U G	0.0014	0.0014	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-152	0.0014	U G	0.0014	0.0014	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-153/168	0.30	E G B	0.0017	0.0017	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-154	0.0023	G	0.0018	0.0018	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-155	0.0015	U G	0.0015	0.0015	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-156/157	0.069	E G B	0.00044	0.00044	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-158	0.053	E G B	0.0015	0.0015	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-159	0.00094	G	0.00032	0.00032	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-160	0.0018	U G	0.0018	0.0018	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-161	0.0017	U G	0.0017	0.0017	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-162	0.0015	G	0.00031	0.00031	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-164	0.034	E G B	0.0018	0.0018	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-165	0.0017	U G	0.0017	0.0017	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-167	0.020	G B	0.00027	0.00027	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-169	0.00030	U G	0.00030	0.00030	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-170	0.044	E B	0.00024	0.000067	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-171/173	0.014	B	0.00049	0.000068	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-172	0.0065	B	0.00024	0.000066	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-174	0.037	E B	0.00024	0.000072	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-175	0.0016		0.00024	0.000020	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-176	0.0041		0.00024	0.000014	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-177	0.020	B	0.00024	0.000067	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-178	0.0060		0.00024	0.000020	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-179	0.012	B	0.00024	0.000015	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-180/193	0.072	E B	0.00049	0.000055	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-181	0.00095		0.00024	0.000060	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-182	0.00035		0.00024	0.000018	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-183	0.017	B	0.00024	0.000052	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-184	0.000041	J	0.00024	0.000016	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-185	0.0028		0.00024	0.000063	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-186	0.000020	J	0.00024	0.000015	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-204-2A (12292017)**

**Lab Sample ID: 680-147344-2**

**Date Collected: 12/29/17 12:20**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 81.4**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	0.034	E B	0.00024	0.000018	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-188	0.000045	J	0.00024	0.000015	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-189	0.0019		0.000024	0.0000068	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-190	0.0077		0.00024	0.000048	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-191	0.0017		0.00024	0.000049	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-192	0.000052	U	0.00024	0.000052	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-194	0.0095		0.00024	0.0000051	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-195	0.0035		0.00024	0.0000054	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-196	0.0057		0.00024	0.000018	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-197	0.00040		0.00024	0.000013	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-198/199	0.013		0.00049	0.000020	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-200	0.0016		0.00024	0.000016	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-201	0.0015		0.00024	0.000014	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-202	0.0024		0.00024	0.000016	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-203	0.0088		0.00024	0.000018	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-204	0.000015	U	0.00024	0.000015	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-205	0.00058		0.00024	0.0000040	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-206	0.0066		0.00024	0.0000043	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-207	0.00088		0.00024	0.0000031	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-208	0.0015		0.00024	0.0000034	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10
PCB-209	0.00046		0.00024	0.0000020	mg/Kg	☼	01/09/18 10:14	01/20/18 11:11	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	38		5 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-3L	46		5 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-4L	47		5 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-15L	55		5 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-19L	53		5 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-37L	65		5 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-54L	40		5 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-77L	85		10 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-81L	93		10 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-104L	52		10 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-105L	89		10 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-114L	78		10 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-118L	104		10 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-123L	79		10 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-126L	90		10 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-155L	56		10 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-156L/157L	72		10 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-167L	72		10 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-169L	69		10 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-188L	97		10 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-189L	98		10 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-202L	98		10 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-205L	99		10 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-206L	90		10 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-208L	105		10 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-209L	99		10 - 145	01/09/18 10:14	01/20/18 11:11	10

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-204-2A (12292017)**

**Lab Sample ID: 680-147344-2**

**Date Collected: 12/29/17 12:20**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 81.4**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	50		5 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-111L	77		10 - 145	01/09/18 10:14	01/20/18 11:11	10
PCB-178L	84		10 - 145	01/09/18 10:14	01/20/18 11:11	10

## Method: None - Total PCB Calculation from HRMS PCB-Congeners

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	4.7		0.0000020	0.0000050	mg/Kg			01/24/18 08:56	1



# Client Sample Results

Client: ARCADIS U.S., Inc.

Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-204-3A (12292017)**

**Date Collected: 12/29/17 12:00**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-3**

**Matrix: Solid**

**Percent Solids: 89.2**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.00025		0.00023	0.0000039	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-2	0.000024	J	0.00023	0.0000031	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-3	0.00011	J	0.00023	0.0000032	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-4	0.0018		0.00023	0.000033	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-5	0.00016	J	0.00023	0.000051	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-6	0.00032		0.00023	0.000054	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-7	0.00010	J	0.00023	0.000051	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-8	0.0061		0.00023	0.000053	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-9	0.000085	J	0.00023	0.000053	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-10	0.000054	J	0.00023	0.000022	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-11	0.000052	U	0.00023	0.000052	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-12/13	0.00018	J	0.00045	0.000051	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-14	0.000045	U	0.00023	0.000045	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-15	0.00061		0.00023	0.000050	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-16	0.0031		0.00023	0.000099	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-17	0.013		0.00023	0.000075	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-18/30	0.013		0.00045	0.000066	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-19	0.0051		0.00023	0.00011	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-20/28	0.055	E B	0.00045	0.00037	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-21/33	0.0083	B	0.00045	0.00035	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-22	0.0058	G	0.00038	0.00038	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-23	0.00036	U G	0.00036	0.00036	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-24	0.000060	U	0.00023	0.000060	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-25	0.00049	G	0.00036	0.00036	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-26/29	0.0013		0.00045	0.00036	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-27	0.00068		0.00023	0.000057	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-31	0.023	E G B	0.00034	0.00034	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-32	0.037	E	0.00023	0.000054	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-34	0.00037	U G	0.00037	0.00037	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-35	0.00037	U G	0.00037	0.00037	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-36	0.00034	U G	0.00034	0.00034	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-37	0.0033	G	0.00035	0.00035	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-38	0.00038	U G	0.00038	0.00038	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-39	0.00034	U G	0.00034	0.00034	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-40/71	0.057	E B	0.00045	0.00033	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-41	0.0016	G	0.00039	0.00039	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-42	0.031	E G B	0.00036	0.00036	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-43	0.0023	G	0.00040	0.00040	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-44/47/65	0.20	E B	0.00068	0.00032	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-45	0.00038	U G	0.00038	0.00038	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-46	0.013	G	0.00039	0.00039	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-48	0.0056	G B	0.00033	0.00033	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-49/69	0.14	E B	0.00045	0.00028	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-50/53	0.050	E B	0.00045	0.00032	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-51	0.034	E G B	0.00031	0.00031	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-52	0.25	E G B	0.00034	0.00034	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-54	0.0049		0.00023	0.0000038	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-55	0.00088	U G	0.00088	0.00088	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10
PCB-56	0.024	E G B	0.00092	0.00092	mg/Kg	☆	01/09/18 10:14	01/20/18 12:26	10

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-204-3A (12292017)**

**Lab Sample ID: 680-147344-3**

**Date Collected: 12/29/17 12:00**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 89.2**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	0.00088	U G	0.00088	0.00088	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-58	0.00086	U G	0.00086	0.00086	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-59/62/75	0.0056		0.00068	0.00025	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-60	0.0094	G	0.00088	0.00088	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-61/70/74/76	0.21	E B	0.00091	0.00086	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-63	0.0050	G	0.00078	0.00078	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-64	0.027	E B	0.00023	0.00023	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-66	0.10	E G B	0.00090	0.00090	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-67	0.00082	U G	0.00082	0.00082	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-68	0.0026	G B	0.00077	0.00077	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-72	0.0020	G	0.00083	0.00083	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-73	0.0016	G	0.00025	0.00025	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-77	0.0087	G	0.00084	0.00084	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-78	0.00089	U G	0.00089	0.00089	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-79	0.0030	G	0.00079	0.00079	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-80	0.00076	U G	0.00076	0.00076	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-81	0.00081	U G	0.00081	0.00081	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-82	0.041	E G B	0.0043	0.0043	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-83	0.0047	U G	0.0047	0.0047	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-84	0.096	E G B	0.0040	0.0040	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-85/116/117	0.060	G B	0.0030	0.0030	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-86/87/97/108/119/125	0.28	E G B	0.0031	0.0031	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-88/91	0.056	E G B	0.0035	0.0035	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-89	0.0038	U G	0.0038	0.0038	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-90/101/113	0.40	E G B	0.0032	0.0032	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-92	0.082	E G B	0.0037	0.0037	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-93/100	0.0040	G	0.0034	0.0034	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-107/124	0.017	G	0.0028	0.0028	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-94	0.0039	G	0.0036	0.0036	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-95	0.28	E G B	0.0034	0.0034	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-96	0.0029		0.00023	0.0000059	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-98/102	0.0084	G	0.0033	0.0033	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-99	0.16	E G B	0.0029	0.0029	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-103	0.0033	G	0.0032	0.0032	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-104	0.00038		0.00023	0.0000071	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-105	0.15	E G B	0.0029	0.0029	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-106	0.0029	U G	0.0029	0.0029	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-110/115	0.45	E G B	0.0028	0.0028	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-109	0.026	E G B	0.0026	0.0026	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-111	0.0027	U G	0.0027	0.0027	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-112	0.0028	U G	0.0028	0.0028	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-114	0.0069	G	0.0030	0.0030	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-118	0.33	E G B	0.0024	0.0024	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-120	0.0026	U G	0.0026	0.0026	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-121	0.0026	U G	0.0026	0.0026	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-122	0.0030	U G	0.0030	0.0030	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-123	0.0067	G	0.0029	0.0029	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-126	0.0032	U G	0.0032	0.0032	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-127	0.0028	U G	0.0028	0.0028	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-204-3A (12292017)**

**Lab Sample ID: 680-147344-3**

**Date Collected: 12/29/17 12:00**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 89.2**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	0.084	E G B	0.00089	0.00089	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-129/138/163	0.51	E G B	0.00094	0.00094	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-130	0.034	E G B	0.0012	0.0012	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-131	0.0076	G	0.0011	0.0011	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-132	0.16	E G B	0.0011	0.0011	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-133	0.0058	G	0.0011	0.0011	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-134/143	0.028	G B	0.0011	0.0011	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-135/151	0.12	E G B	0.0010	0.0010	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-136	0.050	E G B	0.00074	0.00074	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-137	0.026	E G B	0.00089	0.00089	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-139/140	0.0090	G	0.00096	0.00096	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-141	0.087	E G B	0.0011	0.0011	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-142	0.0011	U G	0.0011	0.0011	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-144	0.019	G B	0.00096	0.00096	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-145	0.00072	U G	0.00072	0.00072	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-146	0.055	E G B	0.00092	0.00092	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-147/149	0.31	E G B	0.00097	0.00097	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-148	0.00096	U G	0.00096	0.00096	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-150	0.00068	U G	0.00068	0.00068	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-152	0.00070	U G	0.00070	0.00070	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-153/168	0.34	E G B	0.00082	0.00082	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-154	0.0029	G	0.00087	0.00087	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-155	0.00065	U G	0.00065	0.00065	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-156/157	0.066	E G B	0.00045	0.00045	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-158	0.057	E G B	0.00074	0.00074	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-159	0.0019	G	0.00033	0.00033	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-160	0.00091	U G	0.00091	0.00091	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-161	0.00084	U G	0.00084	0.00084	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-162	0.0015	G	0.00032	0.00032	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-164	0.036	E G B	0.00087	0.00087	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-165	0.00086	U G	0.00086	0.00086	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-167	0.020	G B	0.00028	0.00028	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-169	0.00035	U G	0.00035	0.00035	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-170	0.058	E B	0.00023	0.000092	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-171/173	0.021	B	0.00045	0.000094	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-172	0.010	B	0.00023	0.000092	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-174	0.069	E B	0.00023	0.00010	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-175	0.0030		0.00023	0.000026	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-176	0.0082		0.00023	0.000019	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-177	0.033	E B	0.00023	0.000093	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-178	0.012		0.00023	0.000028	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-179	0.026	E B	0.00023	0.000020	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-180/193	0.13	E B	0.00045	0.000076	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-181	0.00091		0.00023	0.000082	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-182	0.00042		0.00023	0.000025	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-183	0.033	E B	0.00023	0.000072	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-184	0.000068	J	0.00023	0.000021	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-185	0.0062		0.00023	0.000088	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-186	0.000023	J	0.00023	0.000020	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-204-3A (12292017)**

**Lab Sample ID: 680-147344-3**

**Date Collected: 12/29/17 12:00**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 89.2**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	0.070	E B	0.00023	0.000025	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-188	0.00011	J	0.00023	0.000019	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-189	0.0021		0.000023	0.0000087	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-190	0.011		0.00023	0.000067	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-191	0.0026		0.00023	0.000068	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-192	0.000071	U	0.00023	0.000071	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-194	0.018		0.00023	0.000011	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-195	0.0077		0.00023	0.000012	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-196	0.012		0.00023	0.000012	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-197	0.00094		0.00023	0.0000082	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-198/199	0.026		0.00045	0.000012	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-200	0.0036		0.00023	0.0000099	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-201	0.0036		0.00023	0.0000089	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-202	0.0050		0.00023	0.000010	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-203	0.016		0.00023	0.000012	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-204	0.000093	U	0.00023	0.0000093	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-205	0.0010		0.00023	0.0000088	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-206	0.0076		0.00023	0.0000039	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-207	0.0012		0.00023	0.0000029	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-208	0.0022		0.00023	0.0000034	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10
PCB-209	0.00082		0.00023	0.0000023	mg/Kg	☼	01/09/18 10:14	01/20/18 12:26	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	47		5 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-3L	53		5 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-4L	53		5 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-15L	69		5 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-19L	62		5 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-37L	66		5 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-54L	41		5 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-77L	83		10 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-81L	89		10 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-104L	59		10 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-105L	91		10 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-114L	80		10 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-118L	105		10 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-123L	83		10 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-126L	85		10 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-155L	57		10 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-156L/157L	72		10 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-167L	69		10 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-169L	58		10 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-188L	103		10 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-189L	98		10 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-202L	99		10 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-205L	102		10 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-206L	100		10 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-208L	97		10 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-209L	97		10 - 145	01/09/18 10:14	01/20/18 12:26	10

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-204-3A (12292017)**

**Date Collected: 12/29/17 12:00**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-3**

**Matrix: Solid**

**Percent Solids: 89.2**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	56		5 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-111L	77		10 - 145	01/09/18 10:14	01/20/18 12:26	10
PCB-178L	80		10 - 145	01/09/18 10:14	01/20/18 12:26	10

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.0000030	U	0.0000030	0.0000030	mg/Kg	☼	01/08/18 14:08	01/12/18 13:05	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	66		40 - 135				01/08/18 14:08	01/12/18 13:05	1
13C-1,2,3,4,6,7,8-HpCDF	67		40 - 135				01/08/18 14:08	01/12/18 13:05	1
13C-1,2,3,4,7,8-HxCDF	63		40 - 135				01/08/18 14:08	01/12/18 13:05	1
13C-1,2,3,6,7,8-HxCDD	65		40 - 135				01/08/18 14:08	01/12/18 13:05	1
13C-1,2,3,7,8-PeCDD	61		40 - 135				01/08/18 14:08	01/12/18 13:05	1
13C-1,2,3,7,8-PeCDF	66		40 - 135				01/08/18 14:08	01/12/18 13:05	1
13C-2,3,7,8-TCDD	55		40 - 135				01/08/18 14:08	01/12/18 13:05	1
13C-2,3,7,8-TCDF	69		40 - 135				01/08/18 14:08	01/12/18 13:05	1
13C-OCDD	70		40 - 135				01/08/18 14:08	01/12/18 13:05	1

## Method: 8290A - Dioxins and Furans (HRGC/HRMS) - RA

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	72		40 - 135	01/08/18 14:08	01/12/18 13:31	1

## Method: None - Total PCB Calculation from HRMS PCB-Congeners

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	6.5		0.0000020	0.0000050	mg/Kg	-		01/24/18 08:56	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-202-1A (12292017)**

**Date Collected: 12/29/17 11:05**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-5**

**Matrix: Solid**

**Percent Solids: 85.5**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0000029	J	0.00011	0.0000006	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-2	0.0000020	J	0.00011	0.0000005	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-3	0.0000025	J	0.00011	0.0000006	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-4	0.0000090	J	0.00011	0.0000082	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-5	0.0000017	U	0.00011	0.0000017	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-6	0.0000018	U	0.00011	0.0000018	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-7	0.0000017	U	0.00011	0.0000017	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-8	0.0000020	J	0.00011	0.0000017	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-9	0.0000018	U	0.00011	0.0000018	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-10	0.0000057	U	0.00011	0.0000057	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-11	0.0000066	J B	0.00011	0.0000017	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-12/13	0.0000017	U	0.00022	0.0000017	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-14	0.0000015	U	0.00011	0.0000015	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-15	0.0000015	J	0.00011	0.0000017	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-16	0.0000022	J	0.00011	0.0000015	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-17	0.0000029	J	0.00011	0.0000011	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-18/30	0.0000056	J	0.00022	0.0000010	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-19	0.0000013	J	0.00011	0.0000016	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-20/28	0.0000012	J B	0.00022	0.0000026	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-21/33	0.0000057	J B	0.00022	0.0000025	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-22	0.0000028	J	0.00011	0.0000027	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-23	0.0000025	U	0.00011	0.0000025	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-24	0.00000092	U	0.00011	0.0000009	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-25	0.0000081	J	0.00011	0.0000025	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-26/29	0.0000013	J	0.00022	0.0000025	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-27	0.0000046	J	0.00011	0.0000008	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-31	0.0000093	J B	0.00011	0.0000024	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-32	0.0000048	J	0.00011	0.0000008	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-34	0.0000026	U	0.00011	0.0000026	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-35	0.0000055	J	0.00011	0.0000026	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-36	0.0000025	U	0.00011	0.0000025	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-37	0.0000040	J	0.00011	0.0000025	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-38	0.0000027	U	0.00011	0.0000027	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-39	0.0000024	U	0.00011	0.0000024	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-40/71	0.0000030	B	0.00022	0.0000044	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-41	0.0000052	U	0.00011	0.0000052	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-42	0.0000015	B	0.00011	0.0000048	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-43	0.0000078	J	0.00011	0.0000053	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-44/47/65	0.0015	B	0.00034	0.0000042	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-45	0.0000043	J B	0.00011	0.0000050	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-46	0.0000029	J	0.00011	0.0000052	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-48	0.0000054	J B	0.00011	0.0000044	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-49/69	0.00088	B	0.00022	0.0000037	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-50/53	0.00013	J B	0.00022	0.0000042	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-51	0.0000043	J B	0.00011	0.0000042	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-202-1A (12292017)**

**Lab Sample ID: 680-147344-5**

**Date Collected: 12/29/17 11:05**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 85.5**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-52	0.0047	B	0.00011	0.0000045	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-54	0.0000056	J	0.00011	0.0000005	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-55	0.000018	U	0.00011	0.000018	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-56	0.00041	B	0.00011	0.000019	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-57	0.000018	U	0.00011	0.000018	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-58	0.000017	U	0.00011	0.000017	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-59/62/75	0.000039	J	0.00034	0.0000033	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-60	0.00012		0.00011	0.000018	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-61/70/74/76	0.0035	B	0.00045	0.000017	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-63	0.000027	J	0.00011	0.000016	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-64	0.00054	B	0.00011	0.0000031	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-66	0.0011	B	0.00011	0.000018	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-67	0.000017	U	0.00011	0.000017	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-68	0.000016	U	0.00011	0.000016	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-72	0.000017	U	0.00011	0.000017	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-73	0.0000034	U	0.00011	0.0000034	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-77	0.00019	G	0.000018	0.000018	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-78	0.000018	U	0.00011	0.000018	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-79	0.00012		0.00011	0.000016	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-80	0.000083	J	0.00011	0.000015	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-81	0.000017	U G	0.000017	0.000017	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-82	0.0021	G B	0.00030	0.00030	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-83	0.00032	U G	0.00032	0.00032	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-84	0.0039	G B	0.00028	0.00028	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-85/116/117	0.0032	B	0.00034	0.00021	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-86/87/97/108/119/125	0.013	B	0.00067	0.00022	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-88/91	0.0020	G B	0.00024	0.00024	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-89	0.00026	U G	0.00026	0.00026	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-90/101/113	0.019	B	0.00034	0.00022	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-92	0.0035	G B	0.00025	0.00025	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-93/100	0.00024	U G	0.00024	0.00024	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-107/124	0.00086		0.00022	0.00019	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-94	0.00025	U G	0.00025	0.00025	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-95	0.012	E G B	0.00024	0.00024	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-96	0.000069	J	0.00011	0.0000005	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-98/102	0.00025	G	0.00023	0.00023	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-99	0.0076	G B	0.00020	0.00020	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-103	0.00022	U G	0.00022	0.00022	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-104	0.00000065	U	0.00011	0.0000006	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-105	0.0072	G B	0.00020	0.00020	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-106	0.00020	U G	0.00020	0.00020	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-110/115	0.026	E B	0.00022	0.00019	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-109	0.0012	G B	0.00018	0.00018	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-111	0.00019	U G	0.00019	0.00019	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-112	0.00019	U G	0.00019	0.00019	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-114	0.00026	G	0.00020	0.00020	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-118	0.018	E G B	0.00018	0.00018	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-202-1A (12292017)**

**Lab Sample ID: 680-147344-5**

**Date Collected: 12/29/17 11:05**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 85.5**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-120	0.00018	U G	0.00018	0.00018	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
PCB-121	0.00018	U G	0.00018	0.00018	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
PCB-122	0.00021	U G	0.00021	0.00021	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-123</b>	<b>0.00029</b>	<b>G</b>	0.00019	0.00019	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
PCB-126	0.00021	U G	0.00021	0.00021	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
PCB-127	0.00020	U G	0.00020	0.00020	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-128/166</b>	<b>0.0046</b>	<b>B</b>	0.00022	0.000059	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-129/138/163</b>	<b>0.026</b>	<b>B</b>	0.00034	0.000062	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-130</b>	<b>0.0017</b>	<b>B</b>	0.00011	0.000078	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-131</b>	<b>0.00033</b>		0.00011	0.000072	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-132</b>	<b>0.0078</b>	<b>B</b>	0.00011	0.000071	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-133</b>	<b>0.00023</b>		0.00011	0.000070	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-134/143</b>	<b>0.0012</b>	<b>B</b>	0.00022	0.000073	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-135/151</b>	<b>0.0045</b>	<b>B</b>	0.00022	0.000066	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-136</b>	<b>0.0020</b>	<b>B</b>	0.00011	0.000049	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-137</b>	<b>0.0014</b>	<b>B</b>	0.00011	0.000059	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-139/140</b>	<b>0.00042</b>		0.00022	0.000064	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-141</b>	<b>0.0038</b>	<b>B</b>	0.00011	0.000070	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
PCB-142	0.000075	U	0.00011	0.000075	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-144</b>	<b>0.00073</b>	<b>B</b>	0.00011	0.000064	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
PCB-145	0.000048	U	0.00011	0.000048	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-146</b>	<b>0.0024</b>	<b>B</b>	0.00011	0.000061	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-147/149</b>	<b>0.013</b>	<b>B</b>	0.00022	0.000064	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
PCB-148	0.000064	U	0.00011	0.000064	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
PCB-150	0.000045	U	0.00011	0.000045	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
PCB-152	0.000046	U	0.00011	0.000046	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-153/168</b>	<b>0.015</b>	<b>B</b>	0.00022	0.000054	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-154</b>	<b>0.000089</b>	<b>J</b>	0.00011	0.000058	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
PCB-155	0.000051	U	0.00011	0.000051	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-156/157</b>	<b>0.0036</b>	<b>B</b>	0.00022	0.000022	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-158</b>	<b>0.0028</b>	<b>B</b>	0.00011	0.000049	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-159</b>	<b>0.000054</b>	<b>J</b>	0.00011	0.000017	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
PCB-160	0.000060	U	0.00011	0.000060	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
PCB-161	0.000056	U	0.00011	0.000056	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-162</b>	<b>0.000087</b>	<b>J</b>	0.00011	0.000016	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-164</b>	<b>0.0016</b>	<b>B</b>	0.00011	0.000058	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
PCB-165	0.000057	U	0.00011	0.000057	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-167</b>	<b>0.0011</b>	<b>G B</b>	0.00014	0.000014	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
PCB-169	0.000017	U G	0.00017	0.000017	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-170</b>	<b>0.0028</b>	<b>B</b>	0.00011	0.0000044	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-171/173</b>	<b>0.00091</b>	<b>B</b>	0.00022	0.0000045	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-172</b>	<b>0.00041</b>	<b>B</b>	0.00011	0.0000044	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-174</b>	<b>0.0024</b>	<b>B</b>	0.00011	0.0000048	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-175</b>	<b>0.000098</b>	<b>J</b>	0.00011	0.0000012	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-176</b>	<b>0.00024</b>		0.00011	0.0000008	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
6									
<b>PCB-177</b>	<b>0.0013</b>	<b>B</b>	0.00011	0.0000044	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-178</b>	<b>0.00033</b>		0.00011	0.0000013	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5
<b>PCB-179</b>	<b>0.00065</b>	<b>B</b>	0.00011	0.0000009	mg/Kg	☆	01/09/18 10:14	01/17/18 19:52	5

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TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-202-1A (12292017)**

**Lab Sample ID: 680-147344-5**

**Date Collected: 12/29/17 11:05**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 85.5**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-180/193	0.0046	B	0.00022	0.0000036	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-181	0.000059	J	0.00011	0.0000039	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-182	0.000015	J	0.00011	0.0000011	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-183	0.0011	B	0.00011	0.0000034	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-184	0.0000024	J	0.00011	0.0000009	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
				5					
PCB-185	0.00019		0.00011	0.0000042	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-186	0.00000091	U	0.00011	0.0000009	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
				1					
PCB-187	0.0019	B	0.00011	0.0000011	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-188	0.0000025	J	0.00011	0.0000008	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
				8					
PCB-189	0.00011		0.000011	0.0000007	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
				9					
PCB-190	0.00048		0.00011	0.0000032	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-191	0.00011		0.00011	0.0000032	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-192	0.0000034	U	0.00011	0.0000034	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-194	0.00054		0.00011	0.0000013	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-195	0.00021		0.00011	0.0000014	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-196	0.00031		0.00011	0.0000014	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-197	0.000024	J	0.00011	0.0000010	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-198/199	0.00064		0.00022	0.0000015	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-200	0.000082	J	0.00011	0.0000012	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-201	0.000082	J	0.00011	0.0000011	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-202	0.00012		0.00011	0.0000012	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-203	0.00043		0.00011	0.0000014	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-204	0.0000012	U	0.00011	0.0000012	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-205	0.000032	J	0.00011	0.0000011	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-206	0.00035		0.00011	0.0000014	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-207	0.000036	J	0.00011	0.0000010	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-208	0.000095	J	0.00011	0.0000011	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
PCB-209	0.00012		0.00011	0.0000007	mg/Kg	☼	01/09/18 10:14	01/17/18 19:52	5
				1					

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	46		5 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-3L	50		5 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-4L	49		5 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-15L	59		5 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-19L	53		5 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-37L	73		5 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-54L	50		5 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-77L	92		10 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-81L	94		10 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-104L	62		10 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-105L	92		10 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-114L	89		10 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-118L	92		10 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-123L	91		10 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-126L	91		10 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-155L	74		10 - 145	01/09/18 10:14	01/17/18 19:52	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-202-1A (12292017)**

**Lab Sample ID: 680-147344-5**

**Date Collected: 12/29/17 11:05**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 85.5**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-156L/157L	106		10 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-167L	106		10 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-169L	92		10 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-188L	96		10 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-189L	88		10 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-202L	101		10 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-205L	92		10 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-206L	87		10 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-208L	99		10 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-209L	94		10 - 145	01/09/18 10:14	01/17/18 19:52	5
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	62		5 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-111L	86		10 - 145	01/09/18 10:14	01/17/18 19:52	5
PCB-178L	107		10 - 145	01/09/18 10:14	01/17/18 19:52	5

## Method: None - Total PCB Calculation from HRMS PCB-Congeners

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.25		0.0000020	0.0000050	mg/Kg	-		01/24/18 08:56	1



# Client Sample Results

Client: ARCADIS U.S., Inc.

Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: EB-1 (12292017)**

**Date Collected: 12/29/17 13:00**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-10**

**Matrix: Water**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.73	U	200	0.73	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-2	0.54	U	200	0.54	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-3	0.53	U	200	0.53	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-4	7.6	U	200	7.6	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-5	6.4	U	200	6.4	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-6	6.7	U	200	6.7	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-7	6.4	U	200	6.4	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-8	6.5	U	200	6.5	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-9	6.6	U	200	6.6	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-10	5.2	U	200	5.2	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-11	6.4	U	200	6.4	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-12/13	6.4	U	400	6.4	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-14	5.6	U	200	5.6	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-15	6.4	U	200	6.4	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-16	1.9	U	200	1.9	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-17	1.4	U	200	1.4	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-18/30	1.2	U	400	1.2	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-19	1.7	U	200	1.7	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-20/28	0.83	U	400	0.83	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-21/33	0.79	U	400	0.79	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-22	0.86	U	200	0.86	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-23	0.80	U	200	0.80	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-24	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-25	0.80	U	200	0.80	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-26/29	0.80	U	400	0.80	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-27	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-31	0.76	U	200	0.76	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-32	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-34	0.83	U	200	0.83	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-35	0.84	U	200	0.84	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-36	0.78	U	200	0.78	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-37	0.87	U	200	0.87	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-38	0.86	U	200	0.86	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-39	0.76	U	200	0.76	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-40/71	0.64	U	400	0.64	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-41	0.75	U	200	0.75	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-42	0.70	U	200	0.70	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-43	0.77	U	200	0.77	pg/L		01/09/18 07:42	01/10/18 22:16	1
<b>PCB-44/47/65</b>	<b>3.6</b>	<b>J B</b>	600	0.61	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-45	0.72	U	200	0.72	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-46	0.76	U	200	0.76	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-48	0.64	U	200	0.64	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-49/69	0.53	U	400	0.53	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-50/53	0.61	U	400	0.61	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-51	0.60	U	200	0.60	pg/L		01/09/18 07:42	01/10/18 22:16	1
<b>PCB-52</b>	<b>2.8</b>	<b>J B</b>	200	0.65	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-54	0.76	U	200	0.76	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-55	0.80	U	200	0.80	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-56	0.83	U	200	0.83	pg/L		01/09/18 07:42	01/10/18 22:16	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: EB-1 (12292017)**

**Lab Sample ID: 680-147344-10**

**Date Collected: 12/29/17 13:00**

**Matrix: Water**

**Date Received: 12/29/17 14:00**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	0.79	U	200	0.79	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-58	0.77	U	200	0.77	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-59/62/75	0.47	U	600	0.47	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-60	0.79	U	200	0.79	pg/L		01/09/18 07:42	01/10/18 22:16	1
<b>PCB-61/70/74/76</b>	<b>2.3</b>	<b>J B</b>	800	0.77	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-63	0.71	U	200	0.71	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-64	0.45	U	200	0.45	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-66	0.81	U	200	0.81	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-67	0.74	U	200	0.74	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-68	0.70	U	200	0.70	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-72	0.75	U	200	0.75	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-73	0.49	U	200	0.49	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-77	0.83	U	20	0.83	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-78	0.81	U	200	0.81	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-79	0.71	U	200	0.71	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-80	0.69	U	200	0.69	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-81	0.85	U	20	0.85	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-82	1.7	U	200	1.7	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-83	1.8	U	200	1.8	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-84	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-85/116/117	1.2	U	600	1.2	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-86/87/97/108/119/125	1.2	U	1200	1.2	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-88/91	1.4	U	400	1.4	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-89	1.5	U	200	1.5	pg/L		01/09/18 07:42	01/10/18 22:16	1
<b>PCB-90/101/113</b>	<b>4.7</b>	<b>J</b>	600	1.2	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-92	1.4	U	200	1.4	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-93/100	1.3	U	400	1.3	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-107/124	1.1	U	400	1.1	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-94	1.4	U	200	1.4	pg/L		01/09/18 07:42	01/10/18 22:16	1
<b>PCB-95</b>	<b>2.7</b>	<b>J</b>	200	1.3	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-96	0.92	U	200	0.92	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-98/102	1.3	U	400	1.3	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-99	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-103	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-104	0.76	U	200	0.76	pg/L		01/09/18 07:42	01/10/18 22:16	1
<b>PCB-105</b>	<b>2.3</b>	<b>J</b>	20	1.1	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-106	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 22:16	1
<b>PCB-110/115</b>	<b>6.2</b>	<b>J</b>	400	1.1	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-109	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-111	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-112	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-114	1.3	U	20	1.3	pg/L		01/09/18 07:42	01/10/18 22:16	1
<b>PCB-118</b>	<b>4.7</b>	<b>J</b>	20	1.3	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-120	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-121	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-122	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-123	1.1	U	20	1.1	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-126	1.2	U	20	1.2	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-127	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 22:16	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: EB-1 (12292017)**

**Lab Sample ID: 680-147344-10**

**Date Collected: 12/29/17 13:00**

**Matrix: Water**

**Date Received: 12/29/17 14:00**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	1.2	U	400	1.2	pg/L		01/09/18 07:42	01/10/18 22:16	1
<b>PCB-129/138/163</b>	<b>6.4</b>	<b>J</b>	600	1.3	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-130	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-131	1.5	U	200	1.5	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-132	1.5	U	200	1.5	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-133	1.5	U	200	1.5	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-134/143	1.5	U	400	1.5	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-135/151	1.4	U	400	1.4	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-136	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-137	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-139/140	1.3	U	400	1.3	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-141	1.5	U	200	1.5	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-142	1.6	U	200	1.6	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-144	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-145	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-146	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 22:16	1
<b>PCB-147/149</b>	<b>3.0</b>	<b>J</b>	400	1.3	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-148	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-150	0.94	U	200	0.94	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-152	0.97	U	200	0.97	pg/L		01/09/18 07:42	01/10/18 22:16	1
<b>PCB-153/168</b>	<b>3.9</b>	<b>J</b>	400	1.1	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-154	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-155	0.90	U	200	0.90	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-156/157	1.1	U	40	1.1	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-158	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-159	0.75	U	200	0.75	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-160	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-161	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-162	0.72	U	200	0.72	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-164	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-165	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-167	0.67	U	20	0.67	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-169	0.72	U	20	0.72	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-170	0.52	U	200	0.52	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-171/173	0.53	U	400	0.53	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-172	0.52	U	200	0.52	pg/L		01/09/18 07:42	01/10/18 22:16	1
<b>PCB-174</b>	<b>1.0</b>	<b>J</b>	200	0.56	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-175	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-176	0.96	U	200	0.96	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-177	0.52	U	200	0.52	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-178	1.4	U	200	1.4	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-179	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 22:16	1
<b>PCB-180/193</b>	<b>1.8</b>	<b>J B</b>	400	0.43	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-181	0.46	U	200	0.46	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-182	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 22:16	1
<b>PCB-183</b>	<b>1.2</b>	<b>J B</b>	200	0.40	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-184	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-185	0.49	U	200	0.49	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-186	1.0	U	200	1.0	pg/L		01/09/18 07:42	01/10/18 22:16	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: EB-1 (12292017)**

**Lab Sample ID: 680-147344-10**

**Date Collected: 12/29/17 13:00**

**Matrix: Water**

**Date Received: 12/29/17 14:00**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-188	1.3	U	200	1.3	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-189	0.76	U	20	0.76	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-190	0.38	U	200	0.38	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-191	0.38	U	200	0.38	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-192	0.40	U	200	0.40	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-194	0.88	U	200	0.88	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-195	0.93	U	200	0.93	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-196	0.98	U	200	0.98	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-197	0.69	U	200	0.69	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-198/199	1.0	U	400	1.0	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-200	0.84	U	200	0.84	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-201	0.75	U	200	0.75	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-202	0.92	U	200	0.92	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-203	0.98	U	200	0.98	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-204	0.78	U	200	0.78	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-205	0.66	U	200	0.66	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-206	1.4	U	200	1.4	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-207	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-208	1.2	U	200	1.2	pg/L		01/09/18 07:42	01/10/18 22:16	1
PCB-209	1.1	U	200	1.1	pg/L		01/09/18 07:42	01/10/18 22:16	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	56		5 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-3L	69		5 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-4L	71		5 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-15L	85		5 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-19L	87		5 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-37L	80		5 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-54L	64		5 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-77L	92		10 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-81L	90		10 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-104L	82		10 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-105L	96		10 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-114L	78		10 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-118L	76		10 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-123L	90		10 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-126L	92		10 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-155L	82		10 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-156L/157L	94		10 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-167L	93		10 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-169L	88		10 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-188L	67		10 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-189L	100		10 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-202L	86		10 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-205L	93		10 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-206L	83		10 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-208L	92		10 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-209L	93		10 - 145	01/09/18 07:42	01/10/18 22:16	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: EB-1 (12292017)**

**Lab Sample ID: 680-147344-10**

**Date Collected: 12/29/17 13:00**

**Matrix: Water**

**Date Received: 12/29/17 14:00**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	83		5 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-111L	96		10 - 145	01/09/18 07:42	01/10/18 22:16	1
PCB-178L	103		10 - 145	01/09/18 07:42	01/10/18 22:16	1

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.24	U	10	0.24	pg/L		01/09/18 07:55	01/11/18 16:41	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	77		40 - 135				01/09/18 07:55	01/11/18 16:41	1
13C-1,2,3,7,8-PeCDD	85		40 - 135				01/09/18 07:55	01/11/18 16:41	1
13C-1,2,3,6,7,8-HxCDD	76		40 - 135				01/09/18 07:55	01/11/18 16:41	1
13C-1,2,3,4,6,7,8-HpCDD	92		40 - 135				01/09/18 07:55	01/11/18 16:41	1
13C-OCDD	94		40 - 135				01/09/18 07:55	01/11/18 16:41	1
13C-2,3,7,8-TCDF	77		40 - 135				01/09/18 07:55	01/11/18 16:41	1
13C-1,2,3,7,8-PeCDF	80		40 - 135				01/09/18 07:55	01/11/18 16:41	1
13C-1,2,3,4,7,8-HxCDF	91		40 - 135				01/09/18 07:55	01/11/18 16:41	1
13C-1,2,3,4,6,7,8-HpCDF	84		40 - 135				01/09/18 07:55	01/11/18 16:41	1

## Method: None - Total PCB Calculation from HRMS PCB-Congeners

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	47	J	200	20	pg/L			01/24/18 08:56	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: DUP-1 (12292017)**

**Lab Sample ID: 680-147344-11**

**Date Collected: 12/29/17 00:00**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 80.5**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.000090	J	0.00051	0.0000057	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-2	0.000011	J	0.00051	0.0000048	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-3	0.000035	J	0.00051	0.0000053	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-4	0.000055	U	0.00051	0.000055	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-5	0.000026	U	0.00051	0.000026	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-6	0.000074	J	0.00051	0.000027	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-7	0.000026	U	0.00051	0.000026	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-8	0.00039	J	0.00051	0.000026	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-9	0.000027	U	0.00051	0.000027	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-10	0.000039	U	0.00051	0.000039	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-11	0.000026	U	0.00051	0.000026	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-12/13	0.000026	U	0.0010	0.000026	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-14	0.000023	U	0.00051	0.000023	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-15	0.00016	J	0.00051	0.000026	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-16	0.00025	J	0.00051	0.000016	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-17	0.00038	J	0.00051	0.000012	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-18/30	0.00069	J	0.0010	0.000010	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-19	0.00014	J	0.00051	0.000018	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-20/28	0.0014	B	0.0010	0.000040	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-21/33	0.0021	B	0.0010	0.000037	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-22	0.00030	J	0.00051	0.000041	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-23	0.000038	U	0.00051	0.000038	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-24	0.0000095	U	0.00051	0.0000095	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-25	0.000051	J	0.00051	0.000038	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-26/29	0.00019	J	0.0010	0.000038	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-27	0.000041	J	0.00051	0.0000091	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-31	0.0014	B	0.00051	0.000036	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-32	0.00041	J	0.00051	0.0000087	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-34	0.000087	J	0.00051	0.000040	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-35	0.000040	U	0.00051	0.000040	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-36	0.000037	U	0.00051	0.000037	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-37	0.00060		0.00051	0.000037	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-38	0.000041	U	0.00051	0.000041	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-39	0.000036	U	0.00051	0.000036	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-40/71	0.0039	B	0.0010	0.000061	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-41	0.00014	J	0.00051	0.000071	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-42	0.0019	B	0.00051	0.000066	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-43	0.00018	J	0.00051	0.000072	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-44/47/65	0.021	B	0.0015	0.000057	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-45	0.00045	J B	0.00051	0.000068	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-46	0.00041	J	0.00051	0.000072	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-48	0.00068	B	0.00051	0.000061	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-49/69	0.014	B	0.0010	0.000050	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-50/53	0.0019	B	0.0010	0.000058	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-51	0.00060	B	0.00051	0.000057	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-52	0.062	E B	0.00051	0.000061	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-54	0.000086	J	0.00051	0.0000078	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-55	0.00025	U	0.00051	0.000025	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-56	0.0053	B	0.00051	0.000026	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: DUP-1 (12292017)**

**Lab Sample ID: 680-147344-11**

**Date Collected: 12/29/17 00:00**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 80.5**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	0.00025	U	0.00051	0.00025	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-58	0.00024	U	0.00051	0.00024	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-59/62/75</b>	<b>0.00054</b>	<b>J</b>	0.0015	0.000045	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-60</b>	<b>0.0021</b>		0.00051	0.00024	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-61/70/74/76</b>	<b>0.064</b>	<b>B</b>	0.0020	0.00024	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-63</b>	<b>0.00075</b>		0.00051	0.00022	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-64</b>	<b>0.0066</b>	<b>B</b>	0.00051	0.000042	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-66</b>	<b>0.019</b>	<b>B</b>	0.00051	0.00025	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-67	0.00023	U	0.00051	0.00023	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-68</b>	<b>0.00027</b>	<b>J B</b>	0.00051	0.00022	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-72</b>	<b>0.00059</b>		0.00051	0.00023	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-73	0.000046	U	0.00051	0.000046	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-77</b>	<b>0.0022</b>	<b>G</b>	0.00024	0.00024	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-78	0.00025	U	0.00051	0.00025	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-79</b>	<b>0.0011</b>		0.00051	0.00022	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-80	0.00021	U	0.00051	0.00021	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-81	0.00023	U G	0.00023	0.00023	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-82</b>	<b>0.015</b>	<b>G B</b>	0.0021	0.0021	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-83	0.0023	U G	0.0023	0.0023	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-84</b>	<b>0.030</b>	<b>G B</b>	0.0019	0.0019	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-85/116/117</b>	<b>0.027</b>	<b>B</b>	0.0015	0.0015	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-86/87/97/108/119/125</b>	<b>0.10</b>	<b>B</b>	0.0031	0.0015	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-88/91</b>	<b>0.015</b>	<b>G B</b>	0.0017	0.0017	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-89	0.0018	U G	0.0018	0.0018	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-90/101/113</b>	<b>0.16</b>	<b>E B</b>	0.0015	0.0015	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-92</b>	<b>0.030</b>	<b>G B</b>	0.0018	0.0018	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-93/100	0.0017	U G	0.0017	0.0017	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-107/124</b>	<b>0.0068</b>	<b>G</b>	0.0013	0.0013	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-94	0.0018	U G	0.0018	0.0018	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-95</b>	<b>0.096</b>	<b>E G B</b>	0.0017	0.0017	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-96</b>	<b>0.00052</b>		0.00051	0.0000076	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-98/102</b>	<b>0.0019</b>	<b>G</b>	0.0016	0.0016	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-99</b>	<b>0.064</b>	<b>E G B</b>	0.0014	0.0014	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-103	0.0015	U G	0.0015	0.0015	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-104</b>	<b>0.000010</b>	<b>J</b>	0.00051	0.000010	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-105</b>	<b>0.074</b>	<b>E G B</b>	0.0013	0.0013	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-106	0.0014	U G	0.0014	0.0014	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-110/115</b>	<b>0.20</b>	<b>E G B</b>	0.0013	0.0013	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-109</b>	<b>0.012</b>	<b>G B</b>	0.0013	0.0013	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-111	0.0013	U G	0.0013	0.0013	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-112	0.0014	U G	0.0014	0.0014	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-114</b>	<b>0.0027</b>	<b>G</b>	0.0014	0.0014	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-118</b>	<b>0.17</b>	<b>E G B</b>	0.0011	0.0011	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-120	0.0012	U G	0.0012	0.0012	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-121	0.0012	U G	0.0012	0.0012	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-122	0.0015	U G	0.0015	0.0015	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
<b>PCB-123</b>	<b>0.0022</b>	<b>G</b>	0.0014	0.0014	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-126	0.0014	U G	0.0014	0.0014	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-127	0.0014	U G	0.0014	0.0014	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: DUP-1 (12292017)**

**Lab Sample ID: 680-147344-11**

**Date Collected: 12/29/17 00:00**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 80.5**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	0.039	B	0.0010	0.00085	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-129/138/163	0.23	E B	0.0015	0.00090	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-130	0.015	G B	0.0011	0.0011	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-131	0.0026	G	0.0010	0.0010	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-132	0.062	E G B	0.0010	0.0010	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-133	0.0023	G	0.0010	0.0010	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-134/143	0.010	G B	0.0011	0.0011	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-135/151	0.041	B	0.0010	0.00096	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-136	0.016	G B	0.00071	0.00071	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-137	0.010	G B	0.00085	0.00085	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-139/140	0.0035		0.0010	0.00092	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-141	0.030	G B	0.0010	0.0010	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-142	0.0011	U G	0.0011	0.0011	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-144	0.0060	G B	0.00092	0.00092	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-145	0.00069	U G	0.00069	0.00069	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-146	0.022	G B	0.00088	0.00088	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-147/149	0.11	B	0.0010	0.00093	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-148	0.00092	U G	0.00092	0.00092	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-150	0.00065	U G	0.00065	0.00065	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-152	0.00067	U G	0.00067	0.00067	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-153/168	0.14	E B	0.0010	0.00078	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-154	0.00083	U G	0.00083	0.00083	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-155	0.00065	U G	0.00065	0.00065	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-156/157	0.029	G B	0.00021	0.00021	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-158	0.023	G B	0.00071	0.00071	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-159	0.00043	J	0.00051	0.00015	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-160	0.00087	U G	0.00087	0.00087	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-161	0.00081	U G	0.00081	0.00081	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-162	0.00069		0.00051	0.00015	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-164	0.015	G B	0.00084	0.00084	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-165	0.00083	U G	0.00083	0.00083	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-167	0.0091	G B	0.00013	0.00013	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-169	0.00015	U G	0.00015	0.00015	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-170	0.019	B	0.00051	0.000026	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-171/173	0.0060	B	0.0010	0.000027	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-172	0.0027	B	0.00051	0.000026	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-174	0.016	B	0.00051	0.000029	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-175	0.00069		0.00051	0.000014	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-176	0.0017		0.00051	0.000010	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-177	0.0087	B	0.00051	0.000026	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-178	0.0025		0.00051	0.000015	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-179	0.0048	B	0.00051	0.000011	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-180/193	0.029	B	0.0010	0.000022	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-181	0.00041	J	0.00051	0.000024	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-182	0.00016	J	0.00051	0.000013	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-183	0.0070	B	0.00051	0.000020	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-184	0.000019	J	0.00051	0.000011	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-185	0.0012		0.00051	0.000025	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-186	0.000011	U	0.00051	0.000011	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: DUP-1 (12292017)**

**Lab Sample ID: 680-147344-11**

**Date Collected: 12/29/17 00:00**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 80.5**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	0.014	B	0.00051	0.000013	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-188	0.000019	J	0.00051	0.000010	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-189	0.00079		0.000051	0.000012	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-190	0.0032		0.00051	0.000019	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-191	0.00074		0.00051	0.000019	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-192	0.000020	U	0.00051	0.000020	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-194	0.0039		0.00051	0.0000098	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-195	0.0015		0.00051	0.000010	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-196	0.0022		0.00051	0.000013	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-197	0.00017	J	0.00051	0.0000088	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-198/199	0.0051		0.0010	0.000013	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-200	0.00068		0.00051	0.000011	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-201	0.00061		0.00051	0.0000096	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-202	0.00090		0.00051	0.000010	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-203	0.0034		0.00051	0.000013	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-204	0.000010	U	0.00051	0.000010	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-205	0.00025	J	0.00051	0.0000082	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-206	0.0025		0.00051	0.000012	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-207	0.00033	J	0.00051	0.0000088	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-208	0.00060		0.00051	0.0000098	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20
PCB-209	0.00023	J	0.00051	0.0000066	mg/Kg	☼	01/09/18 10:14	01/20/18 13:41	20

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	39		5 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-3L	43		5 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-4L	42		5 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-15L	52		5 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-19L	54		5 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-37L	56		5 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-54L	40		5 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-77L	78		10 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-81L	80		10 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-104L	50		10 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-105L	84		10 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-114L	75		10 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-118L	90		10 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-123L	76		10 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-126L	82		10 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-155L	61		10 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-156L/157L	80		10 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-167L	76		10 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-169L	74		10 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-188L	93		10 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-189L	92		10 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-202L	94		10 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-205L	85		10 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-206L	82		10 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-208L	91		10 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-209L	93		10 - 145	01/09/18 10:14	01/20/18 13:41	20

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: DUP-1 (12292017)**

**Lab Sample ID: 680-147344-11**

**Date Collected: 12/29/17 00:00**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 80.5**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	52		5 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-111L	76		10 - 145	01/09/18 10:14	01/20/18 13:41	20
PCB-178L	97		10 - 145	01/09/18 10:14	01/20/18 13:41	20

## Method: None - Total PCB Calculation from HRMS PCB-Congeners

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	2.2		0.0000020	0.0000050	mg/Kg			01/24/18 08:56	1



# Toxicity Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

Client Sample ID: SB-204-1A (12292017)

Lab Sample ID: 680-147344-1

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	EDL	Unit	TEF	TEQ	Method
PCB-77	0.00028	G F1 F2	0.000024	0.000024	mg/Kg	0.0001	0.000000028	1668C
PCB-81	0.000025	U G	0.000025	0.000025	mg/Kg	0.0003	0.00	1668C
PCB-105	0.0090	G B F2	0.00016	0.00016	mg/Kg	0.00003	0.000000027	1668C
PCB-114	0.00030	G F2 F1	0.00017	0.00017	mg/Kg	0.00003	0.000000009	1668C
PCB-118	0.022	G B F2	0.00017	0.00017	mg/Kg	0.00003	0.000000066	1668C
PCB-123	0.00024	G F1	0.00017	0.00017	mg/Kg	0.00003	0.000000007	1668C
PCB-126	0.00016	U G	0.00016	0.00016	mg/Kg	0.1	0.00	1668C
PCB-156/157	0.0037	B F2	0.000046	0.000024	mg/Kg	0.00003	0.000000011	1668C
PCB-167	0.0011	B F2	0.000023	0.000015	mg/Kg	0.00003	0.000000033	1668C
PCB-169	0.000016	U	0.000023	0.000016	mg/Kg	0.03	0.00	1668C
PCB-189	0.00011	F1	0.000023	0.0000013	mg/Kg	0.00003	0.000000003	1668C
						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	NONE	NONE	Unit	TEF	TEQ	Method
Total PCB TEQ					mg/Kg		0.0000011	TEQ
Total TEQ					mg/Kg		0.0000011	TEQ

Client Sample ID: SB-204-2A (12292017)

Lab Sample ID: 680-147344-2

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	EDL	Unit	TEF	TEQ	Method
PCB-77	0.0045	G	0.00042	0.00042	mg/Kg	0.0001	0.00000045	1668C
PCB-81	0.00040	U G	0.00040	0.00040	mg/Kg	0.0003	0.00	1668C
PCB-105	0.15	E G B	0.0025	0.0025	mg/Kg	0.00003	0.00000045	1668C
PCB-114	0.0066	G	0.0027	0.0027	mg/Kg	0.00003	0.00000020	1668C
PCB-118	0.32	E G B	0.0021	0.0021	mg/Kg	0.00003	0.00000096	1668C
PCB-123	0.0047	G	0.0028	0.0028	mg/Kg	0.00003	0.00000014	1668C
PCB-126	0.0026	U G	0.0026	0.0026	mg/Kg	0.1	0.00	1668C
PCB-156/157	0.069	E G B	0.00044	0.00044	mg/Kg	0.00003	0.00000021	1668C
PCB-167	0.020	G B	0.00027	0.00027	mg/Kg	0.00003	0.00000060	1668C
PCB-169	0.00030	U G	0.00030	0.00030	mg/Kg	0.03	0.00	1668C
PCB-189	0.0019		0.000024	0.0000068	mg/Kg	0.00003	0.00000057	1668C
						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	MDL	Unit	TEF	TEQ	Method
Polychlorinated biphenyls, Total	4.7		0.0000020	0.0000050	mg/Kg		0.000018	None

## TEF Reference:

WHO 2005 = World Health Organization (WHO) 2005 TEF, Dioxins, Furans and PCB Congeners

Note: The analytes PCB-156 and PCB-157 coelute as a single peak.

TestAmerica Savannah



# Toxicity Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

## Client Sample ID: SB-204-2A (12292017) (Continued)

## Lab Sample ID: 680-147344-2

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	NONE	NONE	Unit	TEF	TEQ	Method
Total PCB TEQ					mg/Kg		0.000018	TEQ
Total TEQ					mg/Kg		0.000018	TEQ

## Client Sample ID: SB-204-3A (12292017)

## Lab Sample ID: 680-147344-3

Analyte	Result	Qualifier	RL	EDL	Unit	WHO 2005		Method
						ND = 0		
						TEF	TEQ	
PCB-77	0.0087	G	0.00084	0.00084	mg/Kg	0.0001	0.00000087	1668C
PCB-81	0.00081	U G	0.00081	0.00081	mg/Kg	0.0003	0.00	1668C
PCB-105	0.15	E G B	0.0029	0.0029	mg/Kg	0.00003	0.0000045	1668C
PCB-114	0.0069	G	0.0030	0.0030	mg/Kg	0.00003	0.00000021	1668C
PCB-118	0.33	E G B	0.0024	0.0024	mg/Kg	0.00003	0.0000099	1668C
PCB-123	0.0067	G	0.0029	0.0029	mg/Kg	0.00003	0.00000020	1668C
PCB-126	0.0032	U G	0.0032	0.0032	mg/Kg	0.1	0.00	1668C
PCB-156/157	0.066	E G B	0.00045	0.00045	mg/Kg	0.00003	0.00000020	1668C
PCB-167	0.020	G B	0.00028	0.00028	mg/Kg	0.00003	0.00000060	1668C
PCB-169	0.00035	U G	0.00035	0.00035	mg/Kg	0.03	0.00	1668C
PCB-189	0.0021		0.000023	0.0000087	mg/Kg	0.00003	0.00000063	1668C
2,3,7,8-TCDD	0.0000030	U	0.0000030	0.0000030	mg/Kg	1	0.00	8290A

Analyte	Result	Qualifier	RL	MDL	Unit	WHO 2005		Method
						ND = 0		
						TEF	TEQ	
Polychlorinated biphenyls, Total	6.5		0.0000020	0.0000050	mg/Kg		0.000018	None

Analyte	Result	Qualifier	NONE	NONE	Unit	WHO 2005		Method
						ND = 0		
						TEF	TEQ	
Total Dioxin/Furan TEQ					mg/Kg		0.0000031	TEQ
Total PCB TEQ					mg/Kg		0.000018	TEQ
Total TEQ					mg/Kg		0.000021	TEQ

## Client Sample ID: SB-202-1A (12292017)

## Lab Sample ID: 680-147344-5

Analyte	Result	Qualifier	RL	EDL	Unit	WHO 2005		Method
						ND = 0		
						TEF	TEQ	
PCB-77	0.00019	G	0.000018	0.000018	mg/Kg	0.0001	0.000000019	1668C
PCB-81	0.000017	U G	0.000017	0.000017	mg/Kg	0.0003	0.00	1668C
PCB-105	0.0072	G B	0.00020	0.00020	mg/Kg	0.00003	0.00000022	1668C
PCB-114	0.00026	G	0.00020	0.00020	mg/Kg	0.00003	0.000000007	1668C
PCB-118	0.018	E G B	0.00018	0.00018	mg/Kg	0.00003	0.00000054	1668C

### TEF Reference:

WHO 2005 = World Health Organization (WHO) 2005 TEF, Dioxins, Furans and PCB Congeners

Note: The analytes PCB-156 and PCB-157 coelute as a single peak.

TestAmerica Savannah



# Toxicity Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

## Client Sample ID: SB-202-1A (12292017) (Continued)

## Lab Sample ID: 680-147344-5

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	EDL	Unit	TEF	TEQ	Method
PCB-123	0.00029	G	0.00019	0.00019	mg/Kg	0.00003	0.000000087	1668C
PCB-126	0.00021	U G	0.00021	0.00021	mg/Kg	0.1	0.00	1668C
PCB-156/157	0.0036	B	0.000022	0.000022	mg/Kg	0.00003	0.00000011	1668C
PCB-167	0.0011	G B	0.000014	0.000014	mg/Kg	0.00003	0.000000033	1668C
PCB-169	0.000017	U G	0.000017	0.000017	mg/Kg	0.03	0.00	1668C
PCB-189	0.00011		0.000011	0.00000079	mg/Kg	0.00003	0.0000000033	1668C
						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	NONE	NONE	Unit	TEF	TEQ	Method
Total PCB TEQ					mg/Kg		0.00000094	TEQ
Total TEQ					mg/Kg		0.00000094	TEQ

## Client Sample ID: EB-1 (12292017)

## Lab Sample ID: 680-147344-10

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	EDL	Unit	TEF	TEQ	Method
PCB-77	0.83	U	20	0.83	pg/L	0.0001	0.00	1668C
PCB-81	0.85	U	20	0.85	pg/L	0.0003	0.00	1668C
PCB-105	2.3	J	20	1.1	pg/L	0.00003	0.000069	1668C
PCB-114	1.3	U	20	1.3	pg/L	0.00003	0.00	1668C
PCB-118	4.7	J	20	1.3	pg/L	0.00003	0.00014	1668C
PCB-123	1.1	U	20	1.1	pg/L	0.00003	0.00	1668C
PCB-126	1.2	U	20	1.2	pg/L	0.1	0.00	1668C
PCB-156/157	1.1	U	40	1.1	pg/L	0.00003	0.00	1668C
PCB-167	0.67	U	20	0.67	pg/L	0.00003	0.00	1668C
PCB-169	0.72	U	20	0.72	pg/L	0.03	0.00	1668C
PCB-189	0.76	U	20	0.76	pg/L	0.00003	0.00	1668C
2,3,7,8-TCDD	0.24	U	10	0.24	pg/L	1	0.00	8290A

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	NONE	NONE	Unit	TEF	TEQ	Method
Total Dioxin/Furan					pg/L		0.17	TEQ
Total PCB					pg/L		0.00021	TEQ
Total					pg/L		0.17	TEQ

### TEF Reference:

WHO 2005 = World Health Organization (WHO) 2005 TEF, Dioxins, Furans and PCB Congeners

Note: The analytes PCB-156 and PCB-157 coelute as a single peak.

TestAmerica Savannah



# Toxicity Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

Client Sample ID: DUP-1 (12292017)

Lab Sample ID: 680-147344-11

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	EDL	Unit	TEF	TEQ	Method
PCB-77	0.0022	G	0.00024	0.00024	mg/Kg	0.0001	0.00000022	1668C
PCB-81	0.00023	U G	0.00023	0.00023	mg/Kg	0.0003	0.00	1668C
PCB-105	0.074	E G B	0.0013	0.0013	mg/Kg	0.00003	0.00000022	1668C
PCB-114	0.0027	G	0.0014	0.0014	mg/Kg	0.00003	0.000000081	1668C
PCB-118	0.17	E G B	0.0011	0.0011	mg/Kg	0.00003	0.00000051	1668C
PCB-123	0.0022	G	0.0014	0.0014	mg/Kg	0.00003	0.000000066	1668C
PCB-126	0.0014	U G	0.0014	0.0014	mg/Kg	0.1	0.00	1668C
PCB-156/157	0.029	G B	0.00021	0.00021	mg/Kg	0.00003	0.000000087	1668C
PCB-167	0.0091	G B	0.00013	0.00013	mg/Kg	0.00003	0.000000027	1668C
PCB-169	0.00015	U G	0.00015	0.00015	mg/Kg	0.03	0.00	1668C
PCB-189	0.00079		0.000051	0.000012	mg/Kg	0.00003	0.000000024	1668C

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	MDL	Unit	TEF	TEQ	Method
Polychlorinated biphenyls, Total	2.2		0.0000020	0.0000050	mg/Kg		0.00000088	None

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	NONE	NONE	Unit	TEF	TEQ	Method
Total PCB TEQ					mg/Kg		0.00000088	TEQ
Total TEQ					mg/Kg		0.00000088	TEQ

## TEF Reference:

WHO 2005 = World Health Organization (WHO) 2005 TEF, Dioxins, Furans and PCB Congeners

Note: The analytes PCB-156 and PCB-157 coelute as a single peak.

TestAmerica Savannah



# Surrogate Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		PCB28L (5-145)	PCB111L (10-145)	PCB178L (10-145)
680-147344-1	SB-204-1A (12292017)	49	70	94
680-147344-1 MS	SB-204-1A (12292017)	47	78	93
680-147344-1 MSD	SB-204-1A (12292017)	49	76	92
680-147344-2	SB-204-2A (12292017)	50	77	84
680-147344-3	SB-204-3A (12292017)	56	77	80
680-147344-5	SB-202-1A (12292017)	62	86	107
680-147344-11	DUP-1 (12292017)	52	76	97

### Surrogate Legend

PCB28L = PCB-28L

PCB111L = PCB-111L

PCB178L = PCB-178L

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		PCB28L (5-145)	PCB111L (10-145)	PCB178L (10-145)
680-147344-10	EB-1 (12292017)	83	96	103

### Surrogate Legend

PCB28L = PCB-28L

PCB111L = PCB-111L

PCB178L = PCB-178L



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB1L (5-145)	PCB3L (5-145)	PCB4L (5-145)	PCB15L (5-145)	PCB19L (5-145)	PCB37L (5-145)	PCB54L (5-145)	PCB77L (10-145)
680-147344-1	SB-204-1A (12292017)	45	47	45	48	47	58	38	73
680-147344-1 MS	SB-204-1A (12292017)	44	45	44	48	46	59	34	80
680-147344-1 MSD	SB-204-1A (12292017)	47	48	49	50	48	55	32 q	80
680-147344-2	SB-204-2A (12292017)	38	46	47	55	53	65	40	85
680-147344-3	SB-204-3A (12292017)	47	53	53	69	62	66	41	83
680-147344-5	SB-202-1A (12292017)	46	50	49	59	53	73	50	92
680-147344-11	DUP-1 (12292017)	39	43	42	52	54	56	40	78

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB81L (10-145)	PCB104L (10-145)	PCB105L (10-145)	P114L (10-145)	PCB118L (10-145)	PCB123L (10-145)	PCB126L (10-145)	PCB155L (10-145)
680-147344-1	SB-204-1A (12292017)	72	50	78	73	74	73	84	58
680-147344-1 MS	SB-204-1A (12292017)	80	46	83	78	82	77	91	57
680-147344-1 MSD	SB-204-1A (12292017)	80	50	87	79	82	78	88	61
680-147344-2	SB-204-2A (12292017)	93	52	89	78	104	79	90	56
680-147344-3	SB-204-3A (12292017)	89	59	91	80	105	83	85	57
680-147344-5	SB-202-1A (12292017)	94	62	92	89	92	91	91	74
680-147344-11	DUP-1 (12292017)	80	50	84	75	90	76	82	61

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	B-156L/15 (10-145)	PCB167L (10-145)	PCB169L (10-145)	PCB188L (10-145)	PCB189L (10-145)	PCB202L (10-145)	PCB205L (10-145)	PCB206L (10-145)
680-147344-1	SB-204-1A (12292017)	99	98	91	71	88	86	90	83
680-147344-1 MS	SB-204-1A (12292017)	78	79	74	90	94	86	93	83
680-147344-1 MSD	SB-204-1A (12292017)	80	81	75	83	88	83	92	82
680-147344-2	SB-204-2A (12292017)	72	72	69	97	98	98	99	90
680-147344-3	SB-204-3A (12292017)	72	69	58	103	98	99	102	100
680-147344-5	SB-202-1A (12292017)	106	106	92	96	88	101	92	87
680-147344-11	DUP-1 (12292017)	80	76	74	93	92	94	85	82

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB208L (10-145)	PCB209L (10-145)
680-147344-1	SB-204-1A (12292017)	89	89
680-147344-1 MS	SB-204-1A (12292017)	94	92
680-147344-1 MSD	SB-204-1A (12292017)	93	90
680-147344-2	SB-204-2A (12292017)	105	99
680-147344-3	SB-204-3A (12292017)	97	97
680-147344-5	SB-202-1A (12292017)	99	94
680-147344-11	DUP-1 (12292017)	91	93

### Surrogate Legend

PCB1L = PCB-1L  
 PCB3L = PCB-3L  
 PCB4L = PCB-4L  
 PCB15L = PCB-15L  
 PCB19L = PCB-19L  
 PCB37L = PCB-37L  
 PCB54L = PCB-54L  
 PCB77L = PCB-77L  
 PCB81L = PCB-81L  
 PCB104L = PCB-104L

TestAmerica Savannah



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.

Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

PCB105L = PCB-105L  
P114L = PCB-114L  
PCB118L = PCB-118L  
PCB123L = PCB-123L  
PCB126L = PCB-126L  
PCB155L = PCB-155L  
PCB-156L/157L = PCB-156L/157L  
PCB167L = PCB-167L  
PCB169L = PCB-169L  
PCB188L = PCB-188L  
PCB189L = PCB-189L  
PCB202L = PCB-202L  
PCB205L = PCB-205L  
PCB206L = PCB-206L  
PCB208L = PCB-208L  
PCB209L = PCB-209L

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB1L (5-145)	PCB3L (5-145)	PCB4L (5-145)	PCB15L (5-145)	PCB19L (5-145)	PCB37L (5-145)	PCB54L (5-145)	PCB77L (10-145)
680-147344-10	EB-1 (12292017)	56	69	71	85	87	80	64	92
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB81L (10-145)	PCB104L (10-145)	PCB105L (10-145)	P114L (10-145)	PCB118L (10-145)	PCB123L (10-145)	PCB126L (10-145)	PCB155L (10-145)
680-147344-10	EB-1 (12292017)	90	82	96	78	76	90	92	82
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	B-156L/157L (10-145)	PCB167L (10-145)	PCB169L (10-145)	PCB188L (10-145)	PCB189L (10-145)	PCB202L (10-145)	PCB205L (10-145)	PCB206L (10-145)
680-147344-10	EB-1 (12292017)	94	93	88	67	100	86	93	83
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB208L (10-145)	PCB209L (10-145)						
680-147344-10	EB-1 (12292017)	92	93						

### Surrogate Legend

PCB1L = PCB-1L  
PCB3L = PCB-3L  
PCB4L = PCB-4L  
PCB15L = PCB-15L  
PCB19L = PCB-19L  
PCB37L = PCB-37L  
PCB54L = PCB-54L  
PCB77L = PCB-77L  
PCB81L = PCB-81L  
PCB104L = PCB-104L  
PCB105L = PCB-105L  
P114L = PCB-114L  
PCB118L = PCB-118L  
PCB123L = PCB-123L  
PCB126L = PCB-126L  
PCB155L = PCB-155L  
PCB-156L/157L = PCB-156L/157L

TestAmerica Savannah



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.

Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

PCB167L = PCB-167L  
PCB169L = PCB-169L  
PCB188L = PCB-188L  
PCB189L = PCB-189L  
PCB202L = PCB-202L  
PCB205L = PCB-205L  
PCB206L = PCB-206L  
PCB208L = PCB-208L  
PCB209L = PCB-209L

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HpCDD (40-135)	HpCDF (40-135)	HxCDF (40-135)	HxDD (40-135)	PeCDD (40-135)	PeCDF (40-135)	TCDD (40-135)	TCDF (40-135)
680-147344-3	SB-204-3A (12292017)	66	67	63	65	61	66	55	69
680-147344-3 - RA	SB-204-3A (12292017)								72

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OCDD (40-135)
680-147344-3	SB-204-3A (12292017)	70
680-147344-3 - RA	SB-204-3A (12292017)	

### Surrogate Legend

HpCDD = 13C-1,2,3,4,6,7,8-HpCDD  
HpCDF = 13C-1,2,3,4,6,7,8-HpCDF  
HxCDF = 13C-1,2,3,4,7,8-HxCDF  
HxDD = 13C-1,2,3,6,7,8-HxCDD  
PeCDD = 13C-1,2,3,7,8-PeCDD  
PeCDF = 13C-1,2,3,7,8-PeCDF  
TCDD = 13C-2,3,7,8-TCDD  
TCDF = 13C-2,3,7,8-TCDF  
OCDD = 13C-OCDD

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCDD (40-135)	PeCDD (40-135)	HxDD (40-135)	HpCDD (40-135)	OCDD (40-135)	TCDF (40-135)	PeCDF (40-135)	HxCDF (40-135)
680-147344-10	EB-1 (12292017)	77	85	76	92	94	77	80	91

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HpCDF (40-135)
680-147344-10	EB-1 (12292017)	84

### Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD  
PeCDD = 13C-1,2,3,7,8-PeCDD  
HxDD = 13C-1,2,3,6,7,8-HxCDD  
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD  
OCDD = 13C-OCDD  
TCDF = 13C-2,3,7,8-TCDF  
PeCDF = 13C-1,2,3,7,8-PeCDF

TestAmerica Savannah



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.

Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

HxCDF = 13C-1,2,3,4,7,8-HxCDF  
HpCDF = 13C-1,2,3,4,6,7,8-HpCDF

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Lab Sample ID: 680-147344-1 MS

Matrix: Solid

Analysis Batch: 204748

Client Sample ID: SB-204-1A (12292017)

Prep Type: Total/NA

Prep Batch: 203179

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
PCB-1	0.0000037	J	0.000228	0.000238		mg/Kg	☼	103	60 - 135
PCB-3	0.0000039	J	0.000228	0.000250		mg/Kg	☼	108	60 - 135
PCB-4	0.000011	U	0.000228	0.000257		mg/Kg	☼	113	60 - 135
PCB-15	0.000014	J	0.000228	0.000286		mg/Kg	☼	119	60 - 135
PCB-19	0.0000083	J	0.000228	0.000268		mg/Kg	☼	114	60 - 135
PCB-54	0.0000015	U	0.000228	0.000242	q	mg/Kg	☼	106	60 - 135
PCB-77	0.00028	G F1 F2	0.000228	0.00151	G F1	mg/Kg	☼	543	60 - 135
PCB-81	0.000025	U G	0.000228	0.000278	G	mg/Kg	☼	122	60 - 135
PCB-104	0.0000016	U	0.000228	0.000274		mg/Kg	☼	120	60 - 135
PCB-105	0.0090	G B F2	0.000228	0.0369	E G 4	mg/Kg	☼	12252	60 - 135
PCB-114	0.00030	G F2 F1	0.000228	0.00219	G	mg/Kg	☼	NC	60 - 135
PCB-118	0.022	G B F2	0.000228	0.0904	E G 4	mg/Kg	☼	29899	60 - 135
PCB-123	0.00024	G F1	0.000228	0.00113	G	mg/Kg	☼	NC	60 - 135
PCB-126	0.00016	U G	0.000228	0.000675	G	mg/Kg	☼	NC	60 - 135
PCB-155	0.000094	U	0.000228	0.00036	U G	mg/Kg	☼	NC	60 - 135
PCB-156/157	0.0037	B F2	0.000455	0.0164	G 4	mg/Kg	☼	2790	60 - 135
PCB-167	0.0011	B F2	0.000228	0.00490	G 4	mg/Kg	☼	1661	60 - 135
PCB-169	0.000016	U	0.000228	0.000243	G	mg/Kg	☼	107	60 - 135
PCB-188	0.0000034	J	0.000228	0.000245		mg/Kg	☼	106	60 - 135
PCB-189	0.00011	F1	0.000228	0.000580	F1	mg/Kg	☼	208	60 - 135
PCB-202	0.00012	J F1	0.000228	0.000594	F1	mg/Kg	☼	207	60 - 135
PCB-205	0.000031	J	0.000228	0.000317		mg/Kg	☼	126	60 - 135
PCB-206	0.00028	F1	0.000228	0.000936	F1	mg/Kg	☼	286	60 - 135
PCB-208	0.000074	J F1	0.000228	0.000441	F1	mg/Kg	☼	161	60 - 135
PCB-209	0.000031	J	0.000228	0.000308		mg/Kg	☼	121	60 - 135

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
PCB-1L	44		5 - 145
PCB-3L	45		5 - 145
PCB-4L	44		5 - 145
PCB-15L	48		5 - 145
PCB-19L	46		5 - 145
PCB-37L	59		5 - 145
PCB-54L	34		5 - 145
PCB-77L	80		10 - 145
PCB-81L	80		10 - 145
PCB-104L	46		10 - 145
PCB-105L	83		10 - 145
PCB-114L	78		10 - 145
PCB-118L	82		10 - 145
PCB-123L	77		10 - 145
PCB-126L	91		10 - 145
PCB-155L	57		10 - 145
PCB-156L/157L	78		10 - 145
PCB-167L	79		10 - 145
PCB-169L	74		10 - 145
PCB-188L	90		10 - 145
PCB-189L	94		10 - 145

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: 680-147344-1 MS

Matrix: Solid

Analysis Batch: 204748

Client Sample ID: SB-204-1A (12292017)

Prep Type: Total/NA

Prep Batch: 203179

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
PCB-202L	86		10 - 145
PCB-205L	93		10 - 145
PCB-206L	83		10 - 145
PCB-208L	94		10 - 145
PCB-209L	92		10 - 145

Surrogate	MS %Recovery	MS Qualifier	Limits
PCB-28L	47		5 - 145
PCB-111L	78		10 - 145
PCB-178L	93		10 - 145

Lab Sample ID: 680-147344-1 MSD

Matrix: Solid

Analysis Batch: 204748

Client Sample ID: SB-204-1A (12292017)

Prep Type: Total/NA

Prep Batch: 203179

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1	0.0000037	J	0.000231	0.000246		mg/Kg	✱	105	60 - 135	3	50
PCB-3	0.0000039	J	0.000231	0.000254		mg/Kg	✱	108	60 - 135	1	50
PCB-4	0.000011	U	0.000231	0.000248		mg/Kg	✱	107	60 - 135	4	50
PCB-15	0.000014	J	0.000231	0.000270		mg/Kg	✱	111	60 - 135	6	50
PCB-19	0.0000083	J	0.000231	0.000278		mg/Kg	✱	117	60 - 135	4	50
PCB-54	0.0000015	U	0.000231	0.000284		mg/Kg	✱	123	60 - 135	16	50
PCB-77	0.00028	G F1 F2	0.000231	0.000680	G F1 F2	mg/Kg	✱	174	60 - 135	76	50
PCB-81	0.000025	U G	0.000231	0.000259	G	mg/Kg	✱	112	60 - 135	7	50
PCB-104	0.0000016	U	0.000231	0.000292		mg/Kg	✱	126	60 - 135	6	50
PCB-105	0.0090	G B F2	0.000231	0.0166	G 4 F2	mg/Kg	✱	3292	60 - 135	76	50
PCB-114	0.00030	G F2 F1	0.000231	0.00111	G F1 F2	mg/Kg	✱	347	60 - 135	66	50
PCB-118	0.022	G B F2	0.000231	0.0420	E G 4 F2	mg/Kg	✱	8501	60 - 135	73	50
PCB-123	0.00024	G F1	0.000231	0.000942	G F1	mg/Kg	✱	306	60 - 135	18	50
PCB-126	0.00016	U G	0.000231	0.000453	G	mg/Kg	✱	NC	60 - 135	39	50
PCB-155	0.000094	U	0.000231	0.000272		mg/Kg	✱	118	60 - 135	NC	50
PCB-156/157	0.0037	B F2	0.000462	0.00835	G 4 F2	mg/Kg	✱	1011	60 - 135	65	50
PCB-167	0.0011	B F2	0.000231	0.00259	G 4 F2	mg/Kg	✱	638	60 - 135	62	50
PCB-169	0.000016	U	0.000231	0.000251	G	mg/Kg	✱	109	60 - 135	3	50
PCB-188	0.0000034	J	0.000231	0.000248		mg/Kg	✱	106	60 - 135	1	50
PCB-189	0.00011	F1	0.000231	0.000424	F1	mg/Kg	✱	137	60 - 135	31	50
PCB-202	0.00012	J F1	0.000231	0.000529	F1	mg/Kg	✱	175	60 - 135	12	50
PCB-205	0.000031	J	0.000231	0.000288		mg/Kg	✱	111	60 - 135	10	50
PCB-206	0.00028	F1	0.000231	0.000875	F1	mg/Kg	✱	255	60 - 135	7	50
PCB-208	0.000074	J F1	0.000231	0.000412	F1	mg/Kg	✱	146	60 - 135	7	50
PCB-209	0.000031	J	0.000231	0.000296		mg/Kg	✱	115	60 - 135	4	50

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
PCB-1L	47		5 - 145
PCB-3L	48		5 - 145
PCB-4L	49		5 - 145
PCB-15L	50		5 - 145
PCB-19L	48		5 - 145

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: 680-147344-1 MSD

Matrix: Solid

Analysis Batch: 204748

Client Sample ID: SB-204-1A (12292017)

Prep Type: Total/NA

Prep Batch: 203179

<i>Isotope Dilution</i>	<i>MSD %Recovery</i>	<i>MSD Qualifier</i>	<i>Limits</i>
PCB-37L	55		5 - 145
PCB-54L	32	q	5 - 145
PCB-77L	80		10 - 145
PCB-81L	80		10 - 145
PCB-104L	50		10 - 145
PCB-105L	87		10 - 145
PCB-114L	79		10 - 145
PCB-118L	82		10 - 145
PCB-123L	78		10 - 145
PCB-126L	88		10 - 145
PCB-155L	61		10 - 145
PCB-156L/157L	80		10 - 145
PCB-167L	81		10 - 145
PCB-169L	75		10 - 145
PCB-188L	83		10 - 145
PCB-189L	88		10 - 145
PCB-202L	83		10 - 145
PCB-205L	92		10 - 145
PCB-206L	82		10 - 145
PCB-208L	93		10 - 145
PCB-209L	90		10 - 145
<i>Surrogate</i>	<i>MSD %Recovery</i>	<i>MSD Qualifier</i>	<i>Limits</i>
PCB-28L	49		5 - 145
PCB-111L	76		10 - 145
PCB-178L	92		10 - 145



# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

## Specialty Organics

### Prep Batch: 203048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-3	SB-204-3A (12292017)	Total/NA	Solid	8290	
680-147344-3 - RA	SB-204-3A (12292017)	Total/NA	Solid	8290	

### Prep Batch: 203109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-10	EB-1 (12292017)	Total/NA	Water	HRMS-Sep	

### Prep Batch: 203119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-10	EB-1 (12292017)	Total/NA	Water	8290	

### Prep Batch: 203179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-1	SB-204-1A (12292017)	Total/NA	Solid	HRMS-Sox	
680-147344-2	SB-204-2A (12292017)	Total/NA	Solid	HRMS-Sox	
680-147344-3	SB-204-3A (12292017)	Total/NA	Solid	HRMS-Sox	
680-147344-5	SB-202-1A (12292017)	Total/NA	Solid	HRMS-Sox	
680-147344-11	DUP-1 (12292017)	Total/NA	Solid	HRMS-Sox	
680-147344-1 MS	SB-204-1A (12292017)	Total/NA	Solid	HRMS-Sox	
680-147344-1 MSD	SB-204-1A (12292017)	Total/NA	Solid	HRMS-Sox	

### Analysis Batch: 203414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-10	EB-1 (12292017)	Total/NA	Water	1668C	203109

### Analysis Batch: 203539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-10	EB-1 (12292017)	Total/NA	Water	8290A	203119

### Analysis Batch: 203720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-3	SB-204-3A (12292017)	Total/NA	Solid	8290A	203048

### Analysis Batch: 203728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-3 - RA	SB-204-3A (12292017)	Total/NA	Solid	8290A	203048

### Analysis Batch: 204317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-1	SB-204-1A (12292017)	Total/NA	Solid	1668C	203179
680-147344-5	SB-202-1A (12292017)	Total/NA	Solid	1668C	203179

### Analysis Batch: 204748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-2	SB-204-2A (12292017)	Total/NA	Solid	1668C	203179
680-147344-3	SB-204-3A (12292017)	Total/NA	Solid	1668C	203179
680-147344-11	DUP-1 (12292017)	Total/NA	Solid	1668C	203179
680-147344-1 MS	SB-204-1A (12292017)	Total/NA	Solid	1668C	203179
680-147344-1 MSD	SB-204-1A (12292017)	Total/NA	Solid	1668C	203179

TestAmerica Savannah



## QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

### Specialty Organics (Continued)

#### Analysis Batch: 205308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-1	SB-204-1A (12292017)	Total/NA	Solid	None	
680-147344-2	SB-204-2A (12292017)	Total/NA	Solid	None	
680-147344-3	SB-204-3A (12292017)	Total/NA	Solid	None	
680-147344-5	SB-202-1A (12292017)	Total/NA	Solid	None	
680-147344-10	EB-1 (12292017)	Total/NA	Water	None	
680-147344-11	DUP-1 (12292017)	Total/NA	Solid	None	

### General Chemistry

#### Analysis Batch: 202767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-3	SB-204-3A (12292017)	Total/NA	Solid	D 2216	



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-204-1A (12292017)**

**Date Collected: 12/29/17 12:10**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-1**

**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	None		1			205308	01/24/18 08:56	SHK	TAL SAC

**Client Sample ID: SB-204-1A (12292017)**

**Date Collected: 12/29/17 12:10**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-1**

**Matrix: Solid**

**Percent Solids: 84.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			10.36 g	20.0 uL	203179	01/09/18 10:14	DXD	TAL SAC
Total/NA	Analysis	1668C		10			204317	01/17/18 21:07	KSS	TAL SAC

**Client Sample ID: SB-204-2A (12292017)**

**Date Collected: 12/29/17 12:20**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-2**

**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	None		1			205308	01/24/18 08:56	SHK	TAL SAC

**Client Sample ID: SB-204-2A (12292017)**

**Date Collected: 12/29/17 12:20**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-2**

**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	HRMS-Sox			10.09 g	20.0 uL	203179	01/09/18 10:14	DXD	TAL SAC
Total/NA	Analysis	1668C		10			204748	01/20/18 11:11	SMA	TAL SAC

**Client Sample ID: SB-204-3A (12292017)**

**Date Collected: 12/29/17 12:00**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-3**

**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	None		1			205308	01/24/18 08:56	SHK	TAL SAC
Total/NA	Analysis	D 2216		1			202767	01/05/18 13:17	SSS	TAL SAC

**Client Sample ID: SB-204-3A (12292017)**

**Date Collected: 12/29/17 12:00**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-3**

**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	HRMS-Sox			9.87 g	20.0 uL	203179	01/09/18 10:14	DXD	TAL SAC
Total/NA	Analysis	1668C		10			204748	01/20/18 12:26	SMA	TAL SAC
Total/NA	Prep	8290			10.23 g	20.00 uL	203048	01/08/18 14:08	ADN	TAL SAC
Total/NA	Analysis	8290A		1			203720	01/12/18 13:05	AS	TAL SAC

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: SB-204-3A (12292017)**

**Lab Sample ID: 680-147344-3**

**Date Collected: 12/29/17 12:00**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**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	8290	RA		10.23 g	20.00 uL	203048	01/08/18 14:08	ADN	TAL SAC
Total/NA	Analysis	8290A	RA	1			203728	01/12/18 13:31	AS	TAL SAC

**Client Sample ID: SB-202-1A (12292017)**

**Lab Sample ID: 680-147344-5**

**Date Collected: 12/29/17 11:05**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	None		1			205308	01/24/18 08:56	SHK	TAL SAC

**Client Sample ID: SB-202-1A (12292017)**

**Lab Sample ID: 680-147344-5**

**Date Collected: 12/29/17 11:05**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**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	HRMS-Sox			10.44 g	20.0 uL	203179	01/09/18 10:14	DXD	TAL SAC
Total/NA	Analysis	1668C		5			204317	01/17/18 19:52	KSS	TAL SAC

**Client Sample ID: EB-1 (12292017)**

**Lab Sample ID: 680-147344-10**

**Date Collected: 12/29/17 13:00**

**Matrix: Water**

**Date Received: 12/29/17 14:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sep			999 mL	20.0 uL	203109	01/09/18 07:42	DXD	TAL SAC
Total/NA	Analysis	1668C		1			203414	01/10/18 22:16	KSS	TAL SAC
Total/NA	Prep	8290			989.1 mL	20.0 uL	203119	01/09/18 07:55	DXD	TAL SAC
Total/NA	Analysis	8290A		1			203539	01/11/18 16:41	AS	TAL SAC
Total/NA	Analysis	None		1			205308	01/24/18 08:56	SHK	TAL SAC

**Client Sample ID: DUP-1 (12292017)**

**Lab Sample ID: 680-147344-11**

**Date Collected: 12/29/17 00:00**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	None		1			205308	01/24/18 08:56	SHK	TAL SAC

**Client Sample ID: DUP-1 (12292017)**

**Lab Sample ID: 680-147344-11**

**Date Collected: 12/29/17 00:00**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 80.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			9.76 g	20.0 uL	203179	01/09/18 10:14	DXD	TAL SAC

TestAmerica Savannah



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-2

**Client Sample ID: DUP-1 (12292017)**

**Lab Sample ID: 680-147344-11**

**Date Collected: 12/29/17 00:00**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 80.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	1668C		20			204748	01/20/18 13:41	SMA	TAL SAC

## Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Company Name: <u>TestAmerica Savannah</u>		Client Contact: <u>1062</u>		Project Manager: <u>SEE 7/24/17</u>		Site Contact: <u>1062</u>		Date: <u>12/29/17</u>		COC No: <u>2</u> of <u>2</u> COCs	
Address:		Tel/Fax:		Analysis Turnaround Time		Carrier:		Sampler:		For Lab Use Only:	
City/State/Zip:		TAT if different from Below		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		Walk-in Client:		Lab Sampling:		Job / SDG No.:	
Phone:		2 weeks		<input type="checkbox"/>		Perform MS / MSD (Y / N)		Filtered Sample (Y / N)		Sample Specific Notes:	
Fax:		1 week		<input type="checkbox"/>		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)	
Project Name:		2 days		<input type="checkbox"/>		Matrix		# of Cont.			
Site:		1 day		<input type="checkbox"/>							
P O #											

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Sample Specific Notes
SB-204-1B (122917)	12/29/17	1155	G	So	2	✓	✓	HOLD SAMPLE
SB-204-2B (122917)	12/29/17	1200	G	So	2	✓	✓	HOLD SAMPLE
SB-204-3B (122917)	12/29/17	1215	G	So	2	✓	✓	HOLD SAMPLE
SB-202-1B (122917)	12/29/17	1045	G	So	2	✓	✓	HOLD SAMPLE
DS-9-2B (122917)	12/29/17	1115	G	So	1	✓	✓	HOLD SAMPLE
EX-21-1B (122917)	12/29/17	1245	G	So	1	✓	✓	HOLD SAMPLE
SB-128-1B (122917)	12/29/17	1010	G	So	1	✓	✓	HOLD SAMPLE
SB-159-3B (122917)	12/29/17	1020	G	So	1	✓	✓	HOLD SAMPLE
TMW-20 (122917)	12/29/17	0920	G	WT	6	✓	✓	HOLD SAMPLE
EB-1 (122817)	12/28/17	1600	G	WT	3	✓	✓	HOLD SAMPLE

Barcode: 680-147344 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Special Instructions/QC Requirements & Comments:

1.7/17/17 6/119 CCF-05) 4.5/4.9/7.1/11.4

11.2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for \_\_\_\_\_ Months

Therm ID No.:

Received by: ALUMS Date/Time: 12/29/17 1400

Received by: ALUMS Date/Time: 12/29/17 1400

Received by: ALUMS Date/Time: 12/29/17 1400



681-Atlanta

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Company Name: <b>ARCADIS</b>		Client Contact		Project Manager: <b>ANDY DAVIS</b>		Site Contact: <b>JEN SWART</b>		Date: <b>12/21/17</b>		COC No: <b>1</b> of <b>2</b> COCs	
Address: <b>10 PATEWOOD DR. STE-375</b>		Tel/Fax: <b>904.967.3900</b>		Analysis Turnaround Time		Lab Contact: <b>JEN SWART</b>		Carrier:		Sampler:	
City/State/Zip: <b>GREENVILLE, SC 29615</b>		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		TAT if different from Below		Lab Contact: <b>JEN SWART</b>		Carrier:		For Lab Use Only:	
Phone: <b>864.987.3900</b>		<input type="checkbox"/> 2 weeks		<input type="checkbox"/> 1 week		Lab Contact: <b>JEN SWART</b>		Carrier:		Walk-in Client:	
Fax:		<input type="checkbox"/> 2 days		<input type="checkbox"/> 1 day		Lab Contact: <b>JEN SWART</b>		Carrier:		Lab Sampling:	
Project Name: <b>ASULAND SAVANNAH</b>		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix		# of Cont.	
Site: <b>ASULAND</b>		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
PO # <b>0801000.6461</b>		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
		SB-204-1A (122917)		12/19/17		1710		G		SD	
		SB-204-2A (122917)		12/19/17		1720		G		SD	
		SB-204-3A (122917)		12/19/17		1700		G		SD	
		SB-137-1A (122917)		12/19/17		1050		G		SD	
		SB-202-1A (122917)		12/19/17		1105		G		SD	
		DS-9-2A (122917)		12/19/17		1120		G		SD	
		EX-21-1A (122917)		12/19/17		1140		G		SD	
		SB-128-1A (122917)		12/19/17		1000		G		SD	
		SB-159-3A (122917)		12/19/17		1025		G		SD	
		EB-1 (122917)		12/19/17		1300		G		WT	
		DUP-1 (122917)		12/19/17		-		G		SD	
		DUP-2 (122917)		12/19/17		-		G		SD	
		Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other		12/19/17		-		G		SD	
		Possible Hazard Identification:		12/19/17		-		G		SD	
		Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.		12/19/17		-		G		SD	
		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Unknown		12/19/17		-		G		SD	
		Special Instructions/QC Requirements & Comments:		12/19/17		-		G		SD	
		Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		12/19/17		-		G		SD	
		Relinquished by: <b>Maryann</b>		12/29/17		1400		G		SD	
		Relinquished by:		12/29/17		1400		G		SD	
		Relinquished by:		12/29/17		1400		G		SD	



880 Riverside Parkway  
West Sacramento, CA 95605  
Phone (916) 373-5600 Fax (916) 372-1059

## Chain of Custody Record



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

<b>Client Information (Sub Contract Lab)</b>				Lab PM: <b>Lanier, Jerry A</b> Carrier Tracking No(s): <b>320-110756.1</b>	
Client Contact: <b>Shipping/Receiving</b> Company: <b>TestAmerica Laboratories, Inc.</b>				State of Origin: <b>Georgia</b> Page: <b>1 of 1</b>	
Address: <b>5102 LaRoche Avenue, Savannah, GA 31404</b> Phone: <b>912-354-7858(Tel) 912-352-0165(Fax)</b> Email:				Job #: <b>680-147344-1</b> Preservation Codes:	
Project Name: <b>Hercules Savannah / Savannah Resins Plan</b> Site:				M - Hexane N - None O - AshNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecalhydrate U - Acetone V - MCAA W - pH 4-5 L - EDA Other:	
Due Date Requested: <b>1/17/2018</b> TAT Requested (days):				<b>Analysis Requested</b>	
PO #: <b>68001205</b> WO #:				Total Number of Containers: <b>2</b>	
Sample Identification - Client ID (Lab ID): <b>TMW-20 (12292017) (680-147344-21)</b>				Special Instructions/Note:	
Sample Date: <b>12/29/17</b> Sample Time: <b>09:20 Eastern</b> Sample Type (C=Comp, G=grab): <b>Water</b> Matrix (W=Water, S=Soil, O=Other):				Perform MS/MSD (Yes or No): <b>X</b> Field Filtered Sample (Yes or No):	
Preservation Code:				8081B_8082A/3520C Arcolor 1254	
Primary Deliverable Rank: <b>2</b>				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)				Special Instructions/OC Requirements:	
Empty Kit Relinquished by:				Method of Shipment:	
Relinquished by: <b>Wayne G. Turpin</b> Relinquished by:				Date/Time: <b>1/29/18 1630</b> Date/Time:	
Relinquished by:				Date/Time:	
Relinquished by:				Date/Time:	
Custody Seals Intact: <b>Yes</b>				Custody Seal No.:	
Cooler Temperature(s) °C and Other Remarks: <b>0.7°C / 1.0°C</b>				Company: <b>TA Savannah</b> Company:	



# TestAmerica Savannah

5102 LaRoche Avenue  
Savannah, GA 31404  
Phone (912) 354-7858 Fax (912) 352-0165

## Chain of Custody Record

**TestAmerica**  
THE LEADER IN ENVIRONMENTAL TESTING



<b>Client Information (Sub Contract Lab)</b> Shipping/Receiving Company: TestAmerica Laboratories, Inc. Address: 880 Riverside Parkway, West Sacramento, CA, 95605 Phone: 916-373-5600(Tel) 916-372-1059(Fax) Email: Project Name: Hercules Savannah / Savannah Resins Plan Site:		Sampler: Lab PM: Lanier, Jerry A Phone: E-Mail: jerry.lanier@testamericainc.com State of Origin: Georgia Accredited Required (See note): State Program - Georgia		COC No: 680-503344-1 Page: Page 1 of 2 Job #: 680-147344-1	
<b>Due Date Requested:</b> 1/17/2018 <b>TAT Requested (days):</b> PO #: WO #: Project #: 68001205 SSOW#:		<b>Analysis Requested</b> 8290A/8290_P_Sox 17 Isomers & Totals 1668C/HRMS_Sox_P Full List (209 Comb/Coel) Moisture (MOD) Local Method 8290A/8290_P_Sox 17 Isomers & Totals Total PCB Cong 1668C/HRMS_Sox_P Full List (209 Comb/Coel) Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No)			
<b>Sample Identification - Client ID (Lab ID)</b> SB-204-1A (12292017) (680-147344-1) SB-204-2A (12292017) (680-147344-2) SB-204-3A (12292017) (680-147344-3) SB-202-1A (12292017) (680-147344-5) EB-1 (12292017) (680-147344-10) DUP-1 (12292017) (680-147344-11) SB-204-1B (12292017) (680-147344-13) SB-204-3B (12292017) (680-147344-15) SB-202-1B (12292017) (680-147344-16)		<b>Sample Date</b> 12/29/17 12/29/17 12/29/17 12/29/17 12/29/17 12/29/17 12/29/17 12/29/17 12/29/17		<b>Sample Time</b> 12:10 Eastern 12:20 Eastern 12:00 Eastern 11:05 Eastern 13:00 Eastern 12:29/17 Eastern 11:55 Eastern 12:15 Eastern 10:45 Eastern	
<b>Sample Type (C=Comp, G=grab)</b> Solid Solid Solid Solid Water Solid Solid Solid Solid		<b>Matrix (W=water, S=solid, O=oil, A=air, T=tissue, A=Al)</b> Solid Solid Solid Solid Water Solid Solid Solid Solid		<b>Preservation Code:</b> Solid Solid Solid Solid Water Solid Solid Solid Solid	
<b>Special Instructions/Note:</b> run as straight as possible. Caution, may have high levels, hold glassware run as straight as possible. Caution, may have high levels, hold glassware run as straight as possible. Caution, may have high levels, hold glassware run as straight as possible. Caution, may have high levels, hold glassware run as straight as possible run as straight as possible. Caution, may have high levels, hold glassware run as straight as possible. Caution, may have high levels, hold glassware run as straight as possible. Caution, may have high levels, hold glassware run as straight as possible. Caution, may have high levels, hold glassware		<b>Total Number of containers</b> 1 1 2 1 4 1 1 2 1		<b>Special Instructions/Note:</b> run as straight as possible. Caution, may have high levels, hold glassware run as straight as possible. Caution, may have high levels, hold glassware run as straight as possible. Caution, may have high levels, hold glassware run as straight as possible. Caution, may have high levels, hold glassware run as straight as possible run as straight as possible. Caution, may have high levels, hold glassware run as straight as possible. Caution, may have high levels, hold glassware run as straight as possible. Caution, may have high levels, hold glassware run as straight as possible. Caution, may have high levels, hold glassware	

Note: Since laboratory accreditation is subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain of custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditation are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

<b>Possible Hazard Identification</b> Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2		<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by: _____ Date: _____ Relinquished by: _____ Date/Time: 1/21/18 15:00 Relinquished by: _____ Date/Time: _____ Relinquished by: _____ Date/Time: _____		Method of Shipment: _____ Date/Time: 1/13/16 10:10 Company: TH-Sac Date/Time: _____ Company: _____ Date/Time: _____ Company: _____ Date/Time: _____ Company: _____	
Custody Seal No.: _____ Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: 17 24	



# TestAmerica Savannah

5102 LaRoche Avenue  
Savannah, GA 31404  
Phone (912) 354-7858 Fax (912) 352-0165

## Chain of Custody Record

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

<b>Client Information (Sub Contract Lab)</b> Client Contact: _____ Shipping/Receiving: _____ Company: TestAmerica Laboratories, Inc. Address: 880 Riverside Parkway, City: West Sacramento State: CA, 95605 Phone: 916-373-5600(Tel) 916-372-1059(Fax) Email: _____ Project Name: Hercules Savannah / Savannah Resins Plan Site: _____		Sampler: _____ Lab PM: Lanier, Jerry A E-Mail: jerry.lanier@testamericainc.com State of Origin: Georgia Carrier Tracking No(s): 680-503344.2 Page: Page 2 of 2 Job #: 680-147344-1 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 - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
<b>Due Date Requested:</b> 1/17/2018 <b>TAT Requested (days):</b> _____ <b>PO #:</b> _____ <b>WO #:</b> _____ <b>Project #:</b> 68001205 <b>SSOW#:</b> _____		<b>Analysis Requested</b> 8290A/8290_P_Sox 17 Isomers & Totals 1668C/HRMS_Sox_P Full List (209 Comb/Coel) Moisture (MOD) Local Method 8290A/8290_P_Sox 17 Isomers & Totals Total PCB Cong Total TEQ 1668C/HRMS_Sox_P Full List (209 Comb/Coel) Field Filtered Sample (Yes or No) Perfrom MS/MSD (Yes or No)	
<b>Sample Identification - Client ID (Lab ID)</b> TMW-20 (12292017) (680-147344-21)		<b>Sample Date:</b> 12/29/17 <b>Sample Time:</b> 09:20 Eastern <b>Sample Type (C=comp, G=grab):</b> _____ <b>Matrix (W=water, S=solid, O=oil, A=air):</b> Water	
<b>Special Instructions/Note:</b> run as straight as possible		<b>Total Number of containers</b> 4	
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. I			
<b>Possible Hazard Identification</b> Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2			
<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
<b>Special Instructions/QC Requirements:</b>			
<b>Empty Kit Relinquished by:</b> Relinquished by: _____ Relinquished by: _____ Relinquished by: _____		<b>Time:</b> Date: 1/2/18 18:00 Company: _____ Date: 1/3/18 10:10 Company: _____ Date: _____ Company: _____	
<b>Custody Seals Intact:</b> Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks: 17 24	

Ver: 09/20/2016



[illegible]



# Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-147344-2

**Login Number: 147344**

**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.	False	Received same day of collection; chilling process has begun.
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-147344-2

**Login Number: 147344**

**List Number: 2**

**Creator: Her, David A**

**List Source: TestAmerica Sacramento**

**List Creation: 01/03/18 11:16 AM**

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	414862/414861
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7 C 2.4 C
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?	False	Received project as a subcontract.
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	



# Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## 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	AZ0808	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	12-31-18
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



# Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Laboratory: TestAmerica Sacramento

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
Alaska (UST)	State Program	10	17-020	01-20-21
Arizona	State Program	9	AZ0708	08-11-18
Arkansas DEQ	State Program	6	88-0691	06-17-18
California	State Program	9	2897	01-31-19
Colorado	State Program	8	CA00044	08-31-18
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-18
Georgia	State Program	4	N/A	01-28-19
Hawaii	State Program	9	N/A	01-29-19
Illinois	NELAP	5	200060	03-17-18
Kansas	NELAP	7	E-10375	10-31-18
L-A-B	DoD ELAP		L2468	01-20-21
Louisiana	NELAP	6	30612	06-30-18
Maine	State Program	1	CA0004	04-14-18
Michigan	State Program	5	9947	01-31-18 *
Nevada	State Program	9	CA00044	07-31-18
New Hampshire	NELAP	1	2997	04-18-18
New Jersey	NELAP	2	CA005	06-30-18
New York	NELAP	2	11666	04-01-18
Oregon	NELAP	10	4040	01-29-19
Pennsylvania	NELAP	3	68-01272	03-31-18
Texas	NELAP	6	T104704399	05-31-18
US Fish & Wildlife	Federal		LE148388-0	07-31-18
USDA	Federal		P330-11-00436	01-17-21
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-18
Virginia	NELAP	3	460278	03-14-18
Washington	State Program	10	C581	05-05-18
West Virginia (DW)	State Program	3	9930C	12-31-18
Wyoming	State Program	8	8TMS-L	01-28-19

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Savannah



## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Tel: (912)354-7858

TestAmerica Job ID: 680-147344-4

Client Project/Site: Hercules Savannah / Savannah Resins Plan

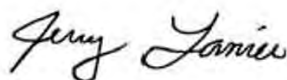
For:

ARCADIS U.S., Inc.

10 Patewood Drive, Suite 375

Greenville, South Carolina 29615

Attn: Andrew Davis



Authorized for release by:

2/7/2018 3:35:47 PM

Jerry Lanier, Project Manager I

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### LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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## Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-4

**Job ID: 680-147344-4**

**Laboratory: TestAmerica Savannah**

### Narrative

## CASE NARRATIVE

**Client: ARCADIS U.S., Inc.**

**Project: Hercules Savannah / Savannah Resins Plan**

**Report Number: 680-147344-4**

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 12/29/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 6.9° C, 7.1° C, 11.2° C and 11.4° C.

### SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) - LOW LEVEL

Sample TMW-20 (12292017) (680-147344-21) was analyzed for Semivolatile Organic Compounds (GC/MS) - Low level in accordance with EPA SW-846 Method 8270D. The samples were prepared on 01/31/2018 and analyzed on 02/05/2018.

The following sample(s) was prepared outside of holding time due to the sample being logged after hold time expired.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



## Sample Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-4

Project/Site: Hercules Savannah / Savannah Resins Plan

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-147344-21	TMW-20 (12292017)	Water	12/29/17 09:20	12/29/17 14:00



## Method Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-4

Project/Site: Hercules Savannah / Savannah Resins Plan

Method	Method Description	Protocol	Laboratory
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	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



## Definitions/Glossary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-4

Project/Site: Hercules Savannah / Savannah Resins Plan

### Qualifiers

#### GC/MS Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
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)



## Detection Summary

Client: ARCADIS U.S., Inc.

Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-4

**Client Sample ID: TMW-20 (12292017)**

**Lab Sample ID: 680-147344-21**

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-4

Project/Site: Hercules Savannah / Savannah Resins Plan

**Client Sample ID: TMW-20 (12292017)**

**Lab Sample ID: 680-147344-21**

**Date Collected: 12/29/17 09:20**

**Matrix: Water**

**Date Received: 12/29/17 14:00**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.10	U H	1.0	0.10	ug/L		01/31/18 14:19	02/05/18 21:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	59		31 - 107				01/31/18 14:19	02/05/18 21:41	1
2-Fluorophenol (Surr)	46		18 - 112				01/31/18 14:19	02/05/18 21:41	1
Nitrobenzene-d5 (Surr)	54		37 - 103				01/31/18 14:19	02/05/18 21:41	1
Phenol-d5 (Surr)	49		20 - 113				01/31/18 14:19	02/05/18 21:41	1
Terphenyl-d14 (Surr)	36		22 - 121				01/31/18 14:19	02/05/18 21:41	1
2,4,6-Tribromophenol (Surr)	75		39 - 133				01/31/18 14:19	02/05/18 21:41	1



## Surrogate Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-4

Project/Site: Hercules Savannah / Savannah Resins Plan

### Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (31-107)	2FP (18-112)	NBZ (37-103)	PHL (20-113)	TPHL (22-121)	TBP (39-133)
680-147344-21	TMW-20 (12292017)	59	46	54	49	36	75
680-147344-21 MS	TMW-20 (12292017)	69	56	65	57	63	96
680-147344-21 MSD	TMW-20 (12292017)	62	50	57	54	59	82
LCS 680-511030/3-A	Lab Control Sample	65	56	61	59	68	82
MB 680-511030/2-A	Method Blank	74	58	71	57	77	88

#### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

TBP = 2,4,6-Tribromophenol (Surr)



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-4

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 680-511030/2-A

Matrix: Water

Analysis Batch: 511505

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 511030

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.10	U	1.0	0.10	ug/L		01/31/18 14:19	02/05/18 20:02	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	74		31 - 107				01/31/18 14:19	02/05/18 20:02	1
2-Fluorophenol (Surr)	58		18 - 112				01/31/18 14:19	02/05/18 20:02	1
Nitrobenzene-d5 (Surr)	71		37 - 103				01/31/18 14:19	02/05/18 20:02	1
Phenol-d5 (Surr)	57		20 - 113				01/31/18 14:19	02/05/18 20:02	1
Terphenyl-d14 (Surr)	77		22 - 121				01/31/18 14:19	02/05/18 20:02	1
2,4,6-Tribromophenol (Surr)	88		39 - 133				01/31/18 14:19	02/05/18 20:02	1

Lab Sample ID: LCS 680-511030/3-A

Matrix: Water

Analysis Batch: 511505

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 511030

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	10.0	6.85		ug/L		69	35 - 130
Surrogate	%Recovery	LCS Qualifier	Limits				
2-Fluorobiphenyl (Surr)	65		31 - 107				
2-Fluorophenol (Surr)	56		18 - 112				
Nitrobenzene-d5 (Surr)	61		37 - 103				
Phenol-d5 (Surr)	59		20 - 113				
Terphenyl-d14 (Surr)	68		22 - 121				
2,4,6-Tribromophenol (Surr)	82		39 - 133				

Lab Sample ID: 680-147344-21 MS

Matrix: Water

Analysis Batch: 511505

Client Sample ID: TMW-20 (12292017)

Prep Type: Total/NA

Prep Batch: 511030

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	0.10	U H	9.99	7.68		ug/L		77	35 - 130
Surrogate	%Recovery	MS Qualifier	Limits						
2-Fluorobiphenyl (Surr)	69		31 - 107						
2-Fluorophenol (Surr)	56		18 - 112						
Nitrobenzene-d5 (Surr)	65		37 - 103						
Phenol-d5 (Surr)	57		20 - 113						
Terphenyl-d14 (Surr)	63		22 - 121						
2,4,6-Tribromophenol (Surr)	96		39 - 133						

Lab Sample ID: 680-147344-21 MSD

Matrix: Water

Analysis Batch: 511505

Client Sample ID: TMW-20 (12292017)

Prep Type: Total/NA

Prep Batch: 511030

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1'-Biphenyl	0.10	U H	11.1	8.11		ug/L		73	35 - 130	5	30

TestAmerica Savannah



## QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-4

Project/Site: Hercules Savannah / Savannah Resins Plan

### Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 680-147344-21 MSD

Matrix: Water

Analysis Batch: 511505

Client Sample ID: TMW-20 (12292017)

Prep Type: Total/NA

Prep Batch: 511030

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	62		31 - 107
2-Fluorophenol (Surr)	50		18 - 112
Nitrobenzene-d5 (Surr)	57		37 - 103
Phenol-d5 (Surr)	54		20 - 113
Terphenyl-d14 (Surr)	59		22 - 121
2,4,6-Tribromophenol (Surr)	82		39 - 133



## QC Association Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-4

Project/Site: Hercules Savannah / Savannah Resins Plan

### GC/MS Semi VOA

#### Prep Batch: 511030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-21	TMW-20 (12292017)	Total/NA	Water	3520C	
MB 680-511030/2-A	Method Blank	Total/NA	Water	3520C	
LCS 680-511030/3-A	Lab Control Sample	Total/NA	Water	3520C	
680-147344-21 MS	TMW-20 (12292017)	Total/NA	Water	3520C	
680-147344-21 MSD	TMW-20 (12292017)	Total/NA	Water	3520C	

#### Analysis Batch: 511505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-21	TMW-20 (12292017)	Total/NA	Water	8270D LL	511030
MB 680-511030/2-A	Method Blank	Total/NA	Water	8270D LL	511030
LCS 680-511030/3-A	Lab Control Sample	Total/NA	Water	8270D LL	511030
680-147344-21 MS	TMW-20 (12292017)	Total/NA	Water	8270D LL	511030
680-147344-21 MSD	TMW-20 (12292017)	Total/NA	Water	8270D LL	511030



## Lab Chronicle

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-4

Project/Site: Hercules Savannah / Savannah Resins Plan

**Client Sample ID: TMW-20 (12292017)**

**Lab Sample ID: 680-147344-21**

**Date Collected: 12/29/17 09:20**

**Matrix: Water**

**Date Received: 12/29/17 14:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			971.9 mL	1 mL	511030	01/31/18 14:19	CEW	TAL SAV
Total/NA	Analysis	8270D LL		1			511505	02/05/18 21:41	OK	TAL SAV

### Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858



## Chain of Custody Record



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

<b>Client Information (Sub Contract Lab)</b> Client Contact: <span style="float:right">Carrier Tracking No(s): 320-110756.1</span> Shipping/Receiving <span style="float:right">Page 1 of 1</span> Company: TestAmerica Laboratories, Inc. <span style="float:right">Job #: 680-147344-1</span> Address: 5102 LaRoche Avenue, Savannah, GA 31404 <span style="float:right">Preservation Codes:</span> City: Savannah <span style="float:right">A - HCL</span> State, Zip: GA, 31404 <span style="float:right">B - NaOH</span> Phone: 912-354-7858(Tel) 912-352-0165(Fax) <span style="float:right">C - Zn Acetate</span> Email: <span style="float:right">D - Nitric Acid</span> <span style="float:right">E - NaHSO4</span> <span style="float:right">F - MeOH</span> <span style="float:right">G - Arschlor</span> <span style="float:right">H - Ascorbic Acid</span> <span style="float:right">I - Ice</span> <span style="float:right">J - DI Water</span> <span style="float:right">K - EDTA</span> <span style="float:right">L - EDA</span> <span style="float:right">Other:</span>			
<b>Analysis Requested</b> Due Date Requested: 1/17/2018 TAT Requested (days): PO #: WO #: Project #: 68001205 SSOW#:			
<b>Sample Identification - Client ID (Lab ID)</b> TMW-20 (12292017) (680-147344-21)		<b>Sample Date</b> 12/29/17	
<b>Sample Time</b> 09:20 Eastern		<b>Sample Type (C=comp, G=grab)</b> Preservation Code:	
<b>Matrix (If water, specify container)</b> Water		<b>Field Filtered Sample (Yes or No)</b> 8081B_8082A/3520C Arschlor 1254	
<b>Perform MS/MSD (Yes or No)</b> X		<b>Total Number of Containers</b> 2	
<b>Special Instructions/Note:</b> Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.			
<b>Possible Hazard Identification</b> Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 Empty Kit Relinquished by: <span style="float:right">Date: 1/29/18</span> Relinquished by: <span style="float:right">Company: TA-SAC</span> Relinquished by: <span style="float:right">Date/Time: 1630</span> Relinquished by: <span style="float:right">Date/Time:</span> Relinquished by: <span style="float:right">Date/Time:</span>			
<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/OC Requirements:			
Method of Shipment:			
Date/Time: 1/30/2018 9:05 Date/Time:		Date/Time:	
Company: TA Savannah Company:		Company:	
Date/Time:		Date/Time:	
Cooler Temperature(s) °C and Other Remarks: 0.700 1.000		Company:	



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-147344-4

**Login Number: 147344**

**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.	False	Received same day of collection; chilling process has begun.
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-4

Project/Site: Hercules Savannah / Savannah Resins Plan

### 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	AZ0808	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	12-31-18
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



## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Tel: (912)354-7858

TestAmerica Job ID: 680-147344-5

Client Project/Site: Hercules Savannah / Savannah Resins Plan

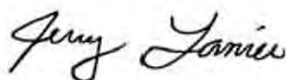
For:

ARCADIS U.S., Inc.

10 Patewood Drive, Suite 375

Greenville, South Carolina 29615

Attn: Andrew Davis



Authorized for release by:

2/9/2018 5:24:24 PM

Jerry Lanier, Project Manager I

(912)354-7858 e.3410

[jerry.lanier@testamericainc.com](mailto:jerry.lanier@testamericainc.com)

### LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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## Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-5

**Job ID: 680-147344-5**

**Laboratory: TestAmerica Savannah**

### Narrative

## CASE NARRATIVE

**Client: ARCADIS U.S., Inc.**

**Project: Hercules Savannah / Savannah Resins Plan**

**Report Number: 680-147344-5**

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 12/29/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 6.9° C, 7.1° C, 11.2° C and 11.4° C.

### SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) - LOW LEVEL

was analyzed for Semivolatile Organic Compounds (GC/MS) - Low level in accordance with EPA SW846 Method 8270D. The samples were prepared on 02/02/2018 and analyzed on 02/08/2018.

The following samples were diluted due to the nature of the sample matrix: (680-147344-A-19-B MS) and (680-147344-A-19-C MS). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Sample SB-128-3B (12292017) (680-147344-19) was analyzed outside of hold time due the delay in the request for analysis.

The following samples were diluted due to the nature of the sample matrix: SB-128-3B (12292017) (680-147344-19), (680-147344-A-19-B MS) and (680-147344-A-19-C MS). Elevated reporting limits (RLs) are provided.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### PESTICIDES AND PCBS

Sample SB-204-2B (12292017) (680-147344-14) was analyzed for Pesticides and PCBs in accordance with EPA SW-846 Method 8081B\_8082A. The samples were prepared on 01/05/2018 and analyzed on 01/08/2018.

This method incorporates 2nd column confirmation. Corrective action is not taken for surrogate/spike compounds unless results from both columns are unacceptable. Results outside criteria are qualified.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### PERCENT SOLIDS/MOISTURE

Samples SB-204-2B (12292017) (680-147344-14) and SB-128-3B (12292017) (680-147344-19) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 12/30/2017.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



## Sample Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-5

Project/Site: Hercules Savannah / Savannah Resins Plan

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-147344-14	SB-204-2B (12292017)	Solid	12/29/17 12:00	12/29/17 14:00
680-147344-19	SB-128-3B (12292017)	Solid	12/29/17 10:10	12/29/17 14:00



## Method Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-5

Project/Site: Hercules Savannah / Savannah Resins Plan

Method	Method Description	Protocol	Laboratory
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL SAV
8081B/8082A	Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography	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



## Definitions/Glossary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-5

Project/Site: Hercules Savannah / Savannah Resins Plan

### Qualifiers

#### GC/MS Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
U	Indicates the analyte was analyzed for but not detected.

#### GC 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.
$\alpha$	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)



## Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-5

Project/Site: Hercules Savannah / Savannah Resins Plan

**Client Sample ID: SB-204-2B (12292017)**

**Lab Sample ID: 680-147344-14**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	0.91		0.041	0.012	mg/Kg	1	☼	8081B/8082A	Total/NA

**Client Sample ID: SB-128-3B (12292017)**

**Lab Sample ID: 680-147344-19**

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-5

**Client Sample ID: SB-204-2B (12292017)**

**Lab Sample ID: 680-147344-14**

**Date Collected: 12/29/17 12:00**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 80.2**

**Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	0.91		0.041	0.012	mg/Kg	☆	01/05/18 17:42	01/08/18 19:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	86		54 - 133				01/05/18 17:42	01/08/18 19:22	1
Tetrachloro-m-xylene	87		46 - 130				01/05/18 17:42	01/08/18 19:22	1



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-5

Project/Site: Hercules Savannah / Savannah Resins Plan

**Client Sample ID: SB-128-3B (12292017)**

**Lab Sample ID: 680-147344-19**

**Date Collected: 12/29/17 10:10**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 88.7**

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.079	U H	0.36	0.079	mg/Kg	☆	02/02/18 09:30	02/08/18 22:40	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	74		11 - 130				02/02/18 09:30	02/08/18 22:40	5
2-Fluorophenol (Surr)	60		10 - 130				02/02/18 09:30	02/08/18 22:40	5
Nitrobenzene-d5 (Surr)	57		18 - 130				02/02/18 09:30	02/08/18 22:40	5
Phenol-d5 (Surr)	63		10 - 130				02/02/18 09:30	02/08/18 22:40	5
Terphenyl-d14 (Surr)	74		27 - 130				02/02/18 09:30	02/08/18 22:40	5
2,4,6-Tribromophenol (Surr)	93		24 - 130				02/02/18 09:30	02/08/18 22:40	5



## Surrogate Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-5

Project/Site: Hercules Savannah / Savannah Resins Plan

### Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (11-130)	2FP (10-130)	NBZ (18-130)	PHL (10-130)	TPHL (27-130)	TBP (24-130)
680-147344-19	SB-128-3B (12292017)	74	60	57	63	74	93
680-147344-19 MS	SB-128-3B (12292017)	69	51	52	54	61	81
680-147344-19 MSD	SB-128-3B (12292017)	68	55	57	55	63	80

**Surrogate Legend**

FBP = 2-Fluorobiphenyl (Surr)  
 2FP = 2-Fluorophenol (Surr)  
 NBZ = Nitrobenzene-d5 (Surr)  
 PHL = Phenol-d5 (Surr)  
 TPHL = Terphenyl-d14 (Surr)  
 TBP = 2,4,6-Tribromophenol (Surr)

### Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCBP2 (54-133)	TCX2 (46-130)
680-147344-14	SB-204-2B (12292017)	86	87

**Surrogate Legend**

DCBP = DCB Decachlorobiphenyl  
 TCX = Tetrachloro-m-xylene

### Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCBP1 (54-133)	TCX2 (46-130)
LCS 680-508607/10-A	Lab Control Sample	98	83
MB 680-508607/9-A	Method Blank	101	94

**Surrogate Legend**

DCBP = DCB Decachlorobiphenyl  
 TCX = Tetrachloro-m-xylene



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-5

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: 680-147344-19 MS

Matrix: Solid

Analysis Batch: 511970

Client Sample ID: SB-128-3B (12292017)

Prep Type: Total/NA

Prep Batch: 511303

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	0.079	U H	0.744	0.511		mg/Kg	☼	69	10 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
2-Fluorobiphenyl (Surr)	69		11 - 130						
2-Fluorophenol (Surr)	51		10 - 130						
Nitrobenzene-d5 (Surr)	52		18 - 130						
Phenol-d5 (Surr)	54		10 - 130						
Terphenyl-d14 (Surr)	61		27 - 130						
2,4,6-Tribromophenol (Surr)	81		24 - 130						

Lab Sample ID: 680-147344-19 MSD

Matrix: Solid

Analysis Batch: 511970

Client Sample ID: SB-128-3B (12292017)

Prep Type: Total/NA

Prep Batch: 511303

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1'-Biphenyl	0.079	U H	0.723	0.485		mg/Kg	☼	67	10 - 130	5	50
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
2-Fluorobiphenyl (Surr)	68		11 - 130								
2-Fluorophenol (Surr)	55		10 - 130								
Nitrobenzene-d5 (Surr)	57		18 - 130								
Phenol-d5 (Surr)	55		10 - 130								
Terphenyl-d14 (Surr)	63		27 - 130								
2,4,6-Tribromophenol (Surr)	80		24 - 130								

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Lab Sample ID: MB 680-508607/9-A

Matrix: Solid

Analysis Batch: 508744

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 508607

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	0.0098	U	0.032	0.0098	mg/Kg		01/05/18 17:42	01/08/18 17:27	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	101		54 - 133				01/05/18 17:42	01/08/18 17:27	1
Tetrachloro-m-xylene	94		46 - 130				01/05/18 17:42	01/08/18 17:27	1

Lab Sample ID: LCS 680-508607/10-A

Matrix: Solid

Analysis Batch: 508744

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 508607

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1254	0.385	0.333		mg/Kg		86	50 - 150

TestAmerica Savannah



## QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-5

Project/Site: Hercules Savannah / Savannah Resins Plan

### Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Lab Sample ID: LCS 680-508607/10-A

Matrix: Solid

Analysis Batch: 508744

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 508607

Surrogate	LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	98		54 - 133
Tetrachloro-m-xylene	83		46 - 130



## QC Association Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-5

Project/Site: Hercules Savannah / Savannah Resins Plan

### GC/MS Semi VOA

#### Prep Batch: 511303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-19	SB-128-3B (12292017)	Total/NA	Solid	3546	
680-147344-19 MS	SB-128-3B (12292017)	Total/NA	Solid	3546	
680-147344-19 MSD	SB-128-3B (12292017)	Total/NA	Solid	3546	

#### Analysis Batch: 511970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-19	SB-128-3B (12292017)	Total/NA	Solid	8270D LL	511303
680-147344-19 MS	SB-128-3B (12292017)	Total/NA	Solid	8270D LL	511303
680-147344-19 MSD	SB-128-3B (12292017)	Total/NA	Solid	8270D LL	511303

### GC Semi VOA

#### Prep Batch: 508607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-14	SB-204-2B (12292017)	Total/NA	Solid	3546	
MB 680-508607/9-A	Method Blank	Total/NA	Solid	3546	
LCS 680-508607/10-A	Lab Control Sample	Total/NA	Solid	3546	

#### Analysis Batch: 508744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-14	SB-204-2B (12292017)	Total/NA	Solid	8081B/8082A	508607
MB 680-508607/9-A	Method Blank	Total/NA	Solid	8081B/8082A	508607
LCS 680-508607/10-A	Lab Control Sample	Total/NA	Solid	8081B/8082A	508607

### General Chemistry

#### Analysis Batch: 508258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-14	SB-204-2B (12292017)	Total/NA	Solid	Moisture	
680-147344-19	SB-128-3B (12292017)	Total/NA	Solid	Moisture	



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-5

**Client Sample ID: SB-204-2B (12292017)**

**Date Collected: 12/29/17 12:00**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-14**

**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			508258	12/30/17 09:50	EAB	TAL SAV

**Client Sample ID: SB-204-2B (12292017)**

**Date Collected: 12/29/17 12:00**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-14**

**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			15.11 g	10 mL	508607	01/05/18 17:42	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		1			508744	01/08/18 19:22	GEM	TAL SAV

**Client Sample ID: SB-128-3B (12292017)**

**Date Collected: 12/29/17 10:10**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-19**

**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			508258	12/30/17 09:50	EAB	TAL SAV

**Client Sample ID: SB-128-3B (12292017)**

**Date Collected: 12/29/17 10:10**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-19**

**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			15.45 g	1 mL	511303	02/02/18 09:30	JAM	TAL SAV
Total/NA	Analysis	8270D LL		5			511970	02/08/18 22:40	OK	TAL SAV

## Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858



681-Atlanta

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Project Manager: SEE 7/24/17 Site Contact: 105-2 Date: 12/29/17

Company Name:		Client Contact		Project Manager:		Site Contact:		Date:		COC No:	
Address:		Tel/Fax:		Analysis Turnaround Time		Carrier:		COC No:		COC No:	
City/State/Zip:		Phone:		TAT if different from Below		Carrier:		COC No:		COC No:	
Fax:		Project Name:		Sample Date		Sample Time		Sample Type		Sample Specific Notes:	
Site:		PO #		Sample Date		Sample Time		Sample Type		Sample Specific Notes:	
PO #		Sample Date		Sample Time		Sample Type		Sample Type		Sample Specific Notes:	
SB-204-1B (122917)	12/29/17	1155	G	So	2						HOLD SAMPLE
SB-204-2B (122917)	12/29/17	1200	G	So	2						HOLD SAMPLE
SB-204-3B (122917)	12/29/17	1215	G	So	2						HOLD SAMPLE
SB-202-1B (122917)	12/29/17	1045	G	So	2						HOLD SAMPLE
DS-9-2B (122917)	12/29/17	1115	G	So	1						HOLD SAMPLE
EX-21-1B (122917)	12/29/17	1245	G	So	1						HOLD SAMPLE
SB-128-1B (122917)	12/29/17	1010	G	So	1						HOLD SAMPLE
SB-159-3B (122917)	12/29/17	1020	G	So	1						HOLD SAMPLE
TMW-20 (122917)	12/29/17	0920	G	WT	6						HOLD SAMPLE
EB-1 (122817)	12/28/17	1600	G	WT	3						HOLD SAMPLE
<p>Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other</p> <p>Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.</p> <p><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown</p>											
<p>Special Instructions/QC Requirements &amp; Comments:</p> <p>1.7/17/17 6/119 CCF-05) 4.5/4.9/7.1/11.4</p>											
<p>Custody Seal No.: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Relinquished by: <u>Manjiv</u> Date/Time: <u>12/29/17 1400</u></p> <p>Relinquished by: <u>Manjiv</u> Date/Time: <u>12/29/17 1400</u></p>											



Company Name: <b>ARCADIS</b>		Client Contact		Regulatory Program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other: <input type="checkbox"/>		Project Manager: <b>ANDY DAVIS</b>		Site Contact: <b>JEN SWART</b>		Date: <b>12/21/17</b>		COC No: <b>1</b> of <b>2</b> COCs	
Address: <b>10 PATEWOOD DR. STE-375</b>		City/State/Zip: <b>GREENVILLE, SC 29615</b>		Phone: <b>864.987.3300</b>		Fax: <b>864.987.3300</b>		Lab Contact: <b>JEN SWART</b>		Carrier: <b>11-TRIUMPH 87AD</b>		Sampler: <b>MS/MET</b>	
Project Name: <b>ASULAND SAVANNAH</b>		Site: <b>ASULAND</b>		PO # <b>0801000.6461</b>		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below <b>STANDARD</b> <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Perform MS/MSD (Y/N)		Filtered Sample (Y/N)		Sample Specific Notes:	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.							
SB-204-1A (122917)		12/19/17	1710	G	SD	6							
SB-204-2A (122917)		12/19/17	1720	G	SD	2							
SB-204-3A (122917)		12/19/17	1700	G	SD	2							
SB-137-1A (122917)		12/19/17	1050	G	SD	1							
SB-202-1A (122917)		12/19/17	1105	G	SD	2							
DS-9-2A (122917)		12/19/17	1120	G	SD	3							
EK-21-1A (122917)		12/19/17	1140	G	SD	1							
SB-128-1A (122917)		12/19/17	1000	G	SD	1							
SB-159-3A (122917)		12/19/17	1025	G	SD	1							
EB-1 (122917)		12/19/17	1300	G	WT	8							
DUP-1 (122917)		12/19/17	-	G	SD	2							
DUP-2 (122917)		12/19/17	-	G	SD	1							
Preservation Used: 1=Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6=Other													
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.													
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Unknown													
Special Instructions/QC Requirements & Comments: <b>11.7/17.9/17.6/11.9/0.5/17.5/11.4</b>													
Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: <b>11.7</b>		Cor'd: <b>11.7</b>		Therm ID No.:					
Relinquished by: <b>Morgan</b>		Company: <b>ARCADIS</b>		Date/Time: <b>12/29/17 1000</b>		Received by:		Company:		Date/Time:			
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:			
Relinquished by:		Company:		Date/Time:		Received in Laboratory by: <b>James Edward</b>		Company:		Date/Time: <b>12/29/17 1400</b>			



## Chain of Custody Record



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

[illegible]



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-147344-5

**Login Number: 147344**

**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.	False	Received same day of collection; chilling process has begun.
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-5

Project/Site: Hercules Savannah / Savannah Resins Plan

### 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	AZ0808	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	12-31-18
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



## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Tel: (912)354-7858

TestAmerica Job ID: 680-147344-6

Client Project/Site: Hercules Savannah / Savannah Resins Plan

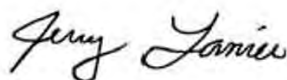
For:

ARCADIS U.S., Inc.

10 Patewood Drive, Suite 375

Greenville, South Carolina 29615

Attn: Andrew Davis



Authorized for release by:

2/22/2018 5:12:57 PM

Jerry Lanier, Project Manager I

(912)354-7858 e.3410

[jerry.lanier@testamericainc.com](mailto:jerry.lanier@testamericainc.com)

### LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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## Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-6

**Job ID: 680-147344-6**

**Laboratory: TestAmerica Savannah**

### Narrative

## CASE NARRATIVE

**Client: ARCADIS U.S., Inc.**

**Project: Hercules Savannah / Savannah Resins Plan**

**Report Number: 680-147344-6**

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 12/29/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 6.9° C, 7.1° C, 11.2° C and 11.4° C.

### CHLORINATED BIPHENYL CONGENERS

Samples SB-204-2B (12292017) (680-147344-14) and SB-204-3B (12292017) (680-147344-15) were analyzed for chlorinated biphenyl congeners in accordance with epa method 1668C. The samples were prepared on 02/02/2018 and analyzed on 02/19/2018.

The following samples exhibited elevated noise or matrix interferences for one or more analytes causing elevation of the detection limit (EDL): SB-204-2B (12292017) (680-147344-14) and SB-204-3B (12292017) (680-147344-15). The reporting limit (RL) for the affected analytes has been raised to be equal to the EDL, and a "G" qualifier applied.

The concentration of one or more analytes associated with the following samples exceeded the instrument calibration range: SB-204-2B (12292017) (680-147344-14) and SB-204-3B (12292017) (680-147344-15). These analytes have been qualified; however, the peak(s) did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range.

The following samples were diluted to bring the concentration of target analytes to a level below detector saturation: SB-204-2B (12292017) (680-147344-14) and SB-204-3B (12292017) (680-147344-15) at 5.0 and 5.0. Elevated reporting limits (RLs) are provided.

The method blank for 320-206652 contained PCB-105 and PCB-118 above the reporting limit (RL). Associated samples were not re-extracted because results were greater than 10X the value found in the method blank.

Samples SB-204-2B (12292017) (680-147344-14)[5X] and SB-204-3B (12292017) (680-147344-15)[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.

### CHLORINATED BIPHENYL CONGENERS

Samples SB-204-2B (12292017) (680-147344-14) and SB-204-3B (12292017) (680-147344-15) were analyzed for chlorinated biphenyl congeners in accordance with EPA method 1668C. The samples were analyzed on 02/22/2018.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### PERCENT SOLIDS/MOISTURE

Sample SB-204-3B (12292017) (680-147344-15) was analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The



## Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-6

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### Job ID: 680-147344-6 (Continued)

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#### Laboratory: TestAmerica Savannah (Continued)

samples were analyzed on 02/02/2018.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



## Sample Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-147344-14	SB-204-2B (12292017)	Solid	12/29/17 12:00	12/29/17 14:00
680-147344-15	SB-204-3B (12292017)	Solid	12/29/17 12:15	12/29/17 14:00



## Method Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

Method	Method Description	Protocol	Laboratory
1668C	Chlorinated Biphenyl Congeners (HRGC/HRMS)	EPA	TAL SAC
None	Total PCB Calculation from HRMS PCB-Congeners	TAL SOP	TAL SAC
D 2216	Percent Moisture	ASTM	TAL SAC

### Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

### Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



## Definitions/Glossary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

### Qualifiers

#### Dioxin

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.
G	The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.

### 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)



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: SB-204-2B (12292017)

Lab Sample ID: 680-147344-14

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-1	0.000055	J	0.00013	0.0000014	mg/Kg	5	☆	1668C	Total/NA	
PCB-2	0.0000095	J	0.00013	0.0000011	mg/Kg	5	☆	1668C	Total/NA	
PCB-3	0.000024	J	0.00013	0.0000012	mg/Kg	5	☆	1668C	Total/NA	
PCB-4	0.00017		0.00013	0.000034	mg/Kg	5	☆	1668C	Total/NA	
PCB-5	0.000030	J	0.00013	0.000012	mg/Kg	5	☆	1668C	Total/NA	
PCB-6	0.000062	J	0.00013	0.000012	mg/Kg	5	☆	1668C	Total/NA	
PCB-8	0.00046		0.00013	0.000012	mg/Kg	5	☆	1668C	Total/NA	
PCB-15	0.000099	J	0.00013	0.000011	mg/Kg	5	☆	1668C	Total/NA	
PCB-16	0.00021		0.00013	0.000011	mg/Kg	5	☆	1668C	Total/NA	
PCB-17	0.00094		0.00013	0.0000086	mg/Kg	5	☆	1668C	Total/NA	
PCB-18/30	0.00083		0.00025	0.0000076	mg/Kg	5	☆	1668C	Total/NA	
PCB-19	0.00038		0.00013	0.000014	mg/Kg	5	☆	1668C	Total/NA	
PCB-20/28	0.0040	B	0.00025	0.000033	mg/Kg	5	☆	1668C	Total/NA	
PCB-21/33	0.0011	B	0.00025	0.000031	mg/Kg	5	☆	1668C	Total/NA	
PCB-22	0.00036		0.00013	0.000034	mg/Kg	5	☆	1668C	Total/NA	
PCB-25	0.000033	J	0.00013	0.000032	mg/Kg	5	☆	1668C	Total/NA	
PCB-26/29	0.000091	J	0.00025	0.000032	mg/Kg	5	☆	1668C	Total/NA	
PCB-27	0.000037	J	0.00013	0.0000066	mg/Kg	5	☆	1668C	Total/NA	
PCB-31	0.0019	B	0.00013	0.000030	mg/Kg	5	☆	1668C	Total/NA	
PCB-32	0.0029		0.00013	0.0000063	mg/Kg	5	☆	1668C	Total/NA	
PCB-37	0.00029		0.00013	0.000029	mg/Kg	5	☆	1668C	Total/NA	
PCB-40/71	0.0033	B	0.00025	0.000026	mg/Kg	5	☆	1668C	Total/NA	
PCB-42	0.0019	B	0.00013	0.000028	mg/Kg	5	☆	1668C	Total/NA	
PCB-44/47/65	0.015	B	0.00038	0.000025	mg/Kg	5	☆	1668C	Total/NA	
PCB-46	0.00097		0.00013	0.000031	mg/Kg	5	☆	1668C	Total/NA	
PCB-48	0.00036		0.00013	0.000026	mg/Kg	5	☆	1668C	Total/NA	
PCB-49/69	0.011	B	0.00025	0.000022	mg/Kg	5	☆	1668C	Total/NA	
PCB-50/53	0.0039	B	0.00025	0.000025	mg/Kg	5	☆	1668C	Total/NA	
PCB-51	0.0022	B	0.00013	0.000025	mg/Kg	5	☆	1668C	Total/NA	
PCB-52	0.031	B E	0.00013	0.000026	mg/Kg	5	☆	1668C	Total/NA	
PCB-54	0.00041		0.00013	0.0000015	mg/Kg	5	☆	1668C	Total/NA	
PCB-56	0.0028	B	0.00013	0.00012	mg/Kg	5	☆	1668C	Total/NA	
PCB-59/62/75	0.00045		0.00038	0.000019	mg/Kg	5	☆	1668C	Total/NA	
PCB-61/70/74/76	0.031	B	0.00050	0.00011	mg/Kg	5	☆	1668C	Total/NA	
PCB-63	0.00052		0.00013	0.00010	mg/Kg	5	☆	1668C	Total/NA	
PCB-64	0.0036	B	0.00013	0.000018	mg/Kg	5	☆	1668C	Total/NA	
PCB-66	0.011	B	0.00013	0.00012	mg/Kg	5	☆	1668C	Total/NA	
PCB-68	0.00023	B	0.00013	0.00010	mg/Kg	5	☆	1668C	Total/NA	
PCB-72	0.00037		0.00013	0.00011	mg/Kg	5	☆	1668C	Total/NA	
PCB-77	0.0012	G	0.00011	0.00011	mg/Kg	5	☆	1668C	Total/NA	
PCB-79	0.00044		0.00013	0.00010	mg/Kg	5	☆	1668C	Total/NA	
PCB-80	0.00039		0.00013	0.00010	mg/Kg	5	☆	1668C	Total/NA	
PCB-82	0.0065	G	0.00093	0.00093	mg/Kg	5	☆	1668C	Total/NA	
PCB-84	0.015	G B E	0.00087	0.00087	mg/Kg	5	☆	1668C	Total/NA	
PCB-85/116/117	0.013	G B	0.00065	0.00065	mg/Kg	5	☆	1668C	Total/NA	
PCB-86/87/97/108/119/125	0.047	B	0.00076	0.00067	mg/Kg	5	☆	1668C	Total/NA	
PCB-88/91	0.0083	G B	0.00074	0.00074	mg/Kg	5	☆	1668C	Total/NA	
PCB-90/101/113	0.071	G B E	0.00068	0.00068	mg/Kg	5	☆	1668C	Total/NA	
PCB-92	0.014	G B E	0.00079	0.00079	mg/Kg	5	☆	1668C	Total/NA	
PCB-107/124	0.0034	G	0.00060	0.00060	mg/Kg	5	☆	1668C	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: SB-204-2B (12292017) (Continued)

Lab Sample ID: 680-147344-14

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-95	0.048	G B E	0.00074	0.00074	mg/Kg	5	✱		1668C	Total/NA
PCB-96	0.00029		0.00013	0.0000010	mg/Kg	5	✱		1668C	Total/NA
PCB-98/102	0.00097	G	0.00072	0.00072	mg/Kg	5	✱		1668C	Total/NA
PCB-99	0.031	G B E	0.00063	0.00063	mg/Kg	5	✱		1668C	Total/NA
PCB-104	0.000021	J	0.00013	0.0000012	mg/Kg	5	✱		1668C	Total/NA
PCB-105	0.035	G E B	0.00061	0.00061	mg/Kg	5	✱		1668C	Total/NA
PCB-110/115	0.091	G B E	0.00059	0.00059	mg/Kg	5	✱		1668C	Total/NA
PCB-109	0.0061	G	0.00056	0.00056	mg/Kg	5	✱		1668C	Total/NA
PCB-114	0.0015	G	0.00062	0.00062	mg/Kg	5	✱		1668C	Total/NA
PCB-118	0.083	G E B	0.00057	0.00057	mg/Kg	5	✱		1668C	Total/NA
PCB-123	0.0012	G	0.00061	0.00061	mg/Kg	5	✱		1668C	Total/NA
PCB-128/166	0.016	G B	0.00027	0.00027	mg/Kg	5	✱		1668C	Total/NA
PCB-129/138/163	0.088	B E	0.00038	0.00029	mg/Kg	5	✱		1668C	Total/NA
PCB-130	0.0056	G B	0.00037	0.00037	mg/Kg	5	✱		1668C	Total/NA
PCB-131	0.00098	G	0.00033	0.00033	mg/Kg	5	✱		1668C	Total/NA
PCB-132	0.023	G B E	0.00033	0.00033	mg/Kg	5	✱		1668C	Total/NA
PCB-133	0.00084	G	0.00033	0.00033	mg/Kg	5	✱		1668C	Total/NA
PCB-134/143	0.0038	G	0.00034	0.00034	mg/Kg	5	✱		1668C	Total/NA
PCB-135/151	0.016	G B	0.00031	0.00031	mg/Kg	5	✱		1668C	Total/NA
PCB-136	0.0066	G B	0.00023	0.00023	mg/Kg	5	✱		1668C	Total/NA
PCB-137	0.0043	G B	0.00027	0.00027	mg/Kg	5	✱		1668C	Total/NA
PCB-139/140	0.0014	G	0.00030	0.00030	mg/Kg	5	✱		1668C	Total/NA
PCB-141	0.011	G B	0.00033	0.00033	mg/Kg	5	✱		1668C	Total/NA
PCB-144	0.0023	G B	0.00030	0.00030	mg/Kg	5	✱		1668C	Total/NA
PCB-146	0.0083	G B	0.00028	0.00028	mg/Kg	5	✱		1668C	Total/NA
PCB-147/149	0.043	G B E	0.00030	0.00030	mg/Kg	5	✱		1668C	Total/NA
PCB-153/168	0.051	B E	0.00025	0.00025	mg/Kg	5	✱		1668C	Total/NA
PCB-154	0.00039	G	0.00027	0.00027	mg/Kg	5	✱		1668C	Total/NA
PCB-156/157	0.013	G B	0.000095	0.000095	mg/Kg	5	✱		1668C	Total/NA
PCB-158	0.0091	G B	0.00023	0.00023	mg/Kg	5	✱		1668C	Total/NA
PCB-159	0.00017		0.00013	0.000069	mg/Kg	5	✱		1668C	Total/NA
PCB-162	0.00030		0.00013	0.000066	mg/Kg	5	✱		1668C	Total/NA
PCB-164	0.0056	G B	0.00027	0.00027	mg/Kg	5	✱		1668C	Total/NA
PCB-167	0.0039	G B	0.000058	0.000058	mg/Kg	5	✱		1668C	Total/NA
PCB-170	0.0089	B	0.00013	0.000013	mg/Kg	5	✱		1668C	Total/NA
PCB-171/173	0.0028	B	0.00025	0.000013	mg/Kg	5	✱		1668C	Total/NA
PCB-172	0.0013		0.00013	0.000013	mg/Kg	5	✱		1668C	Total/NA
PCB-174	0.0074	B	0.00013	0.000014	mg/Kg	5	✱		1668C	Total/NA
PCB-175	0.00026		0.00013	0.0000039	mg/Kg	5	✱		1668C	Total/NA
PCB-176	0.00065		0.00013	0.0000028	mg/Kg	5	✱		1668C	Total/NA
PCB-177	0.0040	B	0.00013	0.000013	mg/Kg	5	✱		1668C	Total/NA
PCB-178	0.0010		0.00013	0.0000041	mg/Kg	5	✱		1668C	Total/NA
PCB-179	0.0020	B	0.00013	0.0000030	mg/Kg	5	✱		1668C	Total/NA
PCB-180/193	0.015	B	0.00025	0.000011	mg/Kg	5	✱		1668C	Total/NA
PCB-181	0.00018		0.00013	0.000011	mg/Kg	5	✱		1668C	Total/NA
PCB-182	0.000044	J	0.00013	0.0000037	mg/Kg	5	✱		1668C	Total/NA
PCB-183	0.0034	B	0.00013	0.000010	mg/Kg	5	✱		1668C	Total/NA
PCB-184	0.0000072	J	0.00013	0.0000031	mg/Kg	5	✱		1668C	Total/NA
PCB-185	0.00058		0.00013	0.000012	mg/Kg	5	✱		1668C	Total/NA
PCB-187	0.0060	B	0.00013	0.0000037	mg/Kg	5	✱		1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

## Client Sample ID: SB-204-2B (12292017) (Continued)

## Lab Sample ID: 680-147344-14

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-188	0.000013	J	0.00013	0.0000039	mg/Kg	5	✱	1668C	Total/NA
PCB-189	0.00034		0.000013	0.0000013	mg/Kg	5	✱	1668C	Total/NA
PCB-190	0.0016	B	0.00013	0.0000093	mg/Kg	5	✱	1668C	Total/NA
PCB-191	0.00034		0.00013	0.0000095	mg/Kg	5	✱	1668C	Total/NA
PCB-194	0.0026	B	0.00013	0.0000019	mg/Kg	5	✱	1668C	Total/NA
PCB-195	0.00094		0.00013	0.0000020	mg/Kg	5	✱	1668C	Total/NA
PCB-196	0.0012		0.00013	0.0000056	mg/Kg	5	✱	1668C	Total/NA
PCB-197	0.000069	J	0.00013	0.0000039	mg/Kg	5	✱	1668C	Total/NA
PCB-198/199	0.0030	B	0.00025	0.0000060	mg/Kg	5	✱	1668C	Total/NA
PCB-200	0.00036		0.00013	0.0000048	mg/Kg	5	✱	1668C	Total/NA
PCB-201	0.00031		0.00013	0.0000043	mg/Kg	5	✱	1668C	Total/NA
PCB-202	0.00064		0.00013	0.0000061	mg/Kg	5	✱	1668C	Total/NA
PCB-203	0.0019		0.00013	0.0000056	mg/Kg	5	✱	1668C	Total/NA
PCB-205	0.00013		0.00013	0.0000013	mg/Kg	5	✱	1668C	Total/NA
PCB-206	0.0016		0.00013	0.0000018	mg/Kg	5	✱	1668C	Total/NA
PCB-207	0.00019		0.00013	0.0000015	mg/Kg	5	✱	1668C	Total/NA
PCB-208	0.00045		0.00013	0.0000019	mg/Kg	5	✱	1668C	Total/NA
PCB-209	0.00084		0.00013	0.0000013	mg/Kg	5	✱	1668C	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Polychlorinated biphenyls, Total	1.0		0.0000020	0.0000050	mg/Kg	1		None	Total/NA

## Client Sample ID: SB-204-3B (12292017)

## Lab Sample ID: 680-147344-15

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1	0.000011	J	0.00012	0.0000014	mg/Kg	5	✱	1668C	Total/NA
PCB-2	0.0000043	J	0.00012	0.0000012	mg/Kg	5	✱	1668C	Total/NA
PCB-3	0.0000065	J	0.00012	0.0000012	mg/Kg	5	✱	1668C	Total/NA
PCB-8	0.000035	J	0.00012	0.0000089	mg/Kg	5	✱	1668C	Total/NA
PCB-15	0.000036	J	0.00012	0.0000084	mg/Kg	5	✱	1668C	Total/NA
PCB-16	0.000027	J	0.00012	0.0000035	mg/Kg	5	✱	1668C	Total/NA
PCB-17	0.000025	J	0.00012	0.0000026	mg/Kg	5	✱	1668C	Total/NA
PCB-18/30	0.000066	J	0.00023	0.0000023	mg/Kg	5	✱	1668C	Total/NA
PCB-19	0.000014	J	0.00012	0.0000039	mg/Kg	5	✱	1668C	Total/NA
PCB-20/28	0.00017	J B	0.00023	0.0000071	mg/Kg	5	✱	1668C	Total/NA
PCB-21/33	0.00015	J B	0.00023	0.0000068	mg/Kg	5	✱	1668C	Total/NA
PCB-22	0.000047	J	0.00012	0.0000073	mg/Kg	5	✱	1668C	Total/NA
PCB-25	0.000010	J	0.00012	0.0000069	mg/Kg	5	✱	1668C	Total/NA
PCB-26/29	0.000024	J	0.00023	0.0000069	mg/Kg	5	✱	1668C	Total/NA
PCB-27	0.0000067	J	0.00012	0.0000020	mg/Kg	5	✱	1668C	Total/NA
PCB-31	0.00017	B	0.00012	0.0000065	mg/Kg	5	✱	1668C	Total/NA
PCB-32	0.000043	J	0.00012	0.0000019	mg/Kg	5	✱	1668C	Total/NA
PCB-35	0.000010	J	0.00012	0.0000072	mg/Kg	5	✱	1668C	Total/NA
PCB-37	0.00011	J	0.00012	0.0000067	mg/Kg	5	✱	1668C	Total/NA
PCB-40/71	0.00052	B	0.00023	0.000011	mg/Kg	5	✱	1668C	Total/NA
PCB-41	0.000032	J	0.00012	0.000013	mg/Kg	5	✱	1668C	Total/NA
PCB-42	0.00022	B	0.00012	0.000012	mg/Kg	5	✱	1668C	Total/NA
PCB-44/47/65	0.0024	B	0.00035	0.000010	mg/Kg	5	✱	1668C	Total/NA
PCB-45	0.000069	J	0.00012	0.000012	mg/Kg	5	✱	1668C	Total/NA
PCB-46	0.000030	J	0.00012	0.000013	mg/Kg	5	✱	1668C	Total/NA
PCB-48	0.00010	J	0.00012	0.000011	mg/Kg	5	✱	1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: SB-204-3B (12292017) (Continued)

Lab Sample ID: 680-147344-15

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-49/69	0.0015	B	0.00023	0.0000090	mg/Kg	5	☆	1668C	Total/NA	
PCB-50/53	0.00014	J B	0.00023	0.000010	mg/Kg	5	☆	1668C	Total/NA	
PCB-51	0.000028	J B	0.00012	0.000010	mg/Kg	5	☆	1668C	Total/NA	
PCB-52	0.0077	B	0.00012	0.000011	mg/Kg	5	☆	1668C	Total/NA	
PCB-56	0.00082	B	0.00012	0.000037	mg/Kg	5	☆	1668C	Total/NA	
PCB-59/62/75	0.000088	J	0.00035	0.0000079	mg/Kg	5	☆	1668C	Total/NA	
PCB-60	0.00030		0.00012	0.000035	mg/Kg	5	☆	1668C	Total/NA	
PCB-61/70/74/76	0.0076	B	0.00047	0.000034	mg/Kg	5	☆	1668C	Total/NA	
PCB-63	0.000068	J	0.00012	0.000031	mg/Kg	5	☆	1668C	Total/NA	
PCB-64	0.0011	B	0.00012	0.0000076	mg/Kg	5	☆	1668C	Total/NA	
PCB-66	0.0025	B	0.00012	0.000036	mg/Kg	5	☆	1668C	Total/NA	
PCB-72	0.000045	J	0.00012	0.000033	mg/Kg	5	☆	1668C	Total/NA	
PCB-77	0.00041	G	0.000032	0.000032	mg/Kg	5	☆	1668C	Total/NA	
PCB-79	0.00020		0.00012	0.000032	mg/Kg	5	☆	1668C	Total/NA	
PCB-82	0.0027	G	0.00068	0.00068	mg/Kg	5	☆	1668C	Total/NA	
PCB-84	0.0057	G B	0.00063	0.00063	mg/Kg	5	☆	1668C	Total/NA	
PCB-85/116/117	0.0050	G B	0.00047	0.00047	mg/Kg	5	☆	1668C	Total/NA	
PCB-86/87/97/108/119/125	0.019	B	0.00070	0.00049	mg/Kg	5	☆	1668C	Total/NA	
PCB-88/91	0.0033	G B	0.00054	0.00054	mg/Kg	5	☆	1668C	Total/NA	
PCB-90/101/113	0.037	G B E	0.00050	0.00050	mg/Kg	5	☆	1668C	Total/NA	
PCB-92	0.0068	G B	0.00057	0.00057	mg/Kg	5	☆	1668C	Total/NA	
PCB-107/124	0.0012	G	0.00044	0.00044	mg/Kg	5	☆	1668C	Total/NA	
PCB-95	0.023	G B E	0.00054	0.00054	mg/Kg	5	☆	1668C	Total/NA	
PCB-96	0.000091	J	0.00012	0.0000010	mg/Kg	5	☆	1668C	Total/NA	
PCB-99	0.012	G B E	0.00046	0.00046	mg/Kg	5	☆	1668C	Total/NA	
PCB-105	0.011	G B	0.00044	0.00044	mg/Kg	5	☆	1668C	Total/NA	
PCB-110/115	0.045	G B E	0.00043	0.00043	mg/Kg	5	☆	1668C	Total/NA	
PCB-109	0.0021	G	0.00041	0.00041	mg/Kg	5	☆	1668C	Total/NA	
PCB-114	0.00051	G	0.00045	0.00045	mg/Kg	5	☆	1668C	Total/NA	
PCB-118	0.029	G E B	0.00041	0.00041	mg/Kg	5	☆	1668C	Total/NA	
PCB-128/166	0.011	G B	0.0015	0.0015	mg/Kg	5	☆	1668C	Total/NA	
PCB-129/138/163	0.087	G B E	0.0016	0.0016	mg/Kg	5	☆	1668C	Total/NA	
PCB-130	0.0040	G B	0.0020	0.0020	mg/Kg	5	☆	1668C	Total/NA	
PCB-132	0.022	G B E	0.0019	0.0019	mg/Kg	5	☆	1668C	Total/NA	
PCB-134/143	0.0032	G	0.0019	0.0019	mg/Kg	5	☆	1668C	Total/NA	
PCB-135/151	0.026	G B E	0.0017	0.0017	mg/Kg	5	☆	1668C	Total/NA	
PCB-136	0.0080	G B	0.0013	0.0013	mg/Kg	5	☆	1668C	Total/NA	
PCB-137	0.0021	G B	0.0015	0.0015	mg/Kg	5	☆	1668C	Total/NA	
PCB-141	0.019	G B E	0.0018	0.0018	mg/Kg	5	☆	1668C	Total/NA	
PCB-144	0.0036	G B	0.0017	0.0017	mg/Kg	5	☆	1668C	Total/NA	
PCB-146	0.011	G B	0.0016	0.0016	mg/Kg	5	☆	1668C	Total/NA	
PCB-147/149	0.062	G B E	0.0017	0.0017	mg/Kg	5	☆	1668C	Total/NA	
PCB-153/168	0.076	G B E	0.0014	0.0014	mg/Kg	5	☆	1668C	Total/NA	
PCB-156/157	0.0085	G B	0.00011	0.00011	mg/Kg	5	☆	1668C	Total/NA	
PCB-158	0.0081	G B	0.0013	0.0013	mg/Kg	5	☆	1668C	Total/NA	
PCB-159	0.0013		0.00012	0.000080	mg/Kg	5	☆	1668C	Total/NA	
PCB-162	0.00020		0.00012	0.000077	mg/Kg	5	☆	1668C	Total/NA	
PCB-164	0.0064	G B	0.0015	0.0015	mg/Kg	5	☆	1668C	Total/NA	
PCB-167	0.0031	G B	0.000067	0.000067	mg/Kg	5	☆	1668C	Total/NA	
PCB-170	0.040	B E	0.00012	0.000082	mg/Kg	5	☆	1668C	Total/NA	

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: SB-204-3B (12292017) (Continued)

Lab Sample ID: 680-147344-15

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-171/173	0.012	B	0.00023	0.000084	mg/Kg	5		✱	1668C	Total/NA
PCB-172	0.0075		0.00012	0.000082	mg/Kg	5		✱	1668C	Total/NA
PCB-174	0.051	B E	0.00012	0.000089	mg/Kg	5		✱	1668C	Total/NA
PCB-175	0.0015		0.00012	0.0000065	mg/Kg	5		✱	1668C	Total/NA
PCB-176	0.0040		0.00012	0.0000047	mg/Kg	5		✱	1668C	Total/NA
PCB-177	0.024	B E	0.00012	0.000082	mg/Kg	5		✱	1668C	Total/NA
PCB-178	0.0073		0.00012	0.0000068	mg/Kg	5		✱	1668C	Total/NA
PCB-179	0.014	B E	0.00012	0.0000050	mg/Kg	5		✱	1668C	Total/NA
PCB-180/193	0.10	B E	0.00023	0.000067	mg/Kg	5		✱	1668C	Total/NA
PCB-181	0.00015		0.00012	0.000073	mg/Kg	5		✱	1668C	Total/NA
PCB-182	0.00010	J	0.00012	0.0000061	mg/Kg	5		✱	1668C	Total/NA
PCB-183	0.021	B E	0.00012	0.000064	mg/Kg	5		✱	1668C	Total/NA
PCB-184	0.0000070	J	0.00012	0.0000052	mg/Kg	5		✱	1668C	Total/NA
PCB-185	0.0051		0.00012	0.000078	mg/Kg	5		✱	1668C	Total/NA
PCB-187	0.045	B E	0.00012	0.0000062	mg/Kg	5		✱	1668C	Total/NA
PCB-188	0.000020	J	0.00012	0.0000065	mg/Kg	5		✱	1668C	Total/NA
PCB-189	0.0012		0.000012	0.0000051	mg/Kg	5		✱	1668C	Total/NA
PCB-190	0.0084	B	0.00012	0.000059	mg/Kg	5		✱	1668C	Total/NA
PCB-191	0.0018		0.00012	0.000061	mg/Kg	5		✱	1668C	Total/NA
PCB-194	0.025	B E	0.00012	0.000011	mg/Kg	5		✱	1668C	Total/NA
PCB-195	0.010		0.00012	0.000011	mg/Kg	5		✱	1668C	Total/NA
PCB-196	0.011		0.00012	0.000043	mg/Kg	5		✱	1668C	Total/NA
PCB-197	0.00059		0.00012	0.000030	mg/Kg	5		✱	1668C	Total/NA
PCB-198/199	0.024	B E	0.00023	0.000046	mg/Kg	5		✱	1668C	Total/NA
PCB-200	0.0030		0.00012	0.000037	mg/Kg	5		✱	1668C	Total/NA
PCB-201	0.0024		0.00012	0.000033	mg/Kg	5		✱	1668C	Total/NA
PCB-202	0.0041		0.00012	0.000047	mg/Kg	5		✱	1668C	Total/NA
PCB-203	0.014	E	0.00012	0.000043	mg/Kg	5		✱	1668C	Total/NA
PCB-205	0.0012		0.00012	0.0000072	mg/Kg	5		✱	1668C	Total/NA
PCB-206	0.0059		0.00012	0.0000019	mg/Kg	5		✱	1668C	Total/NA
PCB-207	0.00068		0.00012	0.0000016	mg/Kg	5		✱	1668C	Total/NA
PCB-208	0.0012		0.00012	0.0000021	mg/Kg	5		✱	1668C	Total/NA
PCB-209	0.00034		0.00012	0.0000016	mg/Kg	5		✱	1668C	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Polychlorinated biphenyls, Total	1.0		0.0000020	0.0000050	mg/Kg	1			None	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: SB-204-2B (12292017)

Lab Sample ID: 680-147344-14

Date Collected: 12/29/17 12:00

Matrix: Solid

Date Received: 12/29/17 14:00

Percent Solids: 80.2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.000055	J	0.00013	0.0000014	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-2	0.0000095	J	0.00013	0.0000011	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-3	0.000024	J	0.00013	0.0000012	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-4	0.00017		0.00013	0.000034	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-5	0.000030	J	0.00013	0.000012	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-6	0.000062	J	0.00013	0.000012	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-7	0.000012	U	0.00013	0.000012	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-8	0.00046		0.00013	0.000012	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-9	0.000012	U	0.00013	0.000012	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-10	0.000021	U	0.00013	0.000021	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-11	0.000012	U	0.00013	0.000012	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-12/13	0.000012	U	0.00025	0.000012	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-14	0.000010	U	0.00013	0.000010	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-15	0.000099	J	0.00013	0.000011	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-16	0.00021		0.00013	0.000011	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-17	0.00094		0.00013	0.0000086	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-18/30	0.00083		0.00025	0.0000076	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-19	0.00038		0.00013	0.000014	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-20/28	0.0040	B	0.00025	0.000033	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-21/33	0.0011	B	0.00025	0.000031	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-22	0.00036		0.00013	0.000034	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-23	0.000032	U	0.00013	0.000032	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-24	0.0000069	U	0.00013	0.0000069	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-25	0.000033	J	0.00013	0.000032	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-26/29	0.000091	J	0.00025	0.000032	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-27	0.000037	J	0.00013	0.0000066	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-31	0.0019	B	0.00013	0.000030	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-32	0.0029		0.00013	0.0000063	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-34	0.000033	U	0.00013	0.000033	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-35	0.000033	U	0.00013	0.000033	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-36	0.000031	U	0.00013	0.000031	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-37	0.00029		0.00013	0.000029	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-38	0.000034	U	0.00013	0.000034	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-39	0.000030	U	0.00013	0.000030	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-40/71	0.0033	B	0.00025	0.000026	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-41	0.000031	U	0.00013	0.000031	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-42	0.0019	B	0.00013	0.000028	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-43	0.000031	U	0.00013	0.000031	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-44/47/65	0.015	B	0.00038	0.000025	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-45	0.000030	U	0.00013	0.000030	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-46	0.00097		0.00013	0.000031	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-48	0.00036		0.00013	0.000026	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-49/69	0.011	B	0.00025	0.000022	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-50/53	0.0039	B	0.00025	0.000025	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-51	0.0022	B	0.00013	0.000025	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-52	0.031	B E	0.00013	0.000026	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-54	0.00041		0.00013	0.0000015	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-55	0.00012	U	0.00013	0.000012	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-56	0.0028	B	0.00013	0.000012	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-6

Client Sample ID: SB-204-2B (12292017)

Lab Sample ID: 680-147344-14

Date Collected: 12/29/17 12:00

Matrix: Solid

Date Received: 12/29/17 14:00

Percent Solids: 80.2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	0.00012	U	0.00013	0.00012	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-58	0.00011	U	0.00013	0.00011	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-59/62/75	0.00045		0.00038	0.000019	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-60	0.00012	U	0.00013	0.00012	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-61/70/74/76	0.031	B	0.00050	0.00011	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-63	0.00052		0.00013	0.00010	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-64	0.0036	B	0.00013	0.000018	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-66	0.011	B	0.00013	0.00012	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-67	0.00011	U	0.00013	0.00011	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-68	0.00023	B	0.00013	0.00010	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-72	0.00037		0.00013	0.00011	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-73	0.000020	U	0.00013	0.000020	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-77	0.0012	G	0.00011	0.00011	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-78	0.00012	U	0.00013	0.00012	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-79	0.00044		0.00013	0.00010	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-80	0.00039		0.00013	0.00010	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-81	0.00010	U G	0.00010	0.00010	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-82	0.0065	G	0.00093	0.00093	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-83	0.0010	U G	0.0010	0.0010	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-84	0.015	G B E	0.00087	0.00087	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-85/116/117	0.013	G B	0.00065	0.00065	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-86/87/97/108/119/125	0.047	B	0.00076	0.00067	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-88/91	0.0083	G B	0.00074	0.00074	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-89	0.00081	U G	0.00081	0.00081	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-90/101/113	0.071	G B E	0.00068	0.00068	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-92	0.014	G B E	0.00079	0.00079	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-93/100	0.00074	U G	0.00074	0.00074	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-107/124	0.0034	G	0.00060	0.00060	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-94	0.00078	U G	0.00078	0.00078	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-95	0.048	G B E	0.00074	0.00074	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-96	0.00029		0.00013	0.0000010	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-98/102	0.00097	G	0.00072	0.00072	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-99	0.031	G B E	0.00063	0.00063	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-103	0.00068	U G	0.00068	0.00068	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-104	0.000021	J	0.00013	0.0000012	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-105	0.035	G E B	0.00061	0.00061	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-106	0.00062	U G	0.00062	0.00062	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-110/115	0.091	G B E	0.00059	0.00059	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-109	0.0061	G	0.00056	0.00056	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-111	0.00058	U G	0.00058	0.00058	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-112	0.00060	U G	0.00060	0.00060	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-114	0.0015	G	0.00062	0.00062	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-118	0.083	G E B	0.00057	0.00057	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-120	0.00055	U G	0.00055	0.00055	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-121	0.00055	U G	0.00055	0.00055	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-122	0.00065	U G	0.00065	0.00065	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-123	0.0012	G	0.00061	0.00061	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-126	0.00063	U G	0.00063	0.00063	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5
PCB-127	0.00061	U G	0.00061	0.00061	mg/Kg	✱	02/02/18 09:34	02/19/18 22:13	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: SB-204-2B (12292017)

Lab Sample ID: 680-147344-14

Date Collected: 12/29/17 12:00

Matrix: Solid

Date Received: 12/29/17 14:00

Percent Solids: 80.2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	0.016	G B	0.00027	0.00027	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-129/138/163	0.088	B E	0.00038	0.00029	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-130	0.0056	G B	0.00037	0.00037	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-131	0.00098	G	0.00033	0.00033	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-132	0.023	G B E	0.00033	0.00033	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-133	0.00084	G	0.00033	0.00033	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-134/143	0.0038	G	0.00034	0.00034	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-135/151	0.016	G B	0.00031	0.00031	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-136	0.0066	G B	0.00023	0.00023	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-137	0.0043	G B	0.00027	0.00027	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-139/140	0.0014	G	0.00030	0.00030	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-141	0.011	G B	0.00033	0.00033	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-142	0.00035	U G	0.00035	0.00035	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-144	0.0023	G B	0.00030	0.00030	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-145	0.00022	U G	0.00022	0.00022	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-146	0.0083	G B	0.00028	0.00028	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-147/149	0.043	G B E	0.00030	0.00030	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-148	0.00030	U G	0.00030	0.00030	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-150	0.00021	U G	0.00021	0.00021	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-152	0.00022	U G	0.00022	0.00022	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-153/168	0.051	B E	0.00025	0.00025	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-154	0.00039	G	0.00027	0.00027	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-155	0.00024	U G	0.00024	0.00024	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-156/157	0.013	G B	0.000095	0.000095	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-158	0.0091	G B	0.00023	0.00023	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-159	0.00017		0.00013	0.000069	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-160	0.00028	U G	0.00028	0.00028	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-161	0.00026	U G	0.00026	0.00026	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-162	0.00030		0.00013	0.000066	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-164	0.0056	G B	0.00027	0.00027	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-165	0.00027	U G	0.00027	0.00027	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-167	0.0039	G B	0.000058	0.000058	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-169	0.000063	U G	0.000063	0.000063	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-170	0.0089	B	0.00013	0.000013	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-171/173	0.0028	B	0.00025	0.000013	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-172	0.0013		0.00013	0.000013	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-174	0.0074	B	0.00013	0.000014	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-175	0.00026		0.00013	0.0000039	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-176	0.00065		0.00013	0.0000028	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-177	0.0040	B	0.00013	0.000013	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-178	0.0010		0.00013	0.0000041	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-179	0.0020	B	0.00013	0.0000030	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-180/193	0.015	B	0.00025	0.000011	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-181	0.00018		0.00013	0.000011	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-182	0.000044	J	0.00013	0.0000037	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-183	0.0034	B	0.00013	0.000010	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-184	0.0000072	J	0.00013	0.0000031	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-185	0.00058		0.00013	0.000012	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5
PCB-186	0.0000030	U	0.00013	0.0000030	mg/Kg	☆	02/02/18 09:34	02/19/18 22:13	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: SB-204-2B (12292017)

Lab Sample ID: 680-147344-14

Date Collected: 12/29/17 12:00

Matrix: Solid

Date Received: 12/29/17 14:00

Percent Solids: 80.2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	0.0060	B	0.00013	0.0000037	mg/Kg	☼	02/02/18 09:34	02/19/18 22:13	5
PCB-188	0.000013	J	0.00013	0.0000039	mg/Kg	☼	02/02/18 09:34	02/19/18 22:13	5
PCB-189	0.00034		0.000013	0.0000013	mg/Kg	☼	02/02/18 09:34	02/19/18 22:13	5
PCB-190	0.0016	B	0.00013	0.0000093	mg/Kg	☼	02/02/18 09:34	02/19/18 22:13	5
PCB-191	0.00034		0.00013	0.0000095	mg/Kg	☼	02/02/18 09:34	02/19/18 22:13	5
PCB-192	0.0000099	U	0.00013	0.0000099	mg/Kg	☼	02/02/18 09:34	02/19/18 22:13	5
PCB-194	0.0026	B	0.00013	0.0000019	mg/Kg	☼	02/02/18 09:34	02/19/18 22:13	5
PCB-195	0.00094		0.00013	0.0000020	mg/Kg	☼	02/02/18 09:34	02/19/18 22:13	5
PCB-196	0.0012		0.00013	0.0000056	mg/Kg	☼	02/02/18 09:34	02/19/18 22:13	5
PCB-197	0.000069	J	0.00013	0.0000039	mg/Kg	☼	02/02/18 09:34	02/19/18 22:13	5
PCB-198/199	0.0030	B	0.00025	0.0000060	mg/Kg	☼	02/02/18 09:34	02/19/18 22:13	5
PCB-200	0.00036		0.00013	0.0000048	mg/Kg	☼	02/02/18 09:34	02/19/18 22:13	5
PCB-201	0.00031		0.00013	0.0000043	mg/Kg	☼	02/02/18 09:34	02/19/18 22:13	5
PCB-202	0.00064		0.00013	0.0000061	mg/Kg	☼	02/02/18 09:34	02/19/18 22:13	5
PCB-203	0.0019		0.00013	0.0000056	mg/Kg	☼	02/02/18 09:34	02/19/18 22:13	5
PCB-204	0.0000045	U	0.00013	0.0000045	mg/Kg	☼	02/02/18 09:34	02/19/18 22:13	5
PCB-205	0.00013		0.00013	0.0000013	mg/Kg	☼	02/02/18 09:34	02/19/18 22:13	5
PCB-206	0.0016		0.00013	0.0000018	mg/Kg	☼	02/02/18 09:34	02/19/18 22:13	5
PCB-207	0.00019		0.00013	0.0000015	mg/Kg	☼	02/02/18 09:34	02/19/18 22:13	5
PCB-208	0.00045		0.00013	0.0000019	mg/Kg	☼	02/02/18 09:34	02/19/18 22:13	5
PCB-209	0.00084		0.00013	0.0000013	mg/Kg	☼	02/02/18 09:34	02/19/18 22:13	5

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	46		5 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-3L	52		5 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-4L	44		5 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-15L	62		5 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-19L	47		5 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-37L	85		5 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-54L	40		5 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-77L	96		10 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-81L	100		10 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-104L	63		10 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-105L	98		10 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-114L	90		10 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-118L	98		10 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-123L	91		10 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-126L	99		10 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-155L	68		10 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-156L/157L	107		10 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-167L	105		10 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-169L	103		10 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-188L	62		10 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-189L	103		10 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-202L	70		10 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-205L	100		10 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-206L	86		10 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-208L	74		10 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-209L	59		10 - 145	02/02/18 09:34	02/19/18 22:13	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

**Client Sample ID: SB-204-2B (12292017)**

**Lab Sample ID: 680-147344-14**

**Date Collected: 12/29/17 12:00**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 80.2**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	62		5 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-111L	80		10 - 145	02/02/18 09:34	02/19/18 22:13	5
PCB-178L	78		10 - 145	02/02/18 09:34	02/19/18 22:13	5

## Method: None - Total PCB Calculation from HRMS PCB-Congeners

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	1.0		0.0000020	0.0000050	mg/Kg			02/22/18 13:29	1



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

**Client Sample ID: SB-204-3B (12292017)**

**Lab Sample ID: 680-147344-15**

**Date Collected: 12/29/17 12:15**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 88.0**

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.000011	J	0.00012	0.0000014	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-2	0.0000043	J	0.00012	0.0000012	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-3	0.0000065	J	0.00012	0.0000012	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-4	0.000026	U	0.00012	0.000026	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-5	0.0000087	U	0.00012	0.0000087	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-6	0.0000092	U	0.00012	0.0000092	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-7	0.0000088	U	0.00012	0.0000088	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-8	0.000035	J	0.00012	0.0000089	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-9	0.0000091	U	0.00012	0.0000091	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-10	0.000017	U	0.00012	0.000017	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-11	0.0000088	U	0.00012	0.0000088	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-12/13	0.0000088	U	0.00023	0.0000088	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-14	0.0000077	U	0.00012	0.0000077	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-15	0.000036	J	0.00012	0.0000084	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-16	0.000027	J	0.00012	0.0000035	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-17	0.000025	J	0.00012	0.0000026	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-18/30	0.000066	J	0.00023	0.0000023	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-19	0.000014	J	0.00012	0.0000039	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-20/28	0.00017	J B	0.00023	0.0000071	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-21/33	0.00015	J B	0.00023	0.0000068	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-22	0.000047	J	0.00012	0.0000073	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-23	0.0000069	U	0.00012	0.0000069	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-24	0.0000021	U	0.00012	0.0000021	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-25	0.000010	J	0.00012	0.0000069	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-26/29	0.000024	J	0.00023	0.0000069	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-27	0.000067	J	0.00012	0.0000020	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-31	0.00017	B	0.00012	0.0000065	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-32	0.000043	J	0.00012	0.0000019	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-34	0.0000071	U	0.00012	0.0000071	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-35	0.000010	J	0.00012	0.0000072	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-36	0.0000067	U	0.00012	0.0000067	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-37	0.00011	J	0.00012	0.0000067	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-38	0.0000074	U	0.00012	0.0000074	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-39	0.0000065	U	0.00012	0.0000065	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-40/71	0.00052	B	0.00023	0.000011	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-41	0.000032	J	0.00012	0.000013	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-42	0.00022	B	0.00012	0.000012	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-43	0.000013	U	0.00012	0.000013	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-44/47/65	0.0024	B	0.00035	0.000010	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-45	0.000069	J	0.00012	0.000012	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-46	0.000030	J	0.00012	0.000013	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-48	0.00010	J	0.00012	0.000011	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-49/69	0.0015	B	0.00023	0.0000090	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-50/53	0.00014	J B	0.00023	0.000010	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-51	0.000028	J B	0.00012	0.000010	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-52	0.0077	B	0.00012	0.000011	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-54	0.0000018	U	0.00012	0.0000018	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-55	0.000035	U	0.00012	0.000035	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-56	0.00082	B	0.00012	0.000037	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-6

Client Sample ID: SB-204-3B (12292017)

Lab Sample ID: 680-147344-15

Date Collected: 12/29/17 12:15

Matrix: Solid

Date Received: 12/29/17 14:00

Percent Solids: 88.0

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	0.000035	U	0.00012	0.000035	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-58	0.000034	U	0.00012	0.000034	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-59/62/75	0.000088	J	0.00035	0.0000079	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-60	0.00030		0.00012	0.000035	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-61/70/74/76	0.0076	B	0.00047	0.000034	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-63	0.000068	J	0.00012	0.000031	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-64	0.0011	B	0.00012	0.0000076	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-66	0.0025	B	0.00012	0.000036	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-67	0.000033	U	0.00012	0.000033	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-68	0.000031	U	0.00012	0.000031	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-72	0.000045	J	0.00012	0.000033	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-73	0.0000082	U	0.00012	0.0000082	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-77	0.00041	G	0.000032	0.000032	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-78	0.000036	U	0.00012	0.000036	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-79	0.00020		0.00012	0.000032	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-80	0.000030	U	0.00012	0.000030	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-81	0.000032	U G	0.000032	0.000032	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-82	0.0027	G	0.00068	0.00068	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-83	0.00074	U G	0.00074	0.00074	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-84	0.0057	G B	0.00063	0.00063	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-85/116/117	0.0050	G B	0.00047	0.00047	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-86/87/97/108/119/125	0.019	B	0.00070	0.00049	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-88/91	0.0033	G B	0.00054	0.00054	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-89	0.00059	U G	0.00059	0.00059	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-90/101/113	0.037	G B E	0.00050	0.00050	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-92	0.0068	G B	0.00057	0.00057	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-93/100	0.00054	U G	0.00054	0.00054	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-107/124	0.0012	G	0.00044	0.00044	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-94	0.00057	U G	0.00057	0.00057	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-95	0.023	G B E	0.00054	0.00054	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-96	0.000091	J	0.00012	0.0000010	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-98/102	0.00052	U G	0.00052	0.00052	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-99	0.012	G B E	0.00046	0.00046	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-103	0.00049	U G	0.00049	0.00049	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-104	0.0000012	U	0.00012	0.0000012	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-105	0.011	G B	0.00044	0.00044	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-106	0.00045	U G	0.00045	0.00045	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-110/115	0.045	G B E	0.00043	0.00043	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-109	0.0021	G	0.00041	0.00041	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-111	0.00042	U G	0.00042	0.00042	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-112	0.00044	U G	0.00044	0.00044	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-114	0.00051	G	0.00045	0.00045	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-118	0.029	G E B	0.00041	0.00041	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-120	0.00040	U G	0.00040	0.00040	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-121	0.00040	U G	0.00040	0.00040	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-122	0.00047	U G	0.00047	0.00047	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-123	0.00045	U G	0.00045	0.00045	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-126	0.00045	U G	0.00045	0.00045	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5
PCB-127	0.00045	U G	0.00045	0.00045	mg/Kg	✱	02/02/18 09:34	02/19/18 23:28	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: SB-204-3B (12292017)

Lab Sample ID: 680-147344-15

Date Collected: 12/29/17 12:15

Matrix: Solid

Date Received: 12/29/17 14:00

Percent Solids: 88.0

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	0.011	G B	0.0015	0.0015	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-129/138/163	0.087	G B E	0.0016	0.0016	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-130	0.0040	G B	0.0020	0.0020	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-131	0.0019	U G	0.0019	0.0019	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-132	0.022	G B E	0.0019	0.0019	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-133	0.0018	U G	0.0018	0.0018	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-134/143	0.0032	G	0.0019	0.0019	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-135/151	0.026	G B E	0.0017	0.0017	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-136	0.0080	G B	0.0013	0.0013	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-137	0.0021	G B	0.0015	0.0015	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-139/140	0.0017	U G	0.0017	0.0017	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-141	0.019	G B E	0.0018	0.0018	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-142	0.0019	U G	0.0019	0.0019	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-144	0.0036	G B	0.0017	0.0017	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-145	0.0012	U G	0.0012	0.0012	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-146	0.011	G B	0.0016	0.0016	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-147/149	0.062	G B E	0.0017	0.0017	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-148	0.0017	U G	0.0017	0.0017	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-150	0.0012	U G	0.0012	0.0012	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-152	0.0012	U G	0.0012	0.0012	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-153/168	0.076	G B E	0.0014	0.0014	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-154	0.0015	U G	0.0015	0.0015	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-155	0.0013	U G	0.0013	0.0013	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-156/157	0.0085	G B	0.00011	0.00011	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-158	0.0081	G B	0.0013	0.0013	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-159	0.0013		0.00012	0.000080	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-160	0.0016	U G	0.0016	0.0016	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-161	0.0014	U G	0.0014	0.0014	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-162	0.00020		0.00012	0.000077	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-164	0.0064	G B	0.0015	0.0015	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-165	0.0015	U G	0.0015	0.0015	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-167	0.0031	G B	0.000067	0.000067	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-169	0.000070	U G	0.000070	0.000070	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-170	0.040	B E	0.00012	0.000082	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-171/173	0.012	B	0.00023	0.000084	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-172	0.0075		0.00012	0.000082	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-174	0.051	B E	0.00012	0.000089	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-175	0.0015		0.00012	0.0000065	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-176	0.0040		0.00012	0.0000047	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-177	0.024	B E	0.00012	0.000082	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-178	0.0073		0.00012	0.0000068	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-179	0.014	B E	0.00012	0.0000050	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-180/193	0.10	B E	0.00023	0.000067	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-181	0.00015		0.00012	0.000073	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-182	0.00010	J	0.00012	0.0000061	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-183	0.021	B E	0.00012	0.000064	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-184	0.0000070	J	0.00012	0.0000052	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-185	0.0051		0.00012	0.000078	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5
PCB-186	0.0000050	U	0.00012	0.0000050	mg/Kg	☆	02/02/18 09:34	02/19/18 23:28	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: SB-204-3B (12292017)

Lab Sample ID: 680-147344-15

Date Collected: 12/29/17 12:15

Matrix: Solid

Date Received: 12/29/17 14:00

Percent Solids: 88.0

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	0.045	B E	0.00012	0.0000062	mg/Kg	☼	02/02/18 09:34	02/19/18 23:28	5
PCB-188	0.000020	J	0.00012	0.0000065	mg/Kg	☼	02/02/18 09:34	02/19/18 23:28	5
PCB-189	0.0012		0.000012	0.0000051	mg/Kg	☼	02/02/18 09:34	02/19/18 23:28	5
PCB-190	0.0084	B	0.00012	0.000059	mg/Kg	☼	02/02/18 09:34	02/19/18 23:28	5
PCB-191	0.0018		0.00012	0.000061	mg/Kg	☼	02/02/18 09:34	02/19/18 23:28	5
PCB-192	0.000063	U	0.00012	0.000063	mg/Kg	☼	02/02/18 09:34	02/19/18 23:28	5
PCB-194	0.025	B E	0.00012	0.000011	mg/Kg	☼	02/02/18 09:34	02/19/18 23:28	5
PCB-195	0.010		0.00012	0.000011	mg/Kg	☼	02/02/18 09:34	02/19/18 23:28	5
PCB-196	0.011		0.00012	0.000043	mg/Kg	☼	02/02/18 09:34	02/19/18 23:28	5
PCB-197	0.00059		0.00012	0.000030	mg/Kg	☼	02/02/18 09:34	02/19/18 23:28	5
PCB-198/199	0.024	B E	0.00023	0.000046	mg/Kg	☼	02/02/18 09:34	02/19/18 23:28	5
PCB-200	0.0030		0.00012	0.000037	mg/Kg	☼	02/02/18 09:34	02/19/18 23:28	5
PCB-201	0.0024		0.00012	0.000033	mg/Kg	☼	02/02/18 09:34	02/19/18 23:28	5
PCB-202	0.0041		0.00012	0.000047	mg/Kg	☼	02/02/18 09:34	02/19/18 23:28	5
PCB-203	0.014	E	0.00012	0.000043	mg/Kg	☼	02/02/18 09:34	02/19/18 23:28	5
PCB-204	0.000034	U	0.00012	0.000034	mg/Kg	☼	02/02/18 09:34	02/19/18 23:28	5
PCB-205	0.0012		0.00012	0.0000072	mg/Kg	☼	02/02/18 09:34	02/19/18 23:28	5
PCB-206	0.0059		0.00012	0.0000019	mg/Kg	☼	02/02/18 09:34	02/19/18 23:28	5
PCB-207	0.00068		0.00012	0.0000016	mg/Kg	☼	02/02/18 09:34	02/19/18 23:28	5
PCB-208	0.0012		0.00012	0.0000021	mg/Kg	☼	02/02/18 09:34	02/19/18 23:28	5
PCB-209	0.00034		0.00012	0.0000016	mg/Kg	☼	02/02/18 09:34	02/19/18 23:28	5

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	47		5 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-3L	50		5 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-4L	42		5 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-15L	55		5 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-19L	45		5 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-37L	78		5 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-54L	39		5 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-77L	92		10 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-81L	94		10 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-104L	57		10 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-105L	91		10 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-114L	85		10 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-118L	89		10 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-123L	85		10 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-126L	95		10 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-155L	61		10 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-156L/157L	97		10 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-167L	93		10 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-169L	98		10 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-188L	57		10 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-189L	94		10 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-202L	69		10 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-205L	98		10 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-206L	84		10 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-208L	72		10 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-209L	58		10 - 145	02/02/18 09:34	02/19/18 23:28	5

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

**Client Sample ID: SB-204-3B (12292017)**

**Lab Sample ID: 680-147344-15**

**Date Collected: 12/29/17 12:15**

**Matrix: Solid**

**Date Received: 12/29/17 14:00**

**Percent Solids: 88.0**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	64		5 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-111L	79		10 - 145	02/02/18 09:34	02/19/18 23:28	5
PCB-178L	79		10 - 145	02/02/18 09:34	02/19/18 23:28	5

## Method: None - Total PCB Calculation from HRMS PCB-Congeners

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	1.0		0.0000020	0.0000050	mg/Kg			02/22/18 13:29	1



# Toxicity Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: SB-204-2B (12292017)

Lab Sample ID: 680-147344-14

Analyte	Result	Qualifier	RL	EDL	Unit	WHO 2005		Method
						ND = 0		
						TEF	TEQ	
PCB-77	0.0012	G	0.00011	0.00011	mg/Kg	0.0001	0.00000012	1668C
PCB-81	0.00010	U G	0.00010	0.00010	mg/Kg	0.0003	0.00	1668C
PCB-105	0.035	G E B	0.00061	0.00061	mg/Kg	0.00003	0.0000011	1668C
PCB-114	0.0015	G	0.00062	0.00062	mg/Kg	0.00003	0.000000045	1668C
PCB-118	0.083	G E B	0.00057	0.00057	mg/Kg	0.00003	0.0000025	1668C
PCB-123	0.0012	G	0.00061	0.00061	mg/Kg	0.00003	0.000000036	1668C
PCB-126	0.00063	U G	0.00063	0.00063	mg/Kg	0.1	0.00	1668C
PCB-156/157	0.013	G B	0.000095	0.000095	mg/Kg	0.00003	0.00000039	1668C
PCB-167	0.0039	G B	0.000058	0.000058	mg/Kg	0.00003	0.00000012	1668C
PCB-169	0.000063	U G	0.000063	0.000063	mg/Kg	0.03	0.00	1668C
PCB-189	0.00034		0.000013	0.0000013	mg/Kg	0.00003	0.000000010	1668C

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	MDL	Unit	TEF	TEQ	Method
Polychlorinated biphenyls, Total	1.0		0.0000020	0.0000050	mg/Kg		0.0000043	None

Analyte	Result	Qualifier	NONE	NONE	Unit	WHO 2005		Method
						ND = 0		
						TEF	TEQ	
Total PCB TEQ					mg/Kg		0.0000043	TEQ
Total TEQ					mg/Kg		0.0000043	TEQ

Client Sample ID: SB-204-3B (12292017)

Lab Sample ID: 680-147344-15

Analyte	Result	Qualifier	RL	EDL	Unit	WHO 2005		Method
						ND = 0		
						TEF	TEQ	
PCB-77	0.00041	G	0.000032	0.000032	mg/Kg	0.0001	0.000000041	1668C
PCB-81	0.000032	U G	0.000032	0.000032	mg/Kg	0.0003	0.00	1668C
PCB-105	0.011	G B	0.00044	0.00044	mg/Kg	0.00003	0.00000033	1668C
PCB-114	0.00051	G	0.00045	0.00045	mg/Kg	0.00003	0.000000015	1668C
PCB-118	0.029	G E B	0.00041	0.00041	mg/Kg	0.00003	0.00000087	1668C
PCB-123	0.00045	U G	0.00045	0.00045	mg/Kg	0.00003	0.00	1668C
PCB-126	0.00045	U G	0.00045	0.00045	mg/Kg	0.1	0.00	1668C
PCB-156/157	0.0085	G B	0.00011	0.00011	mg/Kg	0.00003	0.00000026	1668C
PCB-167	0.0031	G B	0.000067	0.000067	mg/Kg	0.00003	0.000000093	1668C
PCB-169	0.000070	U G	0.000070	0.000070	mg/Kg	0.03	0.00	1668C
PCB-189	0.0012		0.000012	0.0000051	mg/Kg	0.00003	0.000000036	1668C

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	MDL	Unit	TEF	TEQ	Method
Polychlorinated biphenyls, Total	1.0		0.0000020	0.0000050	mg/Kg		0.0000016	None

## TEF Reference:

WHO 2005 = World Health Organization (WHO) 2005 TEF, Dioxins, Furans and PCB Congeners

Note: The analytes PCB-156 and PCB-157 coelute as a single peak.

TestAmerica Savannah



# Toxicity Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: SB-204-3B (12292017) (Continued)

Lab Sample ID: 680-147344-15

Analyte	Result	Qualifier	NONE	NONE	Unit	WHO 2005		Method
						ND = 0		
						TEF	TEQ	
Total PCB TEQ					mg/Kg		0.0000016	TEQ
Total TEQ					mg/Kg		0.0000016	TEQ

## TEF Reference:

WHO 2005 = World Health Organization (WHO) 2005 TEF, Dioxins, Furans and PCB Congeners

Note: The analytes PCB-156 and PCB-157 coelute as a single peak.

TestAmerica Savannah



## Surrogate Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

### Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		PCB28L (5-145)	PCB111L (10-145)	PCB178L (10-145)
680-147344-14	SB-204-2B (12292017)	62	80	78
680-147344-15	SB-204-3B (12292017)	64	79	79
MB 320-206652/1-A	Method Blank	48	59	69
<b>Surrogate Legend</b>				
PCB28L = PCB-28L				
PCB111L = PCB-111L				
PCB178L = PCB-178L				

### Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		PCB28L (15-145)	PCB111L (40-145)	PCB178L (40-145)
LCS 320-206652/2-A	Lab Control Sample	50	65	76
LCSD 320-206652/3-A	Lab Control Sample Dup	46	59	71
<b>Surrogate Legend</b>				
PCB28L = PCB-28L				
PCB111L = PCB-111L				
PCB178L = PCB-178L				



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB1L (5-145)	PCB3L (5-145)	PCB4L (5-145)	PCB15L (5-145)	PCB19L (5-145)	PCB37L (5-145)	PCB54L (5-145)	PCB77L (10-145)
680-147344-14	SB-204-2B (12292017)	46	52	44	62	47	85	40	96
680-147344-15	SB-204-3B (12292017)	47	50	42	55	45	78	39	92
MB 320-206652/1-A	Method Blank	45	51	52	59	64	56	53	63

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB81L (10-145)	PCB104L (10-145)	PCB105L (10-145)	P114L (10-145)	PCB118L (10-145)	PCB123L (10-145)	PCB126L (10-145)	PCB155L (10-145)
680-147344-14	SB-204-2B (12292017)	100	63	98	90	98	91	99	68
680-147344-15	SB-204-3B (12292017)	94	57	91	85	89	85	95	61
MB 320-206652/1-A	Method Blank	62	57	77	70	71	71	84	49

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB-156L/157L (10-145)	PCB167L (10-145)	PCB169L (10-145)	PCB188L (10-145)	PCB189L (10-145)	PCB202L (10-145)	PCB205L (10-145)	PCB206L (10-145)
680-147344-14	SB-204-2B (12292017)	107	105	103	62	103	70	100	86
680-147344-15	SB-204-3B (12292017)	97	93	98	57	94	69	98	84
MB 320-206652/1-A	Method Blank	78	75	83	63	90	79	100	95

		Percent Isotope Dilution Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	PCB208L (10-145)	PCB209L (10-145)
680-147344-14	SB-204-2B (12292017)	74	59
680-147344-15	SB-204-3B (12292017)	72	58
MB 320-206652/1-A	Method Blank	77	67

### Surrogate Legend

PCB1L = PCB-1L  
 PCB3L = PCB-3L  
 PCB4L = PCB-4L  
 PCB15L = PCB-15L  
 PCB19L = PCB-19L  
 PCB37L = PCB-37L  
 PCB54L = PCB-54L  
 PCB77L = PCB-77L  
 PCB81L = PCB-81L  
 PCB104L = PCB-104L  
 PCB105L = PCB-105L  
 P114L = PCB-114L  
 PCB118L = PCB-118L  
 PCB123L = PCB-123L  
 PCB126L = PCB-126L  
 PCB155L = PCB-155L  
 PCB-156L/157L = PCB-156L/157L  
 PCB167L = PCB-167L  
 PCB169L = PCB-169L  
 PCB188L = PCB-188L  
 PCB189L = PCB-189L  
 PCB202L = PCB-202L  
 PCB205L = PCB-205L  
 PCB206L = PCB-206L  
 PCB208L = PCB-208L  
 PCB209L = PCB-209L

TestAmerica Savannah



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB1L (15-145)	PCB3L (15-145)	PCB4L (15-145)	PCB15L (15-145)	PCB19L (15-145)	PCB37L (15-145)	PCB54L (15-145)	PCB77L (40-145)
LCS 320-206652/2-A	Lab Control Sample	54	58	60	71	74	59	53	70
LCSD 320-206652/3-A	Lab Control Sample Dup	45	48	49	53	56	55	51	65
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB81L (40-145)	PCB104L (40-145)	PCB105L (40-145)	P114L (40-145)	PCB118L (40-145)	PCB123L (40-145)	PCB126L (40-145)	PCB155L (40-145)
LCS 320-206652/2-A	Lab Control Sample	68	61	84	76	77	78	94	52
LCSD 320-206652/3-A	Lab Control Sample Dup	63	55	78	71	72	72	85	41
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB-156L/157L (40-145)	PCB167L (40-145)	PCB169L (40-145)	PCB188L (40-145)	PCB189L (40-145)	PCB202L (40-145)	PCB205L (40-145)	PCB206L (40-145)
LCS 320-206652/2-A	Lab Control Sample	86	82	91	66	91	80	100	93
LCSD 320-206652/3-A	Lab Control Sample Dup	80	76	83	54	89	66	95	81
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB208L (40-145)	PCB209L (40-145)						
LCS 320-206652/2-A	Lab Control Sample	79	67						
LCSD 320-206652/3-A	Lab Control Sample Dup	65	57						

### Surrogate Legend

PCB1L = PCB-1L  
 PCB3L = PCB-3L  
 PCB4L = PCB-4L  
 PCB15L = PCB-15L  
 PCB19L = PCB-19L  
 PCB37L = PCB-37L  
 PCB54L = PCB-54L  
 PCB77L = PCB-77L  
 PCB81L = PCB-81L  
 PCB104L = PCB-104L  
 PCB105L = PCB-105L  
 P114L = PCB-114L  
 PCB118L = PCB-118L  
 PCB123L = PCB-123L  
 PCB126L = PCB-126L  
 PCB155L = PCB-155L  
 PCB-156L/157L = PCB-156L/157L  
 PCB167L = PCB-167L  
 PCB169L = PCB-169L  
 PCB188L = PCB-188L  
 PCB189L = PCB-189L  
 PCB202L = PCB-202L  
 PCB205L = PCB-205L  
 PCB206L = PCB-206L  
 PCB208L = PCB-208L  
 PCB209L = PCB-209L

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Lab Sample ID: MB 320-206652/1-A

Matrix: Solid

Analysis Batch: 208149

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 206652

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.00000056	U	0.000020	0.0000005	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-2	0.00000045	U	0.000020	0.0000004	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-3	0.00000048	U	0.000020	0.0000004	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-4	0.000012	U	0.000020	0.000012	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-5	0.0000058	U	0.000020	0.0000058	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-6	0.0000061	U	0.000020	0.0000061	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-7	0.0000058	U	0.000020	0.0000058	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-8	0.0000059	U	0.000020	0.0000059	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-9	0.0000060	U	0.000020	0.0000060	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-10	0.0000055	U	0.000020	0.0000055	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-11	0.0000058	U	0.000020	0.0000058	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-12/13	0.0000058	U	0.000040	0.0000058	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-14	0.0000051	U	0.000020	0.0000051	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-15	0.0000049	U	0.000020	0.0000049	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-16	0.00000090	U	0.000020	0.0000009	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-17	0.00000067	U	0.000020	0.0000006	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-18/30	0.00000059	U	0.000040	0.0000005	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-19	0.00000075	U	0.000020	0.0000007	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-20/28	0.00000101	J	0.000040	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-21/33	0.000000370	J	0.000040	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-22	0.00000016	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-23	0.00000015	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-24	0.00000054	U	0.000020	0.0000005	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-25	0.00000015	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-26/29	0.00000015	U	0.000040	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-27	0.00000051	U	0.000020	0.0000005	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-31	0.000000735	J	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-32	0.00000049	U	0.000020	0.0000004	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-34	0.00000015	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-35	0.00000016	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-36	0.00000015	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-37	0.00000017	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-206652/1-A

Matrix: Solid

Analysis Batch: 208149

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 206652

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-38	0.00000016	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				6					
PCB-39	0.00000014	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				4					
PCB-40/71	0.000000732	J	0.000040	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				4					
PCB-41	0.00000017	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				7					
PCB-42	0.000000387	J	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				6					
PCB-43	0.00000017	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				7					
PCB-44/47/65	0.00000512	J	0.000060	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				4					
PCB-45	0.00000016	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				6					
PCB-46	0.00000017	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				7					
PCB-48	0.00000014	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				4					
PCB-49/69	0.00000244	J	0.000040	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				2					
PCB-50/53	0.00000129	J	0.000040	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				4					
PCB-51	0.00000132	J	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				4					
PCB-52	0.00000685	J	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				5					
PCB-54	0.00000028	U	0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				8					
PCB-55	0.00000018	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				8					
PCB-56	0.000000381	J	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				9					
PCB-57	0.00000018	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				8					
PCB-58	0.00000018	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				8					
PCB-59/62/75	0.00000011	U	0.000060	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				1					
PCB-60	0.00000018	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				8					
PCB-61/70/74/76	0.00000369	J	0.000080	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				8					
PCB-63	0.00000016	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				6					
PCB-64	0.000000323	J	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				0					
PCB-66	0.00000129	J	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				8					
PCB-67	0.00000017	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				7					
PCB-68	0.000000286	J	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				6					

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-206652/1-A

Matrix: Solid

Analysis Batch: 208149

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 206652

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-72	0.00000017	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-73	0.00000011	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-77	0.00000020	U	0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-78	0.00000018	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-79	0.00000016	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-80	0.00000016	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-81	0.00000020	U	0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-82	0.00000035	U	0.000020	0.0000003	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-83	0.00000038	U	0.000020	0.0000003	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-84	0.00000194	J	0.000020	0.0000003	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-85/116/117	0.00000113	J	0.000060	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-86/87/97/108/119/125	0.00000493	J	0.00012	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-88/91	0.00000115	J	0.000040	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-89	0.00000030	U	0.000020	0.0000003	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-90/101/113	0.00000818	J	0.000060	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-92	0.00000139	J	0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-93/100	0.00000027	U	0.000040	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-107/124	0.00000022	U	0.000040	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-94	0.00000029	U	0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-95	0.00000734	J	0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-96	0.00000020	U	0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-98/102	0.00000027	U	0.000040	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-99	0.00000309	J	0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-103	0.00000025	U	0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-104	0.00000019	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-105	0.00000216		0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-106	0.00000023	U	0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-206652/1-A

Matrix: Solid

Analysis Batch: 208149

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 206652

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-110/115	0.00000808	J	0.000040	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-109	0.00000021	U	0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-111	0.00000021	U	0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-112	0.00000022	U	0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-114	0.00000024	U	0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-118	0.00000584		0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-120	0.00000021	U	0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-121	0.00000020	U	0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-122	0.00000024	U	0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-123	0.00000023	U	0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-126	0.00000023	U	0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-127	0.00000023	U	0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-128/166	0.000000818	J	0.000040	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-129/138/163	0.00000640	J	0.000060	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-130	0.000000375	J	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-131	0.00000017	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-132	0.00000228	J	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-133	0.00000017	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-134/143	0.00000017	U	0.000040	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-135/151	0.00000198	J	0.000040	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-136	0.00000108	J	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-137	0.000000195	J	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-139/140	0.00000015	U	0.000040	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-141	0.00000121	J	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-142	0.00000018	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-144	0.000000386	J	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-145	0.00000011	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-206652/1-A

Matrix: Solid

Analysis Batch: 208149

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 206652

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-146	0.000000743	J	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				5					
PCB-147/149	0.00000548	J	0.000040	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				5					
PCB-148	0.00000015	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				5					
PCB-150	0.00000011	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				1					
PCB-152	0.00000011	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				1					
PCB-153/168	0.00000475	J	0.000040	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				3					
PCB-154	0.00000014	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				4					
PCB-155	0.00000013	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				3					
PCB-156/157	0.000000496	J	0.000040	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				2					
PCB-158	0.000000609	J	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				2					
PCB-159	0.000000083	U	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				83					
PCB-160	0.00000014	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				4					
PCB-161	0.00000013	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				3					
PCB-162	0.000000080	U	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				80					
PCB-164	0.000000407	J	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				4					
PCB-165	0.00000014	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				4					
PCB-167	0.000000217	J	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				71					
PCB-169	0.000000069	U	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				69					
PCB-170	0.000000645	J	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				76					
PCB-171/173	0.000000442	J	0.000040	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				78					
PCB-172	0.000000075	U	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				75					
PCB-174	0.00000111	J	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				83					
PCB-175	0.00000019	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				9					
PCB-176	0.00000014	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				4					
PCB-177	0.000000695	J	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				76					
PCB-178	0.000000020	U	0.000020	0.0000002	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				0					
PCB-179	0.000000595	J	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
				4					

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-206652/1-A

Matrix: Solid

Analysis Batch: 208149

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 206652

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-180/193	0.00000161	J	0.000040	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-181	0.000000068	U	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-182	0.000000018	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-183	0.000000609	J	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-184	0.000000015	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-185	0.000000072	U	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-186	0.000000014	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-187	0.00000124	J	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-188	0.000000017	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-189	0.000000082	U	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-190	0.000000132	J	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-191	0.000000056	U	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-192	0.000000059	U	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-194	0.000000303	J	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-195	0.000000098	U	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-196	0.000000097	U	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-197	0.000000068	U	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-198/199	0.000000307	J	0.000040	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-200	0.000000083	U	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-201	0.000000075	U	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-202	0.000000099	U	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-203	0.000000097	U	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-204	0.000000078	U	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-205	0.000000065	U	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-206	0.000000011	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-207	0.000000098	U	0.000020	0.0000000	mg/Kg		02/02/18 09:34	02/13/18 13:43	1
PCB-208	0.000000013	U	0.000020	0.0000001	mg/Kg		02/02/18 09:34	02/13/18 13:43	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-206652/1-A

Matrix: Solid

Analysis Batch: 208149

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 206652

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-209	0.00000012	U	0.000020	0.0000001	mg/Kg	2	02/02/18 09:34	02/13/18 13:43	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	45		5 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-3L	51		5 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-4L	52		5 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-15L	59		5 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-19L	64		5 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-37L	56		5 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-54L	53		5 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-77L	63		10 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-81L	62		10 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-104L	57		10 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-105L	77		10 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-114L	70		10 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-118L	71		10 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-123L	71		10 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-126L	84		10 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-155L	49		10 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-156L/157L	78		10 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-167L	75		10 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-169L	83		10 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-188L	63		10 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-189L	90		10 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-202L	79		10 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-205L	100		10 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-206L	95		10 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-208L	77		10 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-209L	67		10 - 145	02/02/18 09:34	02/13/18 13:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	48		5 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-111L	59		10 - 145	02/02/18 09:34	02/13/18 13:43	1
PCB-178L	69		10 - 145	02/02/18 09:34	02/13/18 13:43	1

Lab Sample ID: LCS 320-206652/2-A

Matrix: Solid

Analysis Batch: 208149

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 206652

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	0.000200	0.000196		mg/Kg		98	60 - 135
PCB-3	0.000200	0.000204		mg/Kg		102	60 - 135
PCB-4	0.000200	0.000181		mg/Kg		91	60 - 135
PCB-15	0.000200	0.000200		mg/Kg		100	60 - 135
PCB-19	0.000200	0.000200		mg/Kg		100	60 - 135
PCB-54	0.000200	0.000206		mg/Kg		103	60 - 135
PCB-77	0.000200	0.000205		mg/Kg		102	60 - 135

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-206652/2-A

Matrix: Solid

Analysis Batch: 208149

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 206652

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-81	0.000200	0.000210		mg/Kg		105	60 - 135
PCB-104	0.000200	0.000212		mg/Kg		106	60 - 135
PCB-105	0.000200	0.000214		mg/Kg		107	60 - 135
PCB-114	0.000200	0.000212		mg/Kg		106	60 - 135
PCB-118	0.000200	0.000219		mg/Kg		109	60 - 135
PCB-123	0.000200	0.000215		mg/Kg		107	60 - 135
PCB-126	0.000200	0.000213		mg/Kg		107	60 - 135
PCB-155	0.000200	0.000207		mg/Kg		104	60 - 135
PCB-156/157	0.000400	0.000411		mg/Kg		103	60 - 135
PCB-167	0.000200	0.000201		mg/Kg		100	60 - 135
PCB-169	0.000200	0.000202		mg/Kg		101	60 - 135
PCB-188	0.000200	0.000200		mg/Kg		100	60 - 135
PCB-189	0.000200	0.000182		mg/Kg		91	60 - 135
PCB-202	0.000200	0.000203		mg/Kg		102	60 - 135
PCB-205	0.000200	0.000188		mg/Kg		94	60 - 135
PCB-206	0.000200	0.000198		mg/Kg		99	60 - 135
PCB-208	0.000200	0.000200		mg/Kg		100	60 - 135
PCB-209	0.000200	0.000202		mg/Kg		101	60 - 135

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-1L	54		15 - 145
PCB-3L	58		15 - 145
PCB-4L	60		15 - 145
PCB-15L	71		15 - 145
PCB-19L	74		15 - 145
PCB-37L	59		15 - 145
PCB-54L	53		15 - 145
PCB-77L	70		40 - 145
PCB-81L	68		40 - 145
PCB-104L	61		40 - 145
PCB-105L	84		40 - 145
PCB-114L	76		40 - 145
PCB-118L	77		40 - 145
PCB-123L	78		40 - 145
PCB-126L	94		40 - 145
PCB-155L	52		40 - 145
PCB-156L/157L	86		40 - 145
PCB-167L	82		40 - 145
PCB-169L	91		40 - 145
PCB-188L	66		40 - 145
PCB-189L	91		40 - 145
PCB-202L	80		40 - 145
PCB-205L	100		40 - 145
PCB-206L	93		40 - 145
PCB-208L	79		40 - 145
PCB-209L	67		40 - 145

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-206652/2-A

Matrix: Solid

Analysis Batch: 208149

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 206652

Surrogate	LCS %Recovery	LCS Qualifier	Limits
PCB-28L	50		15 - 145
PCB-111L	65		40 - 145
PCB-178L	76		40 - 145

Lab Sample ID: LCSD 320-206652/3-A

Matrix: Solid

Analysis Batch: 208149

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 206652

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1	0.000200	0.000197		mg/Kg		98	60 - 135	0	50
PCB-3	0.000200	0.000203		mg/Kg		102	60 - 135	0	50
PCB-4	0.000200	0.000208		mg/Kg		104	60 - 135	14	50
PCB-15	0.000200	0.000203		mg/Kg		101	60 - 135	1	50
PCB-19	0.000200	0.000202		mg/Kg		101	60 - 135	1	50
PCB-54	0.000200	0.000207		mg/Kg		104	60 - 135	1	50
PCB-77	0.000200	0.000204		mg/Kg		102	60 - 135	0	50
PCB-81	0.000200	0.000207		mg/Kg		103	60 - 135	1	50
PCB-104	0.000200	0.000217		mg/Kg		108	60 - 135	2	50
PCB-105	0.000200	0.000215		mg/Kg		107	60 - 135	0	50
PCB-114	0.000200	0.000214		mg/Kg		107	60 - 135	1	50
PCB-118	0.000200	0.000225		mg/Kg		113	60 - 135	3	50
PCB-123	0.000200	0.000214		mg/Kg		107	60 - 135	0	50
PCB-126	0.000200	0.000213		mg/Kg		107	60 - 135	0	50
PCB-155	0.000200	0.000210		mg/Kg		105	60 - 135	2	50
PCB-156/157	0.000400	0.000410		mg/Kg		103	60 - 135	0	50
PCB-167	0.000200	0.000201		mg/Kg		101	60 - 135	0	50
PCB-169	0.000200	0.000203		mg/Kg		101	60 - 135	0	50
PCB-188	0.000200	0.000197		mg/Kg		99	60 - 135	1	50
PCB-189	0.000200	0.000180		mg/Kg		90	60 - 135	1	50
PCB-202	0.000200	0.000197		mg/Kg		99	60 - 135	3	50
PCB-205	0.000200	0.000188		mg/Kg		94	60 - 135	0	50
PCB-206	0.000200	0.000199		mg/Kg		100	60 - 135	0	50
PCB-208	0.000200	0.000199		mg/Kg		99	60 - 135	1	50
PCB-209	0.000200	0.000202		mg/Kg		101	60 - 135	0	50

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
PCB-1L	45		15 - 145
PCB-3L	48		15 - 145
PCB-4L	49		15 - 145
PCB-15L	53		15 - 145
PCB-19L	56		15 - 145
PCB-37L	55		15 - 145
PCB-54L	51		15 - 145
PCB-77L	65		40 - 145
PCB-81L	63		40 - 145
PCB-104L	55		40 - 145
PCB-105L	78		40 - 145
PCB-114L	71		40 - 145

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 320-206652/3-A

Matrix: Solid

Analysis Batch: 208149

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 206652

<i>Isotope Dilution</i>	<i>LCSD LCSD</i>		<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
PCB-118L	72		40 - 145
PCB-123L	72		40 - 145
PCB-126L	85		40 - 145
PCB-155L	41		40 - 145
PCB-156L/157L	80		40 - 145
PCB-167L	76		40 - 145
PCB-169L	83		40 - 145
PCB-188L	54		40 - 145
PCB-189L	89		40 - 145
PCB-202L	66		40 - 145
PCB-205L	95		40 - 145
PCB-206L	81		40 - 145
PCB-208L	65		40 - 145
PCB-209L	57		40 - 145

<i>Surrogate</i>	<i>LCSD LCSD</i>		<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
PCB-28L	46		15 - 145
PCB-111L	59		40 - 145
PCB-178L	71		40 - 145



## QC Association Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

### Specialty Organics

#### Prep Batch: 206652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-14	SB-204-2B (12292017)	Total/NA	Solid	HRMS-Sox	
680-147344-15	SB-204-3B (12292017)	Total/NA	Solid	HRMS-Sox	
MB 320-206652/1-A	Method Blank	Total/NA	Solid	HRMS-Sox	
LCS 320-206652/2-A	Lab Control Sample	Total/NA	Solid	HRMS-Sox	
LCSD 320-206652/3-A	Lab Control Sample Dup	Total/NA	Solid	HRMS-Sox	

#### Analysis Batch: 208149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-206652/1-A	Method Blank	Total/NA	Solid	1668C	206652
LCS 320-206652/2-A	Lab Control Sample	Total/NA	Solid	1668C	206652
LCSD 320-206652/3-A	Lab Control Sample Dup	Total/NA	Solid	1668C	206652

#### Analysis Batch: 209219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-14	SB-204-2B (12292017)	Total/NA	Solid	1668C	206652
680-147344-15	SB-204-3B (12292017)	Total/NA	Solid	1668C	206652

#### Analysis Batch: 209662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-14	SB-204-2B (12292017)	Total/NA	Solid	None	
680-147344-15	SB-204-3B (12292017)	Total/NA	Solid	None	

### General Chemistry

#### Analysis Batch: 206682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-147344-15	SB-204-3B (12292017)	Total/NA	Solid	D 2216	



## Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-147344-6

**Client Sample ID: SB-204-2B (12292017)**

**Date Collected: 12/29/17 12:00**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-14**

**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	None		1			209662	02/22/18 13:29	SHK	TAL SAC

**Client Sample ID: SB-204-2B (12292017)**

**Date Collected: 12/29/17 12:00**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-14**

**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	HRMS-Sox			9.90 g	20.00 uL	206652	02/02/18 09:34	DXD	TAL SAC
Total/NA	Analysis	1668C		5			209219	02/19/18 22:13	KSS	TAL SAC

**Client Sample ID: SB-204-3B (12292017)**

**Date Collected: 12/29/17 12:15**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-15**

**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	None		1			209662	02/22/18 13:29	SHK	TAL SAC
Total/NA	Analysis	D 2216		1			206682	02/02/18 10:57	FDB	TAL SAC

**Client Sample ID: SB-204-3B (12292017)**

**Date Collected: 12/29/17 12:15**

**Date Received: 12/29/17 14:00**

**Lab Sample ID: 680-147344-15**

**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	HRMS-Sox			9.74 g	20.00 uL	206652	02/02/18 09:34	DXD	TAL SAC
Total/NA	Analysis	1668C		5			209219	02/19/18 23:28	KSS	TAL SAC

**Laboratory References:**

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600







681-Atlanta

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Company Name: <b>ARCADIS</b>		Client Contact		Project Manager: <b>ANDY DAVIS</b>		Site Contact: <b>JEN SWEET</b>		Date: <b>12/21/17</b>		COC No: <b>1</b> of <b>2</b> COCs	
Address: <b>10 PATEWOOD DR. STE-375</b>		Tel/Fax: <b>864.987.3900</b>		Analysis Turnaround Time		Lab Contact: <b>JEN SWEET</b>		Carrier:		Sampler:	
City/State/Zip: <b>GREENVILLE, SC 29615</b>		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		TAT if different from Below		Lab Contact: <b>JEN SWEET</b>		Carrier:		For Lab Use Only:	
Phone: <b>864.987.3900</b>		<input type="checkbox"/> 2 weeks		<input type="checkbox"/> 1 week		Lab Contact: <b>JEN SWEET</b>		Carrier:		Walk-in Client:	
Fax:		<input type="checkbox"/> 2 days		<input type="checkbox"/> 1 day		Lab Contact: <b>JEN SWEET</b>		Carrier:		Lab Sampling:	
Project Name: <b>ASULAND SAVANNAH</b>		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix		# of Cont.	
Site: <b>ASULAND</b>		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
PO # <b>0801000.6461</b>		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
		SB-204-1A (122917)		12/19/17		1710		G		SD	
		SB-204-2A (122917)		12/19/17		1720		G		SD	
		SB-204-3A (122917)		12/19/17		1700		G		SD	
		SB-137-1A (122917)		12/19/17		1050		G		SD	
		SB-202-1A (122917)		12/19/17		1105		G		SD	
		DS-9-2A (122917)		12/19/17		1120		G		SD	
		EK-21-1A (122917)		12/19/17		1140		G		SD	
		SB-128-1A (122917)		12/19/17		1000		G		SD	
		SB-159-3A (122917)		12/19/17		1025		G		SD	
		EB-1 (122917)		12/19/17		1300		G		WT	
		DUP-1 (122917)		12/29/17		-		G		SD	
		DUP-2 (122917)		12/29/17		-		G		SD	
		Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other		12/29/17		-		G		SD	
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.											
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Unknown											
Special Instructions/QC Requirements & Comments:											
11.7/17.9/17.6/11.9/0.5/17.5/11.4 11.7/17.9/17.6/11.9/0.5/17.5/11.4 11.7/17.9/17.6/11.9/0.5/17.5/11.4											
Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Company:		Received by:		Date/Time:		Cooler Temp. (°C): Obs'd: _____	
Relinquished by: <b>Maryann</b>		Company: <b>ARCADIS</b>		Date/Time: <b>12/29/17</b>		Received by:		Date/Time:		Company:	
Relinquished by:		Company:		Date/Time:		Received by:		Date/Time:		Company:	
Relinquished by:		Company:		Date/Time:		Received in Laboratory by: <b>James Edward</b>		Date/Time: <b>12/29/17 1400</b>		Company:	



## Chain of Custody Record



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

<b>Client Information (Sub Contract Lab)</b>				Lab PM: Lanier, Jerry A		Carrier Tracking No(s): 320-110756.1																	
Client Contact: Shipping/Receiving				Phone: E-Mail: jerry.lanier@teslamerica.com		Page Page 1 of 1																	
Company TestAmerica Laboratories, Inc.				Accreditations Required (See note): State Program - Georgia		Job # 680-147344-1																	
Address: 15102 LaRoche Avenue, City Savannah State, Zip: GA, 31404 Phone: 912-354-7858(Tel) 912-352-0165(Fax) Email: Project Name: Hercules Savannah / Savannah Resins Plan Site:				Due Date Requested: 1/17/2018 TAT Requested (days):		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:																	
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Sample ID (Lab ID)</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=grab)</th> <th>Matrix (Water, Seawater, Overboard)</th> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/MSD (Yes or No)</th> <th>8081B_8082A/3520C Arcolor 1254</th> </tr> <tr> <td>TMW-20 (12292017) (680-147344-21)</td> <td>12/29/17</td> <td>09:20 Eastern</td> <td></td> <td>Water</td> <td></td> <td></td> <td>X</td> </tr> </table>				Sample ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Seawater, Overboard)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8081B_8082A/3520C Arcolor 1254	TMW-20 (12292017) (680-147344-21)	12/29/17	09:20 Eastern		Water			X	Analysis Requested			
				Sample ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Seawater, Overboard)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8081B_8082A/3520C Arcolor 1254												
TMW-20 (12292017) (680-147344-21)	12/29/17	09:20 Eastern		Water			X																
				Total Number of Containers																			
				Special Instructions/Note:																			
<p>Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte &amp; accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.</p>																							
<b>Possible Hazard Identification</b> Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/OC Requirements:																							
Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____ Relinquished by: _____ Date/Time: 1/29/18 1630 Company: JPA-SAC Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____																							
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No				Custody Seal No.: _____																			
Cooler Temperature(s) °C and Other Remarks: 0.7°C / 1.0°C				Date/Time: 01/30/2018 9:05 Company: TA Savannah Date/Time: _____ Company: _____																			



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-147344-6

**Login Number: 147344**

**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.	False	Received same day of collection; chilling process has begun.
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-147344-6

**Login Number: 147344**

**List Source: TestAmerica Sacramento**

**List Number: 2**

**List Creation: 01/03/18 11:16 AM**

**Creator: Her, David A**

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	414862/414861
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7 C 2.4 C
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?	False	Received project as a subcontract.
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	



# Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

## 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	AZ0808	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	12-31-18
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



## Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-147344-6

Project/Site: Hercules Savannah / Savannah Resins Plan

### Laboratory: TestAmerica Sacramento

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
Alaska (UST)	State Program	10	17-020	01-20-21
Arizona	State Program	9	AZ0708	08-11-18
Arkansas DEQ	State Program	6	88-0691	06-17-18
California	State Program	9	2897	01-31-19
Colorado	State Program	8	CA00044	08-31-18
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-18
Georgia	State Program	4	N/A	01-28-19
Hawaii	State Program	9	N/A	01-29-19
Illinois	NELAP	5	200060	03-17-18
Kansas	NELAP	7	E-10375	10-31-18
L-A-B	DoD ELAP		L2468	01-20-21
Louisiana	NELAP	6	30612	06-30-18
Maine	State Program	1	CA0004	04-14-18
Michigan	State Program	5	9947	01-31-18 *
Nevada	State Program	9	CA00044	07-31-18
New Hampshire	NELAP	1	2997	04-18-18
New Jersey	NELAP	2	CA005	06-30-18
New York	NELAP	2	11666	04-01-18
Oregon	NELAP	10	4040	01-29-19
Pennsylvania	NELAP	3	68-01272	03-31-18
Texas	NELAP	6	T104704399	05-31-18
US Fish & Wildlife	Federal		LE148388-0	07-31-18
USDA	Federal		P330-11-00436	01-17-21
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-18 *
Virginia	NELAP	3	460278	03-14-18
Washington	State Program	10	C581	05-05-18
West Virginia (DW)	State Program	3	9930C	12-31-18
Wyoming	State Program	8	8TMS-L	01-28-19

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Savannah



## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Tel: (912)354-7858

TestAmerica Job ID: 680-148310-1

Client Project/Site: Hercules Savannah / Savannah Resins Plan

For:

ARCADIS U.S., Inc.

10 Patewood Drive, Suite 375

Greenville, South Carolina 29615

Attn: Andrew Davis



Authorized for release by:

2/5/2018 1:50:42 PM

Eddie Barnett, Project Manager I

(912)354-7858

[eddie.barnett@testamericainc.com](mailto:eddie.barnett@testamericainc.com)

Designee for

Jerry Lanier, Project Manager I

(912)354-7858 e.3410

[jerry.lanier@testamericainc.com](mailto:jerry.lanier@testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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results through

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## Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-148310-1

**Job ID: 680-148310-1**

**Laboratory: TestAmerica Savannah**

### Narrative

#### CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Hercules Savannah / Savannah Resins Plan

Report Number: 680-148310-1

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 01/31/2018; the sample arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 0.9° C.

#### PESTICIDES AND PCBs

Sample TMW-21 (013118) (680-148310-1) was analyzed for Pesticides and PCBs in accordance with EPA SW-846 Method 8081B\_8082A. The sample was prepared on 02/01/2018 and analyzed on 02/02/2018.

This method incorporates 2nd column confirmation. Corrective action is not taken for surrogate/spike compounds unless results from both columns are unacceptable. Results outside criteria are qualified.

DCB Decachlorobiphenyl recovered outside the surrogate recovery criteria low for TMW-21 (013118) (680-148310-1). There was insufficient sample to perform a re-extraction; therefore, the data have been reported. Refer to the QC report for details.

The routine PCB1016 and PCB 1260 laboratory control spikes were extracted in the batch instead of a PCB 1254 laboratory control spike.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



## Sample Summary

Client: ARCADIS U.S., Inc.

Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-148310-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-148310-1	TMW-21 (013118)	Water	01/31/18 13:05	01/31/18 14:14



## Method Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-1

Project/Site: Hercules Savannah / Savannah Resins Plan

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by GC	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



## Definitions/Glossary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-148310-1

### Qualifiers

#### GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits

### 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)



## Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-148310-1

**Client Sample ID: TMW-21 (013118)**

**Lab Sample ID: 680-148310-1**

☐ No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-148310-1

**Client Sample ID: TMW-21 (013118)**

**Date Collected: 01/31/18 13:05**

**Date Received: 01/31/18 14:14**

**Lab Sample ID: 680-148310-1**

**Matrix: Water**

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by GC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	0.11	U	1.0	0.11	ug/L		02/01/18 15:40	02/02/18 20:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	8	X	14 - 130				02/01/18 15:40	02/02/18 20:37	1
Tetrachloro-m-xylene	45		40 - 130				02/01/18 15:40	02/02/18 20:37	1



# Surrogate Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-148310-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by GC

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCBP2 (14-130)	TCX1 (40-130)
680-148310-1	TMW-21 (013118)	8 X	45
680-148310-1 MS	TMW-21 (013118)	16	59
680-148310-1 MSD	TMW-21 (013118)	21	71
MB 680-511222/6-A	Method Blank	35	63

### Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-148310-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by GC

Lab Sample ID: MB 680-511222/6-A

Matrix: Water

Analysis Batch: 511412

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 511222

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	0.11	U	1.0	0.11	ug/L		02/01/18 15:40	02/02/18 19:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	35		14 - 130	02/01/18 15:40	02/02/18 19:35	1
Tetrachloro-m-xylene	63		40 - 130	02/01/18 15:40	02/02/18 19:35	1

Lab Sample ID: 680-148310-1 MS

Matrix: Water

Analysis Batch: 511412

Client Sample ID: TMW-21 (013118)

Prep Type: Total/NA

Prep Batch: 511222

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	16		14 - 130
Tetrachloro-m-xylene	59		40 - 130

Lab Sample ID: 680-148310-1 MSD

Matrix: Water

Analysis Batch: 511412

Client Sample ID: TMW-21 (013118)

Prep Type: Total/NA

Prep Batch: 511222

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	21		14 - 130
Tetrachloro-m-xylene	71		40 - 130



## QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-148310-1

### GC Semi VOA

#### Prep Batch: 511222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-148310-1	TMW-21 (013118)	Total/NA	Water	3520C	
MB 680-511222/6-A	Method Blank	Total/NA	Water	3520C	
680-148310-1 MS	TMW-21 (013118)	Total/NA	Water	3520C	
680-148310-1 MSD	TMW-21 (013118)	Total/NA	Water	3520C	

#### Analysis Batch: 511412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-148310-1	TMW-21 (013118)	Total/NA	Water	8082A	511222
MB 680-511222/6-A	Method Blank	Total/NA	Water	8082A	511222
680-148310-1 MS	TMW-21 (013118)	Total/NA	Water	8082A	511222
680-148310-1 MSD	TMW-21 (013118)	Total/NA	Water	8082A	511222



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-148310-1

**Client Sample ID: TMW-21 (013118)**

**Date Collected: 01/31/18 13:05**

**Date Received: 01/31/18 14:14**

**Lab Sample ID: 680-148310-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			977.1 mL	10 mL	511222	02/01/18 15:40	CEW	TAL SAV
Total/NA	Analysis	8082A		1			511412	02/02/18 20:37	JCK	TAL SAV

## Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858



Savannah, GA 31404  
Phone: 912.354.7858 Fax:

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Project Manager: **Andy Davis**

Site Contact: **Andrew Davis**

Tell/Fax: **Andrew Davis**

Company Name: **Arco J's**

Address: **10 Palmetto Dr. Ste 375**

City/State/Zip: **Greenville/SC/29615**

Phone: **(864) 987-3906**

Fax: **-**

Project Name: **Ashland Savannah**

Site: **Savannah, GA**

P.O. # **6H010000-6A61**

Analysis Turnaround Time  
☐ CALENDAR DAYS ☐ WORKING DAYS

TAT if different from Below **Standard**

☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day

Sample Date **1/31/18** Sample Time **1305** Sample Type **G** Matrix **WT** # of Cont. **6**

Sample Identification **TMW-21(013118)**

Filtered Sample (Y/N) **Y** Perform MS/MSD (Y/N) **Y**

Sample Specific Notes:

Sample: **B. Playev**

For Lab Use Only:

Walk-in Client:

Lab Sampling:

Job / SDG No.:

COC No: **1** of **1** COCs

Date: **1/31/18** Carrier:

Therm ID No.:

Received by: **Arco J's** Date/Time: **1/31/18**

Received by: **TA Savannah** Date/Time: **14:14**

Received in Laboratory by: **TA Savannah** Date/Time: **14:14**

Company: **Arco J's**

Company: **TA Savannah**

Company: **TA Savannah**

Company: **TA Savannah**

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Company: **TA Savannah**

0.87/0.9 °C





## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-148310-1

Login Number: 148310

List Source: TestAmerica Savannah

List Number: 1

Creator: Tyler, Matthew M

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	



# Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-1

Project/Site: Hercules Savannah / Savannah Resins Plan

## 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	AZ0808	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	12-31-18
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



## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Tel: (912)354-7858

TestAmerica Job ID: 680-148310-2

Client Project/Site: Hercules Savannah / Savannah Resins Plan

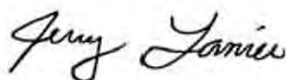
For:

ARCADIS U.S., Inc.

10 Patewood Drive, Suite 375

Greenville, South Carolina 29615

Attn: Andrew Davis



Authorized for release by:

2/23/2018 2:54:27 PM

Jerry Lanier, Project Manager I

(912)354-7858 e.3410

[jerry.lanier@testamericainc.com](mailto:jerry.lanier@testamericainc.com)

### LINKS

Review your project  
results through

**TotalAccess**

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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## Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-148310-2

**Job ID: 680-148310-2**

**Laboratory: TestAmerica Savannah**

**Narrative**

### CASE NARRATIVE

**Client: ARCADIS U.S., Inc.**

**Project: Hercules Savannah / Savannah Resins Plan**

**Report Number: 680-148310-2**

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 01/31/2018; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.9 C.

#### **CHLORINATED BIPHENYL CONGENERS**

Sample TMW-21 (013118) (680-148310-1) was analyzed for chlorinated biphenyl congeners in accordance with EPA method 1668C. The samples were prepared on 02/15/2018 and analyzed on 02/21/2018.

Several analytes were detected in method blank MB 320-208578/1-A 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.

#### **DIOXINS AND FURANS**

Sample TMW-21 (013118) (680-148310-1) was analyzed for dioxins and furans in accordance with EPA SW-846 8290A. The samples were prepared on 02/14/2018 and analyzed on 02/15/2018.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-208277.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **POLYCHLORINATED BIPHENYLS (PCBS)**

Sample TMW-21 (013118) (680-148310-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 1668. The samples were analyzed on 02/23/2018.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



## Sample Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-148310-1	TMW-21 (013118)	Water	01/31/18 13:05	01/31/18 14:14



## Method Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Method	Method Description	Protocol	Laboratory
1668C	Chlorinated Biphenyl Congeners (HRGC/HRMS)	EPA	TAL SAC
8290A	Dioxins and Furans (HRGC/HRMS)	SW846	TAL SAC
None	Total PCB Calculation from HRMS PCB-Congeners	TAL SOP	TAL SAC

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

### Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



## Definitions/Glossary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

### Qualifiers

#### Dioxin

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	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)



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: TMW-21 (013118)

Lab Sample ID: 680-148310-1

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-1	16	J	200	0.94	pg/L	1			1668C	Total/NA
PCB-2	2.7	J	200	0.75	pg/L	1			1668C	Total/NA
PCB-3	4.0	J	200	0.78	pg/L	1			1668C	Total/NA
PCB-11	18	J	200	6.2	pg/L	1			1668C	Total/NA
PCB-16	6.7	J	200	2.3	pg/L	1			1668C	Total/NA
PCB-17	4.6	J	200	1.7	pg/L	1			1668C	Total/NA
PCB-18/30	14	J	390	1.5	pg/L	1			1668C	Total/NA
PCB-19	4.7	J	200	2.0	pg/L	1			1668C	Total/NA
PCB-20/28	8.9	J	390	1.4	pg/L	1			1668C	Total/NA
PCB-21/33	6.3	J	390	1.3	pg/L	1			1668C	Total/NA
PCB-22	4.5	J	200	1.4	pg/L	1			1668C	Total/NA
PCB-25	3.2	J	200	1.3	pg/L	1			1668C	Total/NA
PCB-31	13	J	200	1.3	pg/L	1			1668C	Total/NA
PCB-32	4.0	J	200	1.3	pg/L	1			1668C	Total/NA
PCB-40/71	16	J	390	0.76	pg/L	1			1668C	Total/NA
PCB-42	6.9	J	200	0.83	pg/L	1			1668C	Total/NA
PCB-44/47/65	190	J B	590	0.72	pg/L	1			1668C	Total/NA
PCB-45	4.0	J	200	0.86	pg/L	1			1668C	Total/NA
PCB-48	3.9	J	200	0.77	pg/L	1			1668C	Total/NA
PCB-49/69	38	J	390	0.64	pg/L	1			1668C	Total/NA
PCB-50/53	9.6	J	390	0.73	pg/L	1			1668C	Total/NA
PCB-51	15	J	200	0.72	pg/L	1			1668C	Total/NA
PCB-52	280	B	200	0.77	pg/L	1			1668C	Total/NA
PCB-56	12	J	200	1.1	pg/L	1			1668C	Total/NA
PCB-59/62/75	1.8	J	590	0.56	pg/L	1			1668C	Total/NA
PCB-60	3.9	J	200	1.0	pg/L	1			1668C	Total/NA
PCB-61/70/74/76	96	J	790	0.99	pg/L	1			1668C	Total/NA
PCB-64	27	J	200	0.54	pg/L	1			1668C	Total/NA
PCB-66	24	J	200	1.0	pg/L	1			1668C	Total/NA
PCB-68	6.1	J	200	0.89	pg/L	1			1668C	Total/NA
PCB-77	2.4	J	20	1.1	pg/L	1			1668C	Total/NA
PCB-82	18	J	200	2.4	pg/L	1			1668C	Total/NA
PCB-84	67	J	200	2.2	pg/L	1			1668C	Total/NA
PCB-85/116/117	23	J	590	1.7	pg/L	1			1668C	Total/NA
PCB-86/87/97/108/119/125	110	J	1200	1.7	pg/L	1			1668C	Total/NA
PCB-88/91	24	J	390	1.9	pg/L	1			1668C	Total/NA
PCB-90/101/113	160	J B	590	1.8	pg/L	1			1668C	Total/NA
PCB-92	31	J	200	2.0	pg/L	1			1668C	Total/NA
PCB-107/124	4.0	J	390	1.6	pg/L	1			1668C	Total/NA
PCB-95	220	B	200	1.9	pg/L	1			1668C	Total/NA
PCB-96	1.8	J	200	0.47	pg/L	1			1668C	Total/NA
PCB-98/102	4.7	J	390	1.9	pg/L	1			1668C	Total/NA
PCB-99	53	J	200	1.6	pg/L	1			1668C	Total/NA
PCB-105	36		20	1.7	pg/L	1			1668C	Total/NA
PCB-110/115	210	J B	390	1.5	pg/L	1			1668C	Total/NA
PCB-109	5.9	J	200	1.5	pg/L	1			1668C	Total/NA
PCB-118	88	B	20	1.6	pg/L	1			1668C	Total/NA
PCB-128/166	11	J	390	0.73	pg/L	1			1668C	Total/NA
PCB-129/138/163	67	J B	590	0.78	pg/L	1			1668C	Total/NA
PCB-130	4.8	J	200	0.98	pg/L	1			1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: TMW-21 (013118) (Continued)

Lab Sample ID: 680-148310-1

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
PCB-132	28	J	200	0.89	pg/L	1		1668C	Total/NA
PCB-134/143	5.2	J	390	0.91	pg/L	1		1668C	Total/NA
PCB-135/151	22	J	390	0.82	pg/L	1		1668C	Total/NA
PCB-136	12	J	200	0.61	pg/L	1		1668C	Total/NA
PCB-137	3.0	J	200	0.73	pg/L	1		1668C	Total/NA
PCB-141	12	J	200	0.87	pg/L	1		1668C	Total/NA
PCB-144	3.7	J	200	0.80	pg/L	1		1668C	Total/NA
PCB-146	7.2	J	200	0.76	pg/L	1		1668C	Total/NA
PCB-147/149	55	J B	390	0.80	pg/L	1		1668C	Total/NA
PCB-153/168	45	J B	390	0.67	pg/L	1		1668C	Total/NA
PCB-156/157	7.3	J	39	0.73	pg/L	1		1668C	Total/NA
PCB-158	7.6	J	200	0.61	pg/L	1		1668C	Total/NA
PCB-164	5.3	J	200	0.72	pg/L	1		1668C	Total/NA
PCB-167	2.4	J	20	0.42	pg/L	1		1668C	Total/NA
PCB-169	0.57	J	20	0.47	pg/L	1		1668C	Total/NA
PCB-170	6.0	J	200	0.41	pg/L	1		1668C	Total/NA
PCB-171/173	2.2	J	390	0.42	pg/L	1		1668C	Total/NA
PCB-174	7.2	J	200	0.44	pg/L	1		1668C	Total/NA
PCB-176	0.90	J	200	0.63	pg/L	1		1668C	Total/NA
PCB-177	3.4	J	200	0.41	pg/L	1		1668C	Total/NA
PCB-178	1.3	J	200	0.91	pg/L	1		1668C	Total/NA
PCB-179	2.4	J	200	0.66	pg/L	1		1668C	Total/NA
PCB-180/193	12	J B	390	0.34	pg/L	1		1668C	Total/NA
PCB-183	4.6	J B	200	0.32	pg/L	1		1668C	Total/NA
PCB-187	6.7	J	200	0.82	pg/L	1		1668C	Total/NA
PCB-190	1.1	J	200	0.30	pg/L	1		1668C	Total/NA
PCB-194	1.9	J B	200	0.59	pg/L	1		1668C	Total/NA
PCB-198/199	1.8	J	390	0.55	pg/L	1		1668C	Total/NA
PCB-206	1.4	J	200	0.74	pg/L	1		1668C	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Polychlorinated biphenyls, Total	2300		200	20	pg/L	1		None	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: TMW-21 (013118)

Lab Sample ID: 680-148310-1

Date Collected: 01/31/18 13:05

Matrix: Water

Date Received: 01/31/18 14:14

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	16	J	200	0.94	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-2	2.7	J	200	0.75	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-3	4.0	J	200	0.78	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-4	15	U	200	15	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-5	6.1	U	200	6.1	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-6	6.4	U	200	6.4	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-7	6.1	U	200	6.1	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-8	6.3	U	200	6.3	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-9	6.4	U	200	6.4	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-10	10	U	200	10	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-11	18	J	200	6.2	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-12/13	6.1	U	390	6.1	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-14	5.4	U	200	5.4	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-15	6.1	U	200	6.1	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-16	6.7	J	200	2.3	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-17	4.6	J	200	1.7	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-18/30	14	J	390	1.5	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-19	4.7	J	200	2.0	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-20/28	8.9	J	390	1.4	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-21/33	6.3	J	390	1.3	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-22	4.5	J	200	1.4	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-23	1.3	U	200	1.3	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-24	1.4	U	200	1.4	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-25	3.2	J	200	1.3	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-26/29	1.3	U	390	1.3	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-27	1.3	U	200	1.3	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-31	13	J	200	1.3	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-32	4.0	J	200	1.3	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-34	1.4	U	200	1.4	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-35	1.4	U	200	1.4	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-36	1.3	U	200	1.3	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-37	1.5	U	200	1.5	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-38	1.4	U	200	1.4	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-39	1.3	U	200	1.3	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-40/71	16	J	390	0.76	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-41	0.89	U	200	0.89	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-42	6.9	J	200	0.83	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-43	0.91	U	200	0.91	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-44/47/65	190	J B	590	0.72	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-45	4.0	J	200	0.86	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-46	0.90	U	200	0.90	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-48	3.9	J	200	0.77	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-49/69	38	J	390	0.64	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-50/53	9.6	J	390	0.73	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-51	15	J	200	0.72	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-52	280	B	200	0.77	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-54	0.59	U	200	0.59	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-55	1.0	U	200	1.0	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-56	12	J	200	1.1	pg/L		02/15/18 11:24	02/21/18 17:38	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: TMW-21 (013118)

Lab Sample ID: 680-148310-1

Date Collected: 01/31/18 13:05

Matrix: Water

Date Received: 01/31/18 14:14

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	1.0	U	200	1.0	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-58	5.7	U	200	5.7	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-59/62/75	1.8	J	590	0.56	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-60	3.9	J	200	1.0	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-61/70/74/76	96	J	790	0.99	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-63	0.91	U	200	0.91	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-64	27	J	200	0.54	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-66	24	J	200	1.0	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-67	0.95	U	200	0.95	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-68	6.1	J	200	0.89	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-72	0.96	U	200	0.96	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-73	0.58	U	200	0.58	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-77	2.4	J	20	1.1	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-78	1.0	U	200	1.0	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-79	0.92	U	200	0.92	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-80	0.88	U	200	0.88	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-81	1.1	U	20	1.1	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-82	18	J	200	2.4	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-83	2.6	U	200	2.6	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-84	67	J	200	2.2	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-85/116/117	23	J	590	1.7	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-86/87/97/108/119/125	110	J	1200	1.7	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-88/91	24	J	390	1.9	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-89	2.1	U	200	2.1	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-90/101/113	160	J B	590	1.8	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-92	31	J	200	2.0	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-93/100	1.9	U	390	1.9	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-107/124	4.0	J	390	1.6	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-94	2.0	U	200	2.0	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-95	220	B	200	1.9	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-96	1.8	J	200	0.47	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-98/102	4.7	J	390	1.9	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-99	53	J	200	1.6	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-103	1.8	U	200	1.8	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-104	0.40	U	200	0.40	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-105	36		20	1.7	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-106	1.6	U	200	1.6	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-110/115	210	J B	390	1.5	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-109	5.9	J	200	1.5	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-111	1.5	U	200	1.5	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-112	1.6	U	200	1.6	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-114	1.7	U	20	1.7	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-118	88	B	20	1.6	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-120	1.4	U	200	1.4	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-121	1.4	U	200	1.4	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-122	1.7	U	200	1.7	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-123	1.7	U	20	1.7	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-126	1.8	U	20	1.8	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-127	1.6	U	200	1.6	pg/L		02/15/18 11:24	02/21/18 17:38	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: TMW-21 (013118)

Lab Sample ID: 680-148310-1

Date Collected: 01/31/18 13:05

Matrix: Water

Date Received: 01/31/18 14:14

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	11	J	390	0.73	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-129/138/163	67	J B	590	0.78	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-130	4.8	J	200	0.98	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-131	0.90	U	200	0.90	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-132	28	J	200	0.89	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-133	0.88	U	200	0.88	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-134/143	5.2	J	390	0.91	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-135/151	22	J	390	0.82	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-136	12	J	200	0.61	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-137	3.0	J	200	0.73	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-139/140	0.79	U	390	0.79	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-141	12	J	200	0.87	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-142	0.93	U	200	0.93	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-144	3.7	J	200	0.80	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-145	0.60	U	200	0.60	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-146	7.2	J	200	0.76	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-147/149	55	J B	390	0.80	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-148	0.79	U	200	0.79	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-150	0.56	U	200	0.56	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-152	0.58	U	200	0.58	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-153/168	45	J B	390	0.67	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-154	0.72	U	200	0.72	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-155	0.50	U	200	0.50	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-156/157	7.3	J	39	0.73	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-158	7.6	J	200	0.61	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-159	0.48	U	200	0.48	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-160	0.75	U	200	0.75	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-161	0.69	U	200	0.69	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-162	0.47	U	200	0.47	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-164	5.3	J	200	0.72	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-165	0.71	U	200	0.71	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-167	2.4	J	20	0.42	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-169	0.57	J	20	0.47	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-170	6.0	J	200	0.41	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-171/173	2.2	J	390	0.42	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-172	0.41	U	200	0.41	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-174	7.2	J	200	0.44	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-175	0.87	U	200	0.87	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-176	0.90	J	200	0.63	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-177	3.4	J	200	0.41	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-178	1.3	J	200	0.91	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-179	2.4	J	200	0.66	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-180/193	12	J B	390	0.34	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-181	0.37	U	200	0.37	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-182	0.82	U	200	0.82	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-183	4.6	J B	200	0.32	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-184	0.69	U	200	0.69	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-185	0.39	U	200	0.39	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-186	0.66	U	200	0.66	pg/L		02/15/18 11:24	02/21/18 17:38	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: TMW-21 (013118)

Lab Sample ID: 680-148310-1

Date Collected: 01/31/18 13:05

Matrix: Water

Date Received: 01/31/18 14:14

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	6.7	J	200	0.82	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-188	0.68	U	200	0.68	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-189	0.50	U	20	0.50	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-190	1.1	J	200	0.30	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-191	0.30	U	200	0.30	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-192	0.32	U	200	0.32	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-194	1.9	J B	200	0.59	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-195	0.63	U	200	0.63	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-196	0.52	U	200	0.52	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-197	0.36	U	200	0.36	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-198/199	1.8	J	390	0.55	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-200	0.44	U	200	0.44	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-201	0.40	U	200	0.40	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-202	0.46	U	200	0.46	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-203	0.52	U	200	0.52	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-204	0.41	U	200	0.41	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-205	0.46	U	200	0.46	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-206	1.4	J	200	0.74	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-207	0.56	U	200	0.56	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-208	0.65	U	200	0.65	pg/L		02/15/18 11:24	02/21/18 17:38	1
PCB-209	0.58	U	200	0.58	pg/L		02/15/18 11:24	02/21/18 17:38	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	66		5 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-3L	73		5 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-4L	66		5 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-15L	82		5 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-19L	78		5 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-37L	87		5 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-54L	67		5 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-77L	88		10 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-81L	89		10 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-104L	84		10 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-105L	90		10 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-114L	89		10 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-118L	89		10 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-123L	88		10 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-126L	92		10 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-155L	82		10 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-156L/157L	91		10 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-167L	93		10 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-169L	89		10 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-188L	88		10 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-189L	95		10 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-202L	96		10 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-205L	96		10 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-206L	89		10 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-208L	94		10 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-209L	96		10 - 145	02/15/18 11:24	02/21/18 17:38	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-148310-2

**Client Sample ID: TMW-21 (013118)**

**Lab Sample ID: 680-148310-1**

**Date Collected: 01/31/18 13:05**

**Matrix: Water**

**Date Received: 01/31/18 14:14**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	83		5 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-111L	86		10 - 145	02/15/18 11:24	02/21/18 17:38	1
PCB-178L	89		10 - 145	02/15/18 11:24	02/21/18 17:38	1

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.17	U	10	0.17	pg/L		02/14/18 08:30	02/15/18 21:16	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	91		40 - 135				02/14/18 08:30	02/15/18 21:16	1
13C-1,2,3,7,8-PeCDD	87		40 - 135				02/14/18 08:30	02/15/18 21:16	1
13C-1,2,3,6,7,8-HxCDD	90		40 - 135				02/14/18 08:30	02/15/18 21:16	1
13C-1,2,3,4,6,7,8-HpCDD	88		40 - 135				02/14/18 08:30	02/15/18 21:16	1
13C-OCDD	87		40 - 135				02/14/18 08:30	02/15/18 21:16	1
13C-2,3,7,8-TCDF	95		40 - 135				02/14/18 08:30	02/15/18 21:16	1
13C-1,2,3,7,8-PeCDF	93		40 - 135				02/14/18 08:30	02/15/18 21:16	1
13C-1,2,3,4,7,8-HxCDF	78		40 - 135				02/14/18 08:30	02/15/18 21:16	1
13C-1,2,3,4,6,7,8-HpCDF	90		40 - 135				02/14/18 08:30	02/15/18 21:16	1

## Method: None - Total PCB Calculation from HRMS PCB-Congeners

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	2300		200	20	pg/L			02/23/18 08:58	1



# Toxicity Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: TMW-21 (013118)

Lab Sample ID: 680-148310-1

						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	EDL	Unit	TEF	TEQ	Method
PCB-77	2.4	J	20	1.1	pg/L	0.0001	0.00024	1668C
PCB-81	1.1	U	20	1.1	pg/L	0.0003	0.00	1668C
PCB-105	36		20	1.7	pg/L	0.00003	0.0011	1668C
PCB-114	1.7	U	20	1.7	pg/L	0.00003	0.00	1668C
PCB-118	88	B	20	1.6	pg/L	0.00003	0.0026	1668C
PCB-123	1.7	U	20	1.7	pg/L	0.00003	0.00	1668C
PCB-126	1.8	U	20	1.8	pg/L	0.1	0.00	1668C
PCB-156/157	7.3	J	39	0.73	pg/L	0.00003	0.00022	1668C
PCB-167	2.4	J	20	0.42	pg/L	0.00003	0.000072	1668C
PCB-169	0.57	J	20	0.47	pg/L	0.03	0.017	1668C
PCB-189	0.50	U	20	0.50	pg/L	0.00003	0.00	1668C
						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	RL	MDL	Unit	TEF	TEQ	Method
Polychlorinated biphenyls, Total	2300		200	20	pg/L		0.021	None
						WHO 2005		
						ND = 0		
Analyte	Result	Qualifier	NONE	NONE	Unit	TEF	TEQ	Method
Total PCB TEQ					pg/L		0.021	TEQ
Total TEQ					pg/L		0.021	TEQ

## TEF Reference:

WHO 2005 = World Health Organization (WHO) 2005 TEF, Dioxins, Furans and PCB Congeners

Note: The analytes PCB-156 and PCB-157 coelute as a single peak.

TestAmerica Savannah



## Surrogate Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

### Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		PCB28L (5-145)	PCB111L (10-145)	PCB178L (10-145)
680-148310-1	TMW-21 (013118)	83	86	89
MB 320-208578/1-A	Method Blank	80	82	84
<b>Surrogate Legend</b>				
PCB28L = PCB-28L				
PCB111L = PCB-111L				
PCB178L = PCB-178L				

### Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		PCB28L (15-145)	PCB111L (40-145)	PCB178L (40-145)
LCS 320-208578/2-A	Lab Control Sample	70	76	80
LCSD 320-208578/3-A	Lab Control Sample Dup	80	79	85
<b>Surrogate Legend</b>				
PCB28L = PCB-28L				
PCB111L = PCB-111L				
PCB178L = PCB-178L				



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB1L (5-145)	PCB3L (5-145)	PCB4L (5-145)	PCB15L (5-145)	PCB19L (5-145)	PCB37L (5-145)	PCB54L (5-145)	PCB77L (10-145)
680-148310-1	TMW-21 (013118)	66	73	66	82	78	87	67	88
MB 320-208578/1-A	Method Blank	60	67	61	72	72	75	59	75
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB81L (10-145)	PCB104L (10-145)	PCB105L (10-145)	P114L (10-145)	PCB118L (10-145)	PCB123L (10-145)	PCB126L (10-145)	PCB155L (10-145)
680-148310-1	TMW-21 (013118)	89	84	90	89	89	88	92	82
MB 320-208578/1-A	Method Blank	76	73	79	78	79	77	80	71
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB-156L/157L (10-145)	PCB167L (10-145)	PCB169L (10-145)	PCB188L (10-145)	PCB189L (10-145)	PCB202L (10-145)	PCB205L (10-145)	PCB206L (10-145)
680-148310-1	TMW-21 (013118)	91	93	89	88	95	96	96	89
MB 320-208578/1-A	Method Blank	81	81	77	77	82	86	86	78
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB208L (10-145)	PCB209L (10-145)						
680-148310-1	TMW-21 (013118)	94	96						
MB 320-208578/1-A	Method Blank	82	83						
Surrogate Legend									
PCB1L = PCB-1L									
PCB3L = PCB-3L									
PCB4L = PCB-4L									
PCB15L = PCB-15L									
PCB19L = PCB-19L									
PCB37L = PCB-37L									
PCB54L = PCB-54L									
PCB77L = PCB-77L									
PCB81L = PCB-81L									
PCB104L = PCB-104L									
PCB105L = PCB-105L									
P114L = PCB-114L									
PCB118L = PCB-118L									
PCB123L = PCB-123L									
PCB126L = PCB-126L									
PCB155L = PCB-155L									
PCB-156L/157L = PCB-156L/157L									
PCB167L = PCB-167L									
PCB169L = PCB-169L									
PCB188L = PCB-188L									
PCB189L = PCB-189L									
PCB202L = PCB-202L									
PCB205L = PCB-205L									
PCB206L = PCB-206L									
PCB208L = PCB-208L									
PCB209L = PCB-209L									

TestAmerica Savannah



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB1L (15-145)	PCB3L (15-145)	PCB4L (15-145)	PCB15L (15-145)	PCB19L (15-145)	PCB37L (15-145)	PCB54L (15-145)	PCB77L (40-145)
LCS 320-208578/2-A	Lab Control Sample	54	57	53	62	64	66	55	66
LCSD 320-208578/3-A	Lab Control Sample Dup	55	57	56	61	66	59	57	56
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB81L (40-145)	PCB104L (40-145)	PCB105L (40-145)	P114L (40-145)	PCB118L (40-145)	PCB123L (40-145)	PCB126L (40-145)	PCB155L (40-145)
LCS 320-208578/2-A	Lab Control Sample	66	70	71	71	71	71	70	69
LCSD 320-208578/3-A	Lab Control Sample Dup	57	67	61	60	61	61	58	65
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB-156L/157L (40-145)	PCB167L (40-145)	PCB169L (40-145)	PCB188L (40-145)	PCB189L (40-145)	PCB202L (40-145)	PCB205L (40-145)	PCB206L (40-145)
LCS 320-208578/2-A	Lab Control Sample	74	75	69	75	76	81	80	74
LCSD 320-208578/3-A	Lab Control Sample Dup	64	64	58	67	65	70	67	62
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB208L (40-145)	PCB209L (40-145)						
LCS 320-208578/2-A	Lab Control Sample	77	79						
LCSD 320-208578/3-A	Lab Control Sample Dup	66	66						
Surrogate Legend									
PCB1L = PCB-1L									
PCB3L = PCB-3L									
PCB4L = PCB-4L									
PCB15L = PCB-15L									
PCB19L = PCB-19L									
PCB37L = PCB-37L									
PCB54L = PCB-54L									
PCB77L = PCB-77L									
PCB81L = PCB-81L									
PCB104L = PCB-104L									
PCB105L = PCB-105L									
P114L = PCB-114L									
PCB118L = PCB-118L									
PCB123L = PCB-123L									
PCB126L = PCB-126L									
PCB155L = PCB-155L									
PCB-156L/157L = PCB-156L/157L									
PCB167L = PCB-167L									
PCB169L = PCB-169L									
PCB188L = PCB-188L									
PCB189L = PCB-189L									
PCB202L = PCB-202L									
PCB205L = PCB-205L									
PCB206L = PCB-206L									
PCB208L = PCB-208L									
PCB209L = PCB-209L									

TestAmerica Savannah



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCDD (40-135)	PeCDD (40-135)	HxDD (40-135)	HpCDD (40-135)	OCDD (40-135)	TCDF (40-135)	PeCDF (40-135)	HxCDF (40-135)
680-148310-1	TMW-21 (013118)	91	87	90	88	87	95	93	78
LCS 320-208645/2-A	Lab Control Sample	96	95	90	75	71	100	101	82
LCSD 320-208645/3-A	Lab Control Sample Dup	97	93	96	78	73	100	100	80
MB 320-208645/1-A	Method Blank	92	88	90	70	67	97	95	77

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HpCDF (40-135)
680-148310-1	TMW-21 (013118)	90
LCS 320-208645/2-A	Lab Control Sample	77
LCSD 320-208645/3-A	Lab Control Sample Dup	77
MB 320-208645/1-A	Method Blank	73

### Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD

PeCDD = 13C-1,2,3,7,8-PeCDD

HxDD = 13C-1,2,3,6,7,8-HxCDD

HpCDD = 13C-1,2,3,4,6,7,8-HpCDD

OCDD = 13C-OCDD

TCDF = 13C-2,3,7,8-TCDF

PeCDF = 13C-1,2,3,7,8-PeCDF

HxCDF = 13C-1,2,3,4,7,8-HxCDF

HpCDF = 13C-1,2,3,4,6,7,8-HpCDF



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Lab Sample ID: MB 320-208578/1-A

Matrix: Water

Analysis Batch: 209473

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 208578

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.66	U	200	0.66	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-2	0.52	U	200	0.52	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-3	0.53	U	200	0.53	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-4	19	U	200	19	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-5	6.6	U	200	6.6	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-6	6.9	U	200	6.9	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-7	6.6	U	200	6.6	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-8	6.7	U	200	6.7	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-9	6.8	U	200	6.8	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-10	13	U	200	13	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-11	6.6	U	200	6.6	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-12/13	6.6	U	400	6.6	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-14	5.8	U	200	5.8	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-15	6.5	U	200	6.5	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-16	2.4	U	200	2.4	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-17	1.8	U	200	1.8	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-18/30	1.6	U	400	1.6	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-19	2.2	U	200	2.2	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-20/28	1.4	U	400	1.4	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-21/33	1.3	U	400	1.3	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-22	1.4	U	200	1.4	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-23	1.3	U	200	1.3	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-24	1.5	U	200	1.5	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-25	1.3	U	200	1.3	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-26/29	1.3	U	400	1.3	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-27	1.4	U	200	1.4	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-31	1.3	U	200	1.3	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-32	1.3	U	200	1.3	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-34	1.4	U	200	1.4	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-35	1.4	U	200	1.4	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-36	1.3	U	200	1.3	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-37	1.4	U	200	1.4	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-38	1.4	U	200	1.4	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-39	1.3	U	200	1.3	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-40/71	0.81	U	400	0.81	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-41	0.94	U	200	0.94	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-42	0.88	U	200	0.88	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-43	0.97	U	200	0.97	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-44/47/65	2.97	J	600	0.76	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-45	0.91	U	200	0.91	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-46	0.96	U	200	0.96	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-48	0.81	U	200	0.81	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-49/69	0.67	U	400	0.67	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-50/53	0.77	U	400	0.77	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-51	0.76	U	200	0.76	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-52	1.76	J	200	0.81	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-54	0.77	U	200	0.77	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-55	1.1	U	200	1.1	pg/L		02/15/18 11:24	02/21/18 13:53	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-208578/1-A

Matrix: Water

Analysis Batch: 209473

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 208578

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-56	1.1	U	200	1.1	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-57	1.1	U	200	1.1	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-58	1.0	U	200	1.0	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-59/62/75	0.59	U	600	0.59	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-60	1.1	U	200	1.1	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-61/70/74/76	1.0	U	800	1.0	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-63	0.94	U	200	0.94	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-64	0.57	U	200	0.57	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-66	1.1	U	200	1.1	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-67	0.99	U	200	0.99	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-68	0.93	U	200	0.93	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-72	1.0	U	200	1.0	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-73	0.61	U	200	0.61	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-77	1.2	U	20	1.2	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-78	1.1	U	200	1.1	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-79	0.95	U	200	0.95	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-80	0.92	U	200	0.92	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-81	1.1	U	20	1.1	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-82	1.3	U	200	1.3	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-83	1.4	U	200	1.4	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-84	1.2	U	200	1.2	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-85/116/117	0.89	U	600	0.89	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-86/87/97/108/119/125	0.92	U	1200	0.92	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-88/91	1.0	U	400	1.0	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-89	1.1	U	200	1.1	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-90/101/113	2.66	J	600	0.94	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-92	1.1	U	200	1.1	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-93/100	1.0	U	400	1.0	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-107/124	0.82	U	400	0.82	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-94	1.1	U	200	1.1	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-95	1.82	J	200	1.0	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-96	0.58	U	200	0.58	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-98/102	0.99	U	400	0.99	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-99	0.87	U	200	0.87	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-103	0.93	U	200	0.93	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-104	0.51	U	200	0.51	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-105	0.93	U	20	0.93	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-106	0.85	U	200	0.85	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-110/115	2.77	J	400	0.82	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-109	0.77	U	200	0.77	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-111	0.80	U	200	0.80	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-112	0.83	U	200	0.83	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-114	0.89	U	20	0.89	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-118	2.54	J	20	0.83	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-120	0.76	U	200	0.76	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-121	0.76	U	200	0.76	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-122	0.89	U	200	0.89	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-123	0.89	U	20	0.89	pg/L		02/15/18 11:24	02/21/18 13:53	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-208578/1-A

Matrix: Water

Analysis Batch: 209473

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 208578

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-126	1.0	U	20	1.0	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-127	0.84	U	200	0.84	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-128/166	1.1	U	400	1.1	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-129/138/163	3.11	J	600	1.2	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-130	1.5	U	200	1.5	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-131	1.4	U	200	1.4	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-132	1.4	U	200	1.4	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-133	1.4	U	200	1.4	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-134/143	1.4	U	400	1.4	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-135/151	1.3	U	400	1.3	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-136	0.95	U	200	0.95	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-137	1.1	U	200	1.1	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-139/140	1.2	U	400	1.2	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-141	1.4	U	200	1.4	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-142	1.5	U	200	1.5	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-144	1.2	U	200	1.2	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-145	0.93	U	200	0.93	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-146	1.2	U	200	1.2	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-147/149	1.97	J	400	1.2	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-148	1.2	U	200	1.2	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-150	0.87	U	200	0.87	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-152	0.90	U	200	0.90	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-153/168	2.69	J	400	1.0	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-154	1.1	U	200	1.1	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-155	0.77	U	200	0.77	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-156/157	1.0	U	40	1.0	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-158	0.95	U	200	0.95	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-159	0.70	U	200	0.70	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-160	1.2	U	200	1.2	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-161	1.1	U	200	1.1	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-162	0.67	U	200	0.67	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-164	1.1	U	200	1.1	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-165	1.1	U	200	1.1	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-167	0.62	U	20	0.62	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-169	0.70	U	20	0.70	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-170	0.66	U	200	0.66	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-171/173	0.67	U	400	0.67	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-172	0.65	U	200	0.65	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-174	0.71	U	200	0.71	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-175	1.2	U	200	1.2	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-176	0.85	U	200	0.85	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-177	0.66	U	200	0.66	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-178	1.2	U	200	1.2	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-179	0.90	U	200	0.90	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-180/193	1.89	J	400	0.54	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-181	0.59	U	200	0.59	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-182	1.1	U	200	1.1	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-183	1.85	J	200	0.51	pg/L		02/15/18 11:24	02/21/18 13:53	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-208578/1-A

Matrix: Water

Analysis Batch: 209473

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 208578

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-184	0.94	U	200	0.94	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-185	0.62	U	200	0.62	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-186	0.90	U	200	0.90	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-187	1.1	U	200	1.1	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-188	0.87	U	200	0.87	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-189	0.72	U	20	0.72	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-190	0.48	U	200	0.48	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-191	0.48	U	200	0.48	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-192	0.51	U	200	0.51	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-194	1.58	J	200	0.79	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-195	0.83	U	200	0.83	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-196	1.0	U	200	1.0	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-197	0.72	U	200	0.72	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-198/199	1.1	U	400	1.1	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-200	0.87	U	200	0.87	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-201	0.78	U	200	0.78	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-202	0.89	U	200	0.89	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-203	1.0	U	200	1.0	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-204	0.81	U	200	0.81	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-205	1.25	J	200	0.62	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-206	1.1	U	200	1.1	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-207	0.83	U	200	0.83	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-208	0.95	U	200	0.95	pg/L		02/15/18 11:24	02/21/18 13:53	1
PCB-209	1.86	J	200	0.76	pg/L		02/15/18 11:24	02/21/18 13:53	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	60		5 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-3L	67		5 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-4L	61		5 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-15L	72		5 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-19L	72		5 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-37L	75		5 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-54L	59		5 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-77L	75		10 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-81L	76		10 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-104L	73		10 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-105L	79		10 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-114L	78		10 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-118L	79		10 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-123L	77		10 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-126L	80		10 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-155L	71		10 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-156L/157L	81		10 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-167L	81		10 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-169L	77		10 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-188L	77		10 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-189L	82		10 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-202L	86		10 - 145	02/15/18 11:24	02/21/18 13:53	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-208578/1-A

Matrix: Water

Analysis Batch: 209473

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 208578

<i>Isotope Dilution</i>	<i>MB</i> <i>%Recovery</i>	<i>MB</i> <i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
PCB-205L	86		10 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-206L	78		10 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-208L	82		10 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-209L	83		10 - 145	02/15/18 11:24	02/21/18 13:53	1

<i>Surrogate</i>	<i>MB</i> <i>%Recovery</i>	<i>MB</i> <i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
PCB-28L	80		5 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-111L	82		10 - 145	02/15/18 11:24	02/21/18 13:53	1
PCB-178L	84		10 - 145	02/15/18 11:24	02/21/18 13:53	1

Lab Sample ID: LCS 320-208578/2-A

Matrix: Water

Analysis Batch: 209473

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 208578

<i>Analyte</i>	<i>Spike</i> <i>Added</i>	<i>LCS</i> <i>Result</i>	<i>LCS</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i> <i>Limits</i>
PCB-1	2000	2040		pg/L		102	60 - 135
PCB-3	2000	2090		pg/L		105	60 - 135
PCB-4	2000	2100		pg/L		105	60 - 135
PCB-15	2000	1980		pg/L		99	60 - 135
PCB-19	2000	2040		pg/L		102	60 - 135
PCB-37	2000	1910		pg/L		96	60 - 135
PCB-54	2000	2060		pg/L		103	60 - 135
PCB-77	2000	2030		pg/L		101	60 - 135
PCB-81	2000	2050		pg/L		103	60 - 135
PCB-104	2000	2160		pg/L		108	60 - 135
PCB-105	2000	2210		pg/L		111	60 - 135
PCB-114	2000	2170		pg/L		108	60 - 135
PCB-118	2000	2230		pg/L		111	60 - 135
PCB-123	2000	2170		pg/L		109	60 - 135
PCB-126	2000	2180		pg/L		109	60 - 135
PCB-155	2000	2050		pg/L		102	60 - 135
PCB-156/157	4000	4020		pg/L		101	60 - 135
PCB-167	2000	2000		pg/L		100	60 - 135
PCB-169	2000	2010		pg/L		101	60 - 135
PCB-188	2000	1950		pg/L		98	60 - 135
PCB-189	2000	1790		pg/L		90	60 - 135
PCB-202	2000	1960		pg/L		98	60 - 135
PCB-205	2000	1840		pg/L		92	60 - 135
PCB-206	2000	2040		pg/L		102	60 - 135
PCB-208	2000	2060		pg/L		103	60 - 135
PCB-209	2000	1980		pg/L		99	60 - 135

<i>Isotope Dilution</i>	<i>LCS</i> <i>%Recovery</i>	<i>LCS</i> <i>Qualifier</i>	<i>Limits</i>
PCB-1L	54		15 - 145
PCB-3L	57		15 - 145
PCB-4L	53		15 - 145
PCB-15L	62		15 - 145
PCB-19L	64		15 - 145

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-148310-2

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-208578/2-A

Matrix: Water

Analysis Batch: 209473

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 208578

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
PCB-37L	66		15 - 145
PCB-54L	55		15 - 145
PCB-77L	66		40 - 145
PCB-81L	66		40 - 145
PCB-104L	70		40 - 145
PCB-105L	71		40 - 145
PCB-114L	71		40 - 145
PCB-118L	71		40 - 145
PCB-123L	71		40 - 145
PCB-126L	70		40 - 145
PCB-155L	69		40 - 145
PCB-156L/157L	74		40 - 145
PCB-167L	75		40 - 145
PCB-169L	69		40 - 145
PCB-188L	75		40 - 145
PCB-189L	76		40 - 145
PCB-202L	81		40 - 145
PCB-205L	80		40 - 145
PCB-206L	74		40 - 145
PCB-208L	77		40 - 145
PCB-209L	79		40 - 145

Surrogate	LCS		Limits
	%Recovery	Qualifier	
PCB-28L	70		15 - 145
PCB-111L	76		40 - 145
PCB-178L	80		40 - 145

Lab Sample ID: LCSD 320-208578/3-A

Matrix: Water

Analysis Batch: 209473

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 208578

Analyte	Spike Added	LCSD		Unit	D	%Rec	%Rec.		RPD	
		Result	Qualifier				Limits		RPD	Limit
PCB-1	2000	2110		pg/L		105	60 - 135		3	50
PCB-3	2000	2150		pg/L		107	60 - 135		3	50
PCB-4	2000	2110		pg/L		105	60 - 135		0	50
PCB-15	2000	2000		pg/L		100	60 - 135		1	50
PCB-19	2000	2040		pg/L		102	60 - 135		0	50
PCB-37	2000	1940		pg/L		97	60 - 135		1	50
PCB-54	2000	2110		pg/L		106	60 - 135		2	50
PCB-77	2000	2030		pg/L		101	60 - 135		0	50
PCB-81	2000	2070		pg/L		103	60 - 135		1	50
PCB-104	2000	2170		pg/L		108	60 - 135		1	50
PCB-105	2000	2190		pg/L		109	60 - 135		1	50
PCB-114	2000	2190		pg/L		109	60 - 135		1	50
PCB-118	2000	2250		pg/L		112	60 - 135		1	50
PCB-123	2000	2220		pg/L		111	60 - 135		2	50
PCB-126	2000	2210		pg/L		111	60 - 135		1	50
PCB-155	2000	2070		pg/L		103	60 - 135		1	50

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 320-208578/3-A

Matrix: Water

Analysis Batch: 209473

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 208578

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-156/157	4000	4020		pg/L		101	60 - 135	0	50
PCB-167	2000	2010		pg/L		100	60 - 135	0	50
PCB-169	2000	2030		pg/L		101	60 - 135	1	50
PCB-188	2000	1960		pg/L		98	60 - 135	0	50
PCB-189	2000	1780		pg/L		89	60 - 135	1	50
PCB-202	2000	1980		pg/L		99	60 - 135	1	50
PCB-205	2000	1860		pg/L		93	60 - 135	1	50
PCB-206	2000	2040		pg/L		102	60 - 135	0	50
PCB-208	2000	2060		pg/L		103	60 - 135	0	50
PCB-209	2000	2020		pg/L		101	60 - 135	2	50

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
PCB-1L	55		15 - 145
PCB-3L	57		15 - 145
PCB-4L	56		15 - 145
PCB-15L	61		15 - 145
PCB-19L	66		15 - 145
PCB-37L	59		15 - 145
PCB-54L	57		15 - 145
PCB-77L	56		40 - 145
PCB-81L	57		40 - 145
PCB-104L	67		40 - 145
PCB-105L	61		40 - 145
PCB-114L	60		40 - 145
PCB-118L	61		40 - 145
PCB-123L	61		40 - 145
PCB-126L	58		40 - 145
PCB-155L	65		40 - 145
PCB-156L/157L	64		40 - 145
PCB-167L	64		40 - 145
PCB-169L	58		40 - 145
PCB-188L	67		40 - 145
PCB-189L	65		40 - 145
PCB-202L	70		40 - 145
PCB-205L	67		40 - 145
PCB-206L	62		40 - 145
PCB-208L	66		40 - 145
PCB-209L	66		40 - 145

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
PCB-28L	80		15 - 145
PCB-111L	79		40 - 145
PCB-178L	85		40 - 145

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 320-208645/1-A

Matrix: Water

Analysis Batch: 208689

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 208645

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	0.28	U	10	0.28	pg/L		02/14/18 08:30	02/15/18 15:54	1
Isotope Dilution	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	92		40 - 135				02/14/18 08:30	02/15/18 15:54	1
13C-1,2,3,7,8-PeCDD	88		40 - 135				02/14/18 08:30	02/15/18 15:54	1
13C-1,2,3,6,7,8-HxCDD	90		40 - 135				02/14/18 08:30	02/15/18 15:54	1
13C-1,2,3,4,6,7,8-HpCDD	70		40 - 135				02/14/18 08:30	02/15/18 15:54	1
13C-OCDD	67		40 - 135				02/14/18 08:30	02/15/18 15:54	1
13C-2,3,7,8-TCDF	97		40 - 135				02/14/18 08:30	02/15/18 15:54	1
13C-1,2,3,7,8-PeCDF	95		40 - 135				02/14/18 08:30	02/15/18 15:54	1
13C-1,2,3,4,7,8-HxCDF	77		40 - 135				02/14/18 08:30	02/15/18 15:54	1
13C-1,2,3,4,6,7,8-HpCDF	73		40 - 135				02/14/18 08:30	02/15/18 15:54	1

Lab Sample ID: LCS 320-208645/2-A

Matrix: Water

Analysis Batch: 208689

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 208645

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	200	209		pg/L		104	64 - 142
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits				
13C-2,3,7,8-TCDD	96		40 - 135				
13C-1,2,3,7,8-PeCDD	95		40 - 135				
13C-1,2,3,6,7,8-HxCDD	90		40 - 135				
13C-1,2,3,4,6,7,8-HpCDD	75		40 - 135				
13C-OCDD	71		40 - 135				
13C-2,3,7,8-TCDF	100		40 - 135				
13C-1,2,3,7,8-PeCDF	101		40 - 135				
13C-1,2,3,4,7,8-HxCDF	82		40 - 135				
13C-1,2,3,4,6,7,8-HpCDF	77		40 - 135				

Lab Sample ID: LCSD 320-208645/3-A

Matrix: Water

Analysis Batch: 208689

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 208645

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,3,7,8-TCDD	200	210		pg/L		105	64 - 142	1	20
Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits						
13C-2,3,7,8-TCDD	97		40 - 135						
13C-1,2,3,7,8-PeCDD	93		40 - 135						
13C-1,2,3,6,7,8-HxCDD	96		40 - 135						
13C-1,2,3,4,6,7,8-HpCDD	78		40 - 135						
13C-OCDD	73		40 - 135						
13C-2,3,7,8-TCDF	100		40 - 135						
13C-1,2,3,7,8-PeCDF	100		40 - 135						
13C-1,2,3,4,7,8-HxCDF	80		40 - 135						
13C-1,2,3,4,6,7,8-HpCDF	77		40 - 135						

TestAmerica Savannah



# QC Association Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

## Specialty Organics

### Prep Batch: 208578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-148310-1	TMW-21 (013118)	Total/NA	Water	HRMS-Sep	
MB 320-208578/1-A	Method Blank	Total/NA	Water	HRMS-Sep	
LCS 320-208578/2-A	Lab Control Sample	Total/NA	Water	HRMS-Sep	
LCSD 320-208578/3-A	Lab Control Sample Dup	Total/NA	Water	HRMS-Sep	

### Prep Batch: 208645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-148310-1	TMW-21 (013118)	Total/NA	Water	8290	
MB 320-208645/1-A	Method Blank	Total/NA	Water	8290	
LCS 320-208645/2-A	Lab Control Sample	Total/NA	Water	8290	
LCSD 320-208645/3-A	Lab Control Sample Dup	Total/NA	Water	8290	

### Analysis Batch: 208689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-148310-1	TMW-21 (013118)	Total/NA	Water	8290A	208645
MB 320-208645/1-A	Method Blank	Total/NA	Water	8290A	208645
LCS 320-208645/2-A	Lab Control Sample	Total/NA	Water	8290A	208645
LCSD 320-208645/3-A	Lab Control Sample Dup	Total/NA	Water	8290A	208645

### Analysis Batch: 209473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-148310-1	TMW-21 (013118)	Total/NA	Water	1668C	208578
MB 320-208578/1-A	Method Blank	Total/NA	Water	1668C	208578
LCS 320-208578/2-A	Lab Control Sample	Total/NA	Water	1668C	208578
LCSD 320-208578/3-A	Lab Control Sample Dup	Total/NA	Water	1668C	208578

### Analysis Batch: 209769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-148310-1	TMW-21 (013118)	Total/NA	Water	None	



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-148310-2

**Client Sample ID: TMW-21 (013118)**

**Lab Sample ID: 680-148310-1**

**Date Collected: 01/31/18 13:05**

**Matrix: Water**

**Date Received: 01/31/18 14:14**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sep			1015.3 mL	20.00 uL	208578	02/15/18 11:24	A1A	TAL SAC
Total/NA	Analysis	1668C		1			209473	02/21/18 17:38	KSS	TAL SAC
Total/NA	Prep	8290			992.1 mL	20 uL	208645	02/14/18 08:30	KQT	TAL SAC
Total/NA	Analysis	8290A		1			208689	02/15/18 21:16	ALM	TAL SAC
Total/NA	Analysis	None		1			209769	02/23/18 08:58	SHK	TAL SAC

## Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600







## Chain of Custody Record

<b>Client Information (Sub Contract Lab)</b> Client Contact: 880 Riverside Parkway, West Sacramento, CA 95605 Phone: 916-373-5600(Tel) 916-372-1059(Fax) Email: Hercules Savannah / Savannah Resins Plan Project Name: Hercules Savannah / Savannah Resins Plan Site:		Sampler: Lanier, Jerry A Lab PM: Jerry A E-Mail: jerry.lanier@testamericainc.com State of Origin: Georgia Carrier Tracking No(s): 880-506696.1 Page: Page 1 of 1 Job #: 880-148310-2 State Program - Georgia	
Company: TestAmerica Laboratories, Inc. Address: 880 Riverside Parkway, West Sacramento, CA 95605 PO #: 916-373-5600(Tel) 916-372-1059(Fax) WO #: 916-373-5600(Tel) 916-372-1059(Fax) Project #: 68001205 SOW#:		Due Date Requested: 2/16/2018 TAT Requested (days): Analysis Requested: Accreditations Required (See note): State Program - Georgia	
Sample Identification - Client ID (Lab ID) TMW-21 (013118) (880-148310-1)		Sample Date: 1/31/18 Sample Time: 13:05 Eastern Sample Type (C=Comp, G=Grab): Matrix (W=Water, S=Solid, O=Other): Preservation Code:	
Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 1668C/HRMS_Sep_P_Full List (209 Comb/Coil) 8290A/8290_P_Sep 17 Isomers & Totals Total PCB_Cong Total TEQ		Total Number of Containers Special Instructions/Note: run as straight as possible	
Note: Since laboratory accreditation is subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis of the matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditation are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.		Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	
Empty Kit Relinquished by: Relinquished by: 2/1/18 17:00 Relinquished by: 2/1/18 17:00 Relinquished by:		Date: 2/1/18 17:00 Date: 2/1/18 17:00 Date: 2/1/18 17:00 Date: 2/1/18 17:00	
Custody Seal Intact: 440050 Custody Seal No.: 440050		Cooler Temperature(s) °C and Other Remarks: 1.8	



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-148310-2

**Login Number: 148310**

**List Source: TestAmerica Savannah**

**List Number: 1**

**Creator: Tyler, Matthew M**

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	



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-148310-2

**Login Number: 148310**

**List Source: TestAmerica Sacramento**

**List Number: 2**

**List Creation: 02/03/18 03:37 PM**

**Creator: Aguayo, Alonso**

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	440650
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8
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?	False	Received project as a subcontract.
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	



## Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

### 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	AZ0808	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	12-31-18
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



## Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-148310-2

Project/Site: Hercules Savannah / Savannah Resins Plan

### Laboratory: TestAmerica Sacramento

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
Alaska (UST)	State Program	10	17-020	01-20-21
Arizona	State Program	9	AZ0708	08-11-18
Arkansas DEQ	State Program	6	88-0691	06-17-18
California	State Program	9	2897	01-31-19
Colorado	State Program	8	CA00044	08-31-18
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-18
Georgia	State Program	4	N/A	01-28-19
Hawaii	State Program	9	N/A	01-29-19
Illinois	NELAP	5	200060	03-17-18
Kansas	NELAP	7	E-10375	10-31-18
L-A-B	DoD ELAP		L2468	01-20-21
Louisiana	NELAP	6	30612	06-30-18
Maine	State Program	1	CA0004	04-14-18
Michigan	State Program	5	9947	01-31-18 *
Nevada	State Program	9	CA00044	07-31-18
New Hampshire	NELAP	1	2997	04-18-18
New Jersey	NELAP	2	CA005	06-30-18
New York	NELAP	2	11666	04-01-18
Oregon	NELAP	10	4040	01-29-19
Pennsylvania	NELAP	3	68-01272	03-31-18
Texas	NELAP	6	T104704399	05-31-18
US Fish & Wildlife	Federal		LE148388-0	07-31-18
USDA	Federal		P330-11-00436	01-17-21
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-18 *
Virginia	NELAP	3	460278	03-14-18
Washington	State Program	10	C581	05-05-18
West Virginia (DW)	State Program	3	9930C	12-31-18
Wyoming	State Program	8	8TMS-L	01-28-19

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Savannah



## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Tel: (912)354-7858

TestAmerica Job ID: 680-149100-1

Client Project/Site: Hercules Savannah / Savannah Resins Plan

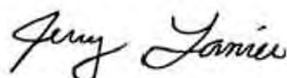
For:

ARCADIS U.S., Inc.

10 Patewood Drive, Suite 375

Greenville, South Carolina 29615

Attn: Andrew Davis



Authorized for release by:

3/2/2018 4:13:24 PM

Jerry Lanier, Project Manager I

(912)354-7858 e.3410

[jerry.lanier@testamericainc.com](mailto:jerry.lanier@testamericainc.com)

### LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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## Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-149100-1

**Job ID: 680-149100-1**

**Laboratory: TestAmerica Savannah**

### Narrative

## CASE NARRATIVE

**Client: ARCADIS U.S., Inc.**

**Project: Hercules Savannah / Savannah Resins Plan**

**Report Number: 680-149100-1**

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 02/20/2018; the samples arrived in good condition. The temperature of the coolers at receipt was 17.8 C.

### CHLORINATED BIPHENYL CONGENERS

Sample TMW-19 (680-149100-1) was analyzed for chlorinated biphenyl congeners in accordance with EPA method 1668C. The samples were prepared on 02/26/2018 and analyzed on 02/28/2018.

Several analytes were detected in method blank MB 320-210032/1-A 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.

### POLYCHLORINATED BIPHENYLS (PCBS)

Sample TMW-19 (680-149100-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 1668. The samples were analyzed on 03/02/2018.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



## Sample Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-149100-1	TMW-19	Water	02/20/18 12:40	02/20/18 13:30



## Method Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

Method	Method Description	Protocol	Laboratory
1668C	Chlorinated Biphenyl Congeners (HRGC/HRMS)	EPA	TAL SAC
None	Total PCB Calculation from HRMS PCB-Congeners	TAL SOP	TAL SAC

### Protocol References:

EPA = US Environmental Protection Agency

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

### Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



## Definitions/Glossary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

### Qualifiers

#### Dioxin

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.
q	The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.
U	Indicates the analyte was analyzed for but not detected.
B	Compound was found in the blank and sample.

### 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)



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: TMW-19

Lab Sample ID: 680-149100-1

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-1	2.1	J q	200	1.0	pg/L	1			1668C	Total/NA
PCB-2	1.3	J	200	0.76	pg/L	1			1668C	Total/NA
PCB-3	1.8	J	200	0.77	pg/L	1			1668C	Total/NA
PCB-17	4.7	J	200	1.5	pg/L	1			1668C	Total/NA
PCB-18/30	6.1	J	390	1.3	pg/L	1			1668C	Total/NA
PCB-20/28	14	J	390	1.6	pg/L	1			1668C	Total/NA
PCB-21/33	7.9	J	390	1.5	pg/L	1			1668C	Total/NA
PCB-31	8.3	J B	200	1.4	pg/L	1			1668C	Total/NA
PCB-32	6.2	J	200	1.1	pg/L	1			1668C	Total/NA
PCB-40/71	23	J B	390	0.61	pg/L	1			1668C	Total/NA
PCB-42	8.3	J	200	0.66	pg/L	1			1668C	Total/NA
PCB-44/47/65	170	J B	590	0.58	pg/L	1			1668C	Total/NA
PCB-46	3.3	J	200	0.72	pg/L	1			1668C	Total/NA
PCB-48	3.0	J	200	0.61	pg/L	1			1668C	Total/NA
PCB-49/69	56	J	390	0.51	pg/L	1			1668C	Total/NA
PCB-50/53	15	J	390	0.58	pg/L	1			1668C	Total/NA
PCB-51	25	J B	200	0.58	pg/L	1			1668C	Total/NA
PCB-52	170	J	200	0.62	pg/L	1			1668C	Total/NA
PCB-56	12	J	200	1.2	pg/L	1			1668C	Total/NA
PCB-59/62/75	2.6	J	590	0.45	pg/L	1			1668C	Total/NA
PCB-61/70/74/76	120	J B	790	1.1	pg/L	1			1668C	Total/NA
PCB-64	18	J	200	0.43	pg/L	1			1668C	Total/NA
PCB-66	49	J B	200	1.1	pg/L	1			1668C	Total/NA
PCB-68	6.3	J B	200	0.97	pg/L	1			1668C	Total/NA
PCB-77	3.7	J	20	1.2	pg/L	1			1668C	Total/NA
PCB-82	28	J	200	4.2	pg/L	1			1668C	Total/NA
PCB-84	76	J	200	3.9	pg/L	1			1668C	Total/NA
PCB-85/116/117	45	J	590	2.9	pg/L	1			1668C	Total/NA
PCB-86/87/97/108/119/125	190	J	1200	3.0	pg/L	1			1668C	Total/NA
PCB-88/91	38	J	390	3.3	pg/L	1			1668C	Total/NA
PCB-90/101/113	290	J B	590	3.1	pg/L	1			1668C	Total/NA
PCB-92	56	J	200	3.5	pg/L	1			1668C	Total/NA
PCB-107/124	10	J	390	2.7	pg/L	1			1668C	Total/NA
PCB-95	220	B	200	3.3	pg/L	1			1668C	Total/NA
PCB-96	1.8	J	200	0.33	pg/L	1			1668C	Total/NA
PCB-99	120	J	200	2.8	pg/L	1			1668C	Total/NA
PCB-105	110		20	3.0	pg/L	1			1668C	Total/NA
PCB-110/115	350	J B	390	2.7	pg/L	1			1668C	Total/NA
PCB-109	18	J	200	2.5	pg/L	1			1668C	Total/NA
PCB-118	280	B	20	2.8	pg/L	1			1668C	Total/NA
PCB-123	3.8	J	20	3.0	pg/L	1			1668C	Total/NA
PCB-128/166	57	J	390	1.5	pg/L	1			1668C	Total/NA
PCB-129/138/163	320	J B	590	1.6	pg/L	1			1668C	Total/NA
PCB-130	21	J	200	2.0	pg/L	1			1668C	Total/NA
PCB-131	4.3	J	200	1.8	pg/L	1			1668C	Total/NA
PCB-132	99	J	200	1.8	pg/L	1			1668C	Total/NA
PCB-134/143	16	J	390	1.9	pg/L	1			1668C	Total/NA
PCB-135/151	64	J	390	1.7	pg/L	1			1668C	Total/NA
PCB-136	30	J	200	1.2	pg/L	1			1668C	Total/NA
PCB-137	16	J	200	1.5	pg/L	1			1668C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Detection Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: TMW-19 (Continued)

Lab Sample ID: 680-149100-1

Analyte	Result	Qualifier	RL	EDL	Unit	Dil	Fac	D	Method	Prep Type
PCB-139/140	6.0	J	390	1.6	pg/L	1			1668C	Total/NA
PCB-141	44	J	200	1.8	pg/L	1			1668C	Total/NA
PCB-144	9.7	J	200	1.6	pg/L	1			1668C	Total/NA
PCB-146	31	J	200	1.5	pg/L	1			1668C	Total/NA
PCB-147/149	170	J B	390	1.6	pg/L	1			1668C	Total/NA
PCB-153/168	180	J B	390	1.4	pg/L	1			1668C	Total/NA
PCB-156/157	43		39	1.0	pg/L	1			1668C	Total/NA
PCB-158	34	J	200	1.2	pg/L	1			1668C	Total/NA
PCB-164	23	J	200	1.5	pg/L	1			1668C	Total/NA
PCB-167	12	J	20	0.60	pg/L	1			1668C	Total/NA
PCB-170	27	J B	200	0.40	pg/L	1			1668C	Total/NA
PCB-171/173	9.3	J	390	0.41	pg/L	1			1668C	Total/NA
PCB-172	4.1	J	200	0.40	pg/L	1			1668C	Total/NA
PCB-174	24	J B	200	0.44	pg/L	1			1668C	Total/NA
PCB-176	4.1	J	200	0.54	pg/L	1			1668C	Total/NA
PCB-177	13	J	200	0.41	pg/L	1			1668C	Total/NA
PCB-178	3.6	J	200	0.78	pg/L	1			1668C	Total/NA
PCB-179	8.4	J	200	0.57	pg/L	1			1668C	Total/NA
PCB-180/193	45	J B	390	0.33	pg/L	1			1668C	Total/NA
PCB-181	0.64	J	200	0.36	pg/L	1			1668C	Total/NA
PCB-183	12	J B	200	0.31	pg/L	1			1668C	Total/NA
PCB-185	1.7	J	200	0.38	pg/L	1			1668C	Total/NA
PCB-187	22	J B	200	0.70	pg/L	1			1668C	Total/NA
PCB-189	1.4	J	20	0.72	pg/L	1			1668C	Total/NA
PCB-190	5.4	J	200	0.29	pg/L	1			1668C	Total/NA
PCB-191	1.3	J	200	0.30	pg/L	1			1668C	Total/NA
PCB-194	6.3	J	200	0.71	pg/L	1			1668C	Total/NA
PCB-195	2.1	J	200	0.76	pg/L	1			1668C	Total/NA
PCB-196	3.4	J	200	0.52	pg/L	1			1668C	Total/NA
PCB-198/199	6.7	J	390	0.55	pg/L	1			1668C	Total/NA
PCB-201	0.85	J	200	0.40	pg/L	1			1668C	Total/NA
PCB-202	1.6	J	200	0.46	pg/L	1			1668C	Total/NA
PCB-203	4.5	J	200	0.52	pg/L	1			1668C	Total/NA
PCB-206	3.7	J	200	0.78	pg/L	1			1668C	Total/NA
PCB-208	1.4	J	200	0.71	pg/L	1			1668C	Total/NA
PCB-209	1.8	J	200	0.76	pg/L	1			1668C	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Polychlorinated biphenyls, Total	4000		200	20	pg/L	1			None	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: TMW-19

Lab Sample ID: 680-149100-1

Date Collected: 02/20/18 12:40

Matrix: Water

Date Received: 02/20/18 13:30

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	2.1	J q	200	1.0	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-2	1.3	J	200	0.76	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-3	1.8	J	200	0.77	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-4	13	U	200	13	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-5	4.4	U	200	4.4	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-6	4.6	U	200	4.6	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-7	4.4	U	200	4.4	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-8	4.5	U	200	4.5	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-9	4.6	U	200	4.6	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-10	9.2	U	200	9.2	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-11	4.4	U	200	4.4	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-12/13	4.4	U	390	4.4	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-14	3.9	U	200	3.9	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-15	4.5	U	200	4.5	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-16	2.0	U	200	2.0	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-17	4.7	J	200	1.5	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-18/30	6.1	J	390	1.3	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-19	1.6	U	200	1.6	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-20/28	14	J	390	1.6	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-21/33	7.9	J	390	1.5	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-22	1.6	U	200	1.6	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-23	1.5	U	200	1.5	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-24	1.2	U	200	1.2	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-25	1.5	U	200	1.5	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-26/29	1.5	U	390	1.5	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-27	1.1	U	200	1.1	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-31	8.3	J B	200	1.4	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-32	6.2	J	200	1.1	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-34	1.6	U	200	1.6	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-35	1.6	U	200	1.6	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-36	1.5	U	200	1.5	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-37	1.7	U	200	1.7	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-38	1.6	U	200	1.6	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-39	1.4	U	200	1.4	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-40/71	23	J B	390	0.61	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-41	0.71	U	200	0.71	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-42	8.3	J	200	0.66	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-43	0.73	U	200	0.73	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-44/47/65	170	J B	590	0.58	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-45	0.69	U	200	0.69	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-46	3.3	J	200	0.72	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-48	3.0	J	200	0.61	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-49/69	56	J	390	0.51	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-50/53	15	J	390	0.58	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-51	25	J B	200	0.58	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-52	170	J	200	0.62	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-54	0.55	U	200	0.55	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-55	1.1	U	200	1.1	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-56	12	J	200	1.2	pg/L		02/26/18 09:16	02/28/18 19:31	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: TMW-19

Lab Sample ID: 680-149100-1

Date Collected: 02/20/18 12:40

Matrix: Water

Date Received: 02/20/18 13:30

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	1.1	U	200	1.1	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-58	1.1	U	200	1.1	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-59/62/75	2.6	J	590	0.45	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-60	1.1	U	200	1.1	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-61/70/74/76	120	J B	790	1.1	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-63	0.98	U	200	0.98	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-64	18	J	200	0.43	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-66	49	J B	200	1.1	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-67	1.0	U	200	1.0	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-68	6.3	J B	200	0.97	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-72	1.0	U	200	1.0	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-73	0.46	U	200	0.46	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-77	3.7	J	20	1.2	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-78	1.1	U	200	1.1	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-79	0.99	U	200	0.99	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-80	0.96	U	200	0.96	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-81	1.2	U	20	1.2	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-82	28	J	200	4.2	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-83	4.6	U	200	4.6	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-84	76	J	200	3.9	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-85/116/117	45	J	590	2.9	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-86/87/97/108/119/125	190	J	1200	3.0	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-88/91	38	J	390	3.3	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-89	3.7	U	200	3.7	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-90/101/113	290	J B	590	3.1	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-92	56	J	200	3.5	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-93/100	3.3	U	390	3.3	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-107/124	10	J	390	2.7	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-94	3.5	U	200	3.5	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-95	220	B	200	3.3	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-96	1.8	J	200	0.33	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-98/102	3.2	U	390	3.2	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-99	120	J	200	2.8	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-103	3.1	U	200	3.1	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-104	0.27	U	200	0.27	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-105	110		20	3.0	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-106	2.8	U	200	2.8	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-110/115	350	J B	390	2.7	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-109	18	J	200	2.5	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-111	2.6	U	200	2.6	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-112	2.7	U	200	2.7	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-114	3.0	U	20	3.0	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-118	280	B	20	2.8	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-120	2.5	U	200	2.5	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-121	2.5	U	200	2.5	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-122	2.9	U	200	2.9	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-123	3.8	J	20	3.0	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-126	3.2	U	20	3.2	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-127	2.8	U	200	2.8	pg/L		02/26/18 09:16	02/28/18 19:31	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: TMW-19

Lab Sample ID: 680-149100-1

Date Collected: 02/20/18 12:40

Matrix: Water

Date Received: 02/20/18 13:30

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	57	J	390	1.5	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-129/138/163	320	J B	590	1.6	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-130	21	J	200	2.0	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-131	4.3	J	200	1.8	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-132	99	J	200	1.8	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-133	1.8	U	200	1.8	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-134/143	16	J	390	1.9	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-135/151	64	J	390	1.7	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-136	30	J	200	1.2	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-137	16	J	200	1.5	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-139/140	6.0	J	390	1.6	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-141	44	J	200	1.8	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-142	1.9	U	200	1.9	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-144	9.7	J	200	1.6	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-145	1.2	U	200	1.2	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-146	31	J	200	1.5	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-147/149	170	J B	390	1.6	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-148	1.6	U	200	1.6	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-150	1.1	U	200	1.1	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-152	1.2	U	200	1.2	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-153/168	180	J B	390	1.4	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-154	1.5	U	200	1.5	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-155	0.85	U	200	0.85	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-156/157	43		39	1.0	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-158	34	J	200	1.2	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-159	0.64	U	200	0.64	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-160	1.5	U	200	1.5	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-161	1.4	U	200	1.4	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-162	0.62	U	200	0.62	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-164	23	J	200	1.5	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-165	1.4	U	200	1.4	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-167	12	J	20	0.60	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-169	0.65	U	20	0.65	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-170	27	J B	200	0.40	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-171/173	9.3	J	390	0.41	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-172	4.1	J	200	0.40	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-174	24	J B	200	0.44	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-175	0.74	U	200	0.74	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-176	4.1	J	200	0.54	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-177	13	J	200	0.41	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-178	3.6	J	200	0.78	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-179	8.4	J	200	0.57	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-180/193	45	J B	390	0.33	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-181	0.64	J	200	0.36	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-182	0.70	U	200	0.70	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-183	12	J B	200	0.31	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-184	0.59	U	200	0.59	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-185	1.7	J	200	0.38	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-186	0.57	U	200	0.57	pg/L		02/26/18 09:16	02/28/18 19:31	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

Client Sample ID: TMW-19

Lab Sample ID: 680-149100-1

Date Collected: 02/20/18 12:40

Matrix: Water

Date Received: 02/20/18 13:30

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	22	J B	200	0.70	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-188	0.52	U	200	0.52	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-189	1.4	J	20	0.72	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-190	5.4	J	200	0.29	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-191	1.3	J	200	0.30	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-192	0.31	U	200	0.31	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-194	6.3	J	200	0.71	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-195	2.1	J	200	0.76	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-196	3.4	J	200	0.52	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-197	0.36	U	200	0.36	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-198/199	6.7	J	390	0.55	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-200	0.44	U	200	0.44	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-201	0.85	J	200	0.40	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-202	1.6	J	200	0.46	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-203	4.5	J	200	0.52	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-204	0.41	U	200	0.41	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-205	0.55	U	200	0.55	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-206	3.7	J	200	0.78	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-207	0.60	U	200	0.60	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-208	1.4	J	200	0.71	pg/L		02/26/18 09:16	02/28/18 19:31	1
PCB-209	1.8	J	200	0.76	pg/L		02/26/18 09:16	02/28/18 19:31	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	63		5 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-3L	75		5 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-4L	73		5 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-15L	83		5 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-19L	94		5 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-37L	79		5 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-54L	73		5 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-77L	86		10 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-81L	88		10 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-104L	90		10 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-105L	89		10 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-114L	86		10 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-118L	87		10 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-123L	86		10 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-126L	89		10 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-155L	91		10 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-156L/157L	84		10 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-167L	84		10 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-169L	83		10 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-188L	96		10 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-189L	87		10 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-202L	96		10 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-205L	98		10 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-206L	92		10 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-208L	94		10 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-209L	97		10 - 145	02/26/18 09:16	02/28/18 19:31	1

TestAmerica Savannah



## Client Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

**Client Sample ID: TMW-19**

**Lab Sample ID: 680-149100-1**

**Date Collected: 02/20/18 12:40**

**Matrix: Water**

**Date Received: 02/20/18 13:30**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	79		5 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-111L	85		10 - 145	02/26/18 09:16	02/28/18 19:31	1
PCB-178L	94		10 - 145	02/26/18 09:16	02/28/18 19:31	1

Method: None - Total PCB Calculation from HRMS PCB-Congeners									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	4000		200	20	pg/L			03/02/18 06:11	1



## Surrogate Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

### Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		PCB28L (5-145)	PCB111L (10-145)	PCB178L (10-145)
680-149100-1	TMW-19	79	85	94
MB 320-210032/1-A	Method Blank	81	93	92
<b>Surrogate Legend</b>				
PCB28L = PCB-28L				
PCB111L = PCB-111L				
PCB178L = PCB-178L				

### Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		PCB28L (15-145)	PCB111L (40-145)	PCB178L (40-145)
LCS 320-210032/2-A	Lab Control Sample	81	89	93
LCSD 320-210032/3-A	Lab Control Sample Dup	85	96	98
<b>Surrogate Legend</b>				
PCB28L = PCB-28L				
PCB111L = PCB-111L				
PCB178L = PCB-178L				



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB1L (5-145)	PCB3L (5-145)	PCB4L (5-145)	PCB15L (5-145)	PCB19L (5-145)	PCB37L (5-145)	PCB54L (5-145)	PCB77L (10-145)
680-149100-1	TMW-19	63	75	73	83	94	79	73	86
MB 320-210032/1-A	Method Blank	51	59	58	65	73	63	59	66
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB81L (10-145)	PCB104L (10-145)	PCB105L (10-145)	P114L (10-145)	PCB118L (10-145)	PCB123L (10-145)	PCB126L (10-145)	PCB155L (10-145)
680-149100-1	TMW-19	88	90	89	86	87	86	89	91
MB 320-210032/1-A	Method Blank	67	75	74	72	72	72	76	63
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB-156L/157L (10-145)	PCB167L (10-145)	PCB169L (10-145)	PCB188L (10-145)	PCB189L (10-145)	PCB202L (10-145)	PCB205L (10-145)	PCB206L (10-145)
680-149100-1	TMW-19	84	84	83	96	87	96	98	92
MB 320-210032/1-A	Method Blank	63	64	63	74	68	80	77	74
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB208L (10-145)	PCB209L (10-145)						
680-149100-1	TMW-19	94	97						
MB 320-210032/1-A	Method Blank	74	81						
Surrogate Legend									
PCB1L = PCB-1L									
PCB3L = PCB-3L									
PCB4L = PCB-4L									
PCB15L = PCB-15L									
PCB19L = PCB-19L									
PCB37L = PCB-37L									
PCB54L = PCB-54L									
PCB77L = PCB-77L									
PCB81L = PCB-81L									
PCB104L = PCB-104L									
PCB105L = PCB-105L									
P114L = PCB-114L									
PCB118L = PCB-118L									
PCB123L = PCB-123L									
PCB126L = PCB-126L									
PCB155L = PCB-155L									
PCB-156L/157L = PCB-156L/157L									
PCB167L = PCB-167L									
PCB169L = PCB-169L									
PCB188L = PCB-188L									
PCB189L = PCB-189L									
PCB202L = PCB-202L									
PCB205L = PCB-205L									
PCB206L = PCB-206L									
PCB208L = PCB-208L									
PCB209L = PCB-209L									

TestAmerica Savannah



# Isotope Dilution Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB1L (15-145)	PCB3L (15-145)	PCB4L (15-145)	PCB15L (15-145)	PCB19L (15-145)	PCB37L (15-145)	PCB54L (15-145)	PCB77L (40-145)
LCS 320-210032/2-A	Lab Control Sample	67	76	74	82	93	81	78	82
LCSD 320-210032/3-A	Lab Control Sample Dup	60	71	70	80	87	81	74	84
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB81L (40-145)	PCB104L (40-145)	PCB105L (40-145)	P114L (40-145)	PCB118L (40-145)	PCB123L (40-145)	PCB126L (40-145)	PCB155L (40-145)
LCS 320-210032/2-A	Lab Control Sample	84	94	91	89	89	89	94	81
LCSD 320-210032/3-A	Lab Control Sample Dup	84	94	92	90	91	90	94	82
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB-156L/157L (40-145)	PCB167L (40-145)	PCB169L (40-145)	PCB188L (40-145)	PCB189L (40-145)	PCB202L (40-145)	PCB205L (40-145)	PCB206L (40-145)
LCS 320-210032/2-A	Lab Control Sample	84	84	83	91	87	98	97	92
LCSD 320-210032/3-A	Lab Control Sample Dup	81	82	80	94	85	99	95	91
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB208L (40-145)	PCB209L (40-145)						
LCS 320-210032/2-A	Lab Control Sample	94	101						
LCSD 320-210032/3-A	Lab Control Sample Dup	91	99						
Surrogate Legend									
PCB1L = PCB-1L									
PCB3L = PCB-3L									
PCB4L = PCB-4L									
PCB15L = PCB-15L									
PCB19L = PCB-19L									
PCB37L = PCB-37L									
PCB54L = PCB-54L									
PCB77L = PCB-77L									
PCB81L = PCB-81L									
PCB104L = PCB-104L									
PCB105L = PCB-105L									
P114L = PCB-114L									
PCB118L = PCB-118L									
PCB123L = PCB-123L									
PCB126L = PCB-126L									
PCB155L = PCB-155L									
PCB-156L/157L = PCB-156L/157L									
PCB167L = PCB-167L									
PCB169L = PCB-169L									
PCB188L = PCB-188L									
PCB189L = PCB-189L									
PCB202L = PCB-202L									
PCB205L = PCB-205L									
PCB206L = PCB-206L									
PCB208L = PCB-208L									
PCB209L = PCB-209L									

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Lab Sample ID: MB 320-210032/1-A

Matrix: Water

Analysis Batch: 210475

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 210032

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.95	U	200	0.95	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-2	0.72	U	200	0.72	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-3	0.72	U	200	0.72	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-4	18	U	200	18	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-5	5.9	U	200	5.9	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-6	6.1	U	200	6.1	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-7	5.9	U	200	5.9	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-8	6.0	U	200	6.0	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-9	6.1	U	200	6.1	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-10	13	U	200	13	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-11	5.9	U	200	5.9	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-12/13	5.9	U	400	5.9	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-14	5.2	U	200	5.2	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-15	6.0	U	200	6.0	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-16	2.6	U	200	2.6	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-17	2.0	U	200	2.0	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-18/30	1.7	U	400	1.7	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-19	2.2	U	200	2.2	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-20/28	1.2	U	400	1.2	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-21/33	1.2	U	400	1.2	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-22	1.3	U	200	1.3	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-23	1.2	U	200	1.2	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-24	1.6	U	200	1.6	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-25	1.2	U	200	1.2	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-26/29	1.2	U	400	1.2	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-27	1.5	U	200	1.5	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-31	1.86	J	200	1.1	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-32	1.4	U	200	1.4	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-34	1.2	U	200	1.2	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-35	1.3	U	200	1.3	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-36	1.2	U	200	1.2	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-37	1.3	U	200	1.3	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-38	1.3	U	200	1.3	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-39	1.1	U	200	1.1	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-40/71	1.35	J	400	0.71	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-41	0.84	U	200	0.84	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-42	0.78	U	200	0.78	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-43	0.85	U	200	0.85	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-44/47/65	8.61	J	600	0.68	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-45	0.81	U	200	0.81	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-46	0.85	U	200	0.85	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-48	0.72	U	200	0.72	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-49/69	0.59	U	400	0.59	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-50/53	0.68	U	400	0.68	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-51	1.25	J	200	0.67	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-52	0.72	U	200	0.72	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-54	0.62	U	200	0.62	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-55	0.77	U	200	0.77	pg/L		02/26/18 09:16	02/28/18 12:01	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-210032/1-A

Matrix: Water

Analysis Batch: 210475

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 210032

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-56	0.80	U	200	0.80	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-57	0.77	U	200	0.77	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-58	0.75	U	200	0.75	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-59/62/75	0.53	U	600	0.53	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-60	0.77	U	200	0.77	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-61/70/74/76	3.09	J	800	0.75	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-63	0.69	U	200	0.69	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-64	0.50	U	200	0.50	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-66	1.36	J	200	0.79	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-67	0.72	U	200	0.72	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-68	1.04	J	200	0.68	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-72	0.72	U	200	0.72	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-73	0.54	U	200	0.54	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-77	0.87	U	20	0.87	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-78	0.78	U	200	0.78	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-79	0.69	U	200	0.69	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-80	0.67	U	200	0.67	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-81	0.84	U	20	0.84	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-82	1.3	U	200	1.3	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-83	1.4	U	200	1.4	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-84	1.2	U	200	1.2	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-85/116/117	0.89	U	600	0.89	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-86/87/97/108/119/125	0.93	U	1200	0.93	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-88/91	1.0	U	400	1.0	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-89	1.1	U	200	1.1	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-90/101/113	4.70	J	600	0.94	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-92	1.1	U	200	1.1	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-93/100	1.0	U	400	1.0	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-107/124	0.83	U	400	0.83	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-94	1.1	U	200	1.1	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-95	2.95	J	200	1.0	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-96	0.66	U	200	0.66	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-98/102	0.99	U	400	0.99	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-99	0.87	U	200	0.87	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-103	0.94	U	200	0.94	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-104	0.53	U	200	0.53	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-105	0.94	U	20	0.94	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-106	0.85	U	200	0.85	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-110/115	4.13	J	400	0.82	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-109	0.78	U	200	0.78	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-111	0.80	U	200	0.80	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-112	0.83	U	200	0.83	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-114	0.92	U	20	0.92	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-118	4.05	J	20	0.88	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-120	0.76	U	200	0.76	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-121	0.76	U	200	0.76	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-122	0.90	U	200	0.90	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-123	0.91	U	20	0.91	pg/L		02/26/18 09:16	02/28/18 12:01	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-210032/1-A

Matrix: Water

Analysis Batch: 210475

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 210032

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-126	0.98	U	20	0.98	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-127	0.85	U	200	0.85	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-128/166	1.1	U	400	1.1	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-129/138/163	5.63	J	600	1.1	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-130	1.4	U	200	1.4	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-131	1.3	U	200	1.3	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-132	1.3	U	200	1.3	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-133	1.3	U	200	1.3	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-134/143	1.3	U	400	1.3	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-135/151	1.2	U	400	1.2	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-136	0.89	U	200	0.89	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-137	1.1	U	200	1.1	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-139/140	1.2	U	400	1.2	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-141	1.3	U	200	1.3	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-142	1.4	U	200	1.4	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-144	1.2	U	200	1.2	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-145	0.87	U	200	0.87	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-146	1.1	U	200	1.1	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-147/149	3.93	J	400	1.2	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-148	1.2	U	200	1.2	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-150	0.81	U	200	0.81	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-152	0.84	U	200	0.84	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-153/168	5.13	J	400	0.98	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-154	1.0	U	200	1.0	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-155	0.68	U	200	0.68	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-156/157	1.5	U	40	1.5	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-158	0.89	U	200	0.89	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-159	0.97	U	200	0.97	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-160	1.1	U	200	1.1	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-161	1.0	U	200	1.0	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-162	0.93	U	200	0.93	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-164	1.0	U	200	1.0	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-165	1.0	U	200	1.0	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-167	0.87	U	20	0.87	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-169	0.93	U	20	0.93	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-170	1.29	J	200	0.55	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-171/173	0.56	U	400	0.56	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-172	0.54	U	200	0.54	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-174	1.32	J	200	0.59	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-175	1.0	U	200	1.0	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-176	0.73	U	200	0.73	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-177	0.55	U	200	0.55	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-178	1.1	U	200	1.1	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-179	0.77	U	200	0.77	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-180/193	2.17	J	400	0.45	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-181	0.49	U	200	0.49	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-182	0.95	U	200	0.95	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-183	1.43	J	200	0.42	pg/L		02/26/18 09:16	02/28/18 12:01	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-210032/1-A

Matrix: Water

Analysis Batch: 210475

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 210032

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-184	0.81	U	200	0.81	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-185	0.52	U	200	0.52	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-186	0.77	U	200	0.77	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-187	1.55	J	200	0.96	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-188	0.72	U	200	0.72	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-189	1.0	U	20	1.0	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-190	0.40	U	200	0.40	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-191	0.40	U	200	0.40	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-192	0.42	U	200	0.42	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-194	0.99	U	200	0.99	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-195	1.0	U	200	1.0	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-196	1.4	U	200	1.4	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-197	0.98	U	200	0.98	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-198/199	1.5	U	400	1.5	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-200	1.2	U	200	1.2	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-201	1.1	U	200	1.1	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-202	1.2	U	200	1.2	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-203	1.4	U	200	1.4	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-204	1.1	U	200	1.1	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-205	0.79	U	200	0.79	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-206	1.2	U	200	1.2	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-207	0.94	U	200	0.94	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-208	1.1	U	200	1.1	pg/L		02/26/18 09:16	02/28/18 12:01	1
PCB-209	1.2	U	200	1.2	pg/L		02/26/18 09:16	02/28/18 12:01	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	51		5 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-3L	59		5 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-4L	58		5 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-15L	65		5 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-19L	73		5 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-37L	63		5 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-54L	59		5 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-77L	66		10 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-81L	67		10 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-104L	75		10 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-105L	74		10 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-114L	72		10 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-118L	72		10 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-123L	72		10 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-126L	76		10 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-155L	63		10 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-156L/157L	63		10 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-167L	64		10 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-169L	63		10 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-188L	74		10 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-189L	68		10 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-202L	80		10 - 145	02/26/18 09:16	02/28/18 12:01	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-210032/1-A

Matrix: Water

Analysis Batch: 210475

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 210032

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-205L	77		10 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-206L	74		10 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-208L	74		10 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-209L	81		10 - 145	02/26/18 09:16	02/28/18 12:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	81		5 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-111L	93		10 - 145	02/26/18 09:16	02/28/18 12:01	1
PCB-178L	92		10 - 145	02/26/18 09:16	02/28/18 12:01	1

Lab Sample ID: LCS 320-210032/2-A

Matrix: Water

Analysis Batch: 210475

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 210032

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	2000	1960		pg/L		98	60 - 135
PCB-3	2000	2010		pg/L		101	60 - 135
PCB-4	2000	2060		pg/L		103	60 - 135
PCB-15	2000	1940		pg/L		97	60 - 135
PCB-19	2000	1940		pg/L		97	60 - 135
PCB-37	2000	1880		pg/L		94	60 - 135
PCB-54	2000	2030		pg/L		101	60 - 135
PCB-77	2000	2040		pg/L		102	60 - 135
PCB-81	2000	2000		pg/L		100	60 - 135
PCB-104	2000	1990		pg/L		100	60 - 135
PCB-105	2000	2150		pg/L		108	60 - 135
PCB-114	2000	2130		pg/L		107	60 - 135
PCB-118	2000	2190		pg/L		110	60 - 135
PCB-123	2000	2140		pg/L		107	60 - 135
PCB-126	2000	2140		pg/L		107	60 - 135
PCB-155	2000	2000		pg/L		100	60 - 135
PCB-156/157	4000	3890		pg/L		97	60 - 135
PCB-167	2000	1920		pg/L		96	60 - 135
PCB-169	2000	1970		pg/L		98	60 - 135
PCB-188	2000	1960		pg/L		98	60 - 135
PCB-189	2000	1770		pg/L		89	60 - 135
PCB-202	2000	1910		pg/L		95	60 - 135
PCB-205	2000	1830		pg/L		91	60 - 135
PCB-206	2000	1980		pg/L		99	60 - 135
PCB-208	2000	2030		pg/L		102	60 - 135
PCB-209	2000	1960		pg/L		98	60 - 135

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-1L	67		15 - 145
PCB-3L	76		15 - 145
PCB-4L	74		15 - 145
PCB-15L	82		15 - 145
PCB-19L	93		15 - 145

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Hercules Savannah / Savannah Resins Plan

TestAmerica Job ID: 680-149100-1

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-210032/2-A

Matrix: Water

Analysis Batch: 210475

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 210032

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
PCB-37L	81		15 - 145
PCB-54L	78		15 - 145
PCB-77L	82		40 - 145
PCB-81L	84		40 - 145
PCB-104L	94		40 - 145
PCB-105L	91		40 - 145
PCB-114L	89		40 - 145
PCB-118L	89		40 - 145
PCB-123L	89		40 - 145
PCB-126L	94		40 - 145
PCB-155L	81		40 - 145
PCB-156L/157L	84		40 - 145
PCB-167L	84		40 - 145
PCB-169L	83		40 - 145
PCB-188L	91		40 - 145
PCB-189L	87		40 - 145
PCB-202L	98		40 - 145
PCB-205L	97		40 - 145
PCB-206L	92		40 - 145
PCB-208L	94		40 - 145
PCB-209L	101		40 - 145

Surrogate	LCS		Limits
	%Recovery	Qualifier	
PCB-28L	81		15 - 145
PCB-111L	89		40 - 145
PCB-178L	93		40 - 145

Lab Sample ID: LCSD 320-210032/3-A

Matrix: Water

Analysis Batch: 210475

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 210032

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
							Limits		RPD	Limit
PCB-1	2000	2060		pg/L		103	60 - 135		5	50
PCB-3	2000	2100		pg/L		105	60 - 135		4	50
PCB-4	2000	2130		pg/L		107	60 - 135		3	50
PCB-15	2000	1960		pg/L		98	60 - 135		1	50
PCB-19	2000	2060		pg/L		103	60 - 135		6	50
PCB-37	2000	1860		pg/L		93	60 - 135		1	50
PCB-54	2000	2080		pg/L		104	60 - 135		2	50
PCB-77	2000	1990		pg/L		99	60 - 135		3	50
PCB-81	2000	2000		pg/L		100	60 - 135		0	50
PCB-104	2000	2020		pg/L		101	60 - 135		1	50
PCB-105	2000	2130		pg/L		106	60 - 135		1	50
PCB-114	2000	2120		pg/L		106	60 - 135		0	50
PCB-118	2000	2170		pg/L		109	60 - 135		1	50
PCB-123	2000	2140		pg/L		107	60 - 135		0	50
PCB-126	2000	2140		pg/L		107	60 - 135		0	50
PCB-155	2000	1970		pg/L		98	60 - 135		2	50

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

## Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 320-210032/3-A

Matrix: Water

Analysis Batch: 210475

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 210032

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-156/157	4000	3900		pg/L		97	60 - 135	0	50
PCB-167	2000	1940		pg/L		97	60 - 135	1	50
PCB-169	2000	1950		pg/L		98	60 - 135	1	50
PCB-188	2000	1920		pg/L		96	60 - 135	2	50
PCB-189	2000	1760		pg/L		88	60 - 135	0	50
PCB-202	2000	1900		pg/L		95	60 - 135	0	50
PCB-205	2000	1800		pg/L		90	60 - 135	1	50
PCB-206	2000	1980		pg/L		99	60 - 135	0	50
PCB-208	2000	2050		pg/L		102	60 - 135	1	50
PCB-209	2000	1950		pg/L		97	60 - 135	1	50

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
PCB-1L	60		15 - 145
PCB-3L	71		15 - 145
PCB-4L	70		15 - 145
PCB-15L	80		15 - 145
PCB-19L	87		15 - 145
PCB-37L	81		15 - 145
PCB-54L	74		15 - 145
PCB-77L	84		40 - 145
PCB-81L	84		40 - 145
PCB-104L	94		40 - 145
PCB-105L	92		40 - 145
PCB-114L	90		40 - 145
PCB-118L	91		40 - 145
PCB-123L	90		40 - 145
PCB-126L	94		40 - 145
PCB-155L	82		40 - 145
PCB-156L/157L	81		40 - 145
PCB-167L	82		40 - 145
PCB-169L	80		40 - 145
PCB-188L	94		40 - 145
PCB-189L	85		40 - 145
PCB-202L	99		40 - 145
PCB-205L	95		40 - 145
PCB-206L	91		40 - 145
PCB-208L	91		40 - 145
PCB-209L	99		40 - 145

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
PCB-28L	85		15 - 145
PCB-111L	96		40 - 145
PCB-178L	98		40 - 145

TestAmerica Savannah



## QC Association Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

### Specialty Organics

#### Prep Batch: 210032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-149100-1	TMW-19	Total/NA	Water	HRMS-Sep	
MB 320-210032/1-A	Method Blank	Total/NA	Water	HRMS-Sep	
LCS 320-210032/2-A	Lab Control Sample	Total/NA	Water	HRMS-Sep	
LCSD 320-210032/3-A	Lab Control Sample Dup	Total/NA	Water	HRMS-Sep	

#### Analysis Batch: 210475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-149100-1	TMW-19	Total/NA	Water	1668C	210032
MB 320-210032/1-A	Method Blank	Total/NA	Water	1668C	210032
LCS 320-210032/2-A	Lab Control Sample	Total/NA	Water	1668C	210032
LCSD 320-210032/3-A	Lab Control Sample Dup	Total/NA	Water	1668C	210032

#### Analysis Batch: 210847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-149100-1	TMW-19	Total/NA	Water	None	



## Lab Chronicle

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

**Client Sample ID: TMW-19**

**Lab Sample ID: 680-149100-1**

**Date Collected: 02/20/18 12:40**

**Matrix: Water**

**Date Received: 02/20/18 13:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sep			1017.2 mL	20.00 uL	210032	02/26/18 09:16	A1A	TAL SAC
Total/NA	Analysis	1668C		1			210475	02/28/18 19:31	KSS	TAL SAC
Total/NA	Analysis	None		1			210847	03/02/18 06:11	SHK	TAL SAC

### Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



**TestAmerica Savannah**  
5102 LaRoche Avenue  
Savannah, GA 31404  
Phone (912) 354-7858 Fax (912) 352-0165

## Chain of Custody Record

**TestAmerica**  
THE LEADER IN ENVIRONMENTAL TESTING



<b>Client Information (Sub Contract Lab)</b>		Sampler: <b>Lanier, Jerry A</b>		Carrier Tracking No(s): <b>680-508952-1</b>		COC No: <b>680-508952-1</b>	
Client Contact: <b>Shipping/Receiving</b>		Phone: <b>916-373-5600(Tel) 916-372-1059(Fax)</b>		State of Origin: <b>Georgia</b>		Page: <b>Page 1 of 1</b>	
Company: <b>TestAmerica Laboratories, Inc.</b>		Address: <b>880 Riverside Parkway, West Sacramento, CA, 95605</b>		Accreditations Required (See note): <b>Slate Program - Georgia</b>		Job #: <b>680-149100-1</b>	
Due Date Requested: <b>2/26/2018</b>		TAT Requested (days): <b>2</b>		Analysis Requested		Preservation Codes:	
City: <b>West Sacramento</b>		PO #: <b>68001205</b>		1668C/HRMS_Sep_P Full List (209 Comb/Coil)		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:	
State: <b>CA</b>		WO #: <b>68001205</b>		Field Filtered Sample (Yes or No)		M - Hexane N - None O - Ashtao2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Phone: <b>916-373-5600(Tel) 916-372-1059(Fax)</b>		Project #: <b>68001205</b>		Perform MS/MSD (Yes or No)		Total Number of Containers	
Email: <b>SSOW#:</b>		Sample Date: <b>2/20/18</b>		Sample Time: <b>12:40 Eastern</b>		Total PCB, Cong	
Project Name: <b>Hercules Savannah / Savannah Resins Plan</b>		Sample Type: <b>(C=comp, G=grab) BT-Tissue, Air/L</b>		Matrix: <b>(W=water, S=solid, G=gas/volat)</b>		Special Instructions/Note:	
Site: <b>TMW-19 (680-149100-1)</b>		Sample Date: <b>2/20/18</b>		Sample Time: <b>12:40 Eastern</b>		2	
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Special Instructions/Note:	
TMW-19 (680-149100-1)		2/20/18		12:40 Eastern		2	
<p>Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte &amp; accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.</p>							
<p><b>Possible Hazard Identification</b></p> <p>Unconfirmed</p> <p>Deliverable Requested: I, II, III, IV, Other (specify) <b>Primary Deliverable Rank: 2</b></p> <p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</p> <p><input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <b>Months</b></p>							
Empty Kit Relinquished by: <b>[Signature]</b>		Date: <b>2-20-18</b>		Time: <b>1800</b>		Company: <b>TASAV</b>	
Relinquished by: <b>[Signature]</b>		Date/Time: <b>2-20-18 1800</b>		Relinquished by: <b>[Signature]</b>		Date/Time: <b>2/21/18 905</b>	
Relinquished by: <b>[Signature]</b>		Date/Time: <b>2-20-18 1800</b>		Relinquished by: <b>[Signature]</b>		Date/Time: <b>2/21/18 905</b>	
Relinquished by: <b>[Signature]</b>		Date/Time: <b>2-20-18 1800</b>		Relinquished by: <b>[Signature]</b>		Date/Time: <b>2/21/18 905</b>	
Custody Seals Intact: <b>Yes</b>		Custody Seal No.: <b>415635</b>		Cooler Temperature(s) °C and Other Remarks: <b>1.4°C</b>		Company: <b>TASAV</b>	



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-149100-1

**Login Number: 149100**

**List Source: TestAmerica Savannah**

**List Number: 1**

**Creator: Tsui, Lee W**

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.	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	



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-149100-1

**Login Number: 149100**

**List Source: TestAmerica Sacramento**

**List Number: 2**

**List Creation: 02/21/18 05:47 PM**

**Creator: Her, David A**

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	915635
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.	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?	False	Received project as a subcontract.
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	



# Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

## 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	AZ0808	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	12-31-18
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



## Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-149100-1

Project/Site: Hercules Savannah / Savannah Resins Plan

### Laboratory: TestAmerica Sacramento

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
Alaska (UST)	State Program	10	17-020	01-20-21
Arizona	State Program	9	AZ0708	08-11-18
Arkansas DEQ	State Program	6	88-0691	06-17-18
California	State Program	9	2897	01-31-19
Colorado	State Program	8	CA00044	08-31-18
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-18
Georgia	State Program	4	N/A	01-28-19
Hawaii	State Program	9	N/A	01-29-19
Illinois	NELAP	5	200060	03-17-18
Kansas	NELAP	7	E-10375	10-31-18
L-A-B	DoD ELAP		L2468	01-20-21
Louisiana	NELAP	6	30612	06-30-18
Maine	State Program	1	CA0004	04-14-18
Michigan	State Program	5	9947	01-31-18 *
Nevada	State Program	9	CA00044	07-31-18
New Hampshire	NELAP	1	2997	04-18-18
New Jersey	NELAP	2	CA005	06-30-18
New York	NELAP	2	11666	04-01-18
Oregon	NELAP	10	4040	01-29-19
Pennsylvania	NELAP	3	68-01272	03-31-18
Texas	NELAP	6	T104704399	05-31-18
US Fish & Wildlife	Federal		LE148388-0	07-31-18
USDA	Federal		P330-11-00436	01-17-21
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-18 *
Virginia	NELAP	3	460278	03-14-18
Washington	State Program	10	C581	05-05-18
West Virginia (DW)	State Program	3	9930C	12-31-18
Wyoming	State Program	8	8TMS-L	01-28-19

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Savannah



## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Tel: (912)354-7858

TestAmerica Job ID: 680-152731-1

Client Project/Site: Ashland Savannah (Resins Plant)

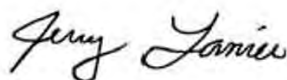
For:

ARCADIS U.S., Inc.

10 Patewood Drive, Suite 375

Greenville, South Carolina 29615

Attn: Andy Davis



Authorized for release by:

5/31/2018 4:55:42 PM

Jerry Lanier, Project Manager I

(912)354-7858 e.3410

[jerry.lanier@testamericainc.com](mailto:jerry.lanier@testamericainc.com)

### LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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# Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

**Job ID: 680-152731-1**

**Laboratory: TestAmerica Savannah**

## Narrative

### CASE NARRATIVE

**Client: ARCADIS U.S., Inc.**

**Project: Ashland Savannah (Resins Plant)**

**Report Number: 680-152731-1**

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 05/18/2018; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.3 C.

#### TCLP VOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample SOIL-01 (051818) (680-152731-1) was analyzed for TCLP volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 1311/8260B. The samples were leached on 05/25/2018 and analyzed on 05/31/2018.

Sample SOIL-01 (051818) (680-152731-1)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### TCLP SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample SOIL-01 (051818) (680-152731-1) was analyzed for TCLP semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 1311 / 8270D. The samples were leached on 05/22/2018, prepared on 05/23/2018 and analyzed on 05/26/2018.

2-Fluorobiphenyl surrogate in the method blank for preparation batch 680-525014 and analytical batch 680-525545 recovered outside control limits. The associated sample with this method blank has passing surrogates and is non-detect for target analytes. Therefore the data has been reported. (MB 680-525014/16-A)

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### SEMIVOLATILE ORGANIC COMPOUNDS (AQUEOUS)

Sample TMW-22 (051818) (680-152731-2) was analyzed for Semivolatile Organic Compounds (Aqueous) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 05/22/2018 and analyzed on 05/24/2018.

The following sample was diluted due to abundance of target analytes: TMW-22 (051818) (680-152731-2). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Sample TMW-22 (051818) (680-152731-2)[10X] 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.

#### PESTICIDES AND PCBS

Sample SOIL-01 (051818) (680-152731-1) was analyzed for Pesticides and PCBs in accordance with EPA SW-846 Method 8081B\_8082A. The samples were prepared on 05/22/2018 and analyzed on 05/23/2018.



# Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

## Job ID: 680-152731-1 (Continued)

### Laboratory: TestAmerica Savannah (Continued)

This method incorporates 2nd column confirmation. Corrective action is not taken for surrogate/spike compounds unless results from both columns are unacceptable. Results outside criteria are qualified.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### METALS (ICP) - TCLP

Sample SOIL-01 (051818) (680-152731-1) was analyzed for Metals (ICP) - TCLP in accordance with EPA SW-846 Methods 1311/6010C. The samples were leached on 05/22/2018, prepared on 05/29/2018 and analyzed on 05/30/2018.

Silver failed the recovery criteria low for the MS of sample SOIL-01 (051818)MS (680-152731-1) in batch 680-525852. Arsenic failed the recovery criteria high.

For the MSD of sample SOIL-01 (051818)MSD (680-152731-1) in batch 680-525852, Silver failed the recovery criteria low. Arsenic and Selenium failed the recovery criteria high. Also, Arsenic, Selenium and Silver 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.

#### MERCURY - TCLP

Sample SOIL-01 (051818) (680-152731-1) was analyzed for mercury - TCLP in accordance with EPA SW-846 Methods 1311/7470A. The samples were leached on 05/22/2018, prepared on 05/23/2018 and analyzed on 05/25/2018.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### IGNITABILITY FOR SOLIDS

Sample SOIL-01 (051818) (680-152731-1) was analyzed for ignitability for solids in accordance with EPA SW-846 Method 1030. The samples were analyzed on 05/29/2018.

The following sample did not ignite: SOIL-01 (051818) (680-152731-1); therefore, an ignitability value could not be obtained. The result has been reported as "No Burn" (NB).

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### TOTAL CYANIDE

Sample SOIL-01 (051818) (680-152731-1) was analyzed for total cyanide in accordance with EPA SW-846 Method 9012B. The samples were prepared and analyzed on 05/24/2018.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### TOTAL SULFIDE

Sample SOIL-01 (051818) (680-152731-1) was analyzed for total sulfide in accordance with EPA SW-846 Method 9034. The samples were prepared and analyzed on 05/21/2018.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### CORROSIVITY (PH)

Sample SOIL-01 (051818) (680-152731-1) was analyzed for corrosivity (pH) in accordance with EPA SW-846 Method 9045D. The samples were analyzed on 05/22/2018.

This analysis is considered a field test and is to be performed within 15 minutes of collection. This sample(s) was performed in the laboratory outside the 15 minute timeframe.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



## Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

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### Job ID: 680-152731-1 (Continued)

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#### Laboratory: TestAmerica Savannah (Continued)

##### PERCENT SOLIDS/MOISTURE

Sample SOIL-01 (051818) (680-152731-1) was analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 05/22/2018.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



## Sample Summary

Client: ARCADIS U.S., Inc.

Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-152731-1	SOIL-01 (051818)	Solid	05/18/18 14:40	05/18/18 16:30
680-152731-2	TMW-22 (051818)	Water	05/18/18 15:50	05/18/18 16:30



## Method Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
8081B/8082A	Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography	SW846	TAL SAV
6010C	Metals (ICP)	SW846	TAL SAV
7470A	Mercury (CVAA)	SW846	TAL SAV
1030	Ignitability, Solids	SW846	TAL SAV
9012B	Cyanide, Total and/or Amenable	SW846	TAL SAV
9034	Sulfide, Acid Soluble and Insoluble (Titrimetric)	SW846	TAL SAV
9045D	pH	SW846	TAL SAV
Moisture	Percent Moisture	EPA	TAL SAV
1311	TCLP Extraction	SW846	TAL SAV
3010A	Preparation, Total Metals	SW846	TAL SAV
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL SAV
3546	Microwave Extraction	SW846	TAL SAV
5030B	Purge and Trap	SW846	TAL SAV
7470A	Preparation, Mercury	SW846	TAL SAV
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL SAV
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	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



## Definitions/Glossary

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

### 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.
X	Surrogate is outside control limits

#### Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

#### General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

### 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)



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

**Client Sample ID: SOIL-01 (051818)**

**Lab Sample ID: 680-152731-1**

**Date Collected: 05/18/18 14:40**

**Matrix: Solid**

**Date Received: 05/18/18 16:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.020		0.020		mg/L			05/31/18 01:33	20
2-Butanone (MEK)	<0.20		0.20		mg/L			05/31/18 01:33	20
Carbon tetrachloride	<0.020		0.020		mg/L			05/31/18 01:33	20
Chlorobenzene	<0.020		0.020		mg/L			05/31/18 01:33	20
Chloroform	<0.020		0.020		mg/L			05/31/18 01:33	20
1,4-Dichlorobenzene	<0.020		0.020		mg/L			05/31/18 01:33	20
1,2-Dichloroethane	<0.020		0.020		mg/L			05/31/18 01:33	20
1,1-Dichloroethene	<0.020		0.020		mg/L			05/31/18 01:33	20
Tetrachloroethene	<0.020		0.020		mg/L			05/31/18 01:33	20
Trichloroethene	<0.020		0.020		mg/L			05/31/18 01:33	20
Vinyl chloride	<0.020		0.020		mg/L			05/31/18 01:33	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120		05/31/18 01:33	20
Dibromofluoromethane (Surr)	103		80 - 122		05/31/18 01:33	20
1,2-Dichloroethane-d4 (Surr)	106		73 - 131		05/31/18 01:33	20
Toluene-d8 (Surr)	98		80 - 120		05/31/18 01:33	20

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	<0.049		0.049		mg/L		05/23/18 15:46	05/26/18 14:55	1
Hexachlorobenzene	<0.049		0.049		mg/L		05/23/18 15:46	05/26/18 14:55	1
Hexachlorobutadiene	<0.049		0.049		mg/L		05/23/18 15:46	05/26/18 14:55	1
Hexachloroethane	<0.049		0.049		mg/L		05/23/18 15:46	05/26/18 14:55	1
2-Methylphenol	<0.049		0.049		mg/L		05/23/18 15:46	05/26/18 14:55	1
3 & 4 Methylphenol	<0.049		0.049		mg/L		05/23/18 15:46	05/26/18 14:55	1
Nitrobenzene	<0.049		0.049		mg/L		05/23/18 15:46	05/26/18 14:55	1
Pentachlorophenol	<0.25		0.25		mg/L		05/23/18 15:46	05/26/18 14:55	1
Pyridine	<0.25		0.25		mg/L		05/23/18 15:46	05/26/18 14:55	1
2,4,5-Trichlorophenol	<0.049		0.049		mg/L		05/23/18 15:46	05/26/18 14:55	1
2,4,6-Trichlorophenol	<0.049		0.049		mg/L		05/23/18 15:46	05/26/18 14:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	70		38 - 130	05/23/18 15:46	05/26/18 14:55	1
2-Fluorophenol (Surr)	66		25 - 130	05/23/18 15:46	05/26/18 14:55	1
Nitrobenzene-d5 (Surr)	71		39 - 130	05/23/18 15:46	05/26/18 14:55	1
Phenol-d5 (Surr)	71		25 - 130	05/23/18 15:46	05/26/18 14:55	1
Terphenyl-d14 (Surr)	86		10 - 143	05/23/18 15:46	05/26/18 14:55	1
2,4,6-Tribromophenol (Surr)	88		31 - 141	05/23/18 15:46	05/26/18 14:55	1

## Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.20	F1 F2	0.20		mg/L		05/29/18 09:57	05/30/18 09:23	1
Barium	<1.0		1.0		mg/L		05/29/18 09:57	05/30/18 09:23	1
Cadmium	<0.10		0.10		mg/L		05/29/18 09:57	05/30/18 09:23	1
Chromium	<0.20		0.20		mg/L		05/29/18 09:57	05/30/18 09:23	1
Lead	0.20		0.20		mg/L		05/29/18 09:57	05/30/18 09:23	1
Selenium	<0.50	F1 F2	0.50		mg/L		05/29/18 09:57	05/30/18 09:23	1
Silver	<0.10	F1 F2	0.10		mg/L		05/29/18 09:57	05/30/18 09:23	1

TestAmerica Savannah



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

**Client Sample ID: SOIL-01 (051818)**

**Lab Sample ID: 680-152731-1**

**Date Collected: 05/18/18 14:40**

**Matrix: Solid**

**Date Received: 05/18/18 16:30**

## Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.020		0.020		mg/L		05/23/18 15:54	05/25/18 16:13	1

## General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Ignitability	NB				mm/sec			05/29/18 13:16	1
pH	8.1	HF			SU			05/22/18 10:41	1

**Client Sample ID: SOIL-01 (051818)**

**Lab Sample ID: 680-152731-1**

**Date Collected: 05/18/18 14:40**

**Matrix: Solid**

**Date Received: 05/18/18 16:30**

**Percent Solids: 88.5**

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<36		36		ug/Kg	☼	05/22/18 14:25	05/23/18 21:44	1
PCB-1221	<36		36		ug/Kg	☼	05/22/18 14:25	05/23/18 21:44	1
PCB-1232	<36		36		ug/Kg	☼	05/22/18 14:25	05/23/18 21:44	1
PCB-1242	<36		36		ug/Kg	☼	05/22/18 14:25	05/23/18 21:44	1
PCB-1248	<36		36		ug/Kg	☼	05/22/18 14:25	05/23/18 21:44	1
PCB-1254	780		36		ug/Kg	☼	05/22/18 14:25	05/23/18 21:44	1
PCB-1260	250		36		ug/Kg	☼	05/22/18 14:25	05/23/18 21:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	91		54 - 133	05/22/18 14:25	05/23/18 21:44	1
Tetrachloro-m-xylene	98		46 - 130	05/22/18 14:25	05/23/18 21:44	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.55		0.55		mg/Kg	☼	05/24/18 04:00	05/24/18 10:54	1
Sulfide	<67		67		mg/Kg	☼	05/21/18 03:30	05/21/18 04:53	1

**Client Sample ID: TMW-22 (051818)**

**Lab Sample ID: 680-152731-2**

**Date Collected: 05/18/18 15:50**

**Matrix: Water**

**Date Received: 05/18/18 16:30**

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	840		100		ug/L		05/22/18 14:47	05/24/18 15:23	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	0	D	32 - 118	05/22/18 14:47	05/24/18 15:23	10
2-Fluorobiphenyl (Surr)	0	D	32 - 113	05/22/18 14:47	05/24/18 15:23	10
Terphenyl-d14 (Surr)	0	D	10 - 126	05/22/18 14:47	05/24/18 15:23	10
Phenol-d5 (Surr)	0	D	27 - 110	05/22/18 14:47	05/24/18 15:23	10
2-Fluorophenol (Surr)	0	D	26 - 109	05/22/18 14:47	05/24/18 15:23	10
2,4,6-Tribromophenol (Surr)	0	D	39 - 124	05/22/18 14:47	05/24/18 15:23	10

TestAmerica Savannah



# Surrogate Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (80-120)	DBFM (80-122)	DCA (73-131)	TOL (80-120)
LCS 680-525871/3	Lab Control Sample	101	104	102	99
LCSD 680-525871/4	Lab Control Sample Dup	101	104	99	100
<b>Surrogate Legend</b>					
BFB = 4-Bromofluorobenzene (Surr)					
DBFM = Dibromofluoromethane (Surr)					
DCA = 1,2-Dichloroethane-d4 (Surr)					
TOL = Toluene-d8 (Surr)					

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (80-120)	DBFM (80-122)	DCA (73-131)	TOL (80-120)
680-152731-1	SOIL-01 (051818)	98	103	106	98
LB 680-525462/1-A	Method Blank	99	104	108	99
<b>Surrogate Legend</b>					
BFB = 4-Bromofluorobenzene (Surr)					
DBFM = Dibromofluoromethane (Surr)					
DCA = 1,2-Dichloroethane-d4 (Surr)					
TOL = Toluene-d8 (Surr)					

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (38-130)	2FP (25-130)	NBZ (39-130)	PHL (25-130)	TPHL (10-143)	TBP (31-141)
LCS 680-525014/19-A	Lab Control Sample	71	59	75	66	100	94
MB 680-525014/16-A	Method Blank	37 X	55	60	58	87	77
<b>Surrogate Legend</b>							
FBP = 2-Fluorobiphenyl (Surr)							
2FP = 2-Fluorophenol (Surr)							
NBZ = Nitrobenzene-d5 (Surr)							
PHL = Phenol-d5 (Surr)							
TPHL = Terphenyl-d14 (Surr)							
TBP = 2,4,6-Tribromophenol (Surr)							

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (38-130)	2FP (25-130)	NBZ (39-130)	PHL (25-130)	TPHL (10-143)	TBP (31-141)
680-152731-1	SOIL-01 (051818)	70	66	71	71	86	88
680-152731-1 MS	SOIL-01 (051818)	68	57	67	68	91	92
680-152731-1 MSD	SOIL-01 (051818)	72	66	72	76	103	97

TestAmerica Savannah



## Surrogate Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

### Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (38-130)	2FP (25-130)	NBZ (39-130)	PHL (25-130)	TPHL (10-143)	TBP (31-141)
LB 680-524851/1-B	Method Blank	75	71	81	74	100	94

#### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
2FP = 2-Fluorophenol (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
PHL = Phenol-d5 (Surr)  
TPHL = Terphenyl-d14 (Surr)  
TBP = 2,4,6-Tribromophenol (Surr)

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (32-118)	FBP (32-113)	TPHL (10-126)	PHL (27-110)	2FP (26-109)	TBP (39-124)
680-152731-2	TMW-22 (051818)	0 D	0 D	0 D	0 D	0 D	0 D
LCS 680-524894/6-A	Lab Control Sample	72	66	86	69	62	90
MB 680-524894/5-A	Method Blank	82	72	89	76	72	89

#### Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)  
FBP = 2-Fluorobiphenyl (Surr)  
TPHL = Terphenyl-d14 (Surr)  
PHL = Phenol-d5 (Surr)  
2FP = 2-Fluorophenol (Surr)  
TBP = 2,4,6-Tribromophenol (Surr)

### Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCBP2 (54-133)	TCX2 (46-130)
680-152731-1	SOIL-01 (051818)	91	98
680-152731-1 MS	SOIL-01 (051818)	97	91
680-152731-1 MSD	SOIL-01 (051818)	94	90
LCS 680-524977/4-A	Lab Control Sample	97	86
MB 680-524977/3-A	Method Blank	100	87

#### Surrogate Legend

DCBP = DCB Decachlorobiphenyl  
TCX = Tetrachloro-m-xylene

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: LCS 680-525871/3

Matrix: Solid

Analysis Batch: 525871

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	0.0476		mg/L		95	80 - 120
2-Butanone (MEK)	0.250	0.259		mg/L		104	79 - 125
Carbon tetrachloride	0.0500	0.0551		mg/L		110	67 - 125
Chlorobenzene	0.0500	0.0497		mg/L		99	80 - 120
Chloroform	0.0500	0.0515		mg/L		103	80 - 120
1,4-Dichlorobenzene	0.0500	0.0502		mg/L		100	80 - 120
1,2-Dichloroethane	0.0500	0.0510		mg/L		102	72 - 128
1,1-Dichloroethene	0.0500	0.0493		mg/L		99	80 - 120
Tetrachloroethene	0.0500	0.0493		mg/L		99	71 - 123
Trichloroethene	0.0500	0.0504		mg/L		101	80 - 120
Vinyl chloride	0.0500	0.0493		mg/L		99	80 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	104		80 - 122
1,2-Dichloroethane-d4 (Surr)	102		73 - 131
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: LCSD 680-525871/4

Matrix: Solid

Analysis Batch: 525871

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	0.0500	0.0479		mg/L		96	80 - 120	1	20
2-Butanone (MEK)	0.250	0.248		mg/L		99	79 - 125	4	20
Carbon tetrachloride	0.0500	0.0557		mg/L		111	67 - 125	1	20
Chlorobenzene	0.0500	0.0501		mg/L		100	80 - 120	1	20
Chloroform	0.0500	0.0515		mg/L		103	80 - 120	0	20
1,4-Dichlorobenzene	0.0500	0.0510		mg/L		102	80 - 120	1	20
1,2-Dichloroethane	0.0500	0.0502		mg/L		100	72 - 128	2	50
1,1-Dichloroethene	0.0500	0.0492		mg/L		98	80 - 120	0	20
Tetrachloroethene	0.0500	0.0496		mg/L		99	71 - 123	1	20
Trichloroethene	0.0500	0.0506		mg/L		101	80 - 120	0	20
Vinyl chloride	0.0500	0.0493		mg/L		99	80 - 129	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	104		80 - 122
1,2-Dichloroethane-d4 (Surr)	99		73 - 131
Toluene-d8 (Surr)	100		80 - 120

Lab Sample ID: LB 680-525462/1-A

Matrix: Solid

Analysis Batch: 525871

Client Sample ID: Method Blank

Prep Type: TCLP

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010		mg/L			05/30/18 22:31	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB 680-525462/1-A

Matrix: Solid

Analysis Batch: 525871

Client Sample ID: Method Blank

Prep Type: TCLP

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<0.010		0.010		mg/L			05/30/18 22:31	1
Carbon tetrachloride	<0.0010		0.0010		mg/L			05/30/18 22:31	1
Chlorobenzene	<0.0010		0.0010		mg/L			05/30/18 22:31	1
Chloroform	<0.0010		0.0010		mg/L			05/30/18 22:31	1
1,4-Dichlorobenzene	<0.0010		0.0010		mg/L			05/30/18 22:31	1
1,2-Dichloroethane	<0.0010		0.0010		mg/L			05/30/18 22:31	1
1,1-Dichloroethene	<0.0010		0.0010		mg/L			05/30/18 22:31	1
Tetrachloroethene	<0.0010		0.0010		mg/L			05/30/18 22:31	1
Trichloroethene	<0.0010		0.0010		mg/L			05/30/18 22:31	1
Vinyl chloride	<0.0010		0.0010		mg/L			05/30/18 22:31	1

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		80 - 120		05/30/18 22:31	1
Dibromofluoromethane (Surr)	104		80 - 122		05/30/18 22:31	1
1,2-Dichloroethane-d4 (Surr)	108		73 - 131		05/30/18 22:31	1
Toluene-d8 (Surr)	99		80 - 120		05/30/18 22:31	1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-524894/5-A

Matrix: Water

Analysis Batch: 525158

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 524894

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	<10		10		ug/L		05/22/18 14:47	05/23/18 20:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	72		32 - 113	05/22/18 14:47	05/23/18 20:03	1
2-Fluorophenol (Surr)	72		26 - 109	05/22/18 14:47	05/23/18 20:03	1
Nitrobenzene-d5 (Surr)	82		32 - 118	05/22/18 14:47	05/23/18 20:03	1
Phenol-d5 (Surr)	76		27 - 110	05/22/18 14:47	05/23/18 20:03	1
Terphenyl-d14 (Surr)	89		10 - 126	05/22/18 14:47	05/23/18 20:03	1
2,4,6-Tribromophenol (Surr)	89		39 - 124	05/22/18 14:47	05/23/18 20:03	1

Lab Sample ID: LCS 680-524894/6-A

Matrix: Water

Analysis Batch: 525158

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 524894

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	100	79.7		ug/L		80	45 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	66		32 - 113
2-Fluorophenol (Surr)	62		26 - 109
Nitrobenzene-d5 (Surr)	72		32 - 118
Phenol-d5 (Surr)	69		27 - 110
Terphenyl-d14 (Surr)	86		10 - 126

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-524894/6-A

Matrix: Water

Analysis Batch: 525158

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 524894

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	90		39 - 124

Lab Sample ID: MB 680-525014/16-A

Matrix: Solid

Analysis Batch: 525545

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 525014

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	<0.010		0.010		mg/L		05/23/18 15:46	05/26/18 11:25	1
Hexachlorobenzene	<0.010		0.010		mg/L		05/23/18 15:46	05/26/18 11:25	1
Hexachlorobutadiene	<0.010		0.010		mg/L		05/23/18 15:46	05/26/18 11:25	1
Hexachloroethane	<0.010		0.010		mg/L		05/23/18 15:46	05/26/18 11:25	1
2-Methylphenol	<0.010		0.010		mg/L		05/23/18 15:46	05/26/18 11:25	1
3 & 4 Methylphenol	<0.010		0.010		mg/L		05/23/18 15:46	05/26/18 11:25	1
Nitrobenzene	<0.010		0.010		mg/L		05/23/18 15:46	05/26/18 11:25	1
Pentachlorophenol	<0.050		0.050		mg/L		05/23/18 15:46	05/26/18 11:25	1
Pyridine	<0.050		0.050		mg/L		05/23/18 15:46	05/26/18 11:25	1
2,4,5-Trichlorophenol	<0.010		0.010		mg/L		05/23/18 15:46	05/26/18 11:25	1
2,4,6-Trichlorophenol	<0.010		0.010		mg/L		05/23/18 15:46	05/26/18 11:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	37	X	38 - 130	05/23/18 15:46	05/26/18 11:25	1
2-Fluorophenol (Surr)	55		25 - 130	05/23/18 15:46	05/26/18 11:25	1
Nitrobenzene-d5 (Surr)	60		39 - 130	05/23/18 15:46	05/26/18 11:25	1
Phenol-d5 (Surr)	58		25 - 130	05/23/18 15:46	05/26/18 11:25	1
Terphenyl-d14 (Surr)	87		10 - 143	05/23/18 15:46	05/26/18 11:25	1
2,4,6-Tribromophenol (Surr)	77		31 - 141	05/23/18 15:46	05/26/18 11:25	1

Lab Sample ID: LCS 680-525014/19-A

Matrix: Solid

Analysis Batch: 525545

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 525014

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dinitrotoluene	0.100	0.0943		mg/L		94	52 - 130
Hexachlorobenzene	0.100	0.0960		mg/L		96	43 - 130
Hexachlorobutadiene	0.100	0.0748		mg/L		75	27 - 130
Hexachloroethane	0.100	0.0634		mg/L		63	29 - 130
2-Methylphenol	0.100	0.0807		mg/L		81	40 - 130
3 & 4 Methylphenol	0.100	0.0827		mg/L		83	42 - 130
Nitrobenzene	0.100	0.0768		mg/L		77	43 - 130
Pentachlorophenol	0.200	0.215		mg/L		107	33 - 130
Pyridine	0.200	0.101		mg/L		50	10 - 130
2,4,5-Trichlorophenol	0.100	0.0911		mg/L		91	48 - 130
2,4,6-Trichlorophenol	0.100	0.0869		mg/L		87	47 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	71		38 - 130
2-Fluorophenol (Surr)	59		25 - 130

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-525014/19-A

Matrix: Solid

Analysis Batch: 525545

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 525014

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	75		39 - 130
Phenol-d5 (Surr)	66		25 - 130
Terphenyl-d14 (Surr)	100		10 - 143
2,4,6-Tribromophenol (Surr)	94		31 - 141

Lab Sample ID: LB 680-524851/1-B

Matrix: Solid

Analysis Batch: 525545

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 525014

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	<0.050		0.050		mg/L		05/23/18 15:46	05/26/18 11:49	1
Hexachlorobenzene	<0.050		0.050		mg/L		05/23/18 15:46	05/26/18 11:49	1
Hexachlorobutadiene	<0.050		0.050		mg/L		05/23/18 15:46	05/26/18 11:49	1
Hexachloroethane	<0.050		0.050		mg/L		05/23/18 15:46	05/26/18 11:49	1
2-Methylphenol	<0.050		0.050		mg/L		05/23/18 15:46	05/26/18 11:49	1
3 & 4 Methylphenol	<0.050		0.050		mg/L		05/23/18 15:46	05/26/18 11:49	1
Nitrobenzene	<0.050		0.050		mg/L		05/23/18 15:46	05/26/18 11:49	1
Pentachlorophenol	<0.25		0.25		mg/L		05/23/18 15:46	05/26/18 11:49	1
Pyridine	<0.25		0.25		mg/L		05/23/18 15:46	05/26/18 11:49	1
2,4,5-Trichlorophenol	<0.050		0.050		mg/L		05/23/18 15:46	05/26/18 11:49	1
2,4,6-Trichlorophenol	<0.050		0.050		mg/L		05/23/18 15:46	05/26/18 11:49	1

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	75		38 - 130	05/23/18 15:46	05/26/18 11:49	1
2-Fluorophenol (Surr)	71		25 - 130	05/23/18 15:46	05/26/18 11:49	1
Nitrobenzene-d5 (Surr)	81		39 - 130	05/23/18 15:46	05/26/18 11:49	1
Phenol-d5 (Surr)	74		25 - 130	05/23/18 15:46	05/26/18 11:49	1
Terphenyl-d14 (Surr)	100		10 - 143	05/23/18 15:46	05/26/18 11:49	1
2,4,6-Tribromophenol (Surr)	94		31 - 141	05/23/18 15:46	05/26/18 11:49	1

Lab Sample ID: 680-152731-1 MS

Matrix: Solid

Analysis Batch: 525545

Client Sample ID: SOIL-01 (051818)

Prep Type: TCLP

Prep Batch: 525014

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dinitrotoluene	<0.049		0.500	0.470		mg/L		94	52 - 130
Hexachlorobenzene	<0.049		0.500	0.463		mg/L		93	43 - 130
Hexachlorobutadiene	<0.049		0.500	0.325		mg/L		65	27 - 130
Hexachloroethane	<0.049		0.500	0.278		mg/L		56	29 - 130
2-Methylphenol	<0.049		0.500	0.403		mg/L		81	40 - 130
3 & 4 Methylphenol	<0.049		0.500	0.399		mg/L		80	42 - 130
Nitrobenzene	<0.049		0.500	0.365		mg/L		73	43 - 130
Pentachlorophenol	<0.25		1.00	1.04		mg/L		104	33 - 130
Pyridine	<0.25		1.00	0.620		mg/L		62	10 - 130
2,4,5-Trichlorophenol	<0.049		0.500	0.459		mg/L		92	48 - 130
2,4,6-Trichlorophenol	<0.049		0.500	0.457		mg/L		91	47 - 130

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-152731-1 MS

Matrix: Solid

Analysis Batch: 525545

Client Sample ID: SOIL-01 (051818)

Prep Type: TCLP

Prep Batch: 525014

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl (Surr)	68		38 - 130
2-Fluorophenol (Surr)	57		25 - 130
Nitrobenzene-d5 (Surr)	67		39 - 130
Phenol-d5 (Surr)	68		25 - 130
Terphenyl-d14 (Surr)	91		10 - 143
2,4,6-Tribromophenol (Surr)	92		31 - 141

Lab Sample ID: 680-152731-1 MSD

Matrix: Solid

Analysis Batch: 525545

Client Sample ID: SOIL-01 (051818)

Prep Type: TCLP

Prep Batch: 525014

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-Dinitrotoluene	<0.049		0.490	0.461		mg/L		94	52 - 130	2	50
Hexachlorobenzene	<0.049		0.490	0.475		mg/L		97	43 - 130	2	50
Hexachlorobutadiene	<0.049		0.490	0.353		mg/L		72	27 - 130	8	50
Hexachloroethane	<0.049		0.490	0.311		mg/L		63	29 - 130	11	50
2-Methylphenol	<0.049		0.490	0.422		mg/L		86	40 - 130	5	50
3 & 4 Methylphenol	<0.049		0.490	0.428		mg/L		87	42 - 130	7	50
Nitrobenzene	<0.049		0.490	0.380		mg/L		78	43 - 130	4	50
Pentachlorophenol	<0.25		0.981	1.07		mg/L		109	33 - 130	2	50
Pyridine	<0.25		0.981	0.709		mg/L		72	10 - 130	14	50
2,4,5-Trichlorophenol	<0.049		0.490	0.466		mg/L		95	48 - 130	2	50
2,4,6-Trichlorophenol	<0.049		0.490	0.457		mg/L		93	47 - 130	0	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	72		38 - 130
2-Fluorophenol (Surr)	66		25 - 130
Nitrobenzene-d5 (Surr)	72		39 - 130
Phenol-d5 (Surr)	76		25 - 130
Terphenyl-d14 (Surr)	103		10 - 143
2,4,6-Tribromophenol (Surr)	97		31 - 141

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Lab Sample ID: MB 680-524977/3-A

Matrix: Solid

Analysis Batch: 525115

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 524977

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<33		33		ug/Kg		05/22/18 14:25	05/23/18 21:01	1
PCB-1221	<33		33		ug/Kg		05/22/18 14:25	05/23/18 21:01	1
PCB-1232	<33		33		ug/Kg		05/22/18 14:25	05/23/18 21:01	1
PCB-1242	<33		33		ug/Kg		05/22/18 14:25	05/23/18 21:01	1
PCB-1248	<33		33		ug/Kg		05/22/18 14:25	05/23/18 21:01	1
PCB-1254	<33		33		ug/Kg		05/22/18 14:25	05/23/18 21:01	1
PCB-1260	<33		33		ug/Kg		05/22/18 14:25	05/23/18 21:01	1

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

## Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Lab Sample ID: MB 680-524977/3-A  
Matrix: Solid  
Analysis Batch: 525115

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 524977

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	100		54 - 133	05/22/18 14:25	05/23/18 21:01	1
Tetrachloro-m-xylene	87		46 - 130	05/22/18 14:25	05/23/18 21:01	1

Lab Sample ID: LCS 680-524977/4-A  
Matrix: Solid  
Analysis Batch: 525115

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 524977

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	377	318		ug/Kg		84	43 - 130
PCB-1260	377	399		ug/Kg		106	45 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	97		54 - 133
Tetrachloro-m-xylene	86		46 - 130

Lab Sample ID: 680-152731-1 MS  
Matrix: Solid  
Analysis Batch: 525115

Client Sample ID: SOIL-01 (051818)  
Prep Type: Total/NA  
Prep Batch: 524977

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	<36		443	371		ug/Kg	☼	84	43 - 130
PCB-1260	250		443	504		ug/Kg	☼	57	45 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	97		54 - 133
Tetrachloro-m-xylene	91		46 - 130

Lab Sample ID: 680-152731-1 MSD  
Matrix: Solid  
Analysis Batch: 525115

Client Sample ID: SOIL-01 (051818)  
Prep Type: Total/NA  
Prep Batch: 524977

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
PCB-1016	<36		443	349		ug/Kg	☼	79	43 - 130	6	50
PCB-1260	250		443	501		ug/Kg	☼	56	45 - 130	1	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	94		54 - 133
Tetrachloro-m-xylene	90		46 - 130



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

## Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-525685/1-A

Matrix: Solid

Analysis Batch: 525852

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 525685

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.020		0.020		mg/L		05/29/18 09:57	05/30/18 09:08	1
Barium	<0.10		0.10		mg/L		05/29/18 09:57	05/30/18 09:08	1
Cadmium	<0.010		0.010		mg/L		05/29/18 09:57	05/30/18 09:08	1
Chromium	<0.020		0.020		mg/L		05/29/18 09:57	05/30/18 09:08	1
Lead	<0.020		0.020		mg/L		05/29/18 09:57	05/30/18 09:08	1
Selenium	<0.050		0.050		mg/L		05/29/18 09:57	05/30/18 09:08	1
Silver	<0.010		0.010		mg/L		05/29/18 09:57	05/30/18 09:08	1

Lab Sample ID: LCS 680-525685/2-A

Matrix: Solid

Analysis Batch: 525852

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 525685

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	2.00	2.14		mg/L		107	80 - 120
Barium	2.00	2.13		mg/L		106	80 - 120
Cadmium	1.00	1.04		mg/L		104	80 - 120
Chromium	2.00	2.14		mg/L		107	80 - 120
Lead	10.0	10.3		mg/L		103	80 - 120
Selenium	2.00	2.13		mg/L		106	80 - 120
Silver	1.00	1.07		mg/L		107	80 - 120

Lab Sample ID: LB 680-524851/1-D

Matrix: Solid

Analysis Batch: 525852

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 525685

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.20		0.20		mg/L		05/29/18 09:57	05/30/18 09:18	1
Barium	<1.0		1.0		mg/L		05/29/18 09:57	05/30/18 09:18	1
Cadmium	<0.10		0.10		mg/L		05/29/18 09:57	05/30/18 09:18	1
Chromium	<0.20		0.20		mg/L		05/29/18 09:57	05/30/18 09:18	1
Lead	<0.20		0.20		mg/L		05/29/18 09:57	05/30/18 09:18	1
Selenium	<0.50		0.50		mg/L		05/29/18 09:57	05/30/18 09:18	1
Silver	<0.10		0.10		mg/L		05/29/18 09:57	05/30/18 09:18	1

Lab Sample ID: 680-152731-1 MS

Matrix: Solid

Analysis Batch: 525852

Client Sample ID: SOIL-01 (051818)

Prep Type: TCLP

Prep Batch: 525685

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	<0.20	F1 F2	1.60	2.23	F1	mg/L		139	75 - 125
Barium	<1.0		1.60	1.66		mg/L		104	75 - 125
Cadmium	<0.10		1.60	1.50		mg/L		94	75 - 125
Chromium	<0.20		1.60	1.55		mg/L		97	75 - 125
Lead	0.20		1.60	1.66		mg/L		92	75 - 125
Selenium	<0.50	F1 F2	1.60	1.60		mg/L		100	75 - 125
Silver	<0.10	F1 F2	1.60	0.142	F1	mg/L		9	75 - 125

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

## Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 680-152731-1 MSD

Matrix: Solid

Analysis Batch: 525852

Client Sample ID: SOIL-01 (051818)

Prep Type: TCLP

Prep Batch: 525685

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	<0.20	F1 F2	1.60	3.46	F1 F2	mg/L	—	216	75 - 125	43	20
Barium	<1.0		1.60	1.63		mg/L		102	75 - 125	1	20
Cadmium	<0.10		1.60	1.48		mg/L		92	75 - 125	2	20
Chromium	<0.20		1.60	1.53		mg/L		95	75 - 125	1	20
Lead	0.20		1.60	1.64		mg/L		90	75 - 125	1	20
Selenium	<0.50	F1 F2	1.60	2.09	F1 F2	mg/L		131	75 - 125	27	20
Silver	<0.10	F1 F2	1.60	0.575	F1 F2	mg/L		36	75 - 125	121	20

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 680-525192/1-A

Matrix: Solid

Analysis Batch: 525708

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 525192

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L	—	05/23/18 15:54	05/25/18 16:04	1

Lab Sample ID: LCS 680-525192/2-A

Matrix: Solid

Analysis Batch: 525708

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 525192

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.250	0.241		mg/L	—	97	80 - 120

Lab Sample ID: LB 680-524851/1-C

Matrix: Solid

Analysis Batch: 525708

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 525192

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.020		0.020		mg/L	—	05/23/18 15:54	05/25/18 16:10	1

Lab Sample ID: 680-152731-1 MS

Matrix: Solid

Analysis Batch: 525708

Client Sample ID: SOIL-01 (051818)

Prep Type: TCLP

Prep Batch: 525192

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.020		0.0830	0.0787		mg/L	—	95	80 - 120

Lab Sample ID: 680-152731-1 MSD

Matrix: Solid

Analysis Batch: 525708

Client Sample ID: SOIL-01 (051818)

Prep Type: TCLP

Prep Batch: 525192

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.020		0.0830	0.0779		mg/L	—	94	80 - 120	1	20

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

## Method: 1030 - Ignitability, Solids

Lab Sample ID: MB 680-525724/1

Matrix: Solid

Analysis Batch: 525724

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Ignitability	NB				mm/sec			05/29/18 13:16	1

Lab Sample ID: LCS 680-525724/2

Matrix: Solid

Analysis Batch: 525724

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ignitability	3.13	3.127		mm/sec		100	75 - 125

Lab Sample ID: LCSD 680-525724/10

Matrix: Solid

Analysis Batch: 525724

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
Ignitability	3.05	3.045		mm/sec		100	75 - 125	3	10

## Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 680-525221/1-A

Matrix: Solid

Analysis Batch: 525312

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 525221

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.50		0.50		mg/Kg		05/24/18 04:00	05/24/18 10:51	1

Lab Sample ID: LCS 680-525221/2-A

Matrix: Solid

Analysis Batch: 525312

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 525221

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	5.00	4.91		mg/Kg		98	75 - 125

Lab Sample ID: 680-152731-1 MS

Matrix: Solid

Analysis Batch: 525312

Client Sample ID: SOIL-01 (051818)

Prep Type: Total/NA

Prep Batch: 525221

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	<0.55		5.48	5.39		mg/Kg	☼	98	75 - 125

Lab Sample ID: 680-152731-1 MSD

Matrix: Solid

Analysis Batch: 525312

Client Sample ID: SOIL-01 (051818)

Prep Type: Total/NA

Prep Batch: 525221

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	<0.55		5.48	5.35		mg/Kg	☼	98	75 - 125	1	30

TestAmerica Savannah



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

## Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 680-524667/1-A  
Matrix: Solid  
Analysis Batch: 524669

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 524667

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<60		60		mg/Kg		05/21/18 03:30	05/21/18 04:53	1

Lab Sample ID: LCS 680-524667/2-A  
Matrix: Solid  
Analysis Batch: 524669

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 524667

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	1250	1260		mg/Kg		101	50 - 150

Lab Sample ID: LCSD 680-524667/3-A  
Matrix: Solid  
Analysis Batch: 524669

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 524667

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	1250	1250		mg/Kg		100	50 - 150	1	50

## Method: 9045D - pH

Lab Sample ID: LCS 680-524911/1  
Matrix: Solid  
Analysis Batch: 524911

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		100	79 - 126



# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

## GC/MS VOA

### Leach Batch: 525462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-1	SOIL-01 (051818)	TCLP	Solid	1311	
LB 680-525462/1-A	Method Blank	TCLP	Solid	1311	

### Analysis Batch: 525871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-1	SOIL-01 (051818)	TCLP	Solid	8260B	525462
LB 680-525462/1-A	Method Blank	TCLP	Solid	8260B	525462
LCS 680-525871/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 680-525871/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

## GC/MS Semi VOA

### Leach Batch: 524851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-1	SOIL-01 (051818)	TCLP	Solid	1311	
LB 680-524851/1-B	Method Blank	TCLP	Solid	1311	
680-152731-1 MS	SOIL-01 (051818)	TCLP	Solid	1311	
680-152731-1 MSD	SOIL-01 (051818)	TCLP	Solid	1311	

### Prep Batch: 524894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-2	TMW-22 (051818)	Total/NA	Water	3520C	
MB 680-524894/5-A	Method Blank	Total/NA	Water	3520C	
LCS 680-524894/6-A	Lab Control Sample	Total/NA	Water	3520C	

### Prep Batch: 525014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-1	SOIL-01 (051818)	TCLP	Solid	3520C	524851
LB 680-524851/1-B	Method Blank	TCLP	Solid	3520C	524851
MB 680-525014/16-A	Method Blank	Total/NA	Solid	3520C	
LCS 680-525014/19-A	Lab Control Sample	Total/NA	Solid	3520C	
680-152731-1 MS	SOIL-01 (051818)	TCLP	Solid	3520C	524851
680-152731-1 MSD	SOIL-01 (051818)	TCLP	Solid	3520C	524851

### Analysis Batch: 525158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-524894/5-A	Method Blank	Total/NA	Water	8270D	524894
LCS 680-524894/6-A	Lab Control Sample	Total/NA	Water	8270D	524894

### Analysis Batch: 525325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-2	TMW-22 (051818)	Total/NA	Water	8270D	524894

### Analysis Batch: 525545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-1	SOIL-01 (051818)	TCLP	Solid	8270D	525014
LB 680-524851/1-B	Method Blank	TCLP	Solid	8270D	525014
MB 680-525014/16-A	Method Blank	Total/NA	Solid	8270D	525014
LCS 680-525014/19-A	Lab Control Sample	Total/NA	Solid	8270D	525014
680-152731-1 MS	SOIL-01 (051818)	TCLP	Solid	8270D	525014

TestAmerica Savannah



# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

## GC/MS Semi VOA (Continued)

### Analysis Batch: 525545 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-1 MSD	SOIL-01 (051818)	TCLP	Solid	8270D	525014

## GC Semi VOA

### Prep Batch: 524977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-1	SOIL-01 (051818)	Total/NA	Solid	3546	
MB 680-524977/3-A	Method Blank	Total/NA	Solid	3546	
LCS 680-524977/4-A	Lab Control Sample	Total/NA	Solid	3546	
680-152731-1 MS	SOIL-01 (051818)	Total/NA	Solid	3546	
680-152731-1 MSD	SOIL-01 (051818)	Total/NA	Solid	3546	

### Analysis Batch: 525115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-1	SOIL-01 (051818)	Total/NA	Solid	8081B/8082A	524977
MB 680-524977/3-A	Method Blank	Total/NA	Solid	8081B/8082A	524977
LCS 680-524977/4-A	Lab Control Sample	Total/NA	Solid	8081B/8082A	524977
680-152731-1 MS	SOIL-01 (051818)	Total/NA	Solid	8081B/8082A	524977
680-152731-1 MSD	SOIL-01 (051818)	Total/NA	Solid	8081B/8082A	524977

## Metals

### Leach Batch: 524851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-1	SOIL-01 (051818)	TCLP	Solid	1311	
LB 680-524851/1-C	Method Blank	TCLP	Solid	1311	
LB 680-524851/1-D	Method Blank	TCLP	Solid	1311	
680-152731-1 MS	SOIL-01 (051818)	TCLP	Solid	1311	
680-152731-1 MSD	SOIL-01 (051818)	TCLP	Solid	1311	

### Prep Batch: 525192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-1	SOIL-01 (051818)	TCLP	Solid	7470A	524851
LB 680-524851/1-C	Method Blank	TCLP	Solid	7470A	524851
MB 680-525192/1-A	Method Blank	Total/NA	Solid	7470A	
LCS 680-525192/2-A	Lab Control Sample	Total/NA	Solid	7470A	
680-152731-1 MS	SOIL-01 (051818)	TCLP	Solid	7470A	524851
680-152731-1 MSD	SOIL-01 (051818)	TCLP	Solid	7470A	524851

### Prep Batch: 525685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-1	SOIL-01 (051818)	TCLP	Solid	3010A	524851
LB 680-524851/1-D	Method Blank	TCLP	Solid	3010A	524851
MB 680-525685/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 680-525685/2-A	Lab Control Sample	Total/NA	Solid	3010A	
680-152731-1 MS	SOIL-01 (051818)	TCLP	Solid	3010A	524851
680-152731-1 MSD	SOIL-01 (051818)	TCLP	Solid	3010A	524851

TestAmerica Savannah



# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

## Metals (Continued)

### Analysis Batch: 525708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-1	SOIL-01 (051818)	TCLP	Solid	7470A	525192
LB 680-524851/1-C	Method Blank	TCLP	Solid	7470A	525192
MB 680-525192/1-A	Method Blank	Total/NA	Solid	7470A	525192
LCS 680-525192/2-A	Lab Control Sample	Total/NA	Solid	7470A	525192
680-152731-1 MS	SOIL-01 (051818)	TCLP	Solid	7470A	525192
680-152731-1 MSD	SOIL-01 (051818)	TCLP	Solid	7470A	525192

### Analysis Batch: 525852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-1	SOIL-01 (051818)	TCLP	Solid	6010C	525685
LB 680-524851/1-D	Method Blank	TCLP	Solid	6010C	525685
MB 680-525685/1-A	Method Blank	Total/NA	Solid	6010C	525685
LCS 680-525685/2-A	Lab Control Sample	Total/NA	Solid	6010C	525685
680-152731-1 MS	SOIL-01 (051818)	TCLP	Solid	6010C	525685
680-152731-1 MSD	SOIL-01 (051818)	TCLP	Solid	6010C	525685

## General Chemistry

### Prep Batch: 524667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-1	SOIL-01 (051818)	Total/NA	Solid	9030B	
MB 680-524667/1-A	Method Blank	Total/NA	Solid	9030B	
LCS 680-524667/2-A	Lab Control Sample	Total/NA	Solid	9030B	
LCSD 680-524667/3-A	Lab Control Sample Dup	Total/NA	Solid	9030B	

### Analysis Batch: 524669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-1	SOIL-01 (051818)	Total/NA	Solid	9034	524667
MB 680-524667/1-A	Method Blank	Total/NA	Solid	9034	524667
LCS 680-524667/2-A	Lab Control Sample	Total/NA	Solid	9034	524667
LCSD 680-524667/3-A	Lab Control Sample Dup	Total/NA	Solid	9034	524667

### Analysis Batch: 524911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-1	SOIL-01 (051818)	Total/NA	Solid	9045D	
LCS 680-524911/1	Lab Control Sample	Total/NA	Solid	9045D	

### Analysis Batch: 525005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-1	SOIL-01 (051818)	Total/NA	Solid	Moisture	

### Prep Batch: 525221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-1	SOIL-01 (051818)	Total/NA	Solid	9012B	
MB 680-525221/1-A	Method Blank	Total/NA	Solid	9012B	
LCS 680-525221/2-A	Lab Control Sample	Total/NA	Solid	9012B	
680-152731-1 MS	SOIL-01 (051818)	Total/NA	Solid	9012B	
680-152731-1 MSD	SOIL-01 (051818)	Total/NA	Solid	9012B	

TestAmerica Savannah



## QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

### General Chemistry (Continued)

#### Analysis Batch: 525312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-1	SOIL-01 (051818)	Total/NA	Solid	9012B	525221
MB 680-525221/1-A	Method Blank	Total/NA	Solid	9012B	525221
LCS 680-525221/2-A	Lab Control Sample	Total/NA	Solid	9012B	525221
680-152731-1 MS	SOIL-01 (051818)	Total/NA	Solid	9012B	525221
680-152731-1 MSD	SOIL-01 (051818)	Total/NA	Solid	9012B	525221

#### Analysis Batch: 525724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152731-1	SOIL-01 (051818)	Total/NA	Solid	1030	
MB 680-525724/1	Method Blank	Total/NA	Solid	1030	
LCS 680-525724/2	Lab Control Sample	Total/NA	Solid	1030	
LCSD 680-525724/10	Lab Control Sample Dup	Total/NA	Solid	1030	



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

**Client Sample ID: SOIL-01 (051818)**

**Date Collected: 05/18/18 14:40**

**Date Received: 05/18/18 16:30**

**Lab Sample ID: 680-152731-1**

**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			20.07 g	400 mL	525462	05/25/18 17:32	RKL	TAL SAV
TCLP	Analysis	8260B		20	5 mL	5 mL	525871	05/31/18 01:33	JLK	TAL SAV
		Instrument ID: CMSO2								
TCLP	Leach	1311			100.10 g	2000 mL	524851	05/22/18 17:30	WRB	TAL SAV
TCLP	Prep	3520C			202.2 mL	1 mL	525014	05/23/18 15:46	CMJ	TAL SAV
TCLP	Analysis	8270D		1			525545	05/26/18 14:55	OK	TAL SAV
		Instrument ID: CMSE								
TCLP	Leach	1311			100.10 g	2000 mL	524851	05/22/18 17:30	WRB	TAL SAV
TCLP	Prep	3010A			5 mL	50 mL	525685	05/29/18 09:57	AJR	TAL SAV
TCLP	Analysis	6010C		1			525852	05/30/18 09:23	BCB	TAL SAV
		Instrument ID: ICPE								
TCLP	Leach	1311			100.10 g	2000 mL	524851	05/22/18 17:30	WRB	TAL SAV
TCLP	Prep	7470A			0.5 mL	50 mL	525192	05/23/18 15:54	NVF	TAL SAV
TCLP	Analysis	7470A		1			525708	05/25/18 16:13	BCB	TAL SAV
		Instrument ID: LEEMAN2								
Total/NA	Analysis	1030		1			525724	05/29/18 13:16	CFJ	TAL SAV
		Instrument ID: NOEQUIP								
Total/NA	Analysis	9045D		1	20.01 g	20 mL	524911	05/22/18 10:41	CFJ	TAL SAV
		Instrument ID: GEPHM2								
Total/NA	Analysis	Moisture		1			525005	05/22/18 17:15	WRB	TAL SAV
		Instrument ID: NOEQUIP								

**Client Sample ID: SOIL-01 (051818)**

**Date Collected: 05/18/18 14:40**

**Date Received: 05/18/18 16:30**

**Lab Sample ID: 680-152731-1**

**Matrix: Solid**

**Percent Solids: 88.5**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.69 g	10 mL	524977	05/22/18 14:25	JAM	TAL SAV
Total/NA	Analysis	8081B/8082A		1			525115	05/23/18 21:44	GEM	TAL SAV
		Instrument ID: CSGAA								
Total/NA	Prep	9012B			1.03 g	50 mL	525221	05/24/18 04:00	DAM	TAL SAV
Total/NA	Analysis	9012B		1			525312	05/24/18 10:54	DAM	TAL SAV
		Instrument ID: LACHAT1								
Total/NA	Prep	9030B			1.01 g	6 mL	524667	05/21/18 03:30	DAM	TAL SAV
Total/NA	Analysis	9034		1	6 mL	6 mL	524669	05/21/18 04:53	DAM	TAL SAV
		Instrument ID: NOEQUIP								

**Client Sample ID: TMW-22 (051818)**

**Date Collected: 05/18/18 15:50**

**Date Received: 05/18/18 16:30**

**Lab Sample ID: 680-152731-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			994 mL	1 mL	524894	05/22/18 14:47	CEW	TAL SAV

TestAmerica Savannah



Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Ashland Savannah (Resins Plant)

TestAmerica Job ID: 680-152731-1

**Client Sample ID: TMW-22 (051818)**  
**Date Collected: 05/18/18 15:50**  
**Date Received: 05/18/18 16:30**

**Lab Sample ID: 680-152731-2**  
**Matrix: Water**

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			525325	05/24/18 15:23	KNW	TAL SAV
Instrument ID: CMSE										

**Laboratory References:**  
TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858



Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

<b>Client Contact</b> Company Name: <u>Arco's</u> Address: <u>16 Putnamwood Dr. Ste 375</u> City/State/Zip: <u>Greenville, SC 29607</u> Phone: <u>843.628-8829</u> Fax: Project Name: <u>Ashtand Hercules Savannah</u> Site: PO # <u>01010000.6A61</u>		<b>Site Contact:</b> Tel/Fax: <u>Andrew Davis @ 843.628-8829</u> Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		<b>Project Manager:</b> <u>Andrew Davis</u> Lab Contact: <u>Jerry Lurie</u> Date: <u>5/18/18</u> Carrier: <u>1/11/18 - 1/11/18</u> Date: <u>5/18/18</u> Carrier: <u>1/11/18 - 1/11/18</u>		<b>COC No:</b> <u>1</u> of <u>1</u> COCs Sampler: <u>Arco's</u> For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.: Sample Specific Notes:	
<b>Sample Identification</b> Sample Date: <u>5/18/18</u> <u>1440</u> <u>C</u> <u>soil</u> <u>10</u> <u>WT</u> Sample Time: <u>1550</u> <u>G</u> <u>WT</u> <u>4</u>		Filtered Sample (Y / N) Perform MS / MSD (Y / N)		Sample Specific Notes: 680-152731 Chain of Custody		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months	
<b>Preservation Used:</b> <u>1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other</u> <b>Possible Hazard Identification:</b> Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Poison B							
<b>Special Instructions/QC Requirements &amp; Comments:</b>							
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Relinquished by: <u>Arco's</u> Relinquished by: <u>Arco's</u> Relinquished by:		Custody Seal No.: Company: <u>Arco's</u> Company: <u>Arco's</u> Company:		Cooler Temp. (°C): <u>3.9</u> Obs'd: <u>3.3</u> Therm ID No.: <u>CUR19</u> Received by: <u>Jerry Lurie</u> Received by: <u>Jerry Lurie</u> Received in Laboratory by:		Date/Time: <u>5/18/18 1630</u> Date/Time: <u>5/18/18 1630</u> Date/Time:	



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-152731-1

Login Number: 152731

List Source: TestAmerica Savannah

List Number: 1

Creator: Elwell, Devin M

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.	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	



## Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.

TestAmerica Job ID: 680-152731-1

Project/Site: Ashland Savannah (Resins Plant)

### Laboratory: TestAmerica Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Georgia	State Program	4	803	06-30-18



# APPENDIX G

## Historical Analytical Results

- **Historical Soil Analytical Results Summary**
- **Historical Groundwater Analytical Results Summary**
- **Historical Surface Water Analytical Results Summary**
- **Historical Sediment Analytical Results Summary**





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Location ID			50-CC	50-CC	50-CC	50-CC Composite	50-EC	50-EC	50-EC Composite	50-NC	50-NC	50-NC Composite	50-NE	50-NE	50-NE	50-NE Composite	50-NW	50-NW	50-NW Composite	50-SC	50-SC	50-SC Composite	50-SE	50-SE	50-SE	
Sample ID	Type 1/2 RRS	Type 3/4 RRS	50-CC 1/19/00 (1-3)GRAB_NM	50-CC 1/19/00 (4-6)GRAB_NM	50-CC 1/19/00 (7-9)GRAB_NM	COMPOSITE 1/19/00 (1-9)COMP_H_NM	50-EC 1/19/00 (1-3)GRAB_NM	50-EC 1/19/00 (4-6)GRAB_NM	COMPOSITE 1/19/00 (1-6)COMP_H_NM	50-NC 1/19/00 (1-3)GRAB_NM	50-NC 1/19/00 (4-6)GRAB_NM	COMPOSITE 1/19/00 (1-6)COMP_H_NM	50-NE 1/19/00 (1-3)GRAB_NM	50-NE 1/19/00 (4-6)GRAB_NM	50-NE 1/19/00 (6-9)GRAB_NM	COMPOSITE 1/19/00 (1-9)COMP_H_NM	50-NW 1/24/00 (1-3)GRAB_NM	50-NW 1/24/00 (4-6)GRAB_NM	COMPOSITE 1/24/00 (1-6)COMP_H_NM	50-SC 1/19/00 (1-3)GRAB_NM	50-SC 1/19/00 (4-6)GRAB_NM	COMPOSITE 1/19/00 (1-6)COMP_H_NM	50-SE 1/19/00 (1-3)GRAB_NM	50-SE 1/19/00 (4-6)GRAB_NM	50-SE 1/19/00 (7-9)GRAB_NM	
Sample Date			01/19/2000	01/19/2000	01/19/2000	01/19/2000	01/19/2000	01/19/2000	01/19/2000	01/19/2000	01/19/2000	01/19/2000	01/19/2000	01/19/2000	01/19/2000	01/19/2000	01/24/2000	01/24/2000	01/24/2000	01/19/2000	01/19/2000	01/19/2000	01/19/2000	01/19/2000	01/19/2000	
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
N-Nitroso-N-methylethylamine	680	1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
N-Nitrosopiperidine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
N-Nitrosopyrrolidine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
o,o,o-Triethyl phosphorothioate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
o,o,o-Trimethyl thiophosphate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
o,o-Diethyl o-pyrazinyl phosphorothioate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
o-Toluidine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Parathion	20000	20000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
p-Chloroaniline			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Pentachlorobenzene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Pentachloronitrobenzene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Pentachlorophenol			--	--	--	< 250 U	--	--	< 250 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Phenacetin			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Phenanthrene	110000	110000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Phenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Phorate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Pinene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
p-Phenylenediamine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Propylamide			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Pyrene	500000	500000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Pyridine			--	--	--	< 250 U	--	--	< 250 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Safrole			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Sulfotep			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Volatile Organic Compounds (µg/kg)																										
1,1,1,2-Tetrachloroethane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,1,1-Trichloroethane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,1,2,2-Tetrachloroethane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,1,2-Trichloroethane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,1-Dichloroethane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,1-Dichloroethene			--	--	--	< 20 U	--	--	< 20 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,2,3-Trichloropropane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,2-Dibromo-3-chloropropane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,2-Dibromoethane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,2-Dichloroethane			--	--	--	< 20 U	--	--	< 20 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,2-Dichloropropane	500	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Butanone (MEK)	200000	200000	--	--	--	< 100 U	--	--	< 100 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Chlor-1,3-Butadiene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Methyl-1-propanol	1000000	1000000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4-Methyl-2-Pentanone	200000	200000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Acetone	400000	400000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Acetonitrile	20000	20000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Acrolein	100	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Acrylonitrile			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Allyl chloride			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzene	500	500	--	--	--	< 20 U	--	--	32	--	--	110	--	--	--	< 6.7 U	--	--	< 8.2 U	--	--	82	--	--	--	
Bromodichloromethane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Bromoform			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Bromomethane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Carbon Disulfide	400000	400000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Carbon Tetrachloride			--	--	--	< 20 U	--	--	< 20 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--			



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Location ID			50-SE Composite 50-SE COMPOSITE_1/19/ 00_(1- 6)COMP_H_NM 01/19/2000 N	50-SW 50-SW_1/24/00_(1- 3)GRAB_NM 01/24/2000 N	50-SW 50-SW_1/24/00_(4- 6)GRAB_NM 01/24/2000 N	50-SW Composite 50-SW COMPOSITE_1/24/ 00_(1- 6)COMP_H_NM 01/24/2000 N	50-WC 50-WC_1/24/00_(1- 3)GRAB_NM 01/24/2000 N	50-WC 50-WC_1/24/00_(4- 6)GRAB_NM 01/24/2000 N	50-WC Composite 50-WC COMPOSITE_1/24/ 00_(1- 6)COMP_H_NM 01/24/2000 N	50-West Sump 50-WEST SUMP_1/24/00_(1- 3)GRAB_NM 01/24/2000 N	50-West Sump 50-WEST SUMP_1/24/00_(4- 6)GRAB_NM 01/24/2000 N	Information_Samp CONFIRMATION_ SAMPLE_12/1/00_ (0-3)GRAB_NM 12/01/2000 N	Information_Samp CONFIRMATION_ SAMPLE_12/1/00_ (3-6)GRAB_NM 12/01/2000 N	DS-1 DS-1_11/7/08_(0- 2)GRAB_NM 11/07/2008 N	DS-1 DS-1_11/7/08_(2- 4)GRAB_NM 11/07/2008 N	DS-10 DS-10_11/7/08_(0- 2)GRAB_NM 11/07/2008 N	DS-10 DS-10_11/7/08_(2- 4)GRAB_NM 11/07/2008 N	DS-11 DS-11_11/7/08_(0- 2)GRAB_NM 11/07/2008 N	DS-11 DS-11_11/7/08_(2- 4)GRAB_NM 11/07/2008 N	DS-12 DS-12_11/7/08_(0- 2)GRAB_NM 11/07/2008 N	DS-12 DS-12_11/7/08_(2- 4)GRAB_NM 11/07/2008 N	DS-13 DS-13_11/10/08_(0- 2)GRAB_NM 11/10/2008 N	DS-13 DS-13_11/10/08_(2- 4)GRAB_NM 11/10/2008 N	DS-14 DS-14_11/10/08_(0- 2)GRAB_NM 11/10/2008 N	DS-14 DS-14_11/10/08_(2- 4)GRAB_NM 11/10/2008 N		
Sample ID	Type 1/2 RRS	Type 3/4 RRS																									
Sample Date																											
Sample Type																											
N-Nitroso-N-methylethylamine	680	1000	--	--	--	--	--	--	--	--	--	--	--	< 350 U	< 350 U	< 350 U	< 380 U	< 390 U	< 390 U	< 400 U	< 390 U	< 3700 U	< 3800 U	< 3900 U	< 4100 U		
N-Nitrosopiperidine			--	--	--	--	--	--	--	--	--	--	--	< 350 U	< 350 U	< 350 U	< 380 U	< 390 U	< 390 U	< 400 U	< 390 U	< 3700 U	< 3800 U	< 3900 U	< 4100 U		
N-Nitrosopyrrolidine			--	--	--	--	--	--	--	--	--	--	--	< 350 U	< 350 U	< 350 U	< 380 U	< 390 U	< 390 U	< 400 U	< 390 U	< 3700 U	< 3800 U	< 3900 U	< 4100 U		
o,o,o-Triethyl phosphorothioate			--	--	--	--	--	--	--	--	--	--	--	< 350 U	< 350 U	< 350 U	< 380 U	< 390 U	< 390 U	< 400 U	< 390 U	< 3700 U	< 3800 U	< 3900 U	< 4100 U		
o,o,o-Trimethyl thiophosphate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
o,o-Diethyl o-pyrazinyl phosphorothioate			--	--	--	--	--	--	--	--	--	--	--	< 350 U	< 350 U	< 350 U	< 380 U	< 390 U	< 390 U	< 400 U	< 390 U	< 3700 U	< 3800 U	< 3900 U	< 4100 U		
o-Toluidine			--	--	--	--	--	--	--	--	--	--	--	< 350 U	< 350 U	< 350 U	< 380 U	< 390 U	< 390 U	< 400 U	< 390 U	< 3700 U	< 3800 U	< 3900 U	< 4100 U		
Parathion	20000	20000	--	--	--	--	--	--	--	--	--	--	--	< 350 U	< 350 U	< 350 U	< 380 U	< 390 U	< 390 U	< 400 U	< 390 U	< 3700 U	< 3800 U	< 3900 U	< 4100 U		
p-Chloroaniline			--	--	--	--	--	--	--	--	--	--	--	< 690 U	< 700 U	< 700 U	< 760 U	< 780 U	< 780 U	< 810 U	< 770 U	< 7400 U	< 7600 U	< 7800 U	< 8100 U		
Pentachlorobenzene			--	--	--	--	--	--	--	--	--	--	--	< 350 U	< 350 U	< 350 U	< 380 U	< 390 U	< 390 U	< 400 U	< 390 U	< 3700 U	< 3800 U	< 3900 U	< 4100 U		
Pentachloronitrobenzene			--	--	--	--	--	--	--	--	--	--	--	< 350 U	< 350 U	< 350 U	< 380 U	< 390 U	< 390 U	< 400 U	< 390 U	< 3700 U	< 3800 U	< 3900 U	< 4100 U		
Pentachlorophenol			--	--	--	--	--	--	< 250 U	--	--	--	--	< 1800 U	< 1800 U	< 1800 U	< 2000 U	< 2000 U	< 2000 U	< 2100 U	< 2000 U	< 19000 U	< 20000 U	< 20000 U	< 21000 U		
Phenacetin			--	--	--	--	--	--	--	--	--	--	--	< 350 U	< 350 U	< 350 U	< 380 U	< 390 U	< 390 U	< 400 U	< 390 U	< 3700 U	< 3800 U	< 3900 U	< 4100 U		
Phenanthrene	110000	110000	--	--	--	--	--	--	--	--	--	--	--	31 J	170 J	390	< 380 U	< 390 U	< 390 U	35 J	< 390 U	< 3700 U	< 3800 U	410	< 4100 U		
Phenol			--	--	--	--	--	--	--	--	--	--	--	< 350 U	< 350 U	< 350 U	< 380 U	< 390 U	< 390 U	< 400 U	< 390 U	< 3700 U	< 3800 U	< 3900 U	< 4100 U		
Phorate			--	--	--	--	--	--	--	--	--	--	--	< 350 U	< 350 U	< 350 U	< 380 U	< 390 U	< 390 U	< 400 U	< 390 U	< 3700 U	< 3800 U	< 3900 U	< 4100 U		
Pinene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
p-Phenylenediamine			--	--	--	--	--	--	--	--	--	--	--	< 1800 U	< 1800 U	< 1800 U	< 2000 U	< 2000 U	< 2000 U	< 2100 U	< 2000 U	< 19000 U	< 20000 U	< 20000 U	< 21000 U		
Propyzamide			--	--	--	--	--	--	--	--	--	--	--	< 350 U	< 350 U	< 350 U	< 380 U	< 390 U	< 390 U	< 400 U	< 390 U	< 3700 U	< 3800 U	< 3900 U	< 4100 U		
Pyrene	500000	500000	--	--	--	--	--	--	--	--	--	--	--	200 J	200 J	800	< 380 U	< 390 U	< 390 U	25 J	< 390 U	< 3700 U	< 3800 U	390	< 4100 U		
Pyridine			--	--	--	--	--	--	< 250 U	--	--	--	--	< 350 U	< 350 U	< 350 U	< 380 U	< 390 U	< 390 U	< 400 U	< 390 U	< 3700 U	< 3800 U	< 3900 U	< 4100 U		
Safrole			--	--	--	--	--	--	--	--	--	--	--	< 350 U	< 350 U	< 350 U	< 380 U	< 390 U	< 390 U	< 400 U	< 390 U	< 3700 U	< 3800 U	< 3900 U	< 4100 U		
Sulfotep			--	--	--	--	--	--	--	--	--	--	--	< 350 U	< 350 U	< 350 U	< 380 U	< 390 U	< 390 U	< 400 U	< 390 U	< 3700 U	< 3800 U	< 3900 U	< 4100 U		
Volatile Organic Compounds (µg/kg)																											
1,1,1,2-Tetrachloroethane			--	--	--	--	--	--	--	--	--	--	--	< 5 U	< 4.9 U	< 4.1 U	< 5 U	< 4.8 U	< 5.7 U	< 5 U	< 5 U	< 4.2 U	< 5.1 U	< 4.8 U	< 5.3 U		
1,1,1-Trichloroethane			--	--	--	--	--	--	--	--	--	--	--	< 5 U	< 4.9 U	< 4.1 U	< 5 U	< 4.8 U	< 5.7 U	< 5 U	< 5 U	< 4.2 U	< 5.1 U	< 4.8 U	< 5.3 U		
1,1,2,2-Tetrachloroethane			--	--	--	--	--	--	--	--	--	--	--	< 5 U	< 4.9 U	< 4.1 U	< 5 U	< 4.8 U	< 5.7 U	< 5 U	< 5 U	< 4.2 U	< 5.1 U	< 4.8 U	< 5.3 U		
1,1,2-Trichloroethane			--	--	--	--	--	--	--	--	--	--	--	< 5 U	< 4.9 U	< 4.1 U	< 5 U	< 4.8 U	< 5.7 U	< 5 U	< 5 U	< 4.2 U	< 5.1 U	< 4.8 U	< 5.3 U		
1,1-Dichloroethane			--	--	--	--	--	--	--	--	--	--	--	< 5 U	< 4.9 U	< 4.1 U	< 5 U	< 4.8 U	< 5.7 U	< 5 U	< 5 U	< 4.2 U	< 5.1 U	< 4.8 U	< 5.3 U		
1,1-Dichloroethene			--	--	--	--	--	--	< 20 U	--	--	--	--	< 5 U	< 4.9 U	< 4.1 U	< 5 U	< 4.8 U	< 5.7 U	< 5 U	< 5 U	< 4.2 U	< 5.1 U	< 4.8 U	< 5.3 U		
1,2,3-Trichloropropane			--	--	--	--	--	--	--	--	--	--	--	< 5 U	< 4.9 U	< 4.1 U	< 5 U	< 4.8 U	< 5.7 U	< 5 U	< 5 U	< 4.2 U	< 5.1 U	< 4.8 U	< 5.3 U		
1,2-Dibromo-3-chloropropane			--	--	--	--	--	--	--	--	--	--	--	< 9.9 U	< 9.9 U	< 8.2 U	< 9.9 U	< 9.6 U	< 11 U	< 10 U	< 10 U	< 8.3 U	< 10 U	< 9.6 U	< 11 U		



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Location ID			DS-15	DS-15	DS-16	DS-16	DS-17	DS-17	DS-17	DS-18	DS-18	DS-18	DS-2	DS-2	DS-3	DS-3	DS-4	DS-4	DS-5	DS-5	DS-6	DS-6	DS-7	DS-7	DS-8	
Sample ID	Type 1/2 RRS	Type 3/4 RRS	DS-15_11/10/08_(0-2)GRAB_NM	DS-15_11/10/08_(2-4)GRAB_NM	DS-16_11/10/08_(0-2)GRAB_NM	DS-16_11/10/08_(2-4)GRAB_NM	DS-17_11/10/08_(0-2)GRAB_NM	DS-17_11/10/08_(2-4)GRAB_NM	DS-17_11/10/08_(2-4)GRAB_DUP	DS-18_11/10/08_(0-2)GRAB_NM	DS-18_11/10/08_(2-4)GRAB_NM	DUP-6_11/10/08_(0-2)GRAB_DUP	DS-2_11/17/08_(0-2)GRAB_NM	DS-2_11/17/08_(2-4)GRAB_NM	DS-3_11/17/08_(0-2)GRAB_NM	DS-3_11/17/08_(2-4)GRAB_NM	DS-4_11/17/08_(0-2)GRAB_NM	DS-4_11/17/08_(2-4)GRAB_NM	DS-5_11/17/08_(0-2)GRAB_NM	DS-5_11/17/08_(2-4)GRAB_NM	DS-6_11/17/08_(0-2)GRAB_NM	DS-6_11/17/08_(2-4)GRAB_NM	DS-7_11/17/08_(0-2)GRAB_NM	DS-7_11/17/08_(2-4)GRAB_NM	DS-8_11/17/08_(0-2)GRAB_NM	
Sample Date Sample Type			11/10/2008 N	11/10/2008 N	11/10/2008 N	11/10/2008 N	11/10/2008 N	11/10/2008 N	11/10/2008 FD	11/10/2008 N	11/10/2008 N	11/10/2008 FD	11/07/2008 N	11/07/2008 N	11/07/2008 N	11/07/2008 N	11/07/2008 N	11/07/2008 N	11/07/2008 N	11/07/2008 N	11/07/2008 N	11/07/2008 N	11/07/2008 N	11/07/2008 N		
N-Nitroso-N-methylethylamine	680	1000	< 3900 U	< 2000 U	< 3700 U	< 4000 U	< 2000 U	< 3900 U	--	< 1900 U	< 2000 U	< 2000 U	< 360 U	< 380 U	< 3900 U	< 3800 U	< 360 U	< 360 U	< 370 U	< 1900 U	< 3900 U	< 4100 U	< 370 U	< 380 U	< 3700 U	
N-Nitrosopiperidine			< 3900 U	< 2000 U	< 3700 U	< 4000 U	< 2000 U	< 3900 U	--	< 1900 U	< 2000 U	< 2000 U	< 360 U	< 380 U	< 3900 U	< 3800 U	< 360 U	< 360 U	< 370 U	< 1900 U	< 3900 U	< 4100 U	< 370 U	< 380 U	< 3700 U	
N-Nitrosopyrrolidine			< 3900 U	< 2000 U	< 3700 U	< 4000 U	< 2000 U	< 3900 U	--	< 1900 U	< 2000 U	< 2000 U	< 360 U	< 380 U	< 3900 U	< 3800 U	< 360 U	< 360 U	< 370 U	< 1900 U	< 3900 U	< 4100 U	< 370 U	< 380 U	< 3700 U	
o,o,o-Triethyl phosphorothioate			< 3900 U	< 2000 U	< 3700 U	< 4000 U	< 2000 U	< 3900 U	--	< 1900 U	< 2000 U	< 2000 U	< 360 U	< 380 U	< 3900 U	< 3800 U	< 360 U	< 360 U	< 370 U	< 1900 U	< 3900 U	< 4100 U	< 370 U	< 380 U	< 3700 U	
o,o,o-Trimethyl thiophosphate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
o,o-Diethyl o-pyrazinyl phosphorothioate			< 3900 U	< 2000 U	< 3700 U	< 4000 U	< 2000 U	< 3900 U	--	< 1900 U	< 2000 U	< 2000 U	< 360 U	< 380 U	< 3900 U	< 3800 U	< 360 U	< 360 U	< 370 U	< 1900 U	< 3900 U	< 4100 U	< 370 U	< 380 U	< 3700 U	
o-Tolidine			< 3900 U	< 2000 U	< 3700 U	< 4000 U	< 2000 U	< 3900 U	--	< 1900 U	< 2000 U	< 2000 U	< 360 U	< 380 U	< 3900 U	< 3800 U	< 360 U	< 360 U	< 370 U	< 1900 U	< 3900 U	< 4100 U	< 370 U	< 380 U	< 3700 U	
Parathion	20000	20000	< 3900 U	< 2000 U	< 3700 U	< 4000 U	< 2000 U	< 3900 U	--	< 1900 U	< 2000 U	< 2000 U	< 360 U	< 380 U	< 3900 U	< 3800 U	< 360 U	< 360 U	< 370 U	< 1900 U	< 3900 U	< 4100 U	< 370 U	< 380 U	< 3700 U	
p-Chloroaniline			< 7800 U	< 3900 U	< 7300 U	< 7900 U	< 4000 U	< 7700 U	--	< 3900 U	< 3900 U	< 3900 U	< 730 U	< 760 U	< 7700 U	< 7700 U	< 720 U	< 720 U	< 740 U	< 3700 U	< 7800 U	< 8100 U	< 730 U	< 750 U	< 7400 U	
Pentachlorobenzene			< 3900 U	< 2000 U	< 3700 U	< 4000 U	< 2000 U	< 3900 U	--	< 1900 U	< 2000 U	< 2000 U	< 360 U	< 380 U	< 3900 U	< 3800 U	< 360 U	< 360 U	< 370 U	< 1900 U	< 3900 U	< 4100 U	< 370 U	< 380 U	< 3700 U	
Pentachloronitrobenzene			< 3900 U	< 2000 U	< 3700 U	< 4000 U	< 2000 U	< 3900 U	--	< 1900 U	< 2000 U	< 2000 U	< 360 U	< 380 U	< 3900 U	< 3800 U	< 360 U	< 360 U	< 370 U	< 1900 U	< 3900 U	< 4100 U	< 370 U	< 380 U	< 3700 U	
Pentachlorophenol			< 20000 U	< 10000 U	< 19000 U	< 20000 U	< 10000 U	< 20000 U	--	< 10000 U	< 10000 U	< 10000 U	< 1900 U	< 2000 U	< 20000 U	< 20000 U	< 1900 U	< 1800 U	< 1900 U	< 9600 U	< 20000 U	< 21000 U	< 1900 U	< 1900 U	< 19000 U	
Phenacetin			< 3900 U	< 2000 U	< 3700 U	< 4000 U	< 2000 U	< 3900 U	--	< 1900 U	< 2000 U	< 2000 U	< 360 U	< 380 U	< 3900 U	< 3800 U	< 360 U	< 360 U	< 370 U	< 1900 U	< 3900 U	< 4100 U	< 370 U	< 380 U	< 3700 U	
Phenanthrene	110000	110000	< 3900 U	< 2000 U	< 3700 U	< 4000 U	180	< 3900 U	--	430	< 2000 U	< 2000 U	< 360 U	< 380 U	< 3900 U	< 3800 U	110 J	310 J	21 J	< 1900 U	< 3900 U	< 4100 U	140 J	< 380 U	280	
Phenol			< 3900 U	< 2000 U	< 3700 U	< 4000 U	< 2000 U	< 3900 U	--	< 1900 U	< 2000 U	< 2000 U	< 360 U	< 380 U	< 3900 U	< 3800 U	< 360 U	< 360 U	< 370 U	< 1900 U	< 3900 U	< 4100 U	< 370 U	< 380 U	< 3700 U	
Phorate			< 3900 U	< 2000 U	< 3700 U	< 4000 U	< 2000 U	< 3900 U	--	< 1900 U	< 2000 U	< 2000 U	< 360 U	< 380 U	< 3900 U	< 3800 U	< 360 U	< 360 U	< 370 U	< 1900 U	< 3900 U	< 4100 U	< 370 U	< 380 U	< 3700 U	
Pinene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
p-Phenylenediamine			< 20000 U	< 10000 U	< 19000 U	< 20000 U	< 10000 U	< 20000 U	--	< 10000 U	< 10000 U	< 10000 U	< 1900 U	< 2000 U	< 20000 U	< 20000 U	< 1900 U	< 1800 U	< 1900 U	< 9600 U	< 20000 U	< 21000 U	< 1900 U	< 1900 U	< 19000 U	
Propylamide			< 3900 U	< 2000 U	< 3700 U	< 4000 U	< 2000 U	< 3900 U	--	< 1900 U	< 2000 U	< 2000 U	< 360 U	< 380 U	< 3900 U	< 3800 U	< 360 U	< 360 U	< 370 U	< 1900 U	< 3900 U	< 4100 U	< 370 U	< 380 U	< 3700 U	
Pyrene	500000	500000	210	< 2000 U	< 3700 U	< 4000 U	140	< 3900 U	--	480	< 2000 U	< 2000 U	19 J	< 380 U	< 3900 U	< 3800 U	160 J	1000	23 J	< 1900 U	< 3900 U	< 4100 U	810	23 J	490	
Pyridine			< 3900 U	< 2000 U	< 3700 U	< 4000 U	< 2000 U	< 3900 U	--	< 1900 U	< 2000 U	< 2000 U	< 360 U	< 380 U	< 3900 U	< 3800 U	< 360 U	< 360 U	< 370 U	< 1900 U	< 3900 U	< 4100 U	< 370 U	< 380 U	< 3700 U	
Safrole			< 3900 U	< 2000 U	< 3700 U	< 4000 U	< 2000 U	< 3900 U	--	< 1900 U	< 2000 U	< 2000 U	< 360 U	< 380 U	< 3900 U	< 3800 U	< 360 U	< 360 U	< 370 U	< 1900 U	< 3900 U	< 4100 U	< 370 U	< 380 U	< 3700 U	
Sulfotep			< 3900 U	< 2000 U	< 3700 U	< 4000 U	< 2000 U	< 3900 U	--	< 1900 U	< 2000 U	< 2000 U	< 360 U	< 380 U	< 3900 U	< 3800 U	< 360 U	< 360 U	< 370 U	< 1900 U	< 3900 U	< 4100 U	< 370 U	< 380 U	< 3700 U	
Volatile Organic Compounds (µg/kg)																										
1,1,1,2-Tetrachloroethane			< 4.3 U	< 5.5 U	< 4.8 U	< 4.9 U	< 4.5 U	< 5.1 U	--	< 5 U	< 5 U	< 5.2 U	< 5.1 U	< 5.8 U	< 170 U	< 5.1 U	< 4.3 U	< 4.1 U	< 5.7 U	< 5.4 U	< 4.8 U	< 5.9 U	< 4.8 U	< 4.4 U	< 4.2 U	
1,1,1-Trichloroethane			< 4.3 U	< 5.5 U	< 4.8 U	< 4.9 U	< 4.																			



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Sample ID	Type 1/2 RRS	Type 3/4 RRS	DS-9 11/7/08 (0-2)GRAB_NM	DS-9 11/7/08 (2-4)GRAB_NM	EX-19 0-2(07/27/2007)	EX-21 0-2(07/27/2007)	EX-22 0-2(07/27/2007)	EX-23 0-2(07/27/2007)	EX-26 0-2(07/27/2007)	EX-27 0-2(07/27/2007)	EX-27 DUP-1(07/27/2007)	GP-10 0-2FT(07/26/2007)	GP-11 0-2FT(07/26/2007)	GP-13 0-2FT(07/26/2007)	GP-14 0-2FT(07/26/2007)	GP-15 0-2FT(07/26/2007)	GP-16 0-2FT(07/27/2007)	GP-18 0-2FT(07/27/2007)	GP-2 0-2FT(07/26/2007)	GP-5 0-2FT(07/26/2007)	GP-6 0-2FT(07/26/2007)	GP-7 0-2FT(07/26/2007)	GP-8 0-2FT(07/26/2007)	HARD RESINS 6/8/00 (1-3)GRAB_NM	HARD RESINS 6/8/00 (4-6)GRAB_NM
Sample Date Sample Type			11/07/2008 N	11/07/2008 N	07/27/2007 N	07/27/2007 N	07/27/2007 N	07/27/2007 N	07/27/2007 N	07/27/2007 N	07/27/2007 FD	07/26/2007 N	07/26/2007 N	07/26/2007 N	07/26/2007 N	07/26/2007 N	07/27/2007 N	07/27/2007 N	07/26/2007 N	07/26/2007 N	07/26/2007 N	07/26/2007 N	07/26/2007 N	06/05/2000 N	06/05/2000 N
1,3-Dinitrobenzene	1050	1050	< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
1,4-Dichlorobenzene			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
1,4-Dioxane	7000	7000	< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
1,4-Naphthoquinone			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
1-Naphthylamine			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
2,2-Oxybis(1-Chloropropane)			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
2,3,4,6-Tetrachlorophenol			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
2,4,5-Trichlorophenol			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
2,4,6-Trichlorophenol			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
2,4-Dichlorophenol			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
2,4-Dimethylphenol			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
2,4-Dinitrophenol			< 2300 U	< 4100 U	< 1100000 U	< 20000 U	< 3800 U	< 1900 U	< 82000 U	< 10000 U	< 9900 U	< 10000 U	< 1900 U	< 10000 U	< 10000 U	< 2000 U	< 9600 U	< 2000 U	< 2000 U	< 2000 U	< 40000 U	< 2000 U	< 2500000 U	--	--
2,4-Dinitrotoluene			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
2,6-Dichlorophenol			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
2,6-Dinitrotoluene			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
2-Acetylaminofluorene			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
2-Chloronaphthalene			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
2-Chlorophenol			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
2-Methyl-4,6-dinitrophenol			< 2300 U	< 4100 U	< 1100000 U	< 20000 U	< 3800 U	< 1900 U	< 82000 U	< 10000 U	< 9900 U	< 10000 U	< 1900 U	< 10000 U	< 10000 U	< 2000 U	< 9600 U	< 2000 U	< 2000 U	< 2000 U	< 40000 U	< 2000 U	< 2500000 U	--	--
2-Methylnaphthalene			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
2-Methylphenol	3800	4100	< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
2-Naphthylamine			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
2-Nitroaniline			< 2300 U	< 4100 U	< 1100000 U	< 20000 U	< 3800 U	< 1900 U	< 82000 U	< 10000 U	< 9900 U	< 10000 U	< 1900 U	< 10000 U	< 10000 U	< 2000 U	< 9600 U	< 2000 U	< 2000 U	< 2000 U	< 40000 U	< 2000 U	< 2500000 U	--	--
2-Nitrophenol			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
2-Picoline			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
3,3-Dichlorobenzidine			< 900 U	< 1600 U	< 420000 U	< 7600 U	< 1500 U	< 730 U	< 32000 U	< 4000 U	< 3800 U	< 4000 U	< 750 U	< 3900 U	< 780 U	< 770 U	< 3700 U	< 760 U	< 780 U	< 760 U	< 16000 U	< 780 U	< 980000 U	--	--
3,3-Dimethylbenzidine			< 2300 U	< 4100 U	< 1100000 U	< 20000 U	< 3800 U	< 1900 U	< 82000 U	< 10000 U	< 9900 U	< 10000 U	< 1900 U	< 10000 U	< 10000 U	< 2000 U	< 9600 U	< 2000 U	< 2000 U	< 2000 U	< 40000 U	< 2000 U	< 2500000 U	--	--
3-Methylchloranthrene			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
3-Methylphenol, 4-Methylphenol			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
3-Nitroaniline			< 2300 U	< 4100 U	< 1100000 U	< 20000 U	< 3800 U	< 1900 U	< 82000 U	< 10000 U	< 9900 U	< 10000 U	< 1900 U	< 10000 U	< 10000 U	< 2000 U	< 9600 U	< 2000 U	< 2000 U	< 2000 U	< 40000 U	< 2000 U	< 2500000 U	--	--
4-Aminobiphenyl			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
4-Bromophenyl phenyl ether			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
4-Chloro-3-Methylphenol			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
4-Chlorophenyl phenyl ether			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
4-Dimethylaminoazobenzene			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--
4-Methylphenol	3800	8000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline			< 2300 U	< 4100 U	< 1100000 U	< 20000 U	< 3800 U	< 1900 U	< 82000 U	< 10000 U	< 9900 U	< 10000 U	< 1900 U	< 10000 U	< 10000 U	< 2000 U	< 9600 U	< 2000 U	< 2000 U	< 2000 U	< 40000 U	< 2000 U	< 2500000 U	--	--
4-Nitrophenol			< 2300 U	< 4100 U	< 1100000 U	< 20000 U	< 3800 U	< 1900 U	< 82000 U	< 10000 U	< 9900 U	< 10000 U	< 1900 U	< 10000 U	< 10000 U	< 2000 U	< 9600 U								



Location ID			DS-9	DS-9	EX-19	EX-21	EX-22	EX-23	EX-26	EX-27	EX-27	GP-10	GP-11	GP-13	GP-14	GP-15	GP-16	GP-18	GP-2	GP-5	GP-6	GP-7	GP-8	Hard Resins	Hard Resins	
Sample ID	Type 1/2 RRS	Type 3/4 RRS	DS-9_11/07/08_(0-2)GRAB_NM	DS-9_11/07/08_(2-4)GRAB_NM	EX-19_0-2(07272007)	EX-21_0-2(07272007)	EX-22_0-2(07272007)	EX-23_0-2(07272007)	EX-26_0-2(07272007)	EX-27_0-2(07272007)	DUP-1(07272007)	GP-10_0-2FT(07262007)	GP-11_0-2FT(07262007)	GP-13_0-2FT(07262007)	GP-14_0-2FT(07262007)	GP-15_0-2FT(07262007)	GP-16_0-2FT(07272007)	GP-18_0-2FT(07272007)	GP-2_0-2FT(07262007)	GP-5_0-2FT(07262007)	GP-6_0-2FT(07262007)	GP-7_0-2FT(07262007)	GP-8_0-2FT(07262007)	HARD RESINS_6/5/00_(1-3)GRAB_NM	HARD RESINS_6/5/00_(4-6)GRAB_NM	
Sample Date Sample Type			11/07/2008 N	11/07/2008 N	07/27/2007 N	07/27/2007 N	07/27/2007 N	07/27/2007 N	07/27/2007 N	07/27/2007 N	07/27/2007 FD	07/26/2007 N	07/26/2007 N	07/26/2007 N	07/26/2007 N	07/26/2007 N	07/27/2007 N	07/27/2007 N	07/26/2007 N	07/26/2007 N	07/26/2007 N	07/26/2007 N	07/26/2007 N	06/05/2000 N	06/05/2000 N	
N-Nitroso-N-methylethylamine	680	1000	< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--	
N-Nitrosopiperidine			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--	
N-Nitrosopyrrolidine			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--	
o,o,o-Triethyl phosphorothioate			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--	
o,o,o-Trimethyl thiophosphate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
o,o-Diethyl o-pyrazinyl phosphorothioate			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--	
o-Tolidine			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--	
Parathion	20000	20000	< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--	
p-Chloroaniline			< 900 U	< 1600 U	< 420000 U	< 7600 U	< 1500 U	< 730 U	< 32000 U	< 4000 U	< 3800 U	< 4000 U	< 750 U	< 3900 U	< 780 U	< 770 U	< 3700 U	< 760 U	< 780 U	< 760 U	< 16000 U	< 780 U	< 980000 U	--	--	
Pentachlorobenzene			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--	
Pentachloronitrobenzene			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--	
Pentachlorophenol			< 2300 U	< 4100 U	< 1100000 U	< 20000 U	< 3800 U	< 1900 U	< 82000 U	< 10000 U	< 9900 U	< 10000 U	< 1900 U	< 10000 U	< 2000 U	< 2000 U	< 9600 U	< 2000 U	< 2000 U	< 2000 U	< 40000 U	< 2000 U	< 2500000 U	--	--	
Phenacetin			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--	
Phenanthrene	110000	110000	< 450 U	160	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	420	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--	
Phenol			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--	
Phorate			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--	
Pinene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
p-Phenylenediamine			< 2300 U	< 4100 U	< 1100000 U	< 20000 U	< 3800 U	< 1900 U	< 82000 U	< 10000 U	< 9900 U	< 10000 U	< 1900 U	< 10000 U	< 2000 U	< 2000 U	< 9600 U	< 2000 U	< 2000 U	< 2000 U	< 40000 U	< 2000 U	< 2500000 U	--	--	
Propylamide			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--	
Pyrene	500000	500000	< 450 U	81	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	450	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--	
Pyridine			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--	
Safrole			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--	
Sulfotep			< 450 U	< 790 U	< 210000 U	< 3800 U	< 740 U	< 370 U	< 16000 U	< 2000 U	< 1900 U	< 2000 U	< 380 U	< 2000 U	< 390 U	< 390 U	< 1900 U	< 380 U	< 390 U	< 380 U	< 7800 U	< 390 U	< 490000 U	--	--	
Volatile Organic Compounds (µg/kg)																										
1,1,1,2-Tetrachloroethane			< 5.7 U	< 4.6 U	< 680 U	< 6.4 U	< 1100 U	< 3700 U	< 240 U	< 640 U	< 360 U	< 240 U	< 200 U	< 250 U	< 170 U	< 170 U	< 670 U	< 7.2 U	< 300 U	< 240 U	< 220 U	< 240 U	< 340 U	--	--	
1,1,1-Trichloroethane			< 5.7 U	< 4.6 U	< 680 U	< 6.4 U	< 1100 U	< 3700 U	< 240 U	< 640 U	< 360 U	< 240 U	< 200 U	< 250 U	< 170 U	< 170 U	< 670 U	< 7.2 U	< 3							



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**Bolds:** Concentration is greater than the laboratory detection limit  
**Shaded:** Concentration exceeds the GA EPD Type 3/4 RRS  
**Acronyms and Abbreviations:**  
 DUP = field duplicate  
 GA EPD = Georgia Environmental Protection Division  
 PCB = polychlorinated biphenyl  
 RRS = Risk Reduction Standard  
 µg/kg = microgram per kilogram  
**Data Validation Qualifiers:**  
 B = Compound was detected in the associated blank  
 H = Sample was analyzed outside of the hold time  
 J = Result is estimated  
 U = Result is less than the laboratory detection limit



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Location ID			SB-99	SB-99	SB-F1	SB-F12	SB-F14	SB-F14/F12	SB-F14/F12/F3	SB-F15	SB-F19	SB-F27	SB-F3	SB-F3A	SB-F3RE	SB-F4	SB-F6	SB-F6/F4/F15/F27	SD-F6	SD-F6/F7/F8	SD-F7	SD-F8	South Sump	South Sump	SS-1
Sample ID	Type 1/2 RRS	Type 3/4 RRS	SB-99_11/06/08_(2-4)GRAB_NM	SB-99_11/06/08_(4-6)GRAB_NM	SB-F1_10/19/00_(1-3)GRAB_NM	SB-F12_10/20/00_(1-3)GRAB_NM	SB-F14_10/19/00_(1-3)GRAB_NM	SB-F14/F12_10/20/00_(1-3)COMP_H_NM	SB-F14/F12/F3_10/19/00_(0-3)COMP_H_NM	SB-F15_10/18/00_(0-3)GRAB_NM	SB-F19_10/17/00_(0-3)GRAB_NM	SB-F27_10/19/00_(1-3)GRAB_NM	SB-F3_10/24/00_(0-2)GRAB_NM	SB-F3A_F3A_11/8/02_(0-1)GRAB_NM	SB-F3RE_F3RE_12/19/02_(0-2)GRAB_NM	SB-F4_F4_10/19/00_(0.5-2)GRAB_NM	SB-F6_SB-F6_10/19/00_(1-3)GRAB_NM	SB-F6/F4/F15/F27_F6/F4/F15/F27_10/20/00_(0.5-3)COMP_H	SD-F6_SD-F6_11/2/00_(0-0.5)GRAB_NM	SD-F6/F7/F8_F6/F7/F8_11/2/00_(0-0.5)COMP_H_NM	SD-F7_SD-F7_11/2/00_(0-0.5)GRAB_NM	SD-F8_SD-F8_11/2/00_(0-0.5)GRAB_NM	SOUTH SUMP_1/19/00_(1-5)GRAB_NM	SOUTH SUMP_1/19/00_(4-5)GRAB_NM	SS-1_SS-1_7/2/04_(0-2)GRAB_NM
Sample Date Sample Type			11/06/2008 N	11/06/2008 N	10/19/2000 N	10/20/2000 N	10/19/2000 N	10/20/2000 N	10/19/2000 N	10/18/2000 N	10/17/2000 N	10/19/2000 N	10/24/2000 N	11/08/2002 N	12/19/2002 N	10/19/2000 N	10/19/2000 N	10/20/2000 N	11/02/2000 N	11/02/2000 N	11/02/2000 N	11/02/2000 N	01/19/2000 N	01/19/2000 N	07/02/2004 N
1,3-Dinitrobenzene	1050	1050	--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
1,4-Dichlorobenzene			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
1,4-Dioxane	7000	7000	--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
1,4-Naphthoquinone			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
1-Naphthylamine			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
2,2-Oxybis(1-Chloropropane)			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6-Tetrachlorophenol			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
2,4,5-Trichlorophenol			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
2,4,6-Trichlorophenol			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
2,4-Dichlorophenol			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
2,4-Dimethylphenol	70000	70000	--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
2,4-Dinitrophenol			--	--	< 1900 U	< 1800 U	< 2000 U	--	--	< 1900 U	< 2000 U	< 1900 U	< 10000 U	--	--	< 2000 U	< 2000 U	--	< 21000 U	--	< 2100 U	< 2300 U	--	--	< 2000 U
2,4-Dinitrotoluene			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
2,6-Dichlorophenol			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
2,6-Dinitrotoluene			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
2-Acetylaminofluorene			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
2-Chloronaphthalene			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
2-Chlorophenol			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
2-Methyl-4,6-dinitrophenol			--	--	< 1900 U	< 1800 U	< 2000 U	--	--	< 1900 U	< 2000 U	< 1900 U	< 10000 U	--	--	< 2000 U	< 2000 U	--	< 21000 U	--	< 2100 U	< 2300 U	--	--	< 2000 U
2-Methylnaphthalene			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
2-Methylphenol	3800	4100	--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
2-Naphthylamine			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
2-Nitroaniline			--	--	< 1900 U	< 1800 U	< 2000 U	--	--	< 1900 U	< 2000 U	< 1900 U	< 10000 U	--	--	< 2000 U	< 2000 U	--	< 21000 U	--	< 2100 U	< 2300 U	--	--	< 2000 U
2-Nitrophenol			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
2-Picoline			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
3,3-Dichlorobenzidine			--	--	< 730 U	< 720 U	< 780 U	--	--	< 740 U	< 780 U	< 750 U	< 4100 U	--	--	< 770 U	< 770 U	--	< 8200 U	--	< 810 U	< 900 U	--	--	< 780 U
3,3-Dimethylbenzidine			--	--	< 1900 U	< 1800 U	< 2000 U	--	--	< 1900 U	< 2000 U	< 1900 U	< 10000 U	--	--	< 2000 U	< 2000 U	--	< 21000 U	--	< 2100 U	< 2300 U	--	--	< 2000 U
3-Methylchloranthrene			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
3-Methylphenol, 4-Methylphenol			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	--
3-Nitroaniline			--	--	< 1900 U	< 1800 U	< 2000 U	--	--	< 1900 U	< 2000 U	< 1900 U	< 10000 U	--	--	< 2000 U	< 2000 U	--	< 21000 U	--	< 2100 U	< 2300 U	--	--	< 2000 U
4-Aminobiphenyl			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
4-Bromophenyl phenyl ether			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
4-Chloro-3-Methylphenol			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
4-Chlorophenyl phenyl ether			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
4-Dimethylaminoazobenzene			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
4-Methylphenol	3800	8000	--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
4-Nitroaniline			--	--	< 1900 U	< 1800 U	< 2000 U	--	--	< 1900 U	< 2000 U	< 1900 U	< 10000 U	--	--	< 2000 U	< 2000 U	--	< 21000 U	--	< 2100 U	< 2300 U	--	--	< 2000 U
4-Nitrophenol			--	--	< 1900 U	< 1800 U	< 2000 U	--	--	< 1900 U	< 2000 U	< 1900 U	< 10000 U	--	--	< 2000 U	< 2000 U	--	< 21000 U	--	< 2100 U	< 2300 U	--	--	< 2000 U
4-Nitroquinoline-N-Oxide			--	--	< 370 U	< 3600 U	< 3900 U	--	--	< 3700 U	< 3900 U	< 3800 U	< 20000 U	--	--	< 3800 U	< 3800 U	--	< 41000 U	--	< 4100 U	< 4500 U	--	--	< 3900 U
5-Nitro-o-Toluidine			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
7,12-Dimethylbenz(a)anthracene			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
Acenaphthene	300000	300000	--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
Acenaphthylene	130000	130000	--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
Acetophenone	400000	400000	--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
alpha,alpha-Dimethylphenethylamine			--	--	< 74000 U	< 73000 U	< 80000 U	--	--	< 75000 U	< 79000 U	< 76000 U	< 410000 U	--	--	< 78000 U	< 78000 U	--	< 840000 U	--	< 83000 U	< 92000 U	--	--	--
Aniline	2000	2000	--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	3300	< 390 U	< 390 U	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U



Location ID			SB-99	SB-99	SB-F1	SB-F12	SB-F14	SB-F14/F12	SB-F14/F12/F3	SB-F15	SB-F19	SB-F27	SB-F3	SB-F3A	SB-F3RE	SB-F4	SB-F6	SB-F6/F4/F15/F27	SD-F6	SD-F6/F7/F8	SD-F7	SD-F8	South Sump	South Sump	SS-1
Sample ID	Type 1/2 RRS	Type 3/4 RRS	SB-99_11/06/08_(2-4)GRAB_NM	SB-99_11/06/08_(4-6)GRAB_NM	SB-F1_10/19/00_(1-3)GRAB_NM	SB-F12_10/20/00_(1-3)GRAB_NM	SB-F14_10/19/00_(1-3)GRAB_NM	SB-F14/F12_10/20/00_(1-3)COMP_H_NM	SB-F14/F12/F3_10/19/00_(0-3)COMP_H_NM	SB-F15_10/18/00_(0-3)GRAB_NM	SB-F19_10/17/00_(0-3)GRAB_NM	SB-F27_10/19/00_(1-3)GRAB_NM	SB-F3_10/24/00_(0-2)GRAB_NM	SB-F3A_F3A_11/8/02_(0-1)GRAB_NM	SB-F3RE_F3RE_12/19/02_(0-2)GRAB_NM	SB-F4_F4_10/19/00_(0.5-2)GRAB_NM	SB-F6_10/19/00_(1-3)GRAB_NM	SB-F6/F4/F15/F27_10/20/00_(0.5-3)COMP_H	SD-F6_11/2/00_(0-0.5)GRAB_NM	SD-F6/F7/F8_11/2/00_(0-0.5)COMP_H_NM	SD-F7_11/2/00_(0-0.5)GRAB_NM	SD-F8_11/2/00_(0-0.5)GRAB_NM	SOUTH SUMP_1/19/00_(1-3)GRAB_NM	SOUTH SUMP_1/19/00_(4-5)GRAB_NM	SS-1_7/2/04_(0-2)GRAB_NM
Sample Date			11/06/2008	11/06/2008	10/19/2000	10/20/2000	10/19/2000	10/20/2000	10/19/2000	10/18/2000	10/17/2000	10/19/2000	10/24/2000	11/08/2002	12/19/2002	10/19/2000	10/19/2000	10/20/2000	11/02/2000	11/02/2000	11/02/2000	11/02/2000	01/19/2000	01/19/2000	07/02/2004
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
N-Nitroso-N-methylethylamine	680	1000	--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
N-Nitrosopiperidine			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
N-Nitrosopyrrolidine			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
o,o,o-Triethyl phosphorothioate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 390 U
o,o,o-Trimethyl thiophosphate			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	--
o,o-Diethyl o-pyrazinyl phosphorothioate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Toluidine			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	--
Parathion	20000	20000	--	--	< 370 U	< 360 U	1400	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	2100	--	< 4100 U	--	< 410 U	< 450 U	--	--	--
p-Chloroaniline			--	--	< 730 U	< 720 U	< 780 U	--	--	< 740 U	< 780 U	< 750 U	< 4100 U	--	--	< 770 U	< 770 U	--	< 8200 U	--	< 810 U	< 900 U	--	--	< 780 U
Pentachlorobenzene			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
Pentachloronitrobenzene			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
Pentachlorophenol			--	--	< 1900 U	< 1800 U	< 2000 U	--	--	< 1900 U	< 2000 U	< 1900 U	< 10000 U	--	--	< 2000 U	< 2000 U	--	< 21000 U	--	< 2100 U	< 2300 U	--	--	< 2000 U
Phenacetin			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
Phenanthrene	110000	110000	--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	460
Phenol			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
Phorate			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	--
Pinene			--	--	< 3700 U	< 3600 U	< 3900 U	--	--	< 3700 U	< 3900 U	< 3800 U	< 20000 U	--	--	< 3800 U	< 3800 U	--	< 41000 U	--	< 4100 U	< 4500 U	--	--	--
p-Phenylenediamine			--	--	< 1900 U	< 1800 U	< 2000 U	--	--	< 1900 U	< 2000 U	< 1900 U	< 10000 U	--	--	< 2000 U	< 2000 U	--	< 21000 U	--	< 2100 U	< 2300 U	--	--	< 2000 U
Propyzamide			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
Pyrene	500000	500000	--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
Pyridine			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
Safrole			--	--	< 370 U	< 360 U	< 390 U	--	--	< 370 U	< 390 U	< 380 U	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	< 390 U
Sulfotep			--	--	--	--	--	--	--	--	--	--	< 2000 U	--	--	< 380 U	< 380 U	--	< 4100 U	--	< 410 U	< 450 U	--	--	--
Volatile Organic Compounds (µg/kg)																									
1,1,1,2-Tetrachloroethane			--	--	< 5.8 U	< 5.7 U	< 6.2 U	--	--	< 5.7 U	< 5.2 U	< 5.6 U	< 250 U	--	--	< 5.3 U	< 5.8 U	--	< 5.8 U	--	< 5.1 U	< 7 U	--	--	< 5.9 U
1,1,1-Trichloroethane			--	--	< 5.8 U	< 5.7 U	< 6.2 U	--	--	< 5.7 U	< 5.2 U	< 5.6 U	< 250 U	--	--	< 5.3 U	< 5.8 U	--	< 5.8 U	--	< 5.1 U	< 7 U	--	--	< 5.9 U
1,1,2,2-Tetrachloroethane			--	--	< 5.8 U	< 5.7 U	< 6.2 U	--	--	< 5.7 U	< 5.2 U	< 5.6 U	< 250 U	--	--	< 5.3 U	< 5.8 U	--	< 5.8 U	--	< 5.1 U	< 7 U	--	--	< 5.9 U
1,1,2-Trichloroethane			--	--	< 5.8 U	< 5.7 U	< 6.2 U	--	--	< 5.7 U	< 5.2 U	< 5.6 U	< 250 U	--	--	< 5.3 U	< 5.8 U	--	< 5.8 U	--	< 5.1 U	< 7 U	--	--	< 5.9 U
1,1-Dichloroethane			--	--	< 5.8 U	< 5.7 U	< 6.2 U	--	--	< 5.7 U	< 5.2 U	< 5.6 U	< 250 U	--	--	< 5.3 U	< 5.8 U	--	< 5.8 U	--	< 5.1 U	< 7 U	--	--	< 5.9 U
1,1-Dichloroethene			--	--	< 5.8 U	< 5.7 U	< 6.2 U	--	--	< 5.7 U	< 5.2 U	< 5.6 U	< 250 U	--	--	< 5.3 U	< 5.8 U	--	< 5.8 U	--	< 5.1 U	< 7 U	--	--	< 5.9 U
1,2,3-Trichloropropane			--	--	< 5.8 U	< 5.7 U	< 6.2 U	--	--	< 5.7 U	< 5.2 U	< 5.6 U	< 250 U	--	--	< 5.3 U	< 5.8 U	--	< 5.8 U	--	< 5.1 U	< 7 U	--	--	< 5.9 U
1,2-Dibromo-3-chloropropane			--	--	< 5.8 U	< 5.7 U	< 6.2 U	--	--	< 5.7 U	< 5.2 U	< 5.6 U	< 250 U	--	--	< 5.3 U	< 5.8 U	--	< 12 U	--	< 10 U	< 14 U	--	--	< 12 U</



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**Notes:**  
**Bold** = Concentration is greater than the laboratory detection limit  
 Shaded = Concentration exceeds the GA EPD Type 3/4 RRS

**Acronyms and Abbreviations:**  
 DUP = field duplicate  
 GA EPD = Georgia Environmental Protection Division  
 PCB = polychlorinated biphenyl  
 RRS = Risk Reduction Standard  
 µg/kg = microgram per kilogram

**Data Validation Qualifiers:**  
 B = Compound was detected in the associated blank  
 H = Sample was analyzed outside of the hold time  
 J = Result is estimated  
 U = Result is less than the laboratory detection limit



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Location ID			SS-49	SS-50	SS-50	SS-51	SS-51	SS-52	SS-52	SS-53	SS-54	SS-55	SS-55	SS-56	SS-57	SS-58	SS-59	SS-60	SS-61	SS-61	SS-62	SS-63	SS-64	SS-64	SS-64	
Sample ID	Type 1/2 RRS	Type 3/4 RRS	SS-49_12/20/02_(1-2)GRAB_NM	SS-50_12/17/02_(1-2)GRAB_NM	SS-50_12/20/02_(1-2)GRAB_NM	SS-51_12/17/02_(1-2)GRAB_NM	SS-51_12/20/02_(1-2)GRAB_NM	SS-52_12/17/02_(1-2)GRAB_NM	SS-52_12/20/02_(1-2)GRAB_NM	SS-53_12/19/02_(1-2)GRAB_NM	SS-54_12/19/02_(1-2)GRAB_NM	SS-55_12/17/02_(1-2)GRAB_NM	SS-55_12/20/02_(1-2)GRAB_NM	SS-56_12/19/02_(1-2)GRAB_NM	SS-57_12/19/02_(1-2)GRAB_NM	SS-58_12/19/02_(1-2)GRAB_NM	SS-59_12/19/02_(1-2)GRAB_NM	SS-60_12/19/02_(1-2)GRAB_NM	SS-61_12/17/02_(1-2)GRAB_NM	SS-61_12/20/02_(1-2)GRAB_NM	SS-62_12/19/02_(1-2)GRAB_NM	SS-63_12/19/02_(1-2)GRAB_NM	SS-64_8/15/06_(0-2)GRAB_NM	SS-64_8/15/06_(2-4)GRAB_NM	DUP # 3_8/15/06_(0-2)GRAB_DUP	
Sample Date Sample Type			12/20/2002 N	12/17/2002 N	12/20/2002 N	12/17/2002 N	12/20/2002 N	12/17/2002 N	12/20/2002 N	12/19/2002 N	12/19/2002 N	12/17/2002 N	12/20/2002 N	12/19/2002 N	12/19/2002 N	12/19/2002 N	12/19/2002 N	12/19/2002 N	12/19/2002 N	12/17/2002 N	12/20/2002 N	12/19/2002 N	12/19/2002 N	08/15/2006 N	08/15/2006 N	08/15/2006 FD
N-Nitroso-N-methylethylamine	680	1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
N-Nitrosopiperidine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
N-Nitrosopyrrolidine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
o,o,o-Triethyl phosphorothioate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
o,o,o-Trimethyl thiophosphate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
o,o-Diethyl o-pyrazinyl phosphorothioate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
o-Toluidine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Parathion	20000	20000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
p-Chloroaniline			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Pentachlorobenzene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Pentachloronitrobenzene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Pentachlorophenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Phenacetin			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Phenanthrene	110000	110000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Phenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Phorate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Pinene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
p-Phenylenediamine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Propyzamide			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Pyrene	500000	500000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Pyridine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Safrole			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Sulfotep			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Volatile Organic Compounds (µg/kg)																										
1,1,1,2-Tetrachloroethane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,1,1-Trichloroethane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,1,2,2-Tetrachloroethane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,1,2-Trichloroethane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,1-Dichloroethane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,1-Dichloroethene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,2,3-Trichloropropane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,2-Dibromo-3-chloropropane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,2-Dibromoethane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,2-Dichloroethane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,2-Dichloropropane	500	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Butanone (MEK)	200000	200000	< 30 U	--	< 32 U	--	< 29 U	--	< 30 U	< 27 U	< 28 U	--	51	< 27 U	< 29 U	< 29 U	< 34 U	< 32 U	--	< 28 U	< 29 U	< 29 U	--	--	--	
2-Chlor-1,3-Butadiene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Methyl-1-propanol	1000000	1000000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4-Methyl-2-Pentanone	200000	200000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Acetone	400000	400000	< 60 U	--	< 63 U	--	61	--	140	80	< 57 U	--	1000	< 55 U	< 59 U	450	110	86	--	67	< 59 U	74	--	--	--	
Acetonitrile	20000	20000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Acrolein	100	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Acrylonitrile			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Allyl chloride			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzene	500	500	< 6 U	--	< 6.3 U	--	< 5.7 U	--	< 6 U	< 5.5 U	< 5.7 U	--	< 5.7 U	< 5.5 U	< 5.9 U	< 5.8 U	< 6.8 U	< 6.4 U	--	< 5.7 U	< 5.9 U	< 5.7 U	--	--	--	
Bromodichloromethane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Bromoform			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Bromomethane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Carbon Disulfide	400000	400000	< 6 U	--	< 6.3 U	--	< 5.7 U	--	< 6 U	< 5.5 U	< 5.7 U	--	< 5.7 U	< 5.5 U</												



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Location ID			SS-65	SS-65	SS-66	SS-66	SS-67	SS-67	SS-68	SS-68	SS-69	SS-69	SS-70	SS-70	SS-71	SS-71	SS-71	SS-72	SS-72	SS-73	SS-73	SS-74	SS-74	SS-75	SS-75
Sample ID	Type 1/2 RRS	Type 3/4 RRS	SS-65 8/15/06 (0-2)GRAB_NM	SS-65 8/15/06 (2-4)GRAB_NM	SS-66 8/15/06 (0-2)GRAB_NM	SS-66 8/15/06 (2-4)GRAB_NM	SS-67 8/15/06 (0-2)GRAB_NM	SS-67 8/15/06 (2-4)GRAB_NM	SS-68 8/15/06 (0-2)GRAB_NM	SS-68 8/15/06 (2-4)GRAB_NM	SS-69 8/15/06 (0-2)GRAB_NM	SS-69 8/15/06 (2-4)GRAB_NM	SS-70 8/15/06 (0-2)GRAB_NM	SS-70 8/15/06 (2-4)GRAB_NM	SS-71 8/15/06 (0-2)GRAB_NM	SS-71 8/15/06 (2-4)GRAB_NM	SS-71 DUP # 4 8/15/06 (2-4)GRAB_DUP	SS-72 8/15/06 (0-2)GRAB_NM	SS-72 8/15/06 (2-4)GRAB_NM	SS-73 8/15/06 (0-2)GRAB_NM	SS-73 8/15/06 (2-4)GRAB_NM	SS-74 8/15/06 (0-2)GRAB_NM	SS-74 8/15/06 (2-4)GRAB_NM	SS-75 8/15/06 (0-2)GRAB_NM	SS-75 8/15/06 (2-4)GRAB_NM
Sample Date			08/15/2006	08/15/2006	08/15/2006	08/15/2006	08/15/2006	08/15/2006	08/15/2006	08/15/2006	08/15/2006	08/15/2006	08/15/2006	08/15/2006	08/15/2006	08/15/2006	08/15/2006	08/15/2006	08/15/2006	08/15/2006	08/15/2006	08/15/2006	08/15/2006	08/15/2006	
Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
1,3-Dinitrobenzene	1050	1050	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	7000	7000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Naphthoquinone			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Naphthylamine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,2-Oxybis(1-Chloropropane)			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6-Tetrachlorophenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	70000	70000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dichlorophenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Acetylaminofluorene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl-4,6-dinitrophenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	3800	4100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Naphthylamine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Picoline			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3-Dimethylbenzidine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Methylchloranthrene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Methylphenol, 4-Methylphenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Aminobiphenyl			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-Methylphenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Dimethylaminoazobenzene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methylphenol	3800	8000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroquinoline-N-Oxide			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5-Nitro-o-Toluidine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7,12-Dimethylbenz(a)anthracene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	300000	300000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	130000	130000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetophenone	400000	400000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
alpha,alpha-Dimethylphenethylamine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aniline	2000	2000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	500000	1009000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aramite			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	5000	5000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	1640	1640	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	5000	5000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	500000	500000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	5000	46000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl Alcohol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
beta-Pinene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Chloroethoxy)methane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Chloroethyl)ether			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Chloroisopropyl)ether			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	50000	50000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzyl phthalate	50000	218540	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	5000	141000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diallate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	2000	5000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	1000	1900	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethyl phthalate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethoate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethyl phthalate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethylphenethylamine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butyl phthalate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	70000	70000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dinoseb			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diphenyl ether			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Disulfoton			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl Methanesulfonate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Famphur			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	500000	500000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	360000	360000	--	--	--	--</																			



**Bolds:** Concentration is greater than the laboratory detection limit  
**Shaded:** Concentration exceeds the GA EPD Type 3/4 RRS  
**Acronyms and Abbreviations:**  
 DUP = field duplicate  
 GA EPD = Georgia Environmental Protection Division  
 PCB = polychlorinated biphenyl  
 RRS = Risk Reduction Standard  
 µg/kg = microgram per kilogram  
**Data Validation Qualifiers:**  
 B = Compound was detected in the associated blank  
 H = Sample was analyzed outside of the hold time  
 J = Result is estimated  
 U = Result is less than the laboratory detection limit



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Location ID			SS-95	SS-96	SS-97	SS-97
Sample ID	Type 1/2 RRS	Type 3/4 RRS	SS-95 11/6/08 (0- 2)GRAB_NM	SS-96 11/6/08 (0- 2)GRAB_NM	SS-97 11/10/08 (0- 2)GRAB_NM	DUP- 4_11/10/08 (0- 2)GRAB_DUP
Sample Date			11/06/2008	11/06/2008	11/10/2008	11/10/2008
Sample Type			N	N	N	FD
Field Parameters						
pH (Standard Units)			--	--	--	--
General Chemistry (µg/kg)						
Cyanide			--	--	--	--
Total Organic Carbon			--	--	--	--
Dioxins and Furans (µg/kg)						
1,2,3,4,6,7,8-Heptachlorodibenzofuran			--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin			--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran			--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran			--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin			--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran			--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin			--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran			--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin			--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran			--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin			--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran			--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran			--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran			--	--	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin			--	--	--	--
Heptachlorodibenzofurans			--	--	--	--
Heptachlorodibenzo-p-dioxins			--	--	--	--
Hexachlorodibenzofurans			--	--	--	--
Hexachlorodibenzo-p-dioxins			--	--	--	--
Octachlorodibenzofuran			--	--	--	--
Octachlorodibenzo-p-dioxin			--	--	--	--
Pentachlorodibenzofurans, Total			--	--	--	--
Pentachlorodibenzo-p-dioxins, Total			--	--	--	--
Tetrachlorodibenzofurans, Total			--	--	--	--
Tetrachlorodibenzo-p-dioxins, Total			--	--	--	--
Toxicity Equivalent Quotient			--	--	--	--
Metals (µg/kg)						
Antimony			--	--	--	--
Arsenic			--	--	--	--
Barium			--	--	--	--
Beryllium			--	--	--	--
Cadmium			--	--	--	--
Chromium			--	--	--	--
Cobalt			--	--	--	--
Copper			--	--	--	--
Lead			--	--	--	--
Mercury			--	--	--	--
Nickel			--	--	--	--
Selenium			--	--	--	--
Silver			--	--	--	--
Thallium			--	--	--	--
Tin			--	--	--	--
Vanadium			--	--	--	--
Zinc			--	--	--	--
Herbicides (µg/kg)						
2,4,5-T (Trichlorophenoxyacetic Acid)			--	--	--	--
2,4,5-TP (Silvex)			--	--	--	--
2,4-D (Dichlorophenoxyacetic Acid)			--	--	--	--
Pesticides (µg/kg)						
4,4-DDD (Rhothane)			--	--	--	--
4,4-DDE (Dichlorodiphenyl-dichloroethylene)			--	--	--	--
4,4-DDT (Dichlorodiphenyl-trichloroethane)	660	2800	--	--	--	--
Aldrin			--	--	--	--
Alpha-BHC			--	--	--	--
Beta-BHC			--	--	--	--
Chlordane			--	--	--	--
Chlorobenzilate			--	--	--	--
Delta-BHC			--	--	--	--
Dieldrin			--	--	--	--
Endosulfan I			--	--	--	--
Endosulfan II			--	--	--	--
Endosulfan sulfate			--	--	--	--
Endrin	10000	10000	--	--	--	--
Endrin aldehyde	10000	10000	--	--	--	--
Gamma-BHC			--	--	--	--
Heptachlor			--	--	--	--
Heptachlor epoxide			--	--	--	--
Isodrin			--	--	--	--
Kepone			--	--	--	--
Methoxychlor	10000	28000	--	--	--	--
Technical BHC			--	--	--	--
Toxaphene			--	--	--	--
Total Petroleum Hydrocarbon (µg/kg)						
Diesel Range Organics			--	--	--	--
Gasoline Range Organics			--	--	--	--
Total Petroleum Hydrocarbon (TPH)			--	--	--	--
Polychlorinated Biphenyls (µg/kg)						
4,4-DDT	660	2800	< 3.8 U	--	--	--
Aroclor 1016			< 38 U	--	--	--
Aroclor 1221			< 77 U	--	--	--
Aroclor 1232			< 38 U	--	--	--
Aroclor 1242			< 38 U	--	--	--
Aroclor 1248			< 38 U	--	--	--
Aroclor 1254	1550	1550	180	--	--	--
Aroclor 1260	1550	1550	94	--	--	--
Semi-Volatile Organic Compounds (µg/kg)						
1,1-Biphenyl	1000	1000	--	--	--	--
1,2,4,5-Tetrachlorobenzene			--	--	--	--
1,2,4-Trichlorobenzene			--	--	--	--
1,2-Dichlorobenzene			--	--	--	--
1,3,5-Trinitrobenzene			--	--	--	--
1,3-Dichlorobenzene			--	--	--	--



Location ID			SS-95	SS-96	SS-97	SS-97
Sample ID	Type 1/2 RRS	Type 3/4 RRS	SS-95 11/6/08 (0- 2)GRAB_NM	SS-96 11/6/08 (0- 2)GRAB_NM	SS-97 11/10/08 (0- 2)GRAB_NM	DUP- 4_11/10/08 (0- 2)GRAB_DUP
Sample Date			11/06/2008	11/06/2008	11/10/2008	11/10/2008
Sample Type			N	N	N	FD
1,3-Dinitrobenzene	1050	1050	--	--	--	--
1,4-Dichlorobenzene			--	--	--	--
1,4-Dioxane	7000	7000	--	--	--	--
1,4-Naphthoquinone			--	--	--	--
1-Naphthylamine			--	--	--	--
2,2-Oxybis(1-Chloropropane)			--	--	--	--
2,3,4,6-Tetrachlorophenol			--	--	--	--
2,4,5-Trichlorophenol			--	--	--	--
2,4,6-Trichlorophenol			--	--	--	--
2,4-Dichlorophenol			--	--	--	--
2,4-Dimethylphenol	70000	70000	--	--	--	--
2,4-Dinitrophenol			--	--	--	--
2,4-Dinitrotoluene			--	--	--	--
2,6-Dichlorophenol			--	--	--	--
2,6-Dinitrotoluene			--	--	--	--
2-Acetylaminofluorene			--	--	--	--
2-Chloronaphthalene			--	--	--	--
2-Chlorophenol			--	--	--	--
2-Methyl-4,6-dinitrophenol			--	--	--	--
2-Methylnaphthalene			--	--	--	--
2-Methylphenol	3800	4100	--	--	--	--
2-Naphthylamine			--	--	--	--
2-Nitroaniline			--	--	--	--
2-Nitrophenol			--	--	--	--
2-Picoline			--	--	--	--
3,3-Dichlorobenzidine			--	--	--	--
3,3-Dimethylbenzidine			--	--	--	--
3-Methylchloranthrene			--	--	--	--
3-Methylphenol, 4-Methylphenol			--	--	--	--
3-Nitroaniline			--	--	--	--
4-Aminobiphenyl			--	--	--	--
4-Bromophenyl phenyl ether			--	--	--	--
4-Chloro-3-Methylphenol			--	--	--	--
4-Chlorophenyl phenyl ether			--	--	--	--
4-Dimethylaminoazobenzene			--	--	--	--
4-Methylphenol	3800	8000	--	--	--	--
4-Nitroaniline			--	--	--	--
4-Nitrophenol			--	--	--	--
4-Nitroquinoline-N-Oxide			--	--	--	--
5-Nitro-o-Toluidine			--	--	--	--
7,12-Dimethylbenz(a)anthracene			--	--	--	--
Acenaphthene	300000	300000	--	--	--	--
Acenaphthylene	130000	130000	--	--	--	--
Acetophenone	400000	400000	--	--	--	--
alpha,alpha-Dimethylphenethylamine			--	--	--	--
Aniline	2000	2000	--	--	--	--
Anthracene	500000	1009000	--	--	--	--
Aramite			--	--	--	--
Benzo(a)anthracene	5000	5000	--	--	--	--
Benzo(a)pyrene	1640	1640	--	--	--	--
Benzo(b)fluoranthene	5000	5000	--	--	--	--
Benzo(g,h,i)perylene	500000	500000	--	--	--	--
Benzo(k)fluoranthene	5000	46000	--	--	--	--
Benzyl Alcohol			--	--	--	--
beta-Pinene			--	--	--	--
bis(2-Chloroethoxy)methane			--	--	--	--
bis(2-Chloroethyl)ether			--	--	--	--
bis(2-Chloroisopropyl)ether			--	--	--	--
bis(2-Ethylhexyl)phthalate	50000	50000	--	--	--	--
Butyl benzyl phthalate	50000	218540	--	--	--	--
Chrysene	5000	141000	--	--	--	--
Diallylate			--	--	--	--
Dibenzo(a,h)anthracene	2000	5000	--	--	--	--
Dibenzofuran	1000	1900	--	--	--	--
Diethyl phthalate			--	--	--	--
Dimethoate			--	--	--	--
Dimethyl phthalate			--	--	--	--
Dimethylphenethylamine			--	--	--	--
Di-n-butyl phthalate			--	--	--	--
Di-n-octyl phthalate	70000	70000	--	--	--	--
Dinoseb			--	--	--	--
Diphenyl ether			--	--	--	--
Disulfoton			--	--	--	--
Ethyl Methanesulfonate			--	--	--	--
Famphur			--	--	--	--
Fluoranthene	500000	500000	--	--	--	--
Fluorene	360000	360000	--	--	--	--
Formaldehyde	100000	100000	180	130	--	--
Hexachloro-1,3-butadiene			--	--	--	--
Hexachlorobenzene			--	--	--	--
Hexachlorocyclopentadiene			--	--	--	--
Hexachloroethane			--	--	--	--
Hexachlorophene			--	--	--	--
Hexachloropropene			--	--	--	--
Indeno(1,2,3-cd)pyrene	5000	15000	--	--	--	--
Isophorone			--	--	--	--
Isosafrole			--	--	--	--
Methapyrilene			--	--	--	--
Methyl methanesulfonate			--	--	--	--
Methyl parathion			--	--	--	--
Naphthalene	100000	100000	--	--	--	--
Nitrobenzene			--	--	--	--
N-Nitrosodiethylamine			--	--	--	--
N-Nitrosodimethylamine			--	--	--	--
N-Nitrosodi-n-butylamine	1000	1000	--	--	--	--
N-Nitrosodi-n-propylamine			--	--	--	--
N-Nitrosodiphenylamine			--	--	--	--
N-Nitrosomorpholine			--	--	--	--



Location ID			SS-95	SS-96	SS-97	SS-97
Sample ID	Type 1/2 RRS	Type 3/4 RRS	SS-95 11/6/08 (0-2)GRAB_NM	SS-96 11/6/08 (0-2)GRAB_NM	SS-97 11/10/08 (0-2)GRAB_NM	DUP-4_11/10/08 (0-2)GRAB_DUP
Sample Date			11/06/2008	11/06/2008	11/10/2008	11/10/2008
Sample Type			N	N	N	FD
N-Nitroso-N-methylethylamine	680	1000	--	--	--	--
N-Nitrosopiperidine			--	--	--	--
N-Nitrosopyrrolidine			--	--	--	--
o,o,o-Triethyl phosphorothioate			--	--	--	--
o,o,o-Trimethyl thiophosphate			--	--	--	--
o,o-Diethyl o-pyrazinyl phosphorothioate			--	--	--	--
o-Toluidine			--	--	--	--
Parathion	20000	20000	--	--	--	--
p-Chloroaniline			--	--	--	--
Pentachlorobenzene			--	--	--	--
Pentachloronitrobenzene			--	--	--	--
Pentachlorophenol			--	--	--	--
Phenacetin			--	--	--	--
Phenanthrene	110000	110000	--	--	--	--
Phenol			--	--	--	--
Phorate			--	--	--	--
Pinene			--	--	--	--
p-Phenylenediamine			--	--	--	--
Propyzamide			--	--	--	--
Pyrene	500000	500000	--	--	--	--
Pyridine			--	--	--	--
Safrole			--	--	--	--
Sulfotep			--	--	--	--
Volatile Organic Compounds (µg/kg)						
1,1,1,2-Tetrachloroethane			--	--	--	--
1,1,1-Trichloroethane			--	--	--	--
1,1,2,2-Tetrachloroethane			--	--	--	--
1,1,2-Trichloroethane			--	--	--	--
1,1-Dichloroethane			--	--	--	--
1,1-Dichloroethene			--	--	--	--
1,2,3-Trichloropropane			--	--	--	--
1,2-Dibromo-3-chloropropane			--	--	--	--
1,2-Dibromoethane			--	--	--	--
1,2-Dichloroethane			--	--	--	--
1,2-Dichloropropane	500	500	--	--	--	--
2-Butanone (MEK)	200000	200000	< 22 U	< 23 U	--	--
2-Chlor-1,3-Butadiene			--	--	--	--
2-Methyl-1-propanol	1000000	1000000	--	--	--	--
4-Methyl-2-Pentanone	200000	200000	--	--	--	--
Acetone	400000	400000	--	--	--	--
Acetonitrile	20000	20000	--	--	--	--
Acrolein	100	100	--	--	--	--
Acrylonitrile			--	--	--	--
Allyl chloride			--	--	--	--
Benzene	500	500	< 4.3 U	< 4.6 U	< 4.7 U	< 4.6 U
Bromodichloromethane			--	--	--	--
Bromoform			--	--	--	--
Bromomethane			--	--	--	--
Carbon Disulfide	400000	400000	--	--	--	--
Carbon Tetrachloride			--	--	--	--
CFC-11 (Trichlorofluoromethane)			--	--	--	--
CFC-12 (Dichlorodifluoromethane)			--	--	--	--
Chlorobenzene	10000	10000	--	--	--	--
Chlorobenzilate			--	--	--	--
Chlorodibromomethane			--	--	--	--
Chloroethane			--	--	--	--
Chloroform			--	--	--	--
Chloromethane			--	--	--	--
cis-1,2-Dichloroethene			--	--	--	--
cis-1,3-Dichloropropene			--	--	--	--
Dibromomethane			--	--	--	--
Dichloromethane			--	--	--	--
Ethyl Methacrylate	300000	300000	--	--	--	--
Ethylbenzene	70000	70000	< 4.3 U	< 4.6 U	< 4.7 U	< 4.6 U
Iodomethane			--	--	--	--
m&p-Xylenes			--	--	--	--
Methyl methacrylate			--	--	--	--
Methyl N-Butyl Ketone (2-Hexanone)			--	--	--	--
Methylacrylonitrile			--	--	--	--
m-Xylene	20000	20000	--	--	--	--
o-Xylene	20000	20000	--	--	--	--
Pentachloroethane			--	--	--	--
Propionitrile			--	--	--	--
Styrene (Monomer)	14000	14000	--	--	--	--
Tetrachloroethene	500	500	--	--	--	--
Toluene	100000	100000	2.8 J	0.75 J	< 4.7 U	< 4.6 U
Total Xylenes	1000000	1000000	3.3 J	< 9.1 U	< 9.5 U	< 9.3 U
trans-1,2-Dichloroethene			--	--	--	--
trans-1,3-Dichloropropene			--	--	--	--
trans-1,4-Dichloro-2-butene	113	140	--	--	--	--
Trichloroethene			--	--	--	--
Vinyl acetate			--	--	--	--
Vinyl chloride			--	--	--	--

**Notes:**  
**Bold** = Concentration is greater than the laboratory detection limit  
Shaded = Concentration exceeds the GA EPD Type 3/4 RRS  
**Acronyms and Abbreviations:**  
DUP = field duplicate  
GA EPD = Georgia Environmental Protection Division  
PCB = polychlorinated biphenyl  
RRS = Risk Reduction Standard  
µg/kg = microgram per kilogram  
**Data Validation Qualifiers:**  
B = Compound was detected in the associated blank  
H = Sample was analyzed outside of the hold time  
J = Result is estimated  
U = Result is less than the laboratory detection limit



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Location ID	Type 1/2	RRS	Type 3/4	RRS	SB-108	SB-108	SB-109	SB-109	SB-109	SB-110	SB-111	SB-113	SB-114	SB-116	SB-117	SB-118	SB-119	SB-120	SB-120	SB-122	SB-123	SB-123	SB-124	SB-126	SB-128	SB-129	SB-129	SB-130	SB-131	SB-132	SB-133	SB-134
Sample ID					SB-108 (0-1)	SB-108 (1-3)	SB-109 (0-1)	SB-109 (1-3)	DUP-02 (0-1)	SB-110 (0-1)	SB-111 (0-1)	SB-113 (0-1)	SB-114 (0-1)	SB-116 (0-1)	SB-117 (0-1)	SB-118 (0-1)	SB-119 (0-1)	SB-120 (0-1)	SB-120 (1-3)	SB-122 (0-1)	SB-123 (0-1)	SB-123 (1-3)	SB-124 (0-1)	SB-126 (0-1)	SB-128 (0-1)	SB-129 (0-1)	SB-129 (1-3)	SB-130 (0-1)	SB-131 (0-1)	SB-132 (0-1)	SB-133 (0-1)	SB-134 (0-1)
Sample Date					08/19/2014	08/19/2014	08/20/2014	08/20/2014	08/20/2014	08/20/2014	08/21/2014	08/21/2014	08/20/2014	08/21/2014	08/20/2014	08/20/2014	08/21/2014	08/20/2014	08/20/2014	08/20/2014	08/19/2014	08/19/2014	08/19/2014	08/21/2014	08/21/2014	08/21/2014	08/21/2014	08/21/2014	08/21/2014	08/19/2014	08/19/2014	
Sample Type					N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
PCB-114L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-115					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.9	--	--	--	--	--	--	--	--	--	--	--	--
PCB-118					--	--	--	--	--	--	--	--	--	3.9 G	2.9 E	--	--	--	--	2.1 G	9.4 E	11 E	6.9 E	71 E	19 E	0.046	0.029	15 E	10 E	9.3 E	4.6 G	9 G
PCB-118L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-12					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-12/13					--	--	--	--	--	--	--	--	--	< 0.048 U	< 0.044 U	--	--	--	--	< 0.047 U	< 0.048 U	< 0.048 U	< 0.051 U	< 0.45 U	< 0.046 U	< 0.043 U	< 0.042 U	< 0.043 U	< 0.045 U	< 0.045 U	< 0.05 U	< 0.045 U
PCB-120					--	--	--	--	--	--	--	--	--	< 0.045 U	< 0.034 U	--	--	--	--	< 0.023 U	< 0.088 U	< 0.077 U	< 0.07 U	< 1 U	< 0.12 U	< 0.022 U	< 0.021 U	< 0.14 U	< 0.097 U	< 0.096 U	< 0.052 U	< 0.11 U
PCB-121					--	--	--	--	--	--	--	--	--	< 0.042 U	< 0.032 U	--	--	--	--	< 0.023 U	< 0.085 U	< 0.075 U	< 0.067 U	< 0.97 U	< 0.12 U	< 0.022 U	< 0.021 U	< 0.13 U	< 0.094 U	< 0.093 U	< 0.049 U	< 0.1 U
PCB-122					--	--	--	--	--	--	--	--	--	0.086 G	< 0.039 U	--	--	--	--	< 0.023 U	< 0.1 U	< 0.09 U	< 0.081 U	< 1.2 U	0.23 G	< 0.022 U	< 0.021 U	< 0.16 U	0.16 G	< 0.11 U	< 0.062 U	< 0.13 U
PCB-123					--	--	--	--	--	--	--	--	--	0.085 G	0.044 G	--	--	--	--	0.041 G	0.22 G	0.18 G	0.09 G	< 1.1 U	0.22 G	< 0.0022 U	< 0.0021 U	0.2 G	0.17 G	0.11 G	0.086 G	0.73 G
PCB-123L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-126					--	--	--	--	--	--	--	--	--	0.13 G	< 0.042 U	--	--	--	--	< 0.029 U	< 0.12 U	< 0.1 U	< 0.097 U	2.2 G	0.51 G	0.0037	< 0.0021 U	0.34 G	0.16 G	0.18 G	0.11 G	< 0.16 U
PCB-126L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-127					--	--	--	--	--	--	--	--	--	< 0.051 U	< 0.037 U	--	--	--	--	< 0.023 U	< 0.098 U	< 0.086 U	< 0.078 U	< 1.1 U	< 0.13 U	< 0.022 U	< 0.021 U	< 0.15 U	< 0.11 U	< 0.11 U	< 0.06 U	< 0.12 U
PCB-128					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-128/162					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-128/166					--	--	--	--	--	--	--	--	--	2.7	0.8	--	--	--	--	0.71	3.6	3.5	2.3	35 G	4.5 G	0.061	< 0.042 U	5.9 E	2.5	4.1 G	1.8	2.9 G
PCB-129					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-129/138/163					--	--	--	--	--	--	--	--	--	13 E	4.3	--	--	--	--	3.8	18 E	18 E	12 E	160 E	24 E	0.29	0.099	30 E	14 E	22 E	9.5 E	15 E
PCB-130					--	--	--	--	--	--	--	--	--	0.83 G	0.28	--	--	--	--	0.21	1.1 G	1.1 G	0.75 G	13 G	1.5 G	< 0.022 U	< 0.021 U	2.1 G	0.9 G	1.4 G	0.69 G	1.1 G
PCB-131					--	--	--	--	--	--	--	--	--	0.11 G	0.038	--	--	--	--	0.031	< 0.057 U	0.092 G	0.13 G	2.4 G	0.27 G	< 0.022 U	< 0.021 U	0.43 G	0.18 G	0.29 G	0.12 G	0.21 G
PCB-132					--	--	--	--	--	--	--	--	--	3 G	1.1	--	--	--	--	0.69	4 E	4.1 E	3 E	57 E	6.1 E	0.05	0.024	9.3 E	4.2 E	6.2 E	2.7 E	4.5 G
PCB-133					--	--	--	--	--	--	--	--	--	0.11 G	0.039	--	--	--	--	0.03	0.15 G	0.15 G	0.11 G	1.9 G	0.23 G	< 0.022 U	< 0.021 U	0.31 G	0.12 G	0.2 G	0.096	0.16 G
PCB-134					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-134/143					--	--	--	--	--	--	--	--	--	0.49 G	0.19	--	--	--	--	0.11	0.53 G	0.61 G	0.5 G	8.9 G	0.92 G	< 0.043 U	< 0.042 U	1.5 G	0.68	1 G	0.46	0.73 G
PCB-135					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-135/151					--	--	--	--	--	--	--	--	--	1.7	0.7	--	--	--	--	0.44	2.2 G	2.4 G	2	33 G	3.6 G	< 0.043 U	< 0.042 U	5.9 E	2.5	3.5 G	1.6	2.7 G
PCB-136					--	--	--	--	--	--	--	--	--	0.7 G	0.27	--	--	--	--	0.18	0.7 G	0.65 G	0.77 G	14 G	1.8 G	< 0.022 U	< 0.021 U	2.5 E	1.1	1.5 G	0.68	1.1 G
PCB-137					--	--	--	--	--	--	--	--	--	0.72 G	0.21	--	--	--	--	0.23	1 G	1 G	0.67 G	7.7 G	1.4 G	< 0.022 U	< 0.021 U	1.8 G	0.79 G	1.2 G	0.53	0.85 G
PCB-139					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-139/140					--	--	--	--	--	--	--	--	--	0.19	0.065	--	--	--	--	0.049	0.18	0.18 G	0.21	3.1 G	0.42 G	< 0.043 U	< 0.042 U	0.54 G	0.22	0.35 G	0.16	0.26 G
PCB-14					--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.025 U	< 0.23 U	< 0.023 U	< 0.022 U	< 0.021 U	< 0.022 U	< 0.023 U	< 0.023 U	< 0.025 U	< 0.023 U
PCB-141					--	--	--	--	--	--	--	--	--	1.3 G	0.56	--	--	--	--	0.4	2.3 G	2.5 E	1.5 G	20 G	2.7 E	< 0.022 U	< 0.021 U	< 0.022 U	2.1 G	2.9 E	1.3	2.1 G
PCB-142					--	--	--	--	--	--	--	--	--	< 0.049 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.052 U	< 0.055 U	< 0.051 U	< 0.78 U	< 0.082 U	< 0.022 U	< 0.021 U	< 0.076 U	< 0.033 U	< 0.083 U	< 0.025 U	0.19 G
PCB-144					--	--	--	--	--	--	--	--	--	0.24 G	0.099	--	--	--	--	0.066	0.26 G	0.27 G	0.31 G	5.1 G	0.55 G	< 0.022 U	< 0.021 U	0.28 G	0.42 G	0.56 G	0.24	0.4 G
PCB-145					--	--	--	--	--	--	--	--	--	< 0.031 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.036 U	< 0.038 U	< 0.036 U	< 0.54 U	< 0.057 U	< 0.022 U	< 0.021 U	< 0.052 U	< 0.023 U	< 0.058 U	< 0.025 U	< 0.037 U
PCB-146					--	--	--	--	--	--	--	--	--	1.3 G	0.42	--	--	--	--	0.34	1.6 G	1.7 G	1.2 G	19 G	2.5 E	0.035	< 0.021 U	3.2 E	1.3 G	2.1 G	1	1.7 G
PCB-147					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-147/149					--	--	--	--	--	--	--	--	--	4.7	2	--	--	--	--	1.2	5.9 E	5.7 E	5.4 E	94 E	11 E	0.1	0.046	16 E	7.2 E	10 E	4.5	7.6 G
PCB-148					--	--	--	--	--	--	--	--	--	< 0.043 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.048 U	< 0.051 U	< 0.048 U	< 0.72 U	< 0.076 U	< 0.022 U	< 0.021 U	< 0.07 U	< 0.03 U	< 0.077 U	< 0.025 U	< 0.051 U
PCB-15					--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.025 U	< 0.023 U	0.023	< 0.022 U	< 0.021 U	< 0.023 U	< 0.023 U	< 0.023 U	< 0.025 U	< 0.023 U
PCB-150					--	--	--	--	--	--	--	--	--	< 0.029 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.033 U	< 0.035 U	< 0.033 U	< 0.5 U	< 0.052 U	< 0.022 U	< 0.021 U	< 0.048 U	< 0.023 U	< 0.053 U	< 0.025 U	< 0.034 U
PCB-152					--	--	--	--	--	--	--	--	--	< 0.03 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.035 U	< 0.037 U	< 0.035 U	< 0.53 U	< 0.055 U	< 0.022 U	< 0.021 U	< 0.051 U	< 0.023 U	< 0.056 U	< 0.025 U	< 0.035 U
PCB-153					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-153/168					--	--	--	--	--	--	--	--	--	6 E	2.5	--	--	--	--	2.1	9.4 E	9.7 E	6.9 E	70 E	13 E	0.1	0.047	16 E	7.7 E	12 E	4.9	8.1 E
PCB-154					--	--	--	--	--	--	--	--	--	< 0.039 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.042 U	0.06 G	0.09 G	0.95 G	< 0.067 U	< 0.022 U	< 0.021 U	0.13 G	0.065 G	0.1 G	< 0.025	



Location ID Sample ID Sample Date Sample Type	Type 1/2 RRS	Type 3/4 RRS	SB-108 SB-108 (0-1) 08/19/2014 N	SB-108 SB-108 (1-3) 08/19/2014 N	SB-109 SB-109 (0-1) 08/20/2014 N	SB-109 SB-109 (1-3) 08/20/2014 N	SB-109 DUP-02 (0-1) 08/20/2014 FD	SB-110 SB-110 (0-1) 08/20/2014 N	SB-111 SB-111 (0-1) 08/21/2014 N	SB-113 SB-113 (0-1) 08/21/2014 N	SB-114 SB-114 (0-1) 08/20/2014 N	SB-116 SB-116 (0-1) 08/21/2014 N	SB-117 SB-117 (0-1) 08/20/2014 N	SB-118 SB-118 (0-1) 08/20/2014 N	SB-119 SB-119 (0-1) 08/21/2014 N	SB-120 SB-120 (0-1) 08/20/2014 N	SB-120 SB-120 (1-3) 08/20/2014 N	SB-122 SB-122 (0-1) 08/20/2014 N	SB-123 SB-123 (0-1) 08/19/2014 N	SB-123 SB-123 (1-3) 08/19/2014 N	SB-124 SB-124 (0-1) 08/19/2014 N	SB-126 SB-126 (0-1) 08/21/2014 N	SB-128 SB-128 (0-1) 08/21/2014 N	SB-129 SB-129 (0-1) 08/21/2014 N	SB-129 SB-129 (1-3) 08/21/2014 N	SB-130 SB-130 (0-1) 08/21/2014 N	SB-131 SB-131 (0-1) 08/21/2014 N	SB-132 SB-132 (0-1) 08/21/2014 N	SB-133 SB-133 (0-1) 08/19/2014 N	SB-134 SB-134 (0-1) 08/19/2014 N	
PCB-194			--	--	--	--	--	--	--	--	--	0.32	0.15	--	--	--	--	0.061	0.67	0.61	0.3	6.5	0.41	0.061	< 0.021 U	0.75	0.4	0.65	0.3	0.53	
PCB-195			--	--	--	--	--	--	--	--	--	0.11	0.046	--	--	--	--	0.023	0.21	0.18	0.094	1.9	0.14	< 0.022 U	< 0.021 U	0.3	0.13	0.23	0.11	0.18	
PCB-196			--	--	--	--	--	--	--	--	--	0.16	0.079	--	--	--	--	0.035	0.36	0.32	0.15	3.4	0.21	0.024	< 0.021 U	0.52	0.21	0.36	0.17	0.31	
PCB-197			--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.025 U	< 0.23 U	< 0.023 U	< 0.022 U	< 0.021 U	0.033	< 0.023 U	< 0.023 U	< 0.025 U	< 0.023 U	
PCB-198			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-198/199			--	--	--	--	--	--	--	--	--	0.3	0.19	--	--	--	--	0.084	0.75	0.63	0.31	6.9	0.46	0.073	< 0.042 U	1.1	0.4	0.79	0.4	0.69	
PCB-19L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-1L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-2			--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.025 U	0.88	3.5 E	< 0.022 U	0.039	< 0.022 U	< 0.023 U	< 0.023 U	< 0.025 U	< 0.023 U	
PCB-20			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-20/28			--	--	--	--	--	--	--	--	--	< 0.048 U	< 0.044 U	--	--	--	--	< 0.047 U	< 0.048 U	< 0.048 U	< 0.051 U	< 0.45 U	0.071	< 0.043 U	< 0.042 U	0.044	0.059	< 0.045 U	< 0.05 U	0.087	
PCB-200			--	--	--	--	--	--	--	--	--	0.035	0.024	--	--	--	--	< 0.023 U	0.1	0.086	0.041	0.89	0.053	< 0.022 U	< 0.021 U	0.16	0.06	0.1	0.044	0.079	
PCB-201			--	--	--	--	--	--	--	--	--	0.032	0.022	--	--	--	--	< 0.023 U	0.085	0.07	0.036	0.74	0.05	< 0.022 U	< 0.021 U	0.14	0.05	0.087	0.041	0.077	
PCB-202			--	--	--	--	--	--	--	--	--	0.041	0.045	--	--	--	--	< 0.023 U	0.13	0.12	0.059	1.1	0.064	< 0.022 U	< 0.021 U	0.16	0.067	0.13	0.062	0.11	
PCB-202L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-203			--	--	--	--	--	--	--	--	--	0.2	0.12	--	--	--	--	0.049	0.5	0.43	0.21	4.5	0.26	0.042	< 0.021 U	0.64	0.25	0.5	0.25	0.44	
PCB-204			--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.025 U	< 0.23 U	< 0.023 U	< 0.022 U	< 0.021 U	< 0.022 U	< 0.023 U	< 0.023 U	< 0.025 U	< 0.023 U	
PCB-205			--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	0.039	0.036	< 0.025 U	0.39	0.026	< 0.022 U	< 0.021 U	0.047	0.024	0.044	< 0.025 U	0.034	
PCB-205L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-206			--	--	--	--	--	--	--	--	--	0.13	0.075	--	--	--	--	0.044	0.37	0.27	0.16	3.7	0.17	0.087	< 0.021 U	0.31	0.11	0.4	0.25	0.41	
PCB-206L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-207			--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	0.044	0.032	< 0.025 U	0.37	< 0.023 U	< 0.022 U	< 0.021 U	0.039	< 0.023 U	0.046	0.026	0.047	
PCB-208			--	--	--	--	--	--	--	--	--	0.027	0.024	--	--	--	--	< 0.023 U	0.08	0.06	0.046	0.77	0.042	0.037	< 0.021 U	0.076	0.024	0.1	0.076	0.11	
PCB-208L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-209L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-21			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-21/33			--	--	--	--	--	--	--	--	--	< 0.048 U	< 0.044 U	--	--	--	--	< 0.047 U	< 0.048 U	< 0.048 U	< 0.051 U	< 0.45 U	< 0.046 U	< 0.043 U	< 0.042 U	< 0.043 U	0.1	< 0.045 U	< 0.05 U	0.054	
PCB-22			--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.025 U	< 0.23 U	< 0.023 U	< 0.022 U	< 0.021 U	< 0.022 U	< 0.023 U	< 0.023 U	< 0.025 U	0.033	
PCB-23			--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.025 U	< 0.23 U	< 0.023 U	< 0.022 U	< 0.021 U	< 0.022 U	< 0.023 U	< 0.023 U	< 0.025 U	< 0.023 U	
PCB-24			--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.025 U	< 0.23 U	< 0.023 U	< 0.022 U	< 0.021 U	< 0.022 U	< 0.023 U	< 0.023 U	< 0.025 U	< 0.023 U	
PCB-25			--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.025 U	< 0.23 U	< 0.023 U	< 0.022 U	< 0.021 U	< 0.022 U	< 0.023 U	< 0.023 U	< 0.025 U	< 0.023 U	
PCB-26			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-26/29			--	--	--	--	--	--	--	--	--	< 0.048 U	< 0.044 U	--	--	--	--	< 0.047 U	< 0.048 U	< 0.048 U	< 0.051 U	< 0.45 U	< 0.046 U	< 0.043 U	< 0.042 U	< 0.043 U	< 0.045 U	< 0.045 U	< 0.05 U	< 0.045 U	
PCB-27			--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.025 U	< 0.23 U	< 0.023 U	< 0.022 U	< 0.021 U	< 0.022 U	< 0.023 U	< 0.023 U	< 0.025 U	< 0.023 U	
PCB-3			--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.025 U	0.26	0.77	< 0.022 U	< 0.021 U	< 0.022 U	< 0.023 U	< 0.023 U	< 0.025 U	< 0.023 U	
PCB-31			--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	0.025	< 0.025 U	0.5	0.15	< 0.022 U	< 0.021 U	< 0.022 U	0.084	< 0.023 U	0.026	0.098	
PCB-32			--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.025 U	< 0.23 U	< 0.023 U	< 0.022 U	< 0.021 U	0.03	< 0.023 U	< 0.025 U	< 0.023 U	< 0.023 U	
PCB-34			--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.025 U	< 0.23 U	< 0.023 U	< 0.022 U	< 0.021 U	< 0.022 U	< 0.023 U	< 0.023 U	< 0.025 U	< 0.023 U	
PCB-35			--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.025 U	< 0.23 U	0.023	< 0.022 U	< 0.021 U	< 0.022 U	< 0.023 U	< 0.023 U	< 0.025 U	< 0.023 U	
PCB-36			--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.025 U	< 0.23 U	0.026	< 0.022 U	< 0.021 U	0.039	< 0.023 U	< 0.023 U	< 0.025 U	< 0.023 U	
PCB-37			--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.025 U	< 0.23 U	0.12	< 0.022 U	< 0.021 U	< 0.037 U	0.029	< 0.023 U	< 0.025 U	0.038	
PCB-37L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-38			--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.025 U	< 0.23 U	< 0.023 U	< 0.022 U	< 0.021 U	< 0.022 U	< 0.023 U	< 0.023 U	< 0.025 U	< 0.023 U	
PCB-39			--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.025 U	< 0.23 U	< 0.023 U	< 0.022 U	< 0.021 U	0.094	< 0.023 U	< 0.023 U	< 0.025 U	< 0.023 U	
PCB-3L			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-4			--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	< 0.027 U	< 0.025 U	< 0.23 U	0.033	< 0.022 U	< 0.021 U	< 0.022 U	< 0.023 U	< 0			



Sample ID	Sample ID	Type 1/2	RRS	Type 3/4	RRS	SB-108 SB-108 (-0-1) 08/19/2014	SB-108 SB-108 (1-3) 08/19/2014	SB-109 SB-109 (-0-1) 08/20/2014	SB-109 SB-109 (1-3) 08/20/2014	DUP-02 (-0-1) 08/20/2014	SB-110 SB-110 (-0-1) 08/20/2014	SB-111 SB-111 (-0-1) 08/21/2014	SB-113 SB-113 (-0-1) 08/21/2014	SB-114 SB-114 (-0-1) 08/20/2014	SB-116 SB-116 (-0-1) 08/21/2014	SB-117 SB-117 (-0-1) 08/20/2014	SB-118 SB-118 (-0-1) 08/20/2014	SB-119 SB-119 (-0-1) 08/21/2014	SB-120 SB-120 (-0-1) 08/20/2014	SB-120 SB-120 (1-3) 08/20/2014	SB-122 SB-122 (-0-1) 08/20/2014	SB-123 SB-123 (-0-1) 08/19/2014	SB-123 SB-123 (1-3) 08/19/2014	SB-124 SB-124 (-0-1) 08/19/2014	SB-126 SB-126 (-0-1) 08/21/2014	SB-128 SB-128 (-0-1) 08/21/2014	SB-129 SB-129 (-0-1) 08/21/2014	SB-129 SB-129 (1-3) 08/21/2014	SB-130 SB-130 (-0-1) 08/21/2014	SB-131 SB-131 (-0-1) 08/21/2014	SB-132 SB-132 (-0-1) 08/21/2014	SB-133 SB-133 (-0-1) 08/19/2014	SB-134 SB-134 (-0-1) 08/19/2014				
Sample Date	Sample Type					N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N			
PCB-84						--	--	--	--	--	--	--	--	--	0.6 G	0.5 G	--	--	--	--	0.34 G	0.84 G	0.91 G	1 G	22 G	3.7 E	< 0.022 U	< 0.021 U	2.6 E	2.7 E	3.1 E	1.1 G	2.2 G				
PCB-85						--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
PCB-85/116/117						--	--	--	--	--	--	--	--	--	0.77	0.5	--	--	--	--	0.33	1.2 G	1.2 G	1.4 G	11 G	2.8 G	< 0.065 U	< 0.064 U	2.6 G	1.8 G	1.9 G	0.87	1.4 G				
PCB-86						--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
PCB-86/87/97/108/119/125						--	--	--	--	--	--	--	--	--	1.8	1.7	--	--	--	--	1	4	4.6	3.6	49	10	< 0.13 U	< 0.13 U	11 G	7.4	7	2.9	6.1				
PCB-88						--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
PCB-88/91						--	--	--	--	--	--	--	--	--	0.38 G	0.27 G	--	--	--	--	0.16	0.37 G	0.35 G	0.61 G	11 G	1.7 G	< 0.043 U	< 0.042 U	1.7 G	1.3 G	1.4 G	0.59 G	1.1 G				
PCB-89						--	--	--	--	--	--	--	--	--	< 0.064 U	< 0.051 U	--	--	--	--	< 0.029 U	< 0.13 U	< 0.12 U	< 0.11 U	< 1.5 U	< 0.18 U	< 0.022 U	< 0.021 U	< 0.21 U	< 0.15 U	< 0.15 U	< 0.075 U	< 0.15 U				
PCB-9						--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.025 U	< 0.23 U	< 0.023 U	< 0.022 U	< 0.021 U	< 0.022 U	< 0.023 U	< 0.023 U	< 0.025 U	< 0.023 U				
PCB-90						--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
PCB-90/101/113						--	--	--	--	--	--	--	--	--	2.5	2.7	--	--	--	--	1.5	5.9 G	7.2 G	5.3 G	69 E	14 E	< 0.065 U	< 0.064 U	15 E	10 E	9.7 E	4.3	8.9 G				
PCB-92						--	--	--	--	--	--	--	--	--	0.5 G	0.51 G	--	--	--	--	0.29 G	1.4 G	1.6 G	1.9 G	14 G	2.4 E	< 0.022 U	< 0.021 U	1.9 G	2 G	2.2 G	0.92 G	1.7 G				
PCB-93						--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
PCB-93/100						--	--	--	--	--	--	--	--	--	< 0.057 U	< 0.046 U	--	--	--	--	< 0.047 U	< 0.12 U	< 0.11 U	< 0.095 U	< 1.4 U	< 0.16 U	< 0.043 U	< 0.042 U	< 0.19 U	< 0.13 U	< 0.13 U	< 0.067 U	< 0.14 U				
PCB-94						--	--	--	--	--	--	--	--	--	< 0.061 U	< 0.048 U	--	--	--	--	< 0.028 U	< 0.13 U	< 0.11 U	< 0.1 U	< 1.4 U	< 0.17 U	< 0.022 U	< 0.021 U	< 0.2 U	< 0.14 U	< 0.14 U	< 0.071 U	< 0.15 U				
PCB-95						--	--	--	--	--	--	--	--	--	1.8 G	1.8 G	--	--	--	--	1 G	3.4 E	3.3 E	63 E	8.1 E	0.033	0.031	5.5 E	7.8 E	8 E	3.2 G	6.2 G					
PCB-96						--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.022 U	--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.025 U	0.33	0.053	< 0.022 U	< 0.021 U	0.067	0.042	0.036	< 0.025 U	0.03				
PCB-98						--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
PCB-98/102						--	--	--	--	--	--	--	--	--	< 0.053 U	< 0.044 U	--	--	--	--	< 0.047 U	< 0.11 U	< 0.096 U	< 0.087 U	1.3 G	< 0.15 U	< 0.043 U	< 0.042 U	< 0.17 U	0.17 G	0.18 G	< 0.063 U	< 0.13 U				
PCB-99						--	--	--	--	--	--	--	--	--	1.7 G	1.3 G	--	--	--	--	0.74 G	2.1 G	2.3 G	3.2 E	27 E	6.6 E	< 0.022 U	< 0.021 U	6.6 E	4.6 E	4.4 E	2.2 G	4.2 G				
Polychlorinated biphenyls	1550		1550			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Semi-Volatile Organic Compounds (µg/kg)																																					
1,1-Biphenyl	1000		1000			< 860 U	< 870 U	< 870 U	< 8600 U	< 18000 U	< 17000 U	< 8000 U	< 890 U	< 8200 U	< 890 U	< 850 U	--	--	< 790 U	< 810 U	--	< 910 U	< 890 U	< 19000 U	140000	4400000	< 8200 U	< 8000 U	< 8100 U	< 8400 U	< 8600 U	< 19000 U	< 17000 U				
1,2,4,5-Tetrachlorobenzene						< 380 U	< 390 U	< 390 U	< 3900 U	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U				
1,2,4-Trichlorobenzene						< 380 U	< 390 U	< 390 U	< 3900 U	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U				
1,2-Dichlorobenzene						< 380 U	< 390 U	< 390 U	< 3900 U	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U				
1,3,5-Trinitrobenzene						< 380 U	< 390 U	< 390 U	< 3900 U	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U				
1,3-Dichlorobenzene						< 380 U	< 390 U	< 390 U	< 3900 U	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U				
1,3-Dinitrobenzene						< 380 U	< 390 U	< 390 U	< 3900 U	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U				
1,4-Dichlorobenzene						< 380 U	< 390 U	< 390 U	< 3900 U	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U				
1,4-Dioxane						< 380 U	< 390 U	< 390 U	< 3900 U	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U				
1,4-Naphthoquinone						< 380 U	< 390 U	< 390 U	< 3900 U	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U				
1-Naphthylamine						< 380 U	< 390 U	< 390 U	< 3900 U	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U				
2,2-Oxybis(1-Chloropropane)						< 380 U	< 390 U	< 390 U	< 3900 U	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U				
2,3,4,6-Tetrachlorophenol						< 380 U	< 390 U	< 390 U	< 3900 U	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U				
2,4,5-Trichlorophenol						< 380 U	< 390 U	< 390 U	< 3900 U	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U				
2,4,6-Trichlorophenol						< 380 U	< 390 U	< 390 U	< 3900 U	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U				
2,4-Dichlorophenol						< 380 U	< 390 U	< 390 U	< 3900 U	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U				
2,4-Dimethylphenol						< 380 U	< 390 U	< 390 U	< 3900 U	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U				
2,4-Dinitrophenol						< 2000 U	< 2000 U	< 2000 U	< 20000 U	--	< 38000 U	< 18000 U	< 2000 U	< 19000 U	< 2000 U	< 2000 U	--	--	--	--	--	--	--	--	< 200000 U	< 2000000 U	< 19000 U	< 18000 U	< 19000 U	< 19000 U	< 20000 U	< 43000 U	< 39000 U				
2,4-Dinitrotoluene						< 380 U	< 390 U	< 390 U	< 3900 U	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	< 38000 U	< 380											



Sample ID	Sample Date	Sample Type	Type 1/2	RRS	Type 3/4	RRS	SB-108	SB-108	SB-109	SB-109	SB-109	SB-110	SB-111	SB-113	SB-114	SB-116	SB-117	SB-118	SB-119	SB-120	SB-120	SB-122	SB-123	SB-123	SB-123	SB-124	SB-126	SB-128	SB-129	SB-129	SB-130	SB-131	SB-132	SB-133	SB-134
SB-108 (0-1)	SB-108 (1-3)	SB-108 (1-3)	SB-109 (0-1)	SB-109 (1-3)	SB-109 (0-1)	SB-109 (1-3)	DUP-02 (0-1)	SB-110 (0-1)	SB-111 (0-1)	SB-113 (0-1)	SB-114 (0-1)	SB-116 (0-1)	SB-117 (0-1)	SB-118 (0-1)	SB-119 (0-1)	SB-120 (0-1)	SB-122 (0-1)	SB-123 (0-1)	SB-123 (1-3)	SB-124 (0-1)	SB-126 (0-1)	SB-128 (0-1)	SB-129 (0-1)	SB-129 (1-3)	SB-130 (0-1)	SB-131 (0-1)	SB-132 (0-1)	SB-133 (0-1)	SB-133 (1-3)	SB-134 (0-1)					
08/19/2014	08/19/2014	08/20/2014	08/20/2014	08/20/2014	08/20/2014	08/20/2014	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Dinoseb			< 380 U	< 390 U	< 390 U	< 3900 U	--	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U	
Disulfoton			< 380 U	< 390 U	< 390 U	< 3900 U	--	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U	
Ethyl Methanesulfonate			< 380 U	< 390 U	< 390 U	< 3900 U	--	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U	
Famphur			< 380 U	< 390 U	< 390 U	< 3900 U	--	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U	
Fluoranthene	500000	500000	< 380 U	< 390 U	< 390 U	< 3900 U	--	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U	
Fluorene	360000	360000	< 380 U	< 390 U	< 390 U	< 3900 U	--	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U	
Formaldehyde	100000	100000	--	--	--	--	--	--	--	110	920	360	--	--	--	140	140	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Hexachloro-1,3-butadiene			< 380 U	< 390 U	< 390 U	< 3900 U	--	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U	
Hexachlorobenzene			< 380 U	< 390 U	< 390 U	< 3900 U	--	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--	--	--	--	--	--	--	--	--	--	< 38000 U	< 380000 U	< 3700 U	< 3600 U	< 3600 U	< 3800 U	< 3800 U	< 8300 U	< 7600 U	
Hexachlorocyclopentadiene			< 380 U	< 390 U	< 390 U	< 3900 U	--	--	< 7400 U	< 3600 U	< 400 U	< 3700 U	< 400 U	< 380 U	--	--																			



Location ID	Type 1/2	RRS	Type 3/4	RRS	SB-108 SB-108 (0-1) 08/19/2014 N	SB-108 SB-108 (1-3) 08/19/2014 N	SB-109 SB-109 (0-1) 08/20/2014 N	SB-109 SB-109 (1-3) 08/20/2014 N	SB-109 DUP-02 (0-1) 08/20/2014 FD	SB-110 SB-110 (0-1) 08/20/2014 N	SB-111 SB-111 (0-1) 08/21/2014 N	SB-113 SB-113 (0-1) 08/21/2014 N	SB-114 SB-114 (0-1) 08/20/2014 N	SB-116 SB-116 (0-1) 08/21/2014 N	SB-117 SB-117 (0-1) 08/20/2014 N	SB-118 SB-118 (0-1) 08/20/2014 N	SB-119 SB-119 (0-1) 08/21/2014 N	SB-120 SB-120 (0-1) 08/20/2014 N	SB-120 SB-120 (1-3) 08/20/2014 N	SB-122 SB-122 (0-1) 08/20/2014 N	SB-123 SB-123 (0-1) 08/19/2014 N	SB-123 SB-123 (1-3) 08/19/2014 N	SB-124 SB-124 (0-1) 08/19/2014 N	SB-126 SB-126 (0-1) 08/21/2014 N	SB-128 SB-128 (0-1) 08/21/2014 N	SB-129 SB-129 (0-1) 08/21/2014 N	SB-129 SB-129 (1-3) 08/21/2014 N	SB-130 SB-130 (0-1) 08/21/2014 N	SB-131 SB-131 (0-1) 08/21/2014 N	SB-132 SB-132 (0-1) 08/21/2014 N	SB-133 SB-133 (0-1) 08/19/2014 N	SB-134 SB-134 (0-1) 08/19/2014 N	
Sample Type																																	
Methyl methacrylate					< 11 U	< 11 U	< 9.8 U	< 11 U	--	< 9.0 U	< 5.8 U	< 9.0 U	< 9.7 U	< 8.2 U	< 9.8 U	--	--	--	--	--	--	--	--	--	< 3900 U	< 10 U	< 10 U	< 10 U	< 10 U	< 9.3 U	< 9.3 U	< 12 U	< 8.7 U
Methyl N-Butyl Ketone (2-Hexanone)					< 27 U	< 28 U	< 24 U	< 28 U	--	< 22 U	< 14 U	< 23 U	< 24 U	< 21 U	< 25 U	--	--	--	--	--	--	--	--	--	< 9800 U	< 26 U	< 25 U	< 25 U	< 26 U	< 23 U	< 23 U	< 29 U	< 22 U
Methylacrylonitrile					< 110 U	< 110 U	< 98 U	< 110 U	--	< 90 U	< 58 U	< 90 U	< 97 U	< 82 U	< 98 U	--	--	--	--	--	--	--	--	--	< 39000 U	< 100 U	< 100 U	< 100 U	< 100 U	< 93 U	< 93 U	< 120 U	< 87 U
Naphthalene	100000		100000		< 5.4 U	< 5.6 U	< 4.9 U	< 5.5 U	--	< 4.5 U	< 2.9 U	< 4.5 U	< 4.9 U	< 4.1 U	< 4.9 U	--	--	--	--	--	--	--	--	--	2600	< 5.2 U	< 5.0 U	< 5.1 U	< 5.1 U	< 4.6 U	< 4.6 U	< 5.8 U	< 4.4 U
Pentachloroethane					< 27 U	< 28 U	< 24 U	< 28 U	--	< 22 U	< 14 U	< 23 U	< 24 U	< 21 U	< 25 U	--	--	--	--	--	--	--	--	--	< 9800 U	< 26 U	< 25 U	< 25 U	< 26 U	< 23 U	< 23 U	< 29 U	< 22 U
Propionitrile					< 110 U	< 110 U	< 98 U	< 110 U	--	< 90 U	< 58 U	< 90 U	< 97 U	< 82 U	< 98 U	--	--	--	--	--	--	--	--	--	< 39000 U	< 100 U	< 100 U	< 100 U	< 100 U	< 93 U	< 93 U	< 120 U	< 87 U
Styrene (Monomer)	14000		14000		< 5.4 U	< 5.6 U	< 4.9 U	< 5.5 U	--	< 4.5 U	< 2.9 U	< 4.5 U	< 4.9 U	< 4.1 U	< 4.9 U	--	--	--	--	--	--	--	--	--	< 2000 U	< 5.2 U	< 5.0 U	< 5.1 U	< 5.1 U	< 4.6 U	< 4.6 U	< 5.8 U	< 4.4 U
Tetrachloroethene	500		500		< 5.4 U	< 5.6 U	< 4.9 U	< 5.5 U	--	< 4.5 U	< 2.9 U	< 4.5 U	< 4.9 U	< 4.1 U	< 4.9 U	--	--	--	--	--	--	--	--	--	< 2000 U	< 5.2 U	< 5.0 U	< 5.1 U	< 5.1 U	< 4.6 U	< 4.6 U	< 5.8 U	< 4.4 U
Toluene	100000		100000		< 5.4 U	< 5.6 U	< 4.9 U	< 5.5 U	--	< 4.5 U	< 2.9 U	< 4.5 U	< 4.9 U	< 4.1 U	< 4.9 U	--	--	--	--	--	--	--	--	--	< 2000 U	< 5.2 U	< 5.0 U	< 5.1 U	< 5.1 U	< 4.6 U	< 4.6 U	< 5.8 U	< 4.4 U
Total Xylenes	1000000		1000000		< 11 U	< 11 U	< 9.8 U	< 11 U	--	< 9.0 U	< 5.8 U	< 9.0 U	< 9.7 U	< 8.2 U	< 9.8 U	--	--	--	--	--	--	--	--	--	< 3900 U	< 10 U	< 10 U	< 10 U	< 10 U	< 9.3 U	< 9.3 U	< 12 U	< 8.7 U
trans-1,2-Dichloroethene					< 5.4 U	< 5.6 U	< 4.9 U	< 5.5 U	--	< 4.5 U	< 2.9 U	< 4.5 U	< 4.9 U	< 4.1 U	< 4.9 U	--	--	--	--	--	--	--	--	--	< 2000 U	< 5.2 U	< 5.0 U	< 5.1 U	< 5.1 U	< 4.6 U	< 4.6 U	< 5.8 U	< 4.4 U
trans-1,3-Dichloropropene					< 5.4 U	< 5.6 U	< 4.9 U	< 5.5 U	--	< 4.5 U	< 2.9 U	< 4.5 U	< 4.9 U	< 4.1 U	< 4.9 U	--	--	--	--	--	--	--	--	--	< 2000 U	< 5.2 U	< 5.0 U	< 5.1 U	< 5.1 U	< 4.6 U	< 4.6 U	< 5.8 U	< 4.4 U
trans-1,4-Dichloro-2-butene	113		140		< 11 U	< 11 U	< 9.8 U	< 11 U	--	< 9.0 U	< 5.8 U	< 9.0 U	< 9.7 U	< 8.2 U	< 9.8 U	--	--	--	--	--	--	--	--	--	< 3900 U	< 10 U	< 10 U	< 10 U	< 10 U	< 9.3 U	< 9.3 U	< 12 U	< 8.7 U
Trichloroethene					< 5.4 U	< 5.6 U	< 4.9 U	< 5.5 U	--	< 4.5 U	< 2.9 U	< 4.5 U	< 4.9 U	< 4.1 U	< 4.9 U	--	--	--	--	--	--	--	--	--	< 2000 U	< 5.2 U	< 5.0 U	< 5.1 U	< 5.1 U	< 4.6 U	< 4.6 U	< 5.8 U	< 4.4 U
Vinyl acetate					< 11 U	< 11 U	< 9.8 U	< 11 U	--	< 9.0 U	< 5.8 U	< 9.0 U	< 9.7 U	< 8.2 U	< 9.8 U	--	--	--	--	--	--	--	--	--	< 3900 U	< 10 U	< 10 U	< 10 U	< 10 U	< 9.3 U	< 9.3 U	< 12 U	< 8.7 U
Vinyl chloride					< 5.4 U	< 5.6 U	< 4.9 U	< 5.5 U	--	< 4.5 U	< 2.9 U	< 4.5 U	< 4.9 U	< 4.1 U	< 4.9 U	--	--	--	--	--	--	--	--	--	< 2000 U	< 5.2 U	< 5.0 U	< 5.1 U	< 5.1 U	< 4.6 U	< 4.6 U	< 5.8 U	< 4.4 U

**Notes:**  
**Bold** = Concentration is greater than the laboratory detection limit  
Shaded = Concentration exceeds the GA EPD Type 3/4 RRS  
**Acronyms and Abbreviations:**  
DUP = field duplicate  
GA EPD = Georgia Environmental Protection Division  
PCB = polychlorinated biphenyl  
RRS = Risk Reduction Standard  
µg/kg = microgram per kilogram  
**Data Validation Qualifiers:**  
B = Compound was detected in the associated blank  
H = Sample was analyzed outside of the hold time  
J = Result is estimated  
U = Result is less than the laboratory detection limit







8/30



Station ID	Sample ID	Sample Date	Sample Type	Type 1/2	RRS	Type 3/4	RRS	SB-135 SB-135 (0-1) 08/21/2014	SB-136 SB-136 (0-1) 08/21/2014	SB-136 SB-136 (1-3) 08/21/2014	SB-137 SB-137 (0-1) 08/21/2014	SB-138 SB-138 (0-1) 08/20/2014	SB-138 DUP-01 (0-1) 08/20/2014	SB-139 SB-139 (0-1) 08/21/2014	SB-140 SB-140 (0-1) 08/21/2014	SB-140 SB-140 (1-3) 08/21/2014	SB-140 DUP-06 (0-1) 08/21/2014	SB-141 SB-141 (0-1) 08/20/2014	SB-142 SB-142 (0-1) 08/21/2014	SB-142 SB-142 (1-3) 08/21/2014	SB-143 SB-143 (0-1) 08/21/2014	SB-144 SB-144 (0-1) 08/22/2014	SB-144 DUP-03 08/22/2014	SB-145 SB-145 (0-1) 08/22/2014	SB-145 SB-145 (1-3) 08/22/2014	SB-145 DUP-07 (0-1) 08/22/2014	SB-146 SB-146 (0-1) 08/22/2014	SB-148 SB-148 (0-1) 08/22/2014	SB-148 DUP-04 08/22/2014	SB-149 SB-149 (0-1) 08/22/2014	SB-150 SB-150 (0-1) 08/22/2014	SB-151 SB-151 (0-1) 08/20/2014	SB-152 SB-152 (0-1) 08/20/2014	SB-153 SB-153 (0-1) 08/22/2014	SB-155 SB-155 (0-1) 08/22/2014
PCB-194								N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	FD	N	N	FD	N	N	N	N	N	N	N	N	N	N
PCB-195								3	0.81	0.44	3.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-196								1.2	0.32	0.16	1.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-197								2.1	0.43	0.21	1.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-198								0.11	0.029	0.025	0.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-198								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-198/199								5	0.93	1	4.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-19L								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-1L								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-2								< 0.026 U	< 0.024 U	< 0.022 U	< 0.025 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-20								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-20/28								1.8 G	0.11	0.51	0.72	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-200								0.6	0.11	0.14	0.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-201								0.44	0.11	0.15	0.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-202								0.83	0.13	0.19	0.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-202L								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-203								2.6	0.57	0.58	2.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-204								< 0.026 U	< 0.024 U	< 0.022 U	< 0.025 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-205								0.17	0.052	0.04	0.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-205L								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-206								1.4	0.33	0.7	2.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-206L								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-207								0.18	0.037	0.079	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-208								0.33	0.072	0.16	0.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-208L								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-209L								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-21								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-21/33								0.87 G	0.049	< 0.43 U	0.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-22								0.66 G	0.026	< 0.22 U	0.22 G	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-23								< 0.16 U	< 0.024 U	< 0.22 U	< 0.027 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	FD	--	--	--	--	--	--	--	--	--
PCB-24								< 0.026 U	< 0.024 U	< 0.22 U	< 0.025 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-25								0.19 G	< 0.024 U	< 0.22 U	0.075 G	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-26								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-26/29								0.52 G	0.079	< 0.43 U	0.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-27								0.13	< 0.024 U	< 0.22 U	0.047	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-3								< 0.026 U	< 0.024 U	< 0.022 U	< 0.025 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-31								1.8 G	0.27	0.39	0.88 G	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-32								0.48	< 0.024 U	< 0.22 U	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-34								< 0.17 U	< 0.024 U	< 0.22 U	< 0.028 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-35								0.51 G	< 0.024 U	< 0.22 U	0.041 G	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-36								0.22 G	0.081	< 0.22 U	0.33 G	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-37								0.39 G	0.087	< 0.22 U	0.31 G	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-37L								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-38								< 0.18 U	< 0.024 U	< 0.22 U	< 0.03 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-39								< 0.17 U	< 0.024 U	< 0.22 U	< 0.029 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-3L								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-4								0.09	< 0.024 U	< 0.022 U	0.069	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-40								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-40/71								2.6	0.69	< 0.043 U	3.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-41								0.12 G	< 0.024 U	< 0.022 U	0.16 G	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-42								1.2 G	0.37	< 0.022 U	1.7 G	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-43								0.16 G	< 0.024 U	< 0.022 U	0.21 G	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-44								--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-44/47/65								11	5	1.2	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-45								0.55 G	0.097	< 0.022 U	0.52 G	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-46								0.26 G	0.052	< 0.022 U	0.21 G	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-48								0.59 G	0.16	0.25	0.74 G	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-49					</																														



Station ID	Sample ID	Sample Date	Sample Type	Type 1/2	RRS	Type 3/4	RRS	SB-135 SB-135 (0-1) 08/21/2014	SB-136 SB-136 (0-1) 08/21/2014	SB-136 SB-136 (1-3) 08/21/2014	SB-137 SB-137 (0-1) 08/21/2014	SB-138 SB-138 (0-1) 08/20/2014	SB-138 DUP-01 (0-1) 08/20/2014	SB-139 SB-139 (0-1) 08/21/2014	SB-140 SB-140 (0-1) 08/21/2014	SB-140 SB-140 (1-3) 08/21/2014	SB-140 DUP-06 (0-1) 08/21/2014	SB-141 SB-141 (0-1) 08/20/2014	SB-142 SB-142 (0-1) 08/21/2014	SB-142 SB-142 (1-3) 08/21/2014	SB-143 SB-143 (0-1) 08/21/2014	SB-144 SB-144 (0-1) 08/22/2014	SB-144 DUP-03 08/22/2014	SB-145 SB-145 (0-1) 08/22/2014	SB-145 SB-145 (1-3) 08/22/2014	SB-145 DUP-07 (0-1) 08/22/2014	SB-146 SB-146 (0-1) 08/22/2014	SB-148 SB-148 (0-1) 08/22/2014	SB-148 DUP-04 08/22/2014	SB-149 SB-149 (0-1) 08/22/2014	SB-150 SB-150 (0-1) 08/22/2014	SB-151 SB-151 (0-1) 08/20/2014	SB-152 SB-152 (0-1) 08/20/2014	SB-153 SB-153 (0-1) 08/22/2014	SB-155 SB-155 (0-1) 08/22/2014	
	PCB-84							21 G	7.2 G	0.65 G	34 G	N	FD	N	N	N	FD	N	N	N	N	FD	N	N	FD	N	N	FD	N	N	N	N	N	N	N	
	PCB-85							11	8.4	4 G	19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PCB-85/116/117							--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PCB-86							54	21	13	94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PCB-86/87/97/108/119/125							--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PCB-88							8.3 G	4.3	1.2 G	13 G	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PCB-88/91							< 0.85 U	< 0.49 U	< 0.27 U	< 1 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PCB-89							< 0.026 U	< 0.024 U	< 0.022 U	< 0.025 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PCB-9							--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PCB-90							--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PCB-90/101/113							73	30	18	130	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PCB-92							12 G	5.4 G	< 0.25 U	23 G	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PCB-93							--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PCB-93/100							< 0.76 U	< 0.44 U	< 0.24 U	< 0.91 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PCB-94							< 0.81 U	< 0.46 U	< 0.25 U	< 0.97 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PCB-95							42 G	19 G	0.62 G	95 e	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PCB-96							0.35	0.16	0.049	0.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PCB-98							--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PCB-98/102							1.5 G	0.64 G	0.63 G	2.4 G	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PCB-99							32 G	20 G	10 G	58 E	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Polychlorinated biphenyls	1550		1550				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Semi-Volatile Organic Compounds (µg/kg)																																				
	1,1-Biphenyl	1000		1000				--	--	--	--	< 17000 U	< 920 U	--	< 900 U	< 900 U	< 8100 U	< 19000 U	< 8100 U	< 870 U	< 8000 U	< 7700 U	< 9000 U	< 8300 U	< 8200 U	< 8200 U	< 8400 U	< 8100 U	< 8400 U	< 9700 U	< 8900 U	< 18000 U	< 950 U	< 8200 U	< 8300 U	
	1,2,4,5-Tetrachlorobenzene							--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene							--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dichlorobenzene							--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,3,5-Trinitrobenzene							--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,3-Dichlorobenzene							--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,3-Dinitrobenzene	1050		1050				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	FD	--	--	--	--	--	--	--	--	--	--
	1,4-Dichlorobenzene							--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,4-Dioxane	7000		7000				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,4-Naphthoquinone							--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1-Naphthylamine							--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2,2-Oxybis(1-Chloropropane)							--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2,3,4,6-Tetrachlorophenol							--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2,4,5-Trichlorophenol							--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2,4,6-Trichlorophenol							--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-Dichlorophenol							--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							



[illegible]



Location ID	Type 1/2	Type 3/4	SB-135	SB-136	SB-136	SB-137	SB-138	SB-138	SB-139	SB-140	SB-140	SB-140	SB-141	SB-142	SB-142	SB-143	SB-144	SB-144	SB-145	SB-145	SB-145	SB-145	SB-146	SB-148	SB-148	SB-149	SB-150	SB-151	SB-152	SB-153	SB-155
Sample ID	RRS	RRS	SB-135 (0-1)	SB-136 (0-1)	SB-136 (1-3)	SB-137 (0-1)	SB-138 (0-1)	DUP-01 (0-1)	SB-139 (0-1)	SB-140 (0-1)	SB-140 (1-3)	DUP-06 (0-1)	SB-141 (0-1)	SB-142 (0-1)	SB-142 (1-3)	SB-143 (0-1)	SB-144 (0-1)	DUP-03	SB-145 (0-1)	SB-145 (1-3)	DUP-07 (0-1)	SB-146 (0-1)	SB-148 (0-1)	DUP-04	SB-149 (0-1)	SB-150 (0-1)	SB-151 (0-1)	SB-152 (0-1)	SB-153 (0-1)	SB-155 (0-1)	
Sample Date			08/21/2014	08/21/2014	08/21/2014	08/21/2014	08/20/2014	08/20/2014	08/21/2014	08/21/2014	08/21/2014	08/21/2014	08/20/2014	08/21/2014	08/21/2014	08/21/2014	08/22/2014	08/22/2014	08/22/2014	08/22/2014	08/22/2014	08/22/2014	08/22/2014	08/22/2014	08/22/2014	08/22/2014	08/20/2014	08/20/2014	08/22/2014	08/22/2014	
Sample Type			N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	FD	N	N	FD	N	N	FD	N	N	N	N	N	N	N
Methyl methacrylate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl N-Butyl Ketone (2-Hexanone)			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylacrylonitrile			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	100000	100000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachloroethane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Propionitrile			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene (Monomer)	14000	14000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	500	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	100000	100000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Xylenes	1000000	1000000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,4-Dichloro-2-butene	113	140	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**Notes:**  
**Bold** = Concentration is greater than the laboratory detection limit  
Shaded = Concentration exceeds the GA EPD Type 3/4 RRS  
**Acronyms and Abbreviations:**  
DUP = field duplicate  
GA EPD = Georgia Environmental Protection Division  
PCB = polychlorinated biphenyl  
RRS = Risk Reduction Standard  
µg/kg = microgram per kilogram

**Data Validation Qualifiers:**  
B = Compound was detected in the associated blank  
H = Sample was analyzed outside of the hold time  
J = Result is estimated  
U = Result is less than the laboratory detection limit



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Station ID					SB-155	SB-156	SB-157	SB-157	SB-159	SB-159	SB-160	SB-160	SB-161	SB-162	SB-162	SB-163	SB-164	SB-165	SB-166	SB-167	SB-168	SB-169	SB-169	SB-170	SB-171	SB-172	SB-173	SB-174	SB-176	SB-177	SB-178
Sample ID	Type 1/2	R/S	Type 3/4	R/S	DUP-05 (0-1)	SB-156 (0-1)	SB-157 (2-4')	SB-159 (0-2')	SB-159 (2-4')	SB-160 (0-2')	SB-160 (2-4')	SB-161 (0-2')	SB-162 (0-2')	DUP-04 (0-2')	SB-164 (0-2')	SB-165 (0-2')	SB-166 (0-2')	SB-167 (0-2')	SB-168 (0-2')	SB-169(0-2')	SB-169(2-4')	SB-170(0-2')	SB-171(0-2')	SB-172(0-2')	SB-173 (0-2')	SB-174 (0-2')	SB-176 (0-2')	SB-177 (0-2')	SB-178 (0-2')		
Sample Date					08/22/2014	08/22/2014	08/11/2015	08/11/2015	08/11/2015	08/11/2015	08/11/2015	08/13/2015	08/13/2015	08/13/2015	08/13/2015	08/11/2015	08/11/2015	08/11/2015	08/12/2015	08/14/2015	08/14/2015	08/14/2015	08/14/2015	08/14/2015	08/13/2015	08/12/2015	08/13/2015	08/13/2015	08/12/2015		
Sample Type					FD	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
PCB-114L					--	--	--	--	< 0.23 U	< 0.24 U	< 0.24 U	< 0.28 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-115					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-118					--	--	--	--	5.3 EB	0.60 G	13 EB	1.1 G	--	--	--	--	--	--	--	--	0.046 B	0.039 B	6.1 EB	40 EB	2.6 B	--	--	--	--	--	
PCB-118L					--	--	--	--	< 0.23 U	< 0.24 U	< 0.24 U	< 0.28 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-12					--	--	--	--	< 0.046 U	< 0.048 U	< 0.047 U	< 0.055 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-12/13					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.049 U	< 0.049 U	< 0.047 U	< 0.45 U	< 0.42 U	--	--	--	--	--	
PCB-120					--	--	--	--	< 0.055 U	< 0.024 U	< 0.15 U	< 0.028 U	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	< 0.062 U	< 0.25 U	< 0.21 U	--	--	--	--	--	
PCB-121					--	--	--	--	< 0.054 U	< 0.024 U	< 0.14 U	< 0.028 U	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	< 0.061 U	< 0.24 U	< 0.21 U	--	--	--	--	--	
PCB-122					--	--	--	--	< 0.065 U	0.016 J	0.22 G	0.021 J	--	--	--	--	--	--	--	--	0.0012 J	0.0011 J	0.090 G	0.59 G	0.048 J	--	--	--	--	--	
PCB-123					--	--	--	--	0.14 G	0.016 G	0.23 G	0.022 G	--	--	--	--	--	--	--	--	0.0012 J	0.0011 J	0.11 G	0.60 G	0.038 G	--	--	--	--	--	
PCB-123L					--	--	--	--	< 0.23 U	< 0.24 U	< 0.24 U	< 0.28 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-126					--	--	--	--	< 0.085 U	0.024 G	0.31 G	0.028 G	--	--	--	--	--	--	--	--	0.0019 J	< 0.0025 U	< 0.084 U	< 0.37 U	< 0.042 U	--	--	--	--	--	
PCB-126L					--	--	--	--	< 0.23 U	< 0.24 U	< 0.24 U	< 0.28 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-127					--	--	--	--	< 0.067 U	< 0.024 U	< 0.18 U	< 0.028 U	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	< 0.075 U	< 0.30 U	< 0.21 U	--	--	--	--	--	
PCB-128					--	--	--	--	4.5 G	0.33	6.5 G	0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-128/162					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-128/166					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.022 J	0.014 J	1.9	7.2	0.65	--	--	--	--	--	
PCB-129					--	--	--	--	26 EB	1.7 B	32 G	3.1 B	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-129/138/163					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-130					--	--	--	--	1.5 G	0.11	2.1 G	0.2	--	--	--	--	--	--	--	--	0.10 B	0.075 B	9.5 EB	40 B	3.4 B	--	--	--	--	--	
PCB-131					--	--	--	--	0.14 G	< 0.024 U	0.36 G	0.027 J	--	--	--	--	--	--	--	--	0.0065 J	0.0053 J	0.56 G	2.1 G	0.23	--	--	--	--	--	
PCB-132					--	--	--	--	4.6 EB	0.36 B	8.5 G	0.71 B	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	0.095 G	0.35 G	1.1	--	--	--	--	--	
PCB-133					--	--	--	--	0.29 G	0.014 J	0.31 G	0.028	--	--	--	--	--	--	--	--	0.017 JB	0.021 JB	1.9 B	8.4 B	< 0.21 U	--	--	--	--	--	
PCB-134					--	--	--	--	0.94 G	0.057	1.4 G	0.13	--	--	--	--	--	--	--	--	0.00086 J	0.00068 J	0.083 G	0.33 G	< 0.21 U	--	--	--	--	--	
PCB-134/143					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0026 J	0.0035 J	0.36	17	0.046 J	--	--	--	--	--	
PCB-135					--	--	--	--	4.5 G	0.22	5.0 G	0.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-135/151					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.010 J	0.010 J	1.3	4	< 0.42 U	--	--	--	--	--	
PCB-136					--	--	--	--	1.8 G	0.086 B	2.3 G	0.18 B	--	--	--	--	--	--	--	--	0.0045 J	0.0055 J	0.57	2.1	< 0.21 U	--	--	--	--	--	
PCB-137					--	--	--	--	1.7 G	0.1	2.1 G	0.19	--	--	--	--	--	--	--	--	0.0059 J	0.0047 J	0.39 G	1.9 G	0.19 J	--	--	--	--	--	
PCB-139					--	--	--	--	0.47 G	0.024 J	0.53 G	0.045 J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-139/140					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00097 J	0.0010 J	0.099	0.46	0.035 J	--	--	--	--	--	
PCB-14					--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.028 U	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	< 0.024 U	< 0.23 U	< 0.21 U	--	--	--	--	--	
PCB-141					--	--	--	--	2.7 G	0.19	4.0 G	0.38	--	--	--	--	--	--	--	--	0.0090 J	0.010 J	0.95 G	4.3 G	0.49	--	--	--	--	--	
PCB-142					--	--	--	--	< 0.086 U	< 0.024 U	< 0.12 U	< 0.028 U	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	< 0.026 U	< 0.25 U	< 0.21 U	--	--	--	--	--	
PCB-144					--	--	--	--	0.38 G	0.026	0.75 G	0.057	--	--	--	--	--	--	--	--	0.0010 J	0.0015 J	< 0.025 U	< 0.23 U	1.7	--	--	--	--	--	
PCB-145					--	--	--	--	< 0.060 U	< 0.024 U	< 0.081 U	< 0.028 U	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	< 0.024 U	< 0.23 U	< 0.21 U	--	--	--	--	--	
PCB-146					--	--	--	--	3.1 G	0.17	3.5 G	0.32	--	--	--	--	--	--	--	--	0.010 J	0.0081 J	0.92 G	3.7 G	0.34	--	--	--	--	--	
PCB-147					--	--	--	--	9.1 EB	0.58 B	14 G	1.2 B	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-147/149					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-148					--	--	--	--	< 0.080 U	< 0.024 U	< 0.11 U	< 0.028 U	--	--	--	--	--	--	--	--	0.032 JB	0.033 JB	3.5 B	< 0.45 U	< 0.42 U	--	--	--	--	--	
PCB-15					--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.028 U	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	< 0.024 U	< 0.23 U	< 0.21 U	--	--	--	--	--	
PCB-150					--	--	--	--	< 0.056 U	< 0.024 U	< 0.076 U	< 0.028 U	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	0.0025 J	< 0.23 U	< 0.21 U	--	--	--	--	--	
PCB-152					--	--	--	--	< 0.056 U	< 0.024 U	< 0.076 U	< 0.028 U	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	< 0.024 U	< 0.23 U	< 0.21 U	--	--	--	--	--	
PCB-153					--	--	--	--	< 0.060 U	< 0.024 U	< 0.082 U	< 0.028 U	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	< 0.024 U	< 0.23 U	< 0.21 U	--	--	--	--	--	
PCB-153/168					--	--	--	--	11 EB	0.74 B	16 G	1.4 B	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-154					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.049 B	0.040 JB	5.2 EB	22 B	1.9 B	--	--	--	--	--	
PCB-155					--	--	--	--	< 0.053 U	< 0.024 U	< 0.099 U	< 0.028 U	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	0.05	1.5	0.049 J	--	--	--	--	--	
PCB-155L					--	--	--	--	< 0.23 U	< 0.24 U	< 0.24 U	< 0.28 U	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	< 0.024 U	< 0.23 U	< 0.21 U	--	--	--	--	--	
PCB-156					--	--	--	--	2.2 G	0.18	3.2 G	0.32	--	--	--	--	--	--	--	--	0.016 B	0.011 B	1.6 B	6.7 B	0.57 B	--	--	--	--	--	
PCB-156/157					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-156L/157L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-158					--	--	--	--	< 0.23 U	< 0.24 U	< 0.24 U	< 0.28 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-159					--	--	--	--	1.9 G	0.18	3.0 G	0.31	--	--	--	--	--	--	--	--	0.011 J	0.0091 J	1	3.8	0.39	--	--	--	--	--	
PCB-159L					--	--	--	--	0.055	< 0.024 U	< 0.024 U	< 0.028 U	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	< 0.024 U	< 0.23 U	0.016 J	--	--	--	--	--	
PCB-15L					--	--	--	--	< 0.23 U	< 0.24 U	< 0.24 U	< 0.28																			



Location ID	Type 1/2	RRS	Type 3/4	RRS	SB-155	SB-156	SB-157	SB-157	SB-159	SB-159	SB-160	SB-160	SB-161	SB-162	SB-162	SB-163	SB-164	SB-165	SB-166	SB-167	SB-168	SB-169	SB-169	SB-170	SB-171	SB-172	SB-173	SB-174	SB-176	SB-177	SB-178	
Sample ID					DUP-05 (0-1)	SB-156 (0-1)	SB-157 (0-2')	SB-157 (2-4')	SB-159 (0-2')	SB-159 (2-4')	SB-160 (0-2')	SB-160 (2-4')	SB-161 (0-2')	SB-162 (0-2')	DUP-04 (0-2')	SB-163 (0-2')	SB-164 (0-2')	SB-165 (0-2')	SB-166 (0-2')	SB-167 (0-2')	SB-168 (0-2')	SB-169(0-2')	SB-169(2-4')	SB-170(0-2')	SB-171(0-2')	SB-172(0-2')	SB-173 (0-2')	SB-174 (0-2')	SB-176 (0-2')	SB-177 (0-2')	SB-178 (0-2')	
Sample Date					08/22/2014	08/22/2014	08/11/2015	08/11/2015	08/11/2015	08/11/2015	08/11/2015	08/11/2015	08/13/2015	08/13/2015	08/13/2015	08/13/2015	08/11/2015	08/11/2015	08/11/2015	08/12/2015	08/12/2015	08/14/2015	08/14/2015	08/14/2015	08/14/2015	08/14/2015	08/13/2015	08/12/2015	08/13/2015	08/12/2015		
Sample Type					FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
PCB-194					--	--	--	--	0.54	0.035	0.75	0.1	--	--	--	--	--	--	--	--	--	0.0078 J	0.0023 J	0.27	0.8	0.19 J	--	--	--	--	--	
PCB-195					--	--	--	--	0.21	0.013 J	0.27	0.033	--	--	--	--	--	--	--	--	--	0.0023 J	0.00096 J	0.1	0.28	0.059 J	--	--	--	--	--	
PCB-196					--	--	--	--	0.27	0.018 J	0.36	0.053	--	--	--	--	--	--	--	--	--	0.0032 J	< 0.025 U	0.12	0.36	0.084 J	--	--	--	--	--	
PCB-197					--	--	--	--	0.017 J	0.00087 J	0.021 J	0.0029 J	--	--	--	--	--	--	--	--	--	0.00019 J	< 0.025 U	0.0083 J	0.027 J	0.0052 J	--	--	--	--	--	
PCB-198					--	--	--	--	0.52	0.036 J	0.71	0.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-198/199					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.011 J	< 0.049 U	0.3	0.88	0.20 J	--	--	--	--	--	
PCB-19L					--	--	--	--	< 0.23 U	< 0.24 U	< 0.24 U	< 0.28 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-1L					--	--	--	--	< 0.23 U	< 0.24 U	< 0.24 U	< 0.28 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-2					--	--	--	--	0.0080 J	0.0039 J	0.0062 J	< 0.028 U	--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	0.0019 J	0.0048 J	0.0041 J	--	--	--	--	--	
PCB-20					--	--	--	--	0.012 J	< 0.048 U	0.037 J	< 0.055 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-20/28					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0020 JB	0.0013 JB	0.031 JB	0.13 JB	0.024 JB	--	--	--	--	--	
PCB-200					--	--	--	--	0.06	0.0039 J	0.073	0.012 J	--	--	--	--	--	--	--	--	--	0.00067 J	< 0.025 U	0.032	0.10 J	0.021 J	--	--	--	--	--	
PCB-201					--	--	--	--	0.06	0.0035 J	0.074	0.012 J	--	--	--	--	--	--	--	--	--	0.00096 J	< 0.025 U	0.028	0.094 J	0.022 J	--	--	--	--	--	
PCB-202					--	--	--	--	0.083	0.0053 J	0.11	0.021 J	--	--	--	--	--	--	--	--	--	0.0029 J	< 0.025 U	0.059	0.15 J	0.039 J	--	--	--	--	--	
PCB-202L					--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.028 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-203					--	--	--	--	0.35	0.024	0.47	0.077	--	--	--	--	--	--	--	--	--	0.0065 J	< 0.025 U	0.18	0.54	0.11 J	--	--	--	--	--	
PCB-204					--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.028 U	--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	< 0.024 U	< 0.23 U	< 0.21 U	--	--	--	--	--	
PCB-205					--	--	--	--	0.031	0.0021 J	0.037	0.0049 J	--	--	--	--	--	--	--	--	--	0.00055 J	< 0.025 U	0.016 J	0.045 J	0.0085 J	--	--	--	--	--	
PCB-205L					--	--	--	--	< 0.23 U	< 0.24 U	< 0.24 U	< 0.28 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-206					--	--	--	--	0.23	0.015 J	0.27	0.061	--	--	--	--	--	--	--	--	--	0.014 JB	0.0011 JB	0.12 B	0.36 B	0.10 JB	--	--	--	--	--	
PCB-206L					--	--	--	--	< 0.23 U	< 0.24 U	< 0.24 U	< 0.28 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-207					--	--	--	--	0.027	0.0017 J	0.032	0.0070 J	--	--	--	--	--	--	--	--	--	0.0013 J	< 0.025 U	0.012 J	0.033 J	0.0086 J	--	--	--	--	--	
PCB-208					--	--	--	--	0.059	0.0039 J	0.061	0.014 J	--	--	--	--	--	--	--	--	--	0.0064 J	0.00050 J	0.033	0.089 J	0.030 J	--	--	--	--	--	
PCB-208L					--	--	--	--	< 0.23 U	< 0.24 U	< 0.24 U	< 0.28 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-209L					--	--	--	--	< 0.23 U	< 0.24 U	< 0.24 U	< 0.28 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-21					--	--	--	--	0.0050 J	< 0.048 U	0.020 J	< 0.055 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-21/33					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-22					--	--	--	--	< 0.023 U	< 0.024 U	0.012 J	< 0.028 U	--	--	--	--	--	--	--	--	--	0.00068 JB	0.00057 JB	0.017 JB	0.064 JB	0.010 JB	--	--	--	--	--	
PCB-23					--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.028 U	--	--	--	--	--	--	--	--	--	< 0.024 U	0.00039 JB	0.012 JB	0.043 JB	0.0086 JB	--	--	--	--	--	
PCB-24					--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.028 U	--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	< 0.024 U	< 0.23 U	< 0.21 U	--	--	--	--	--	
PCB-25					--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.028 U	--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	0.00056 J	< 0.23 U	< 0.21 U	--	--	--	--	--	
PCB-26					--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.028 U	--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	0.0023 J	0.015 J	< 0.21 U	--	--	--	--	--	
PCB-26/29					--	--	--	--	< 0.046 U	< 0.048 U	0.0068 J	< 0.055 U	--	--	--	--	--	--	--	--	--	< 0.049 U	< 0.049 U	0.0056 J	0.026 J	< 0.42 U	--	--	--	--	--	
PCB-27					--	--	--	--	< 0.023 U	< 0.024 U	0.0019 J	< 0.028 U	--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	0.0020 J	0.0057 J	< 0.21 U	--	--	--	--	--	
PCB-3					--	--	--	--	0.0084 J	0.0017 J	0.0034 J	< 0.028 U	--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	0.00053 J	0.0018 J	0.0040 J	0.0070 J	--	--	--	--	--
PCB-31					--	--	--	--	0.019 J	< 0.024 U	0.057	< 0.028 U	--	--	--	--	--	--	--	--	--	0.0011 JB	0.00093 JB	0.048 B	0.25 B	0.020 JB	--	--	--	--	--	
PCB-32					--	--	--	--	0.0023 J	< 0.024 U	0.0070 J	0.00097 J	--	--	--	--	--	--	--	--	--	0.00036 J	0.00043 J	0.0081 J	0.022 J	0.0059 J	--	--	--	--	--	
PCB-34					--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.028 U	--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	< 0.024 U	< 0.23 U	< 0.21 U	--	--	--	--	--	
PCB-35					--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.028 U	--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	0.0025 J	0.017 J	< 0.21 U	--	--	--	--	--	
PCB-36					--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.028 U	--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	0.016 J	0.062 J	< 0.21 U	--	--	--	--	--	
PCB-37					--	--	--	--	0.020 J	< 0.024 U	0.041	< 0.028 U	--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	0.012 J	0.10 J	0.017 J	--	--	--	--	--	
PCB-37L					--	--	--	--	< 0.23 U	< 0.24 U	< 0.24 U	< 0.28 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-38					--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.028 U	--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	< 0.024 U	< 0.23 U	< 0.21 U	--	--	--	--	--	
PCB-39					--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.028 U	--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	< 0.024 U	< 0.23 U	< 0.21 U	--	--	--	--	--	
PCB-3L					--	--	--	--	< 0.23 U	< 0.24 U	< 0.24 U	< 0.28 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-4					--	--	--	--	< 0.023 U	< 0.024 U	< 0.024 U	< 0.028 U	--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	0.0037 J	< 0.23 U	< 0.21 U	--	--	--	--	--	
PCB-40					--	--	--	--	0.061	0.0091 J	< 0.047 U	0.016 J	--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	--	--	--	--	--	--	--	--	
PCB-40/71					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-41					--	--	--	--	< 0.023 U	< 0.024 U	0.23	< 0.028 U	--	--	--	--	--	--	--	--	--	0.00057 J	0.0015 J	0.098	< 0.45 U	0.027 J	--	--	--	--	--	
PCB-42					--	--	--	--	0.022 J	0.0029 J	0.086	0.0061 J	--	--	--	--	--	--	--	--	--	< 0.024 U	< 0.025 U	0.0052 JB	0.034 JB	< 0.21 U						



Location ID	Sample ID	Sample Date	Sample Type	Type 1/2	RRS	Type 3/4	RRS	SB-155 DUP-05 (0-1) 08/22/2014 FD	SB-156 SB-156 (0-1) 08/22/2014 N	SB-157 SB-157 (0-2) 08/11/2015 N	SB-157 SB-157 (2-4) 08/11/2015 N	SB-159 SB-159 (0-2) 08/11/2015 N	SB-159 SB-159 (2-4) 08/11/2015 N	SB-160 SB-160 (0-2) 08/11/2015 N	SB-160 SB-160 (2-4) 08/11/2015 N	SB-161 SB-161 (0-2) 08/13/2015 N	SB-162 SB-162 (0-2) 08/13/2015 N	SB-162 DUP-04 (0-2) 08/13/2015 FD	SB-163 SB-163 (0-2) 08/13/2015 N	SB-164 SB-164 (0-2) 08/11/2015 N	SB-165 SB-165 (0-2) 08/11/2015 N	SB-166 SB-166 (0-2) 08/11/2015 N	SB-167 SB-167 (0-2) 08/12/2015 N	SB-168 SB-168 (0-2) 08/12/2015 N	SB-169 SB-169 (0-2) 08/14/2015 N	SB-169 SB-169(2-4) 08/14/2015 N	SB-170 SB-170(0-2) 08/14/2015 N	SB-171 SB-171(0-2) 08/14/2015 N	SB-172 SB-172(0-2) 08/14/2015 N	SB-173 SB-173 (0-2) 08/13/2015 N	SB-174 SB-174 (0-2) 08/12/2015 N	SB-176 SB-176 (0-2) 08/13/2015 N	SB-177 SB-177 (0-2) 08/13/2015 N	SB-178 SB-178 (0-2) 08/12/2015 N				
	PCB-84											0.95 G	0.11 B	4.1 G	0.17 B											0.0041 J	0.011 J	1.3 G	3.8 G	0.41								
	PCB-85											0.85	0.087	2.8 G	0.16																							
	PCB-85/116/117																									0.0075 J	0.0070 J	0.89	4.1	0.41 J								
	PCB-86											2.9 B	0.34 B	11 G	0.71 B																							
	PCB-86/87/97/108/119/125																									0.016 JB	0.022 JB	1.3 B	3.4 B	1.5 B								
	PCB-88											0.48 G	0.056	1.9 G	0.067																							
	PCB-88/91																									0.0029 J	0.0044 J	0.52 G	1.8	0.22 J								
	PCB-89											< 0.080 U	< 0.024 U	< 0.21 U	< 0.028 U											< 0.024 U	< 0.025 U	< 0.090 U	< 0.35 U	< 0.21 U								
	PCB-9											< 0.023 U	< 0.024 U	< 0.024 U	< 0.028 U											< 0.024 U	< 0.025 U	< 0.024 U	< 0.23 U	< 0.21 U								
	PCB-90											4.3 B	0.48 B	15 G	0.98 B																							
	PCB-90/101/113																									0.023 JB	0.041 JB	5.1 B	21 B	2.2 B								
	PCB-92											0.98 G	0.10 B	3.0 G	0.20 B											0.0049 J	0.0084 J	0.54 G	< 0.34 U	< 0.21 U								
	PCB-93											< 0.074 U	< 0.048 U	< 0.19 U	< 0.055 U																							
	PCB-93/100																									< 0.049 U	< 0.049 U	< 0.083 U	< 0.45 U	< 0.42 U								
	PCB-94											< 0.078 U	< 0.024 U	< 0.20 U	< 0.028 U											< 0.024 U	< 0.025 U	< 0.088 U	< 0.35 U	< 0.21 U								
	PCB-95											2.5 EB	0.32 B	11 G	0.51 B											0.016 JB	0.031 B	2.8 EB	8.0 B	0.56 B								
	PCB-96											0.017 J	0.0023 J	0.061	0.0037 J											< 0.024 U	0.00022 J	0.020 J	0.055 J	0.0067 J								
	PCB-98											< 0.067 U	< 0.048 U	< 0.18 U	< 0.055 U																							
	PCB-98/102																																					
	PCB-99											2.1 G	0.21 B	6.8 G	0.43 B											< 0.049 U	< 0.049 U	0.075 G	< 0.45 U	< 0.42 U								
	Polychlorinated biphenyls	1550	1550									140	11	250	20											0.78	0.69	78	370	33								
Semi-Volatile Organic Compounds (µg/kg)																																						
	1,1-Biphenyl	1000	1000					< 8100 U	< 8100 U	< 42 U	< 40 U	5100	300	180	11 J	< 190 U	100 J	85 J	< 190 U	< 44 U	250000	< 410 U	< 39 U	1100							< 36 U	< 37 U	< 38 U	41	97			
	1,2,4,5-Tetrachlorobenzene																																					
	1,2,4-Trichlorobenzene																																					
	1,2-Dichlorobenzene																																					
	1,3,5-Trinitrobenzene																																					
	1,3-Dichlorobenzene																																					
	1,3-Dinitrobenzene	1050	1050																																			
	1,4-Dichlorobenzene																																					
	1,4-Dioxane	7000	7000																																			
	1,4-Naphthoquinone																																					
	1-Naphthylamine																																					
	2,2-Oxybis(1-Chloropropane)																																					
	2,3,4,6-Tetrachlorophenol																																					
	2,4,5-Trichlorophenol																																					
	2,4,6-Trichlorophenol																																					
	2,4-Dichlorophenol																																					
	2,4-Dimethylphenol	70000	70000																																			
	2,4-Dinitrophenol																																					
	2,4-Dinitrotoluene																																					
	2,6-Dichlorophenol																																					
	2,6-Dinitrotoluene																																					
	2-Acetylaminofluorene																																					
	2-Chloronaphthalene																																					
	2-Chlorophenol																																					
	2-Methyl-4,6-dinitrophenol																																					
	2-Methylnaphthalene																																					
	2-Methylphenol	3800	4100																																			
	2-Naphthylamine																																					
	2-Nitroaniline																																					
	2-Nitrophenol																																					
	2-Picoline																																					
	3,3-Dichlorobenzidine																																					
	3,3-Dimethylbenzidine																																					
	3-Methylchloranthrene																																					
	3-Nitroaniline																																					
	4-Aminobiphenyl																																					
	4-Bromophenyl phenyl ether																																					
	4-Chloro-3-Methylphenol																																					
	4-Chlorophenyl phenyl ether																																					
	4-Dimethylaminoazobenzene																																					
	4-Methylphenol	3800	8000																																			
	4-Nitroaniline																																					
	4-Nitrophenol																																					
	4-Nitroquinoline-N-Oxide																											</										



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Location ID	Type 1/2	RRS	Type 3/4	RRS	SB-155 DUP-05 (0-1) 08/22/2014 FD	SB-156 SB-156 (0-1) 08/22/2014 N	SB-157 SB-157 (0-2') 08/11/2015 N	SB-157 SB-157 (2-4') 08/11/2015 N	SB-159 SB-159 (0-2') 08/11/2015 N	SB-159 SB-159 (2-4') 08/11/2015 N	SB-160 SB-160 (0-2') 08/11/2015 N	SB-160 SB-160 (2-4') 08/11/2015 N	SB-161 SB-161 (0-2') 08/13/2015 N	SB-162 SB-162 (0-2') 08/13/2015 N	SB-162 DUP-04 (0-2') 08/13/2015 FD	SB-163 SB-163 (0-2') 08/13/2015 N	SB-164 SB-164 (0-2') 08/11/2015 N	SB-165 SB-165 (0-2') 08/11/2015 N	SB-166 SB-166 (0-2') 08/11/2015 N	SB-167 SB-167 (0-2') 08/12/2015 N	SB-168 SB-168 (0-2') 08/12/2015 N	SB-169 SB-169(0-2') 08/14/2015 N	SB-169 SB-169(2-4') 08/14/2015 N	SB-170 SB-170(0-2') 08/14/2015 N	SB-171 SB-171(0-2') 08/14/2015 N	SB-172 SB-172(0-2') 08/14/2015 N	SB-173 SB-173 (0-2') 08/13/2015 N	SB-174 SB-174 (0-2') 08/12/2015 N	SB-176 SB-176 (0-2') 08/13/2015 N	SB-177 SB-177 (0-2') 08/13/2015 N	SB-178 SB-178 (0-2') 08/12/2015 N
Methyl methacrylate																															
Methyl N-Butyl Ketone (2-Hexanone)																															
Methacrylonitrile																															
Naphthalene	100000		100000																												
Pentachloroethane																															
Propionitrile																															
Styrene (Monomer)	14000		14000																												
Tetrachloroethene	500		500																												
Toluene	100000		100000																												
Total Xylenes	1000000		1000000																												
trans-1,2-Dichloroethene																															
trans-1,3-Dichloropropene																															
trans-1,4-Dichloro-2-butene	113		140																												
Trichloroethene																															
Vinyl acetate																															
Vinyl chloride																															

**Notes:**  
**Bold** = Concentration is greater than the laboratory detection limit  
Shaded = Concentration exceeds the GA EPD Type 3/4 RRS  
**Acronyms and Abbreviations:**  
DUP = field duplicate  
GA EPD = Georgia Environmental Protection Division  
PCB = polychlorinated biphenyl  
RRS = Risk Reduction Standard  
µg/kg = microgram per kilogram  
**Data Validation Qualifiers:**  
B = Compound was detected in the associated blank  
H = Sample was analyzed outside of the hold time  
J = Result is estimated  
U = Result is less than the laboratory detection limit



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[illegible]



Socation ID				SB-179	SB-180	SB-181	SB-182	SB-183	SB-184	SB-185	SB-186	SB-186	SB-187	SB-188	SB-189	SB-190	SB-191	SB-191	SB-192	SB-193	SB-194	SB-195	SB-196	SB-197	SB-198	
Sample ID	Type 1/2	RRS	Type 3/4	RRS	SB-179 (0-2')	SB-180 (0-2')	SB-181 (0-2')	SB-182 (0-2')	SB-183 (0-2')	SB-184 (0-2')	SB-185 (0-2')	SB-186 (0-2')	DUP-03 (0-2')	SB-187 (0-2')	SB-188 (0-2')	SB-189 (0-2')	SB-190 (0-2')	SB-191 (0-2')	DUP-01 (0-2')	SB-192 (0-2')	SB-193 (0-2)	SB-194 (0-2')	SB-195 (0-2)	SB-196 (0-2')	SB-197 (0-2)	SB-198 (0-2')
Sample Date					08/13/2015	08/12/2015	08/14/2015	08/14/2015	08/14/2015	08/14/2015	08/14/2015	08/13/2015	08/12/2015	08/13/2015	08/12/2015	08/12/2015	08/12/2015	08/12/2015	08/12/2015	08/12/2015	08/13/2015	08/12/2015	08/12/2015	08/12/2015	08/11/2015	
Sample Type					N	N	N	N	N	N	N	FD	N	N	N	N	N	N	FD	N	N	N	N	N	N	
PCB-194					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-195					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-196					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-197					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-198					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-198/199					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-19L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-1L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-2					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-20					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-20/28					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-200					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-201					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-202					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-202L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-203					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-204					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-205					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-205L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-206					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-206L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-207					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-208					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-208L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-209L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-21					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-21/33					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-22					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-23					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-24					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-25					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-26					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-26/29					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-27					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-3					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-31					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-32					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-34					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-35					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-36					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-37					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-37L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-38					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-39					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				



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Location ID	Type 1/2	RRS	Type 3/4	RRS	SB-179 SB-179 (0-2') 08/13/2015 N	SB-180 SB-180 (0-2') 08/12/2015 N	SB-181 SB-181(0-2') 08/14/2015 N	SB-182 SB-182 (0-2') 08/14/2015 N	SB-183 SB-183 (0-2') 08/14/2015 N	SB-184 SB-184 (0-2') 08/14/2015 N	SB-185 SB-185 (0-2') 08/14/2015 N	SB-186 SB-186 (0-2') 08/13/2015 N	SB-186 DUP-03 (0-2') 08/13/2015 FD	SB-187 SB-187 (0-2') 08/14/2015 N	SB-188 SB-188 (0-2') 08/13/2015 N	SB-189 SB-189 (0-2') 08/12/2015 N	SB-190 SB-190 (0-2') 08/12/2015 N	SB-191 SB-191 (0-2') 08/12/2015 N	SB-191 DUP-01 (0-2') 08/12/2015 FD	SB-192 SB-192 (0-2') 08/12/2015 N	SB-193 SB-193 (0-2') 08/13/2015 N	SB-194 SB-194 (0-2') 08/12/2015 N	SB-195 SB-195 (0-2') 08/12/2015 N	SB-196 SB-196 (0-2') 08/12/2015 N	SB-197 SB-197 (0-2') 08/12/2015 N	SB-198 SB-198 (0-2') 08/11/2015 N	
Dinoseb																											
Disulfoton																											
Ethyl Methanesulfonate																											
Famphur																											
Fluoranthene	500000		500000																								
Fluorene	360000		360000																								
Formaldehyde	100000		100000																								
Hexachloro-1,3-butadiene																											
Hexachlorobenzene																											
Hexachlorocyclopentadiene																											
Hexachloroethane																											
Hexachlorophene																											
Hexachloropropene																											
Indeno(1,2,3-cd)pyrene	5000		15000																								
Isophorone																											
Isosafrole																											
Methapyrilene																											
Methyl methanesulfonate																											
Methyl parathion																											
Naphthalene	100000		100000																								
Nitrobenzene																											
N-Nitrosodiethylamine																											
N-Nitrosodimethylamine																											
N-Nitrosodi-n-butylamine	1000		1000																								
N-Nitrosodi-n-propylamine																											
N-Nitrosodiphenylamine																											
N-Nitrosomorpholine																											
N-Nitroso-N-methylethylamine	680		1000																								
N-Nitrosopiperidine																											
N-Nitrosopyrrolidine																											
o,o,o-Triethyl phosphorothioate																											
o,o-Diethyl o-pyrazinyl phosphorothioate																											
o-Toluidine																											
Parathion	20000		20000																								
p-Chloroaniline																											
Pentachlorobenzene																											
Pentachloronitrobenzene																											
Pentachlorophenol																											
Phenacetin																											
Phenanthrene	110000		110000																								
Phenol																											
Phorate																											
p-Phenylenediamine																											
Propyzamide																											
Pyrene	500000		500000																								
Pyridine																											
Safrole																											
Sulfotep																											
Volatile Organic Compounds (µg/kg)																											
1,1,1,2-Tetrachloroethane																											
1,1,1-Trichloroethane																											
1,1,2,2-Tetrachloroethane																											
1,1,2-Trichloroethane																											
1,1-Dichloroethane																											
1,1-Dichloroethene																											
1,2,3-Trichloropropane																											
1,2,4-Trichlorobenzene																											
1,2-Dibromo-3-chloropropane																											
1,2-Dibromoethane																											
1,2-Dichlorobenzene																											
1,2-Dichloroethane																											
1,2-Dichloropropane	500		500																								



Location ID	Type 1/2	Type 3/4	SB-179	SB-180	SB-181	SB-182	SB-183	SB-184	SB-185	SB-186	SB-186	SB-187	SB-188	SB-189	SB-190	SB-191	SB-191	SB-192	SB-193	SB-194	SB-195	SB-196	SB-197	SB-198
Sample ID	RRS	RRS	SB-179 (0-2')	SB-180 (0-2')	SB-181(0-2')	SB-182 (0-2')	SB-183 (0-2')	SB-184 (0-2')	SB-185 (0-2')	SB-186 (0-2')	DUP-03 (0-2')	SB-187 (0-2')	SB-188 (0-2')	SB-189 (0-2')	SB-190 (0-2')	SB-191 (0-2')	DUP-01 (0-2')	SB-192 (0-2')	SB-193 (0-2')	SB-194 (0-2')	SB-195 (0-2')	SB-196 (0-2')	SB-197 (0-2')	SB-198 (0-2')
Sample Date			08/13/2015	08/12/2015	08/14/2015	08/14/2015	08/14/2015	08/14/2015	08/14/2015	08/13/2015	08/13/2015	08/12/2015	08/13/2015	08/12/2015	08/12/2015	08/12/2015	08/12/2015	08/12/2015	08/13/2015	08/12/2015	08/12/2015	08/12/2015	08/12/2015	08/11/2015
Sample Type			N	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N	N	N	N
Methyl methacrylate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl N-Butyl Ketone (2-Hexanone)			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methacrylonitrile			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	100000	100000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachloroethane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Propionitrile			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene (Monomer)	14000	14000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	500	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	100000	100000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Xylenes	1000000	1000000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,4-Dichloro-2-butene	113	140	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**Notes:**  
**Bold** = Concentration is greater than the laboratory detection limit  
Shaded = Concentration exceeds the GA EPD Type 3/4 RRS  
**Acronyms and Abbreviations:**  
DUP = field duplicate  
GA EPD = Georgia Environmental Protection Division  
PCB = polychlorinated biphenyl  
RRS = Risk Reduction Standard  
µg/kg = microgram per kilogram

**Data Validation Qualifiers:**  
B = Compound was detected in the associated blank  
H = Sample was analyzed outside of the hold time  
J = Result is estimated  
U = Result is less than the laboratory detection limit



Location ID	Type 1/2	RRS	Type 3/4	RRS	SB-199 SB-199 (0-2') 08/13/2015 N	SB-199 DUP-02 (0-2') 08/13/2015 FD	SB-200 SB-200 (0-2') 08/13/2015 N	SB-200 SB-200 (2-4') 08/13/2015 N	SB-201 SB-201 (0-2') 08/13/2015 N	SB-201 SB-201 (2-4') 08/13/2015 N	SB-202 SB-202 (0-2') 08/14/2015 N	SB-203 SB-203 (0-2') 08/14/2015 N	SB-204 SB-204 (0-2') 08/13/2015 N	SB-205 SB-205 (0-2') 08/13/2015 N	SB-206 SB-206 (0-2') 08/13/2015 N	SB-207 SB-207 (0-2') 08/13/2015 N	SB-208 SB-208 (0-2') 08/14/2015 N	SB-208 SB-208 (2-4') 08/14/2015 N	SB-209 SB-209 (0-2') 08/14/2015 N	SB-F12 SB-F12 (0-1) (2014) 08/20/2014 N	SB-F14 SB-F14 (0-1) (2014) 08/19/2014 N	SB-F15 SB-F15 (0-1) (2014) 08/19/2014 N	SB-F27 SB-F27 (0-1) (2014) 08/19/2014 N	SB-F27 SB-F27 (1-3) (2014) 08/19/2014 N	SB-F3 SB-F3 (0-1) (2014) 08/20/2014 N	SB-F4 SB-F4 (0-1) (2014) 08/19/2014 N	SB-F6 SB-F6 (0-1) (2014) 08/19/2014 N	
Sample ID																												
Sample Date																												
Sample Type																												
Field Parameters																												
pH (Standard Units)					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
General Chemistry (µg/kg)																												
Fluoride (F-, Anion)					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 23000 U	--	--
Dioxins and Furans (µg/kg)																												
1,2,3,4,6,7,8-Heptachlorodibenzofuran					--	--	0.0048 J	0.00066 J	0.0042 J	0.00014 J	0.043 B	0.051	0.018	0.066	0.12	0.036	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin					--	--	0.15	0.2	0.07	0.024	0.31 B	0.21	0.031	0.56 G	1.2 G	0.17	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran					--	--	< 0.0061 U	< 0.0060 U	< 0.0058 U	0.0075 J	< 0.0057 U	0.0015 J	0.0032 J	0.0055 J	< 0.0058 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran					--	--	0.00085 J	< 0.0060 U	0.0018 J	< 0.0058 U	0.035	0.0037 J	0.0050 J	0.0024 J	0.0015 J	0.0056 J	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin					--	--	0.00057 J	0.00056 J	0.00048 J	0.00020 J	0.0016 J	0.0017 J	0.00039 J	0.0025 J	0.01	0.0010 J	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran					--	--	0.00031 J	0.00015 J	0.00062 J	< 0.0058 U	0.013 J	0.0021 J	0.0027 J	0.0020 J	0.00071 J	0.0034 J	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin					--	--	0.0015 J	0.0011 J	0.0023 J	0.00041 J	0.019 J	0.026	0.0021 J	0.0084	0.017	0.0047 J	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran					--	--	< 0.0061 U	< 0.0060 U	< 0.0059 U	< 0.0058 U	< 0.030 U	< 0.0057 U	< 0.0059 U	< 0.0058 U	< 0.0057 U	< 0.0058 U	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin					--	--	0.0039 J	0.012	0.0027 J	0.0013 J	0.012 J	0.014	0.0018 J	0.0030 J	0.0040 J	0.0038 J	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran					--	--	0.00016 J	< 0.0060 U	0.00035 J	< 0.0058 U	0.0078 J	0.00074 J	0.0017 J	< 0.0058 U	< 0.0057 U	0.00094 J	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin					--	--	0.00030 J	0.00030 J	0.00035 J	< 0.0058 U	< 0.030 U	< 0.0057 U	< 0.0059 U	0.0016 J	0.012	< 0.0058 U	--	--	--	--	--	--	--	--	--	--	--	--
13C-1,2,3,4,6,7,8-CDD					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13C-1,2,3,4,6,7,8-TCDF					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13C-1,2,3,6,7,8-TCDD					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13C-1,2,3,7,8-PCDD					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13C-1,2,3,7,8-PCDF					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13C12-123478-HxCDF					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13C12-2378-TCDF					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13C-2,3,7,8-TCDD					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13C-OCDD					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran					--	--	0.00014 J	< 0.0060 U	0.00027 J	< 0.0058 U	0.0045 J	0.0017 J	0.0020 J	0.0016 J	0.00058 J	0.0015 J	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran					--	--	0.00021 J	< 0.0060 U	0.00065 J	< 0.0058 U	0.015 J	0.00088 J	0.0024 J	0.0011 J	0.00043 J	0.0021 J	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran					--	--	0.00060 J	0.00012 J	0.0019	0.000056 J	0.018	0.0014	0.0076	0.0012	0.00087 J	0.008	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin					--	--	< 0.0012 U	0.00011 J	< 0.0012 U	< 0.0012 U	< 0.0060 U	0.00016 J	< 0.0012 U	0.00080 J	0.0069	0.00015 J	--	--	--	< 0.0011 U	< 0.0011 U	< 0.0012 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0012 U
Heptachlorodibenzofurans					--	--	0.025	0.0036 J	0.014	0.00034 J	0.16 B	0.031	0.27	0.62	0.11	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlorodibenzo-p-dioxins					--	--	0.96 B	0.51 B	0.57 B	0.10 B	2.8 B	0.67 B	0.091 B	3.3 B	6.3 B	0.70 B	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorodibenzofurans					--	--	0.0061 Q	0.00045 J	0.0069 Q	< 0.0058 U	0.11 Q	0.067	0.026 Q	0.069 Q	0.071 Q	0.043	--	--	--	< 0.0053 U	0.011	0.075 q	0.039 q	0.023 q	0.013	0.025 q	< 0.0058 U	
Hexachlorodibenzo-p-dioxins					--	--	0.042 Q	0.055 Q	0.061 Q	0.019 Q	0.21 Q	0.19	0.021 Q	0.26	1.1 Q	0.063	--	--	--	< 0.0053 U	0.018 q	0.074 q	0.09	0.074 q	0.11 q	0.032	0.044 q	0.012 q
Octachlorodibenzofuran					--	--	0.048 B	0.0081 JB	0.022 B	0.00097 JB	0.17 B	0.13 B	0.020 B	0.29 B	0.79 B	0.096 B	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzo-p-dioxin					--	--	15 B	16 B	8.1 B	3.2 B	11 B	3.9 B	0.49 B	4.9 B	9.2 B	2.1 B	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorodibenzofurans, Total					--	--	0.0027 J	< 0.0060 U	0.0053 J	0.00026 J	0.1	0.019 Q	0.023 Q	0.049 Q	0.014	0.022	--	--	--	< 0.0053 U	0.0093	0.03 q	0.019 q	0.017 q	0.016	0.016 q	< 0.0058 U	
Pentachlorodibenzo-p-dioxins, Total					--	--	0.0026 J	0.0030 J	0.0054 J	0.0025 J	0.0021 J	0.0071 Q	0.0014 J	0.024 Q	0.26	0.00045 J	--	--	--	< 0.0053 U	< 0.0057 U	0.051 q	0.0058 q	0.0059 q	< 0.0056 U	< 0.0057 U	< 0.0058 U	
Tetrachlorodibenzofuran					--	--	0.0031 Q	0.00029 J	0.0094 Q	0.000056 J	0.091 Q	0.010 Q	0.041 Q	0.022 Q	0.0098 Q	0.027 Q	--	--	--	< 0.0011 U	0.012 q	0.017 q	0.011 q	0.011 q	0.0096	0.0092 q	< 0.0012 U	
Tetrachlorodibenzofurans, Total					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachlorodibenzo-p-dioxins, Total					--	--	0.00056 J	0.00037 J	0.0029 Q	0.0012 Q	0.0022 J	0.0023 Q	0.0012 Q	0.0046 Q	0.030 Q	0.0016 Q	--	--	--	< 0.0011 U	0.0011 q	0.0092 q	< 0.0011 U	< 0.0011 U	0.0028	< 0.0011 U	< 0.0012 U	
TEQ WHO2005 ND=0.5		<b>0.12</b>	0.44		--	--	0.019	0.016	0.093	0.0077	<b>0.53</b>	0.029	<b>0.37</b>	0.021	0.043	<b>0.16</b>	--	--	--	--	--	--	--	--	--	--	--	--
Pesticides (µg/kg)																												
4,4-DDD (Rhotane)					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.8 U	< 1.9 U	< 2.0 U	< 7.3 U	< 1.8 U	< 1.9 U	< 1.9 U	< 2.0 U
4,4-DDE (Dichlorodiphenyl-dichloroethylene)					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.8 U	< 1.9 U	< 2.0 U	< 7.3 U	< 1.8 U	< 1.9 U	< 1.9 U	< 2.0 U
4,4-DDT (Dichlorodiphenyl-trichloroethane)	660	2800			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.8 U	< 1.9 U	< 2.0 U	< 7.3 U	< 1.8 U	< 1.9 U	< 1.9 U	< 2.0 U
Aldrin					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.8 U	< 1.9 U	< 2.0 U	< 7.3 U	< 1.8 U	< 1.9 U	< 1.9 U	< 2.0 U
Alpha-BHC					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.8 U	< 1.9 U	< 2.0 U	< 7.3 U	< 1.8 U	< 1.9 U	< 1.9 U	< 2.0 U
Aroclor 1254	1550	1550			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1260	1550	1550			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beta-BHC					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlordane					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.8 U	< 1.9 U	< 2.0 U	< 7.3 U	< 1.8 U	< 1.9 U	< 1.9 U	< 2.0 U
Chlorobenzilate					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 18 U	< 19 U	< 20 U	< 73 U	< 18 U	< 19 U	< 19 U	< 20 U
Delta-BHC					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 110 U	< 110 U	< 120 U	< 430 U	&lt			



Location ID	Type 1/2	RRS	Type 3/4	RRS	SB-199 SB-199 (0-2") 08/13/2015 N	SB-199 DUP-02 (0-2") 08/13/2015 FD	SB-200 SB-200 (0-2") 08/13/2015 N	SB-200 SB-200 (2-4") 08/13/2015 N	SB-201 SB-201 (0-2") 08/13/2015 N	SB-201 SB-201 (2-4") 08/13/2015 N	SB-202 SB-202 (0-2") 08/14/2015 N	SB-203 SB-203 (0-2") 08/14/2015 N	SB-204 SB-204 (0-2") 08/13/2015 N	SB-205 SB-205 (0-2") 08/13/2015 N	SB-206 SB-206 (0-2") 08/13/2015 N	SB-207 SB-207 (0-2") 08/13/2015 N	SB-208 SB-208(0-2") 08/14/2015 N	SB-208 SB-208(2-4") 08/14/2015 N	SB-209 SB-209(0-2") 08/14/2015 N	SB-F12 SB-F12 (0-1) (2014) 08/20/2014 N	SB-F14 SB-F14 (0-1) (2014) 08/20/2014 N	SB-F15 SB-F15 (0-1) (2014) 08/19/2014 N	SB-F27 SB-F27 (0-1) (2014) 08/19/2014 N	SB-F27 SB-F27 (1-3) (2014) 08/19/2014 N	SB-F3 SB-F3 (0-1) (2014) 08/20/2014 N	SB-F4 SB-F4 (0-1) (2014) 08/19/2014 N	SB-F6 SB-F6 (0-1) (2014) 08/19/2014 N	
PCB-114L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-115					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-118					--	--	6.6 B	1.6 B	69 EB	0.44 B	350 B	18 B	230 B	14 B	8.7 EB	110 B	--	--	--	0.47 G	79 E	--	--	--	--	--	--	--
PCB-118L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-12					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-12/13					--	--	< 0.98 U	< 0.48 U	< 0.94 U	< 0.047 U	< 0.96 U	< 0.91 U	< 0.95 U	< 0.046 U	< 0.045 U	< 0.93 U	--	--	--	< 0.043 U	< 0.045 U	--	--	--	--	--	--	--
PCB-120					--	--	< 0.49 U	< 0.24 U	< 0.79 U	< 0.023 U	< 5.4 U	< 0.46 U	< 2.7 U	< 0.11 U	< 0.059 U	< 1.4 U	--	--	--	< 0.022 U	< 0.5 U	--	--	--	--	--	--	--
PCB-121					--	--	< 0.49 U	< 0.24 U	< 0.78 U	< 0.023 U	< 5.3 U	< 0.46 U	< 2.7 U	< 0.11 U	< 0.058 U	< 1.3 U	--	--	--	< 0.022 U	< 0.47 U	--	--	--	--	--	--	--
PCB-122					--	--	0.16 J	< 0.24 U	1.4 G	0.012 J	< 6.4 U	< 0.46 U	4.2 G	0.24 G	< 0.070 U	2.1 G	--	--	--	< 0.022 U	1.1 G	--	--	--	--	--	--	--
PCB-123					--	--	0.11 G	< 0.047 U	1.1 G	0.0084 G	< 6.1 U	0.26 G	4.3 G	0.24 G	0.14 G	1.7 G	--	--	--	0.0053 G	0.8 G	--	--	--	--	--	--	--
PCB-123L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-126					--	--	< 0.19 U	< 0.10 U	< 1.6 U	< 0.011 U	< 9.2 U	< 0.29 U	< 6.7 U	< 0.14 U	< 0.070 U	< 2.8 U	--	--	--	< 0.0071 U	1.1 G	--	--	--	--	--	--	--
PCB-126L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-127					--	--	< 0.49 U	< 0.24 U	< 0.96 U	< 0.023 U	< 6.6 U	< 0.46 U	< 3.3 U	< 0.13 U	< 0.072 U	< 1.7 U	--	--	--	< 0.022 U	< 0.58 U	--	--	--	--	--	--	--
PCB-128					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-128/162					--	--	2	0.40 J	16	0.096	94 G	4.1	60 G	3.4 G	1.9 G	34	--	--	--	--	--	--	--	--	--	--	--	--
PCB-128/166					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.11	16	--	--	--	--	--	--	--
PCB-129					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-129/138/163					--	--	11 B	2.2 B	87 B	0.52 B	500 BE	23 B	340 BE	18 B	10 B	210 BE	--	--	--	0.64	93 E	--	--	--	--	--	--	--
PCB-130					--	--	0.75	0.15 J	6.0 G	0.036	34 G	1.5	23 G	1.2 G	0.75 G	13 G	--	--	--	0.043	6.5 G	--	--	--	--	--	--	--
PCB-131					--	--	0.17 J	0.030 J	1.3 G	0.0073 J	160 E	0.36 J	4.4 G	0.21 G	0.15 G	2.6 G	--	--	--	< 0.022 U	1.2 G	--	--	--	--	--	--	--
PCB-132					--	--	3.3 B	0.64 B	28 B	0.16 B	4.4 B	6.9 B	98 BE	4.8 B	3.1 B	60 BE	--	--	--	0.19	26 G	--	--	--	--	--	--	--
PCB-133					--	--	0.094 J	< 0.24 U	0.77 G	0.0055 J	< 1.4 U	0.20 J	3.1 G	0.15 G	0.096 G	1.9 G	--	--	--	< 0.022 U	0.96 G	--	--	--	--	--	--	--
PCB-134					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-134/143					--	--	0.66 J	0.12 J	4.8	0.029 J	9.2 G	1.2	18 G	0.79 G	0.55 G	10	--	--	--	< 0.043 U	4.5 G	--	--	--	--	--	--	--
PCB-135					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-135/151					--	--	2.1 B	0.44 JB	17 B	0.097 B	< 1.4 U	4.4 B	66 B	3.0 B	1.8 B	46 B	--	--	--	0.11	18	--	--	--	--	--	--	--
PCB-136					--	--	0.96 B	0.19 JB	7.9 B	0.044 B	< 1.0 U	1.8 B	26 B	1.3 B	0.82 B	18 B	--	--	--	0.048	6.9 G	--	--	--	--	--	--	--
PCB-137					--	--	0.65	0.13 J	5.5 G	0.033	33 G	1.3	19 G	1.0 G	0.70 G	11 G	--	--	--	0.033	4.8 G	--	--	--	--	--	--	--
PCB-139					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-139/140					--	--	0.21 J	0.040 J	1.6	0.0088 J	< 1.3 U	0.36 J	5.6 G	0.28 G	0.18 G	3.2	--	--	--	< 0.043 U	1.4 G	--	--	--	--	--	--	--
PCB-14					--	--	< 0.49 U	< 0.24 U	< 0.47 U	< 0.023 U	< 0.48 U	< 0.46 U	< 0.47 U	< 0.023 U	< 0.023 U	< 0.47 U	--	--	--	< 0.022 U	< 0.023 U	--	--	--	--	--	--	--
PCB-141					--	--	1.7	0.37	14 G	0.086	58 E	2.7	47 G	2.3 G	1.5 G	34 G	--	--	--	0.093	12 G	--	--	--	--	--	--	--
PCB-142					--	--	< 0.49 U	< 0.24 U	< 0.52 U	< 0.023 U	150 E	< 0.46 U	< 1.5 U	< 0.076 U	< 0.055 U	< 0.80 U	--	--	--	< 0.022 U	< 0.32 U	--	--	--	--	--	--	--
PCB-144					--	--	0.33 J	0.075 J	2.3 G	0.011 J	250 E	0.40 J	250 E	0.44 G	0.29 G	4.8 G	--	--	--	< 0.022 U	1.8 G	--	--	--	--	--	--	--
PCB-145					--	--	< 0.49 U	< 0.24 U	< 0.47 U	< 0.023 U	< 0.97 U	< 0.46 U	< 1.0 U	< 0.053 U	< 0.039 U	< 0.56 U	--	--	--	< 0.022 U	< 0.21 U	--	--	--	--	--	--	--
PCB-146					--	--	1.1	0.23 J	8.9 G	0.051	51 E	2.4	38 G	1.8 G	1.1 G	23 G	--	--	--	0.065	9.9 G	--	--	--	--	--	--	--
PCB-147					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-147/149					--	--	5.8 B	1.2 B	47 B	0.27 B	< 1.3 U	12 B	180 BE	8.5 B	5.3 B	120 BE	--	--	--	0.33	48 E	--	--	--	--	--	--	--
PCB-148					--	--	< 0.49 U	< 0.24 U	< 0.48 U	< 0.023 U	< 1.3 U	< 0.46 U	< 1.4 U	< 0.070 U	< 0.051 U	< 0.74 U	--	--	--	< 0.022 U	< 0.29 U	--	--	--	--	--	--	--
PCB-15					--	--	< 0.49 U	< 0.24 U	< 0.47 U	< 0.023 U	1.7	< 0.46 U	< 0.47 U	< 0.023 U	< 0.023 U	< 0.47 U	--	--	--	< 0.022 U	0.098 q	--	--	--	--	--	--	--
PCB-150					--	--	< 0.49 U	< 0.24 U	< 0.47 U	< 0.023 U	< 0.91 U	< 0.46 U	< 0.98 U	< 0.050 U	< 0.036 U	< 0.52 U	--	--	--	< 0.022 U	< 0.19 U	--	--	--	--	--	--	--
PCB-152					--	--	< 0.49 U	< 0.24 U	< 0.47 U	< 0.023 U	< 0.98 U	< 0.46 U	< 1.1 U	< 0.053 U	< 0.039 U	< 0.56 U	--	--	--	< 0.022 U	< 0.2 U	--	--	--	--	--	--	--
PCB-153					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-153/168					--	--	6.3 B	1.2 B	50 B	0.29 B	260 BE	12 B	210 BE	10 B	5.8 B	130 BE	--	--	--	0.36	54 E	--	--	--	--	--	--	--
PCB-154					--	--	0.072 J	< 0.24 U	0.61	< 0.023 U	< 0.46 U	< 1.2 U	< 0.46 U	0.10 G	0.050 G	1.1 G	--	--	--	< 0.022 U	0.57 G	--	--	--	--	--	--	--
PCB-155					--	--	< 0.49 U	< 0.24 U	< 0.47 U	< 0.023 U	< 0.82 U	< 0.46 U	< 0.89 U	< 0.063 U	< 0.046 U	< 0.47 U	--	--	--	< 0.022 U	< 0.2 U	--	--	--	--	--	--	--
PCB-155L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-156					--	--	1.4 B	0.37 B	13 B	0.096 B	72 B	3.2 B	43 B	2.9 B	1.8 B	24 B	--	--	--	--	--	--	--	--	--	--	--	--
PCB-156/157					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.091	13 G	--	--	--	--	--	--	--
PCB-156L/157L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-158					--	--	1.3	0.28	10	0.067	60 E	2.7	37 G	2.0 G	1.2 G	23 G	--	--	--	0.07	9.6 G	--	--	--	--	--	--	--
PCB-159					--	--	< 0.49 U	< 0.24 U	< 0.47 U	< 0.023 U	1.0 G	< 0.46 U	< 0.47 U	< 0.023 U	< 0.023 U	< 0.47 U	--	--	--	< 0.022 U	< 0.08 U	--	--	--	--	--	--	--
PCB-15L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-16					--	--	< 0.49 U	< 0.24 U	0.64	0.0042 J	4.3	0.16 J	0.77	0.020 J	0.020 J	0.18 J	--	--	--	< 0.022 U	0.24	--	--	--	--	--	--	--
PCB-160					--	--	< 0.49 U	< 0.24 U	< 0.47 U	< 0.023 U	470 E	< 0.46 U	< 1.4 U	< 0.068 U	< 0.050 U	< 0.72 U	--	--	--	< 0.022 U	< 0.25 U	--	--	--	--	--	--	--
PCB-161					--	--	< 0.49 U	< 0.24 U																				



Location ID	Type 1/2	RRS	Type 3/4	RRS	SB-199 SB-199 (0-2") 08/13/2015 N	SB-199 DUP-02 (0-2") 08/13/2015 FD	SB-200 SB-200 (0-2") 08/13/2015 N	SB-200 SB-200 (2-4") 08/13/2015 N	SB-201 SB-201 (0-2") 08/13/2015 N	SB-201 SB-201 (2-4") 08/13/2015 N	SB-202 SB-202 (0-2") 08/14/2015 N	SB-203 SB-203 (0-2") 08/14/2015 N	SB-204 SB-204 (0-2") 08/13/2015 N	SB-205 SB-205 (0-2") 08/13/2015 N	SB-206 SB-206 (0-2") 08/13/2015 N	SB-207 SB-207 (0-2") 08/13/2015 N	SB-208 SB-208(0-2") 08/14/2015 N	SB-208 SB-208(2-4") 08/14/2015 N	SB-209 SB-209(0-2") 08/14/2015 N	SB-F12 SB-F12 (0-1) (2014) 08/20/2014 N	SB-F14 SB-F14 (0-1) (2014) 08/20/2014 N	SB-F15 SB-F15 (0-1) (2014) 08/19/2014 N	SB-F27 SB-F27 (0-1) (2014) 08/19/2014 N	SB-F27 SB-F27 (1-3) (2014) 08/19/2014 N	SB-F3 SB-F3 (0-1) (2014) 08/20/2014 N	SB-F4 SB-F4 (0-1) (2014) 08/19/2014 N	SB-F6 SB-F6 (0-1) (2014) 08/19/2014 N	
PCB-194					--	--	0.21 J	0.11 J	1.3	0.023	9.5	0.58	6.9	0.53	0.29	8.4	--	--	--	< 0.022 U	1.7	--	--	--	--	--	--	--
PCB-195					--	--	0.080 J	0.034 J	0.53	0.0072 J	3.9	0.26 J	2.6	0.21	0.1	3.8	--	--	--	< 0.022 U	0.69	--	--	--	--	--	--	--
PCB-196					--	--	0.15 J	0.038 J	0.95	0.0088 J	6.3	0.43 J	5.2	0.26	0.15	5.8	--	--	--	< 0.022 U	1.3	--	--	--	--	--	--	--
PCB-197					--	--	0.0084 J	< 0.24 U	0.065 J	0.00041 J	0.40 J	0.027 J	0.32 J	0.016 J	0.0085 J	0.36 J	--	--	--	< 0.022 U	0.077	--	--	--	--	--	--	--
PCB-198					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-198/199					--	--	0.29 J	0.072 J	1.9	0.019 J	13	0.86 J	12	0.51	0.4	11	--	--	--	< 0.043 U	3	--	--	--	--	--	--	--
PCB-19L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-1L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-2					--	--	< 0.49 U	< 0.24 U	< 0.47 U	< 0.023 U	< 0.48 U	< 0.46 U	< 0.47 U	0.0030 J	0.16	< 0.47 U	--	--	--	< 0.022 U	< 0.023 U	--	--	--	--	--	--	--
PCB-20					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-20/28					--	--	0.022 JB	0.013 JB	1.6 B	0.012 JB	10 B	0.52 JB	3.4 B	0.077 B	0.038 JB	0.44 JB	--	--	--	< 0.043 U	1.5	--	--	--	--	--	--	--
PCB-200					--	--	0.040 J	0.0058 J	0.25 J	0.0020 J	1.6	0.11 J	1.5	0.06	0.041	1.6	--	--	--	< 0.022 U	0.38	--	--	--	--	--	--	--
PCB-201					--	--	0.039 J	< 0.24 U	0.25 J	0.0020 J	1.6	0.11 J	1.5	0.058	0.042	1.4	--	--	--	< 0.022 U	0.37	--	--	--	--	--	--	--
PCB-202					--	--	0.045 J	0.017 J	0.32 J	0.0033 J	1.8	0.13 J	2.1	0.085	0.082	1.6	--	--	--	< 0.022 U	0.53	--	--	--	--	--	--	--
PCB-202L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-203					--	--	0.20 J	0.058 J	1.3	0.013 J	8.5	0.53	7.9	0.34	0.25	7.1	--	--	--	< 0.022 U	1.9	--	--	--	--	--	--	--
PCB-204					--	--	< 0.49 U	< 0.24 U	< 0.47 U	< 0.023 U	< 0.46 U	< 0.47 U	< 0.47 U	< 0.023 U	< 0.023 U	< 0.47 U	--	--	--	< 0.022 U	< 0.023 U	--	--	--	--	--	--	--
PCB-205					--	--	0.018 J	< 0.24 U	0.099 J	0.0028 J	0.76	0.050 J	0.50 Q	0.031	0.013 J	0.65	--	--	--	< 0.022 U	0.12	--	--	--	--	--	--	--
PCB-205L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-206					--	--	0.14 J	0.062 J	1.1	0.018 J	4.7	0.29 J	5	0.19	0.27	2.5	--	--	--	< 0.022 U	1.2	--	--	--	--	--	--	--
PCB-206L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-207					--	--	0.011 J	< 0.24 U	0.13 J	0.0013 J	0.55	0.031 J	0.68	0.023	0.028	0.35 J	--	--	--	< 0.022 U	0.15	--	--	--	--	--	--	--
PCB-208					--	--	0.028 J	0.0064 J	0.33 J	0.0052 J	1.2	0.066 J	1.3	0.049	0.087	0.52	--	--	--	< 0.022 U	0.33	--	--	--	--	--	--	--
PCB-208L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-209L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-21					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-21/33					--	--	< 0.98 U	< 0.48 U	1	0.0062 J	6.2	0.28 J	5.6	0.1	0.024 J	0.32 J	--	--	--	< 0.043 U	0.68	--	--	--	--	--	--	--
PCB-22					--	--	< 0.49 U	< 0.24 U	0.62	0.0038 J	3.8	0.18 J	0.96	0.025	0.016 J	0.13 J	--	--	--	< 0.022 U	0.28 G	--	--	--	--	--	--	--
PCB-23					--	--	< 0.49 U	< 0.24 U	< 0.47 U	< 0.023 U	< 0.48 U	< 0.46 U	< 0.47 U	< 0.023 U	< 0.023 U	< 0.47 U	--	--	--	< 0.022 U	< 0.04 U	--	--	--	--	--	--	--
PCB-24					--	--	< 0.49 U	< 0.24 U	< 0.47 U	< 0.023 U	< 0.48 U	< 0.46 U	0.044 J	0.00098 J	0.00093 J	< 0.47 U	--	--	--	< 0.022 U	< 0.023 U	--	--	--	--	--	--	--
PCB-25					--	--	< 0.49 U	< 0.24 U	0.13 J	< 0.023 U	0.52 Q	< 0.46 U	< 0.47 U	< 0.023 U	< 0.023 U	< 0.47 U	--	--	--	< 0.022 U	0.15 G	--	--	--	--	--	--	--
PCB-26					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-26/29					--	--	< 0.98 U	< 0.48 U	0.21 J	0.0019 J	1.7	0.085 J	0.29 J	0.0074 J	0.0097 J	0.062 J	--	--	--	< 0.043 U	0.11	--	--	--	--	--	--	--
PCB-27					--	--	< 0.49 U	< 0.24 U	0.11 J	0.00061 J	0.68	0.035 J	0.14 J	0.0036 J	0.0034 J	0.031 J	--	--	--	< 0.022 U	0.055	--	--	--	--	--	--	--
PCB-3					--	--	< 0.49 U	< 0.24 U	0.0088 J	< 0.023 U	0.26 J	< 0.46 U	0.025 J	0.0040 J	0.039	< 0.47 U	--	--	--	< 0.022 U	< 0.023 U	--	--	--	--	--	--	--
PCB-31					--	--	0.021 JB	0.019 JB	1.7 B	0.011 JB	11 B	0.51 B	3.4 B	0.091 B	0.062 B	0.54 B	--	--	--	< 0.022 U	1.2 G	--	--	--	--	--	--	--
PCB-32					--	--	0.0074 JB	< 0.24 U	0.44 JB	0.0028 JB	2.7 B	0.13 JB	0.74 B	0.016 JB	0.012 JB	0.14 JB	--	--	--	< 0.022 U	0.87	--	--	--	--	--	--	--
PCB-34					--	--	< 0.49 U	< 0.24 U	< 0.47 U	< 0.023 U	< 0.48 U	< 0.46 U	< 0.47 U	< 0.023 U	< 0.023 U	< 0.47 U	--	--	--	< 0.022 U	< 0.042 U	--	--	--	--	--	--	--
PCB-35					--	--	< 0.49 U	< 0.24 U	< 0.47 U	< 0.023 U	< 0.48 U	< 0.46 U	< 0.47 U	< 0.023 U	< 0.023 U	< 0.47 U	--	--	--	< 0.022 U	0.05 G	--	--	--	--	--	--	--
PCB-36					--	--	< 0.49 U	< 0.24 U	< 0.47 U	< 0.023 U	0.94	< 0.46 U	0.74	0.021 J	0.014 J	0.12 J	--	--	--	< 0.022 U	0.4 G	--	--	--	--	--	--	--
PCB-37					--	--	< 0.49 U	< 0.24 U	0.37 J	< 0.023 U	< 0.48 U	0.21 J	1.5	0.039	0.016 J	0.23 J	--	--	--	< 0.022 U	0.34 G	--	--	--	--	--	--	--
PCB-37L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-38					--	--	< 0.49 U	< 0.24 U	< 0.47 U	< 0.023 U	< 0.48 U	< 0.46 U	< 0.47 U	< 0.023 U	< 0.023 U	< 0.47 U	--	--	--	< 0.022 U	< 0.046 U	--	--	--	--	--	--	--
PCB-39					--	--	< 0.49 U	0.0088 J	< 0.47 U	0.0034 J	< 0.48 U	0.096 J	1.6	< 0.023 U	< 0.023 U	0.37 J	--	--	--	< 0.022 U	< 0.043 U	--	--	--	--	--	--	--
PCB-3L					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-4					--	--	< 0.49 U	< 0.24 U	0.27 J	< 0.023 U	2.1	0.054 J	0.26 J	< 0.023 U	< 0.023 U	< 0.47 U	--	--	--	< 0.022 U	0.11 q	--	--	--	--	--	--	--
PCB-40					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-40/71					--	--	0.074 JB	0.057 JB	2.5 B	0.015 JB	< 0.96 U	0.72 JB	5.5 B	0.20 B	0.14 B	1.6 B	--	--	--	< 0.043 U	3.8	--	--	--	--	--	--	--
PCB-41					--	--	< 0.49 U	< 0.24 U	0.22 J	< 0.023 U	< 0.49 U	< 0.46 U	< 0.47 U	< 0.023 U	< 0.023 U	< 0.47 U	--	--	--	< 0.022 U	0.067 G	--	--	--	--	--	--	--
PCB-42					--	--	< 0.49 U	0.022 JB	1.2 B	0.0075 JB	5.4 B	0.35 JB	3.2 B	0.091 B	0.058 B	0.47 B	--	--	--	< 0.022 U	2.1 G	--	--	--	--	--	--	--
PCB-43					--	--	< 0.49 U	< 0.24 U	< 0.47 U	< 0.023 U	< 0.48 U	< 0.46 U	< 0.47 U	< 0.023 U	< 0.023 U	< 0.47 U	--	--	--	< 0.022 U	0.14 G	--	--	--	--	--	--	--
PCB-44					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-44/47/65					--	--	0.63 JB	0.27 JB	14 B	0.083 B	69 B	3.6 B	39 B	1.4 B	1.1 B	12 B	--	--	--	0.096	19	--	--	--	--	--	--	--
PCB-45					--	--	< 0.49 U	< 0.24 U	0.51	0.0043 J	2.9 G	0.12 J	< 0.47 U	< 0.023 U	< 0.023 U	< 0.47 U	--	--	--	< 0.022 U	0.089 G	--	--	--	--	--	--	--
PCB-46					--	--	< 0.49 U	< 0.24 U	< 0.47 U	< 0.023 U	< 0.50 U	< 0.46 U	< 0.47 U	< 0.023 U	< 0.023 U	< 0.47 U	--	--	--	< 0.022 U								



Sample ID	Type 1/2	Type 3/4	SB-199 SB-199 (0-2") 08/13/2015 N	SB-199 DUP-02 (0-2") 08/13/2015 FD	SB-200 SB-200 (0-2") 08/13/2015 N	SB-200 SB-200 (2-4") 08/13/2015 N	SB-201 SB-201 (0-2") 08/13/2015 N	SB-201 SB-201 (2-4") 08/13/2015 N	SB-202 SB-202 (0-2") 08/14/2015 N	SB-203 SB-203 (0-2") 08/14/2015 N	SB-204 SB-204 (0-2") 08/13/2015 N	SB-205 SB-205 (0-2") 08/13/2015 N	SB-206 SB-206 (0-2") 08/13/2015 N	SB-207 SB-207 (0-2") 08/13/2015 N	SB-208 SB-208(0-2") 08/14/2015 N	SB-208 SB-208(2-4") 08/14/2015 N	SB-209 SB-209(0-2") 08/14/2015 N	SB-F12 SB-F12 (0-1) (2014) 08/20/2014 N	SB-F14 SB-F14 (0-1) (2014) 08/20/2014 N	SB-F15 SB-F15 (0-1) (2014) 08/19/2014 N	SB-F27 SB-F27 (0-1) (2014) 08/19/2014 N	SB-F27 SB-F27 (1-3) (2014) 08/19/2014 N	SB-F3 SB-F3 (0-1) (2014) 08/20/2014 N	SB-F4 SB-F4 (0-1) (2014) 08/19/2014 N	SB-F6 SB-F6 (0-1) (2014) 08/19/2014 N		
PCB-84			--	--	1.3 B	0.43 B	18 B	0.12 B	98 BE	4.3 B	49 B	2.7 B	2.0 B	21 B	--	--	--	0.12	18 G	--	--	--	--	--	--	--	
PCB-85			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-85/116/117			--	--	1.1 JB	0.27 JB	11 B	0.073 B	520 BE	2.6 B	34 B	2.4 B	1.3 B	16 B	--	--	--	0.065	12 G	--	--	--	--	--	--	--	
PCB-86			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-86/87/97/108/119/125			--	--	4.1 B	1.3 JB	52 B	0.34 B	180 B	12 B	160 B	8.2 B	6.1 B	64 B	--	--	--	0.34	50	--	--	--	--	--	--	--	
PCB-88			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-88/91			--	--	0.75 JB	0.19 JB	7.4 B	0.051 B	36 B	1.6 B	24 B	1.3 B	0.79 B	11 B	--	--	--	0.051	9.5 G	--	--	--	--	--	--	--	
PCB-89			--	--	< 0.49 U	< 0.24 U	< 1.1 U	< 0.023 U	< 7.9 U	< 0.46 U	< 3.9 U	< 0.16 U	< 0.085 U	< 2.0 U	--	--	--	< 0.022 U	< 0.72 U	--	--	--	--	--	--	--	
PCB-9			--	--	< 0.49 U	< 0.24 U	< 0.47 U	< 0.023 U	0.31 J	< 0.46 U	< 0.47 U	< 0.023 U	< 0.023 U	< 0.47 U	--	--	--	< 0.022 U	< 0.023 U	--	--	--	--	--	--	--	
PCB-90			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-90/101/113			--	--	6.0 B	1.9 B	70 B	0.48 B	350 BE	16 B	230 BE	12 B	8.7 B	99 B	--	--	--	0.5	77 G	--	--	--	--	--	--	--	
PCB-92			--	--	< 0.49 U	0.32 B	7.4 B	0.074 B	< 7.5 U	< 0.46 U	44 B	2.4 B	1.6 B	< 1.9 U	--	--	--	0.096	15 G	--	--	--	--	--	--	--	
PCB-93			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-93/100			--	--	< 0.98 U	< 0.48 U	< 1.1 U	< 0.047 U	150 BE	< 0.91 U	< 3.7 U	< 0.15 U	< 0.079 U	< 1.8 U	--	--	--	< 0.043 U	< 0.65 U	--	--	--	--	--	--	--	
PCB-94			--	--	< 0.49 U	< 0.24 U	< 1.1 U	< 0.023 U	< 7.7 U	< 0.46 U	< 3.8 U	< 0.16 U	< 0.083 U	< 1.9 U	--	--	--	< 0.022 U	< 0.68 U	--	--	--	--	--	--	--	
PCB-95			--	--	2.1 B	0.90 B	47 B	0.32 B	< 7.5 U	7.8 B	160 BE	7.1 B	4.5 B	53 B	--	--	--	0.25	54 G	--	--	--	--	--	--	--	
PCB-96			--	--	0.026 J	0.0050 J	0.33 J	0.0026 J	1.9	0.073 J	0.81	0.037	0.028	0.45 J	--	--	--	< 0.022 U	0.33	--	--	--	--	--	--	--	
PCB-98			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PCB-98/102			--	--	< 0.98 U	< 0.48 U	< 0.96 U	< 0.047 U	< 6.6 U	0.31 J	< 3.3 U	0.18 G	< 0.072 U	< 1.7 U	--	--	--	< 0.043 U	< 0.6 U	--	--	--	--	--	--	--	
PCB-99			--	--	2.9 B	0.79 B	30 B	0.19 B	< 6.8 U	6.9 B	110 BE	5.7 B	3.4 B	49 BE	--	--	--	0.22	37 G	--	--	--	--	--	--	--	
Polychlorinated biphenyls	1550	1550	--	--	96	25	980	6.4	6000	240	3400	180	110	1800	--	--	--	--	--	--	--	--	--	--	--	--	
Semi-Volatile Organic Compounds (µg/kg)																											
1,1-Biphenyl	1000	1000	12 J	12 J	--	--	--	--	--	--	--	--	--	--	< 36 U	< 180 U	< 37 U	--	--	--	--	--	--	--	< 17000 U	--	
1,2,4,5-Tetrachlorobenzene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,2,4-Trichlorobenzene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,2-Dichlorobenzene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,3,5-Trinitrobenzene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,3-Dichlorobenzene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,3-Dinitrobenzene	1050	1050	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,4-Dichlorobenzene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,4-Dioxane	7000	7000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,4-Naphthoquinone			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1-Naphthylamine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2,2-Oxybis(1-Chloropropane)			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2,3,4,6-Tetrachlorophenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2,4,5-Trichlorophenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2,4,6-Trichlorophenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2,4-Dichlorophenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2,4-Dimethylphenol	70000	70000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2,4-Dinitrophenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2,4-Dinitrotoluene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2,6-Dichlorophenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2,6-Dinitrotoluene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Acetylaminofluorene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Chloronaphthalene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Chlorophenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Methyl-4,6-dinitrophenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Methylnaphthalene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Methylphenol	3800	4100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Naphthylamine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Nitroaniline			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Nitrophenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Picoline			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
3,3-Dichlorobenzidine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
3,3-Dimethylbenzidine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
3-Methylchloranthrene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
3-Nitroaniline			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4-Aminobiphenyl			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4-Bromophenyl phenyl ether			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4-Chloro-3-Methylphenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4-Chlorophenyl phenyl ether			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4-Dimethylaminoazobenzene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4-Methylphenol	3800	8000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4-Nitroaniline			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4-Nitrophenol			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4-Nitroquinoline-N-Oxide			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
5-Nitro-o-Toluidine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
7,12-Dimethylbenz(a)anthracene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Acenaphthene	300000	300000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Acenaphthylene	130000	130000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Acetophenone	400000	400000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Aniline	2000	2000	--	--	--	--	--	--	--	--	--	< 76 U	< 380 U	--	--	--	--	--	--	--	--	--	--	--	--	--	
Anthracene	500000																										



[illegible]



Location ID	Type 1/2	RRS	Type 3/4	RRS	SB-199 SB-199 (0-2') 08/13/2015 Sample Date Sample Type	SB-199 DUP-02 (0-2') 08/13/2015	SB-200 SB-200 (0-2') 08/13/2015	SB-200 SB-200 (2-4') 08/13/2015	SB-201 SB-201 (0-2') 08/13/2015	SB-201 SB-201 (2-4') 08/13/2015	SB-202 SB-202 (0-2') 08/14/2015	SB-203 SB-203 (0-2') 08/14/2015	SB-204 SB-204 (0-2') 08/13/2015	SB-205 SB-205 (0-2') 08/13/2015	SB-206 SB-206 (0-2') 08/13/2015	SB-207 SB-207 (0-2') 08/13/2015	SB-208 SB-208(0-2') 08/14/2015	SB-208 SB-208(2-4') 08/14/2015	SB-209 SB-209(0-2') 08/14/2015	SB-F12 SB-F12 (0-1) (2014) 08/20/2014	SB-F14 SB-F14 (0-1) (2014) 08/20/2014	SB-F15 SB-F15 (0-1) (2014) 08/19/2014	SB-F27 SB-F27 (0-1) (2014) 08/19/2014	SB-F27 SB-F27 (1-3) (2014) 08/19/2014	SB-F3 SB-F3 (0-1) (2014) 08/20/2014	SB-F4 SB-F4 (0-1) (2014) 08/19/2014	SB-F6 SB-F6 (0-1) (2014) 08/19/2014
Methyl methacrylate					N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Methyl N-Butyl Ketone (2-Hexanone)					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylacrylonitrile					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	100000		100000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachloroethane					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Propionitrile					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene (Monomer)	14000		14000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	500		500		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	100000		100000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Xylenes	1000000		1000000		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,4-Dichloro-2-butene	113		140		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride					--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**Notes:**  
**Bold** = Concentration is greater than the laboratory detection limit  
Shaded = Concentration exceeds the GA EPD Type 3/4 RRS  
**Acronyms and Abbreviations:**  
DUP = field duplicate  
GA EPD = Georgia Environmental Protection Division  
PCB = polychlorinated biphenyl  
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**Data Validation Qualifiers:**  
B = Compound was detected in the associated blank  
H = Sample was analyzed outside of the hold time  
J = Result is estimated  
U = Result is less than the laboratory detection limit



[illegible]



[illegible]



Location ID			DS-9	DS-9	DS-9	DS-9	DS-9	EX-21	EX-21	EX-21	EX-22	EX-22	EX-22	EX-26	EX-26	EX-26	SB-122	SB-122	SB-122	SB-122	SB-126	SB-126	SB-126	SB-128	SB-128	SB-128	SB-128
Sample ID	Type 1/2 RRS	Type 3/4 RRS	DS-9-1 (0-2) (102417)	DS-9-2 (0-4) (102417)	DS-9-3 (0-4) (102417)	DS-9-4 (0-4) (102417)	DS-9-2A (12292017)	EX-21-1 (0- 2) (102517)	EX-21-2 (0- 2) (102517)	EX-21-1A (12292017)	EX-22-1 (0- 2) (102517)	EX-22-2 (0- 2) (102517)	EX-22-3 (0- 2) (102517)	EX-26-1 (0- 2) (102617)	EX-26-2 (0- 2) (102617)	EX-26-3 (0- 2) (102617)	SB-122-1 (0- 1) (102617)	SB-122-2 (0- 1) (102617)	SB-122-3 (0- 1) (102617)	SB-122-4 (0- 1) (102617)	SB-126-1 (0- 1) (102417)	SB-126-2 (0- 1) (102417)	SB-126-3 (0- 1) (102417)	SB-128-1 (0- 1) (102417)	SB-128-2 (0- 1) (102417)	SB-128-3 (0- 1) (102417)	SB-128-1A (12292017)
Sample Date			10/24/2017	10/24/2017	10/24/2017	10/24/2017	12/29/2017	10/25/2017	10/25/2017	12/29/2017	10/25/2017	10/25/2017	10/25/2017	10/26/2017	10/26/2017	10/26/2017	10/26/2017	10/26/2017	10/26/2017	10/26/2017	10/26/2017	10/24/2017	10/24/2017	10/24/2017	10/24/2017	10/24/2017	10/24/2017
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
PCB-73			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-77			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-78			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-79			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-8			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-80			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-81			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-82			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-83			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-84			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-85/116/117			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-86/87/97/108/119/125			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-88/91			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-89			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-9			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-90/101/113			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-92			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-93/100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-94			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-95			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-96			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-98/102			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-99			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Polychlorinated biphenyls	1550	1550	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1200	1400	900	270	--	--	--	--	--	--	--
Semi-Volatile Organic Compounds (µg/kg)																											
1,1-Biphenyl	1000	1000	91	2500	160	130	110	1500	100 J	< 190 U	13 J	12 J	13 J	31 J	< 380 U	< 37 U	--	--	--	--	890	170	190	1200000	530	270	210000

Notes:  
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**Acronyms and Abbreviations:**  
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µg/kg = microgram per kilogram  
**Data Validation Qualifiers:**  
B = Compound was detected in the associated blank  
H = Sample was analyzed outside of the hold time  
J = Result is estimated  
U = Result is less than the laboratory detection limit



4/9



Location ID			SB-128	SB-128	SB-137	SB-137	SB-142	SB-142	SB-142	SB-142	SB-159	SB-159	SB-159	SB-159	SB-165	SB-165	SB-168	SB-168	SB-168	SB-189	SB-189	SB-189	SB-198	SB-198	SB-202	SB-202	SB-202
Sample ID	Type 1/2	Type 3/4	DUP-2	SB-128-3B	SB-137-1 (0-	SB-137-1A	SB-142-1 (0-	SB-142-2 (0-	SB-142-3 (0-	DUP-2	SB-159-1 (0-	SB-159-2 (0-	SB-159-3 (0-	SB-159-1A	SB-165-1 (0-	SB-165-2 (0-	SB-168-1 (0-	SB-168-2 (0-	SB-168-3 (0-	SB-189-1 (0-	SB-189-2 (0-	SB-189-3 (0-	SB-198-1 (0-	SB-198-2 (0-	SB-202-1 (0-	SB-202-2 (0-	DUP-1
Sample Date			12/29/2017	12/29/2017	10/24/2017	12/29/2017	10/26/2017	10/26/2017	10/26/2017	10/26/2017	10/24/2017	10/24/2017	10/24/2017	12/29/2017	10/25/2017	10/25/2017	10/25/2017	10/25/2017	10/25/2017	10/25/2017	10/25/2017	10/25/2017	10/25/2017	10/25/2017	10/24/2017	10/24/2017	10/24/2017
Sample Type			FD	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD
PCB-176			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.7	2.2	0.93
PCB-177			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.5 E	12	5.5 E
PCB-178			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.7 E	3.4	1.4
PCB-179			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.0 E	7.1	2.9 E
PCB-18/30			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.9 B	--	1.0 B
PCB-180/193			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	33 EB	44 B	19 EB
PCB-181			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.28	0.56 J	0.26
PCB-182			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.024 U	0.15 J	0.057
PCB-183			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.1 EB	11 B	5.0 EB
PCB-184			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.024 U	< 1.2 U	< 0.024
PCB-185			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.6 E	2.2	1.1
PCB-186			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.024 U	< 1.2 U	< 0.024 U
PCB-187			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15 EB	20 B	7.7 EB
PCB-188			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.024 U	< 1.2 U	0.010 J
PCB-189			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.71	1.1	0.48 q
PCB-19			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.18	0.53 J	0.14
PCB-190			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.2 EB	4.6 B	2.1 B
PCB-191			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.72	1.0 J	0.48
PCB-192			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.024 U	< 1.2 U	< 0.024 U
PCB-194			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.3 EB	5.4 B	2.5 EB
PCB-195			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.2 E	2.4	1.3
PCB-196			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.1 E	3.6	1.6
PCB-197			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.34	0.28 J	0.15
PCB-198/199			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.6 E	7.4	3
PCB-2			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0030 J	0.0082 J	0.0041 J
PCB-20/28			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.3 B	--	1.3 B
PCB-200			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.2	0.94 J	0.59 q
PCB-201			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.2	0.95 J	0.43 q
PCB-202			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4	1.1 J	0.63
PCB-203			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.5 E	4.8	2.5 E
PCB-204			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.024 U	< 1.2 U	< 0.024 U
PCB-205			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.34	0.33 J	0.16
PCB-206			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.9 E	3.2	2.2
PCB-207			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.34	0.33 J	0.23
PCB-208			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.74	0.87 J	0.61
PCB-21/33			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1 B	--	0.64 B
PCB-22			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.67 G	--	0.42
PCB-23			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.043 U	--	< 0.024 U
PCB-24			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.024 U	--	0.016 J
PCB-25			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.16 G	--	0.099
PCB-26/29			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.35	--	0.21
PCB-27			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.14	--	0.079
PCB-3			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0047 J	0.026 J	0.013 J
PCB-31			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.4 G	--	1.5 B
PCB-32			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.55	--	0.35
PCB-34			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.044 U	--	< 0.024 U
PCB-35			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.045 U	--	< 0.024 U
PCB-36			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.20 G	--	< 0.024 U
PCB-37			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.51 G	--	0.34 G
PCB-38			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.046 U	--	< 0.024 U
PCB-39			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.040 U	--	< 0.024 U
PCB-4			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.086	0.49 J	0.21 q
PCB-40/71			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.2 B	--	2.7 B
PCB-41			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.025 U	--	0.18 G
PCB-42			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4 B	--	1.0 G
PCB-43			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.025 U	--	< 0.028 U
PCB-44/47/65			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	17 EB	--	15 EB
PCB-45			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4	--	0.69 G
PCB-46			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.44 G	--	0.21 G
PCB-48			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.5 B	--	0.81 B
PCB-49/69			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.4 EB	--	7.6 EB
PCB-5			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.024 U	< 1.2 U	0.016 J
PCB-50/53			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4 B	--	0.95 B
PCB-51			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.29	--	0.11
PCB-52			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	40 EB	--	42 EB
PCB-54			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.017 J	0.040 J	0.0085 J
PCB-55			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.26 U	--	< 0.20 U
PCB-56			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.2 G	--	3.4 G
PCB-57			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.26 U	--	< 0.20 U
PCB-58			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				



Location ID			SB-128 DUP-2 (12292017)	SB-128 SB-128-3B (12292017)	SB-137 SB-137-1 (0- 1) (102417)	SB-137 SB-137-1A (12292017)	SB-142 SB-142-1 (0- 1) (102617)	SB-142 SB-142-2 (0- 1) (102617)	SB-142 SB-142-3 (0- 1) (102617)	SB-142 DUP-2 (102617)	SB-159 SB-159-1 (0- 2) (102417)	SB-159 SB-159-2 (0- 2) (102417)	SB-159 SB-159-3 (0- 2) (102417)	SB-159 SB-159-1A (12292017)	SB-165 SB-165-1 (0- 2) (102517)	SB-165 SB-165-2 (0- 2) (102517)	SB-168 SB-168-1 (0- 2) (102517)	SB-168 SB-168-2 (0- 2) (102517)	SB-168 SB-168-3 (0- 2) (102517)	SB-189 SB-189-1 (0- 2) (102517)	SB-189 SB-189-2 (0- 2) (102517)	SB-189 SB-189-3 (0- 2) (102517)	SB-198 SB-198-1 (0- 2) (102517)	SB-198 SB-198-2 (0- 2) (102517)	SB-202 SB-202-1 (0- 2) (102417)	SB-202 SB-202-2 (0- 2) (102417)	SB-202 DUP-1 (102417)		
Sample ID	Type 1/2 RRS	Type 3/4 RRS	FD	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Sample Date																													
Sample Type																													
PCB-73			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.024 U	--	0.15	
PCB-77			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.1 G	--	0.68 G
PCB-78			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.26 U	--	< 0.21 U
PCB-79			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.81 G	--	0.83 G
PCB-8			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.13	0.90 J	0.31
PCB-80			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.47 G	--	0.56 G
PCB-81			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.28 U	--	< 0.20 U
PCB-82			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9.7 G	27 G	10 G
PCB-83			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.9 U	< 3.0 U	< 1.5 U
PCB-84			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	29 G	59 G	26 G
PCB-85/116/117			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	18 G	30	17 G
PCB-86/87/97/108/119/125			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	73 G	160 B	72 G
PCB-88/91			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	12 G	25	11 G
PCB-89			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.5 U	< 2.4 U	< 1.2 U
PCB-9			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0080 J	0.054 J	0.017 J
PCB-90/101/113			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	110 B	220 B	52 B
PCB-92			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	20 G	14 G	20 G
PCB-93/100			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.4 U	73	< 1.1 U
PCB-94			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.4 U	< 2.3 U	< 1.2 U
PCB-95			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	51 G	< 2.2 U	63 G
PCB-96			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.58	1.0 J	0.45
PCB-98/102			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.2 G	4.2	2.1 G
PCB-99			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	45 G	86 G	42 G
Polychlorinated biphenyls	1550	1550	--	--	4400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1700	1100	1100
Semi-Volatile Organic Compounds (µg/kg)																													
1,1-Biphenyl	1000	1000	180000	< 360 UH	--	--	< 360 U	< 370 U	150	73	140	150	2000	300 J	270	12 J	86 F	580	250	120	140	70	< 41 U	110 J	--	--	--	--	--

Notes:  
**Bold** = Concentration is greater than the laboratory detection limit  
Shaded = Concentration exceeds the GA EPD Type 3/4 RRS  
**Acronyms and Abbreviations:**  
DUP = field duplicate  
GA EPD = Georgia Environmental Protection Division  
PCB = polychlorinated biphenyl  
RRS = Risk Reduction Standard  
µg/kg = microgram per kilogram  
**Data Validation Qualifiers:**  
B = Compound was detected in the associated blank  
H = Sample was analyzed outside of the hold time  
J = Result is estimated  
U = Result is less than the laboratory detection limit



Location ID			SB-202 DUP-3 (102417)	SB-202 SB-202-1A (12292017)	SB-204 SB-204-1 (0- 2) (102617)	SB-204 SB-204-2 (0- 2) (102617)	SB-204 SB-204-3 (0- 2) (102617)	SB-204 SB-204-1A (12292017)	SB-204 SB-204-2A (12292017)	SB-204 SB-204-2B (12292017)	SB-204 SB-204-3A (12292017)	SB-204 SB-204-3B (12292017)	SB-204 DUP-1 (12292017)	SB-207 SB-207-1 (0- 2) (102617)	SB-207 SB-207-2 (0- 2) (102617)	SB-207 SB-207-3 (0- 2) (102617)
Sample ID	Type 1/2 RRS	Type 3/4 RRS	FD	N	N	N	N	N	N	N	N	N	FD	N	N	N
Sample Date			10/24/2017	12/29/2017	10/26/2017	10/26/2017	10/26/2017	12/29/2017	12/29/2017	12/29/2017	12/29/2017	12/29/2017	12/29/2017	10/26/2017	10/26/2017	10/26/2017
Sample Type																
Dioxins and Furans (µg/kg)																
2,3,7,8-Tetrachlorodibenzo-p-dioxin			--	--	< 0.0019 U	< 0.0015 U	< 0.0022 U	--	--	--	< 0.0030 U	--	--	< 0.0012 U	< 0.0013 U	< 0.0011 U
TEQ Dioxin/Furan WHO2005ND=0			--	--	0.00091	0.00056	0.01	--	--	--	--	--	--	0.0023	0.016	0.0019
TEQ WHO2005 ND=0.5	0.12	0.44	--	--	--	--	--	--	--	--	0.0031	--	--	--	--	--
TEQ WHO2005 ND=DL			--	0.00094	--	--	--	0.0011	0.018	0.0043	0.021	0.0016	0.0088	--	--	--
Total PCB TEQ			--	0.00094	0.0068	0.005	0.5	0.0011	0.018	0.0043	0.018	0.0016	0.0088	0.00053	0.00084	0.00093
Toxicity Equivalent ND =0			--	--	0.0078	0.0055	0.51	--	--	--	--	--	--	0.0029	0.017	0.0029
Pesticides (µg/kg)																
4,4-DDT	660	2800	--	--	< 1.9 U	< 2.0 U	< 2.1 U	--	--	--	--	--	--	--	--	--
Endrin	10000	10000	--	--	< 1.9 U	< 2.0 U	< 2.1 U	--	--	--	--	--	--	--	--	--
Endrin aldehyde	10000	10000	--	--	< 1.9 U	< 2.0 U	< 2.1 U	--	--	--	--	--	--	--	--	--
Methoxychlor	10000	28000	--	--	< 1.9 U	< 2.0 U	< 2.1 U	--	--	--	--	--	--	--	--	--
Polychlorinated Biphenyls (µg/kg)																
Aroclor 1254	1550	1550	--	330	1600	5200	400	250	3500	910	--	--	2900	--	--	--
Aroclor 1260	1550	1550	--	--	< 37 U	< 38 U	< 40 U	--	--	--	--	--	--	--	--	--
Aroclor 1262			--	--	< 37 U	< 38 U	< 40 U	--	--	--	--	--	--	--	--	--
Aroclor 1268			--	--	< 37 U	< 38 U	< 40 U	--	--	--	--	--	--	--	--	--
Decachlorobiphenyl			--	0.12	0.24	0.10 JB	0.27 JB	0.031 J	0.46	0.84	0.82	0.34	0.23 J	0.16 B	0.53 B	0.027 JB
PCB-1			--	0.0029 J	0.029	0.22 J	0.014 J	0.0037 J	0.089 J	0.055 J	0.25	0.011 J	0.090 J	0.0025 J	0.0046 J	0.0031 J
PCB-10			--	< 0.11 U	< 0.024 U	< 0.47 U	< 0.50 U	< 0.23 U	0.012 J	< 0.13 U	0.054 J	< 0.12 U	< 0.51 U	< 0.12 U	< 0.13 U	< 0.11 U
PCB-103			--	< 0.22 U	< 0.99 U	< 0.86 U	< 2.5 U	< 0.23 U	< 2.9 U	< 0.68 U	3.3 G	< 0.49 U	< 1.5 U	< 0.12 U	< 0.26 U	< 0.16 U
PCB-104			--	< 0.11 U	0.0048 J	0.021 J	0.013 J	< 0.23 U	0.027 J	0.021 J	0.38	< 0.12 U	0.010 J	< 0.12 U	< 0.13 U	0.0043 J
PCB-105			--	7.2 B	56	39	100	9.0 B	150 EB	35 BE	150 EB	11 B	74 EB	4.3	6	7.2
PCB-106			--	< 0.20 U	< 0.90 U	< 0.78 U	< 2.2 U	< 0.23 U	< 2.7 U	< 0.62 U	< 2.9 U	< 0.45 U	< 1.4 U	< 0.12 U	< 0.23 U	< 0.15 U
PCB-107/124			--	0.86	5.9	3.9	8.8	0.83	14 G	3.4 G	17 G	1.2 G	6.8 G	0.4	0.55	0.63
PCB-109			--	1.2 B	9.5	7	20	1.4 B	26 EB	6.1 G	26 EB	2.1 G	12 B	0.69	1.1	1.4
PCB-111			--	0.0066 JB	0.0061 J	< 0.47 U	0.055 J	< 0.23 U	< 0.24 U	< 0.13 U	< 0.23 U	< 0.12 U	< 0.51 U	< 0.12 U	< 0.13 U	< 0.11 U
PCB-110/115			--	26 EB	150	110	290	24 B	410 EB	91 BE	450 EB	45 BE	200 EB	12 B	26	24
PCB-111			--	< 0.19 U	< 0.85 U	< 0.74 U	< 2.1 U	< 0.23 U	< 2.5 U	< 0.58 U	< 2.7 U	< 0.42 U	< 1.3 U	< 0.12 U	< 0.22 U	< 0.14 U
PCB-112			--	< 0.19 U	< 0.88 U	< 0.76 U	< 2.2 U	< 0.23 U	< 2.6 U	< 0.60 U	< 2.8 U	< 0.44 U	< 1.4 U	< 0.12 U	< 0.23 U	< 0.14 U
PCB-114			--	0.26 G	3.5	1.5	4.1	0.30 G	6.6 G	1.5 G	6.9 G	0.51 G	2.7 G	0.14	0.3	0.28
PCB-118			--	18 EB	130	96	240	22 B	320 EB	83 BE	330 EB	29 BE	170 EB	9.4	16	18
PCB-12/13			--	< 0.22 U	0.020 J	0.052 J	< 1.0 U	< 0.46 U	0.053 J	< 0.25 U	0.18 J	< 0.23 U	< 1.0 U	< 0.24 U	< 0.25 U	< 0.22 U
PCB-120			--	< 0.18 U	< 0.81 U	< 0.70 U	< 2.0 U	< 0.23 U	< 2.4 U	< 0.55 U	< 2.6 U	< 0.40 U	< 1.2 U	< 0.12 U	< 0.21 U	< 0.13 U
PCB-121			--	< 0.18 U	< 0.81 U	< 0.70 U	< 2.0 U	< 0.23 U	< 2.4 U	< 0.55 U	< 2.6 U	< 0.40 U	< 1.2 U	< 0.12 U	< 0.21 U	< 0.13 U
PCB-122			--	< 0.21 U	1.2	< 0.83 U	< 2.4 U	< 0.23 U	< 2.8 U	< 0.65 U	< 3.0 U	< 0.47 U	< 1.5 U	< 0.12 U	< 0.25 U	0.16
PCB-123			--	0.29 G	2	1.3	< 2.5 U	0.24 G	4.7 G	1.2 G	6.7 G	< 0.45 U	2.2 G	0.14	< 0.24 U	0.21
PCB-126			--	< 0.21 U	< 0.81 U	< 0.80 U	4.9	< 0.16 U	< 2.6 U	< 0.63 U	< 3.2 U	< 0.45 U	< 1.4 U	< 0.11 U	< 0.24 U	< 0.14 U
PCB-127			--	< 0.20 U	< 0.90 U	< 0.78 U	< 2.2 U	< 0.23 U	< 2.6 U	< 0.61 U	< 2.8 U	< 0.45 U	< 1.4 U	< 0.12 U	< 0.23 U	< 0.15 U
PCB-128/166			--	4.6 B	26	20 B	60	4.2 B	88 EB	16 B	84 EB	11 B	39 B	3.3 B	5.7 B	4.1 B
PCB-129/138/163			--	26 B	150	110 B	350	25 B	500 EB	88 BE	510 EB	87 BE	230 EB	21 B	31 B	24 B
PCB-130			--	1.7 B	9.9	7.5	26	1.6 B	33 EB	5.6 B	34 EB	4.0 B	15 B	1.2	2.3	1.5
PCB-131			--	0.33	2	1.2	4.4	0.29	6.1 G	0.98 G	7.6 G	< 1.9 U	2.6 G	0.18	0.42	0.27
PCB-132			--	7.8 B	41	31 B	100	6.6 B	140 EB	23 BE	160 EB	22 BE	62 EB	5.5 B	9.9 B	7.0 B
PCB-133			--	0.23	1.6	1.1	3.7	0.23	5.2 G	0.84 G	5.8 G	< 1.8 U	2.3 G	0.18	0.32	0.24
PCB-134/143			--	1.2 B	7.1	4.8	16	1.0 B	24 B	3.8 G	28 B	3.2 G	10 B	0.75	1.6	1.1
PCB-135/151			--	4.5 B	28	19 B	64	4.1 B	91 EB	16 B	120 EB	26 BE	41 B	4.3 B	6.1 B	5.2 B
PCB-136			--	2.0 B	11	8.0 B	26	1.7 B	37 EB	6.6 B	50 EB	8.0 B	16 B	1.6 B	2.6 B	2.1 B
PCB-137			--	1.4 B	7.9	5.7	16	1.2 B	24 B	4.3 B	26 EB	2.1 B	10 B	0.9	1.8	1.2
PCB-139/140			--	0.42	2.5	1.7	6.1	0.38 J	8.1 G	1.4 G	9.0 G	< 1.7 U	3.5	0.27	0.53	0.38
PCB-14			--	< 0.11 U	< 0.024 U	< 0.47 U	< 0.50 U	< 0.23 U	< 0.24 U	< 0.13 U	< 0.23 U	< 0.12 U	< 0.51 U	< 0.12 U	< 0.13 U	< 0.11 U
PCB-141			--	3.8 B	21	14 B	41	3.4 B	70 EB	11 B	87 EB	19 BE	30 B	3.5 B	4.5 B	3.5 B
PCB-142			--	< 0.11 U	< 0.28 U	< 0.47 U	< 1.6 U	< 0.23 U	< 2.3 U	< 0.35 U	< 1.1 U	< 1.9 U	< 1.1 U	< 0.12 U	< 0.13 U	< 0.11 U
PCB-144			--	0.73 B	4.4	2.7	9.8	0.67 B	14 B	2.3 B	19 B	3.6 B	6.0 B	0.63	0.93	0.69
PCB-145			--	< 0.11 U	< 0.18 U	< 0.47 U	< 1.0 U	< 0.23 U	< 1.5 U	< 0.22 U	< 0.72 U	< 1.2 U	< 0.69 U	< 0.12 U	< 0.13 U	< 0.11 U
PCB-146			--	2.4 B	14	11	41	2.3 B	50 EB	8.3 B	55 EB	11 B	22 B	2.2	3.3	2.4
PCB-147/149			--	13 B	77 B	55 B	180	12 B	260 EB	43 BE	310 EB	62 BE	110 B	9.7 B	17 B	14 B
PCB-148			--	< 0.11 U	< 0.23 U	< 0.47 U	< 1.3 U	< 0.23 U	< 1.9 U	< 0.30 U	< 0.96 U	< 1.7 U	< 0.92 U	< 0.12 U	< 0.13 U	< 0.11 U
PCB-15			--	0.015 J	0.086	0.15 J	0.13 J	0.014 J	0.22 J	0.099 J	0.61	0.036 J	0.16 J	< 0.12 U	0.012 J	0.0077 J
PCB-150			--	< 0.11 U	< 0.17 U	< 0.47 U	< 0.94 U	< 0.23 U	< 1.4 U	< 0.21 U	< 0.68 U	< 1.2 U	< 0.65 U	< 0.12 U	< 0.13 U	< 0.11 U
PCB-152			--	< 0.11 U	< 0.17 U	< 0.47 U	< 0.97 U	&								



Location ID			SB-202	SB-202	SB-204	SB-204	SB-204	SB-204	SB-204	SB-204	SB-204	SB-204	SB-204	SB-204	SB-204	SB-207	SB-207	SB-207
Sample ID	Type 1/2 RRS	Type 3/4 RRS	DUP-3 (102417)	SB-202-1A (12292017)	SB-204-1 (0- 2) (102617)	SB-204-2 (0- 2) (102617)	SB-204-3 (0- 2) (102617)	SB-204-1A (12292017)	SB-204-2A (12292017)	SB-204-2B (12292017)	SB-204-3A (12292017)	SB-204-3B (12292017)	DUP-1 (12292017)	SB-207-1 (0- 2) (102617)	SB-207-2 (0- 2) (102617)	SB-207-3 (0- 2) (102617)		
Sample Date			10/24/2017	12/29/2017	10/26/2017	10/26/2017	10/26/2017	12/29/2017	12/29/2017	12/29/2017	12/29/2017	12/29/2017	12/29/2017	10/26/2017	10/26/2017	10/26/2017		
Sample Type			FD	N	N	N	N	N	N	N	N	N	FD	N	N	N		
PCB-176			--	0.24	1.5	0.86	3	0.20 J	4.1	0.65	8.2	4	1.7	0.44	0.29	0.33		
PCB-177			--	1.3 B	7.4	4.9	17	1.2 B	20 B	4.0 B	33 EB	24 BE	8.7 B	2.2	1.5	1.6		
PCB-178			--	0.33	2.2	1.4	4.9	0.31	6	1	12	7.3	2.5	0.69	0.41	0.49		
PCB-179			--	0.65 B	4.3 E	2.5	8.9	0.57 B	12 B	2.0 B	26 EB	14 BE	4.8 B	1.3	0.77	1		
PCB-18/30			--	0.056 J	0.77 B	0.52 JB	0.57 JB	0.070 J	1.1	0.83	13	0.066 J	0.69 J	0.011 JB	0.058 JB	0.058 JB		
PCB-180/193			--	4.6 B	27	16 B	47 B	4.2 B	72 EB	15 B	130 EB	100 BE	29 B	8.0 B	5.2 B	5.8 B		
PCB-181			--	0.059 J	0.28	0.23 J	0.43 J	0.059 J	0.95	0.18	0.91	0.15	0.41 J	0.036 J	0.066 J	0.047 J		
PCB-182			--	0.015 J	0.093	0.078 J	0.23 J	0.014 J	0.35	0.044 J	0.42	0.10 J	0.16 J	0.017 J	0.020 J	0.016 J		
PCB-183			--	1.1 B	6.7	3.9 B	14 B	1.0 B	17 B	3.4 B	33 EB	21 BE	7.0 B	1.9 B	1.3 B	1.4 B		
PCB-184			--	0.0024 J	< 0.024 U	< 0.47 U	0.076 J	0.0031 J	0.041 J	0.0072 J	0.068 J	0.0070 J	0.019 J	< 0.12 U	< 0.13 U	< 0.11 U		
PCB-185			--	0.19	1.1	0.56	1.2	0.18 J	2.8	0.58	6.2	5.1	1.2	0.46	0.22	0.3		
PCB-186			--	< 0.11 U	< 0.024 U	< 0.47 U	< 0.50 U	< 0.23 U	0.020 J	< 0.13 U	0.023 J	< 0.12 U	< 0.51 U	< 0.12 U	< 0.13 U	< 0.11 U		
PCB-187			--	1.9 B	13	7.5 B	27 B	1.7 B	34 EB	6.0 B	70 EB	45 BE	14 B	4.0 B	2.3 B	2.8 B		
PCB-188			--	0.0025 J	< 0.024 U	0.013 J	0.10 J	0.0034 J	0.045 J	0.013 J	0.11 J	0.020 J	0.019 J	< 0.12 U	0.0028 J	0.0034 J		
PCB-189			--	0.11	0.53	0.45	1.2	0.11 F	1.9	0.34	2.1	1.2	0.79	0.14	0.14	0.12		
PCB-19			--	0.013 J	0.08	0.11 J	0.066 J	0.0083 J	0.24	0.38	5.1	0.014 J	0.14 J	< 0.12 U	0.011 J	0.021 J		
PCB-190			--	0.48	2.7	1.8 B	3.9 B	0.45	7.7	1.6 B	11	8.4 B	3.2	0.74 B	0.55 B	0.58 B		
PCB-191			--	0.11	0.59	0.37 J	1.2	0.098 J	1.7	0.34	2.6	1.8	0.74	0.17	0.13	0.13		
PCB-192			--	< 0.11 U	< 0.024 U	< 0.47 U	< 0.50 U	< 0.23 U	< 0.24 U	< 0.13 U	< 0.23 U	< 0.12 U	< 0.51 U	< 0.12 U	< 0.13 U	< 0.11 U		
PCB-194			--	0.54	4.3	2.1 B	6.0 B	0.52	9.5	2.6 B	18	25 BE	3.9	1.3 B	0.66 B	0.79 B		
PCB-195			--	0.21	1.8	0.76	1.9	0.20 J	3.5	0.94	7.7	10	1.5	0.57	0.27	0.37		
PCB-196			--	0.31	2.5 E	1.1	3.6	0.29	5.7	1.2	12	11	2.2	0.74	0.42	0.5		
PCB-197			--	0.024 J	0.18	0.086 J	0.32 J	0.022 J	0.4	0.069 J	0.94	0.59	0.17 J	0.057 J	0.035 J	0.037 J		
PCB-198/199			--	0.64	5.6 E	2.5	7.2	0.64	13	3.0 B	26	24 BE	5.1	1.4	0.85	1.1		
PCB-2			--	0.0020 J	0.0040 J	0.029 J	0.0039 J	0.0030 J	0.010 J	0.0095 J	0.024 J	0.0043 J	0.011 J	0.0018 J	0.0031 J	0.0010 J		
PCB-20/28			--	0.12 JB	1.2 B	1.8 B	0.69 JB	0.12 JB	2.3 B	4.0 B	55 EB	0.17 JB	1.4 B	0.024 JB	0.095 JB	0.77 B		
PCB-200			--	0.082 J	0.82	0.32 J	0.73	0.081 J	1.6	0.36	3.6	3	0.68	0.2	0.11 J	0.14		
PCB-201			--	0.082 J	0.7	0.29 J	1	0.078 J	1.5	0.31	3.6	2.4	0.61	0.14	0.088 J	0.12		
PCB-202			--	0.12	1.1	0.49	1.4	0.12 J	2.4	0.64	5	4.1	0.9	0.22	0.14	0.14		
PCB-203			--	0.43	3.6 E	1.6	3.9	0.42	8.8	1.9	16	14 E	3.4	0.88	0.55	0.62		
PCB-204			--	< 0.11 U	< 0.024 U	< 0.47 U	< 0.50 U	< 0.23 U	< 0.24 U	< 0.13 U	< 0.23 U	< 0.12 U	< 0.51 U	< 0.12 U	< 0.13 U	< 0.11 U		
PCB-205			--	0.032 J	0.23	0.12 J	0.31 J	0.031 J	0.58	0.13	1	1.2	0.25 J	0.074 J	0.040 J	0.049 J		
PCB-206			--	0.35	2.5	1.2	2.9	0.28 F	6.6	1.6	7.6	5.9	2.5	0.33	0.4	0.23		
PCB-207			--	0.036 J	0.33	0.16 J	0.39 J	0.038 J	0.88	0.19	1.2	0.68	0.33 J	0.041 J	0.061 J	0.029 J		
PCB-208			--	0.095 J	0.6	0.29 J	0.64	0.074 J	1.5	0.45	2.2	1.2	0.6	0.080 J	0.12 J	0.049 J		
PCB-21/33			--	0.057 JB	1.5 B	1.1 B	0.39 JB	0.31 JB	3.3 B	1.1 B	8.3 B	0.15 JB	2.1 B	0.025 JB	0.083 JB	0.070 JB		
PCB-22			--	0.028 J	0.38	0.26 J	0.31 J	0.038 J	0.53	0.36	5.8 G	0.047 J	0.30 J	0.0063 J	0.023 J	0.043 J		
PCB-23			--	< 0.11 U	< 0.024 U	< 0.47 U	< 0.50 U	< 0.23 U	< 0.24 U	< 0.13 U	< 0.36 U	< 0.12 U	< 0.51 U	< 0.12 U	< 0.13 U	< 0.11 U		
PCB-24			--	< 0.11 U	0.011 J	0.0036 J	< 0.23 U	0.0066 J	< 0.23 U	< 0.13 U	< 0.23 U	< 0.12 U	< 0.51 U	< 0.12 U	< 0.13 U	< 0.11 U		
PCB-25			--	0.0081 J	0.092	0.12 J	0.045 J	< 0.23 U	0.12 J	0.033 J	0.49 G	0.010 J	0.051 J	< 0.12 U	< 0.13 U	< 0.11 U		
PCB-26/29			--	0.013 J	0.18	0.13 J	0.16 J	0.018 J	0.32 J	0.091 J	1.3	0.024 J	0.19 J	< 0.24 U	0.016 J	0.012 J		
PCB-27			--	0.0046 J	0.042	0.046 J	0.049 J	< 0.23 U	0.072 J	0.037 J	0.68	0.0067 J	0.041 J	< 0.12 U	< 0.13 U	0.0043 J		
PCB-3			--	0.0025 J	0.013 J	0.096 J	0.0091 J	0.0039 J	0.042 J	0.024 J	0.11 J	0.0065 J	0.035 J	0.0027 J	0.0053 J	0.0021 J		
PCB-31			--	0.093 JB	1.5 B	1.0 B	1.1 B	0.14 JB	2.5 B	1.9 B	23 EB	0.17 B	1.4 B	0.026 JB	0.089 JB	0.19 B		
PCB-32			--	0.048 J	0.22	0.75	0.20 J	0.023 J	0.61	2.9	37 E	0.043 J	0.41 J	0.0029 J	0.029 J	0.45		
PCB-34			--	< 0.11 U	< 0.024 U	0.037 J	< 0.50 U	< 0.23 U	0.14 J	< 0.13 U	< 0.37 U	< 0.12 U	0.087 J	< 0.12 U	< 0.13 U	< 0.11 U		
PCB-35			--	0.0055 J	0.028	0.036 J	0.12 J	< 0.23 U	< 0.24 U	< 0.13 U	< 0.37 U	0.010 J	< 0.51 U	< 0.12 U	< 0.13 U	< 0.11 U		
PCB-36			--	< 0.11 U	< 0.024 U	< 0.47 U	< 0.50 U	< 0.23 U	< 0.24 U	< 0.13 U	< 0.34 U	< 0.12 U	< 0.51 U	< 0.12 U	< 0.13 U	< 0.11 U		
PCB-37			--	0.040 J	0.5	0.38 J	0.82	0.068 J	0.94	0.29	3.3 G	0.11 J	0.6	0.021 J	0.039 J	0.031 J		
PCB-38			--	< 0.11 U	< 0.024 U	< 0.47 U	< 0.50 U	< 0.23 U	< 0.24 U	< 0.13 U	< 0.38 U	< 0.12 U	< 0.51 U	< 0.12 U	< 0.13 U	< 0.11 U		
PCB-39			--	< 0.11 U	< 0.024 U	< 0.47 U	< 0.50 U	< 0.23 U	< 0.24 U	< 0.13 U	< 0.34 U	< 0.12 U	< 0.51 U	< 0.12 U	< 0.13 U	< 0.11 U		
PCB-4			--	0.0090 J	0.097	0.19 J	0.059 J	< 0.23 U	0.23 J	0.17	1.8	< 0.12 U	< 0.51 U	< 0.12 U	< 0.13 U	< 0.11 U		
PCB-40/71			--	0.30 B	3.1 B	5.4 B	4.3 B	0.37 JB	7.8 B	3.3 B	57 EB	0.52 B	3.9 B	0.093 JB	0.25 B	1.4 B		
PCB-41			--	< 0.11 U	0.29	0.068 J	0.29 J	0.025 J	0.29	< 0.13 U	1.6 G	0.032 J	0.14 J	< 0.12 U	< 0.13 U	< 0.11 U		
PCB-42			--	0.15 B	1.6	2.2 B	1.9 B	0.17 JB	4.0 B	1.9 B	31 EB	0.22 B	1.9 B	0.042 JB	0.12 JB	0.44 B		
PCB-43			--	0.0078 J	0.21	0.13 J	0.14 J	0.028 J	0.5	< 0.13 U	2.3 G	< 0.12 U	0.18 J	< 0.12 U	0.0075 J	0.018 J		
PCB-44/47/65			--	1.5 B	18	21 B	22 B	2.4 B	44 B	15 B	200 EB	2.4 B	21 B	0.61 B	1.5 B	3.9 B		
PCB-45			--	0.043 JB	0.43	< 0.47 U	0.59	0.052 JB	0.65 B	< 0.13 U	< 0.38 U	0.069 J	0.45 JB	0.012 J	0.031 J	< 0.11 U		
PCB-46			--	0.029 J	0.22	0.52	0.29 J	< 0.23 U	0.78	0.97	13 G	0.030 J	0.41 J	< 0.12 U	0.022 J	0.11		
PCB-48			--	0.054 JB	0.98	0.43 JB	1.1 B	0.10 JB	1.4 B	0.36	5.6 B	0.10 J	0.68 B	0.017 JB	0.056 JB	0.049 JB		
PCB-49/69			--	0.88 B	9.9	14 B	12 B	1.2 B	28 B	11 B	140 EB	1.5 B	14 B	0.27 B	0.79 B	2.3 B		
PCB-5			--	< 0.11 U	0.024	0.023 J	< 0.50 U	< 0.23 U	0.019 J	0.030 J	0.16 J	< 0.12 U	< 0.51 U	< 0.12 U	< 0.13 U	< 0.11 U		
PCB-50/53			--	0.13 JB	0.97 B	3.3 B	1.4 B	0.12 JB	3.4 B	3.9 B	50 EB	0.14 JB	1.9 B	0.033 JB	0.10 JB	0.57 B		
PCB-51			--	0.043 JB	0.16	2.3	0.23 J	0.014 JB	1.1 B	2.2 B	34 EB	0.028 JB	0.60 B	0.0043 J	0.026 J	0.52		
PCB-52			--	4.7 B	52	39 B	65	7.1 B	130 EB	31 BE	250 EB	7.7 B	62 EB	2.1 B	4.5 B	4.6 B		
PCB-54			--	0.0056 J	0.0065 J	0.11 J	0.018 J	< 0.23 U	0.12 J	0.41	4.9	< 0.12 U	0.086 J	< 0.12 U	0.0021 J	0.034 J		
PCB-55			--	< 0.11 U	< 0.22 U	< 0.47 U	< 0.50 U	< 0.23 U	< 0.44 U	< 0.13 U	< 0.88 U	< 0.12 U	< 0.51 U	< 0.12 U	< 0.13 U	< 0.11 U		
PCB-56			--	0.41 B	4.9	2.9	7.1	0.63 B	11 B	2.8 B	24 EB	0.82 B	5.3 B	0.18	0.069 J	0.41		
PCB-57			--	< 0.11 U	< 0.22 U	< 0.47 U	< 0.50 U	< 0.23 U	< 0.44 U	< 0.13 U	< 0.88 U	< 0.12 U	< 0.51 U	< 0.12 U	< 0.13 U	< 0.11 U		
PCB-58			--	< 0.11 U	< 0.21 U	< 0.47 U	< 0.50 U	< 0.23 U	< 0.43 U	< 0.13 U	< 0.86 U	< 0.12 U	< 0.51 U	0.13	0.31	0.25		
PCB-59/62/75			--	0.039 J	0.45													



Location ID			SB-202	SB-202	SB-204	SB-204	SB-204	SB-204	SB-204	SB-204	SB-204	SB-204	SB-204	SB-207	SB-207	SB-207
Sample ID	Type 1/2	Type 3/4	DUP-3	SB-202-1A	SB-204-1 (0-	SB-204-2 (0-	SB-204-3 (0-	SB-204-1A	SB-204-2A	SB-204-2B	SB-204-3A	SB-204-3B	SB-204	SB-207-1 (0-	SB-207-2 (0-	SB-207-3 (0-
Sample Date	RRS	RRS	(102417)	(12292017)	2) (102617)	2) (102617)	2) (102617)	(12292017)	(12292017)	(12292017)	(12292017)	(12292017)	(12292017)	(12292017)	2) (102617)	2) (102617)
Sample Type			10/24/2017	12/29/2017	10/26/2017	10/26/2017	10/26/2017	12/29/2017	12/29/2017	12/29/2017	12/29/2017	12/29/2017	12/29/2017	10/26/2017	10/26/2017	10/26/2017
			FD	N	N	N	N	N	N	N	N	N	FD	N	N	N
PCB-73			--	< 0.11 U	< 0.024 U	0.091 J	< 0.50 U	< 0.23 U	< 0.24 U	< 0.13 U	1.6 G	< 0.12 U	< 0.51 U	< 0.12 U	< 0.13 U	0.046 J
PCB-77			--	0.19 G	1.9	1.4	7.4	0.28 G	4.5 G	1.2 G	8.7 G	0.41 G	2.2 G	0.12	0.18	0.21
PCB-78			--	< 0.11 U	0.47	< 0.47 U	< 0.50 U	< 0.23 U	< 0.45 U	< 0.13 U	< 0.89 U	< 0.12 U	< 0.51 U	< 0.12 U	< 0.13 U	< 0.11 U
PCB-79			--	0.12	0.97	0.64	2	0.12 J	2.4 G	0.44	3.0 G	0.2	1.1	0.053 J	0.098 J	0.10 J
PCB-8			--	0.020 J	0.22	0.46 J	0.12 J	0.037 J	0.55	0.46	6.1	0.035 J	0.39 J	< 0.12 U	0.016 J	0.024 J
PCB-80			--	0.083 J	0.63	< 0.47 U	< 0.50 U	0.090 J	< 0.38 U	0.39	< 0.76 U	< 0.12 U	< 0.51 U	< 0.12 U	< 0.13 U	< 0.11 U
PCB-81			--	< 0.017 U	< 0.20 U	< 0.18 U	2.7	< 0.025 U	< 0.40 U	< 0.10 U	< 0.81 U	< 0.032 U	< 0.23 U	< 0.012 U	< 0.024 U	< 0.026 U
PCB-82			--	2.1 B	13	8.4	25	2.0 B	33 EB	6.5 G	41 EB	2.7 G	15 B	0.78	1.8	1.3
PCB-83			--	< 0.32 U	< 1.5 U	< 1.3 U	< 3.7 U	< 0.28 U	< 4.4 U	< 1.0 U	< 4.7 U	< 0.74 U	< 2.3 U	< 0.18 U	< 0.38 U	< 0.24 U
PCB-84			--	3.9 B	27	19	47	4.5 B	66 EB	15 BE	96 EB	5.7 B	30 B	1.4	4.4	3
PCB-85/116/117			--	3.2 B	20	14	32	3.5 B	55 B	13 B	60 B	5.0 B	27 B	1.7	2.5	2.7
PCB-86/87/97/108/119/125			--	13 B	84 B	58 B	160 B	14 B	230 EB	47 B	280 EB	19 B	100 B	4.8 B	11 B	10 B
PCB-88/91			--	2.0 B	12	11	22	1.9 B	32 B	8.3 B	56 EB	3.3 B	15 B	0.81	2	1.9
PCB-89			--	< 0.26 U	< 1.2 U	< 1.0 U	< 3.0 U	< 0.23 U	< 3.5 U	< 0.81 U	< 3.8 U	< 0.59 U	< 1.8 U	< 0.15 U	< 0.31 U	< 0.19 U
PCB-9			--	< 0.11 U	0.015 J	0.031 J	< 0.50 U	< 0.23 U	0.037 J	< 0.13 U	0.085 J	< 0.12 U	< 0.51 U	< 0.12 U	< 0.13 U	< 0.11 U
PCB-90/101/113			--	19 B	120 B	87 B	240	21 B	340 EB	71 BE	400 EB	37 BE	160 EB	7.6 B	17 B	16 B
PCB-92			--	3.5 B	21	17	43	3.8 B	63 EB	14 BE	82 EB	6.8 B	30 B	1.4	< 0.30 U	3.2
PCB-93/100			--	< 0.24 U	< 1.1 U	< 0.94 U	< 2.7 U	< 0.46 U	< 3.2 U	< 0.74 U	4.0 G	< 0.54 U	< 1.7 U	< 0.24 U	< 0.28 U	< 0.22 U
PCB-94			--	< 0.25 U	< 1.1 U	< 0.99 U	< 2.8 U	< 0.23 U	< 3.4 U	< 0.78 U	3.9 G	< 0.57 U	< 1.8 U	< 0.14 U	< 0.30 U	< 0.18 U
PCB-95			--	12 EB	81	58	140	13 B	210 EB	48 BE	280 EB	23 BE	96 EB	5.1	13	9.8
PCB-96			--	0.069 J	0.41	0.5	0.79	0.068 J	1.1	0.29	2.9	0.091 J	0.52	0.029 J	0.070 J	0.10 J
PCB-98/102			--	0.25 G	1.4	1.2	3.7	0.27 J	4.1 G	0.97 G	8.4 G	< 0.52 U	1.9 G	< 0.24 U	< 0.27 U	0.29
PCB-99			--	7.6 B	46	36	90	8.2 B	130 EB	31 BE	160 EB	12 BE	64 EB	3.5 B	6.6	7.3
Polychlorinated biphenyls	1550	1550	--	250	1600	5200	3200	260	4700	1000	6500	1000	2200	170	260	250
Semi-Volatile Organic Compounds (µg/kg)																
1,1-Biphenyl	1000	1000	320 J	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:  
**Bold** = Concentration is greater than the laboratory detection limit  
Shaded = Concentration exceeds the GA EPD Type 3/4 RRS  
**Acronyms and Abbreviations:**  
DUP = field duplicate  
GA EPD = Georgia Environmental Protection Division  
PCB = polychlorinated biphenyl  
RRS = Risk Reduction Standard  
µg/kg = microgram per kilogram  
**Data Validation Qualifiers:**  
B = Compound was detected in the associated blank  
H = Sample was analyzed outside of the hold time  
J = Result is estimated  
U = Result is less than the laboratory detection limit



Well ID	Type 1 RRS	Type 3/4 RRS	MWD-F1 MWD- F1_11/4/00_NM 11/04/2000 N Deep	MWD-F1 MWD- F1_7/26/02_NM 07/26/2002 N Deep	MWD-F1 MWD- F1_11/1/02_NM 11/01/2002 N Deep	MWD-F1 MWD- F1_1/23/04_NM 01/23/2004 N Deep	MWD-F1 MW- 1_6/30/04_NM 06/30/2004 N Deep	MWD-F1 (072211) N Deep	MWD-F2 MWD- F2_11/3/00_NM 11/03/2000 N Deep	MWD-F2 MWD- F2_7/26/02_NM 07/26/2002 N Deep	MWD-F2 MWD- F2_11/1/02_NM 11/01/2002 N Deep	MWD-F2 MWD- F2_1/23/04_NM 01/23/2004 N Deep	MWD-F2 MW- 2_6/30/04_NM 06/30/2004 N Deep	MWD-F2 (072211) N Deep	MWD-F3 MWD- F3_11/3/00_NM 11/03/2000 N Deep	MWD-F3 MWD- F3_11/1/02_NM 11/01/2002 N Deep	MWD-F3 MWD- F3_1/23/04_NM 01/23/2004 N Deep	MWD-F3 (072211) N Deep	MWD-F3 MWD- 22_11/1/02_NM 11/01/2002 N Deep	MWD-22 MW- 10_7/1/04_NM 07/01/2004 N Deep	MWD-22 (072111) N Deep	
Sample ID																						
Sample Date																						
Sample Type																						
Aquifer																						
Anions (µg/L)																						
Ammonia Nitrogen			170	--	--	--	--	--	< 0.03 U	--	--	--	--	--	--	180	--	--	--	--	--	--
Chloride			4200	--	--	--	--	--	3600	--	--	--	--	--	--	5300	--	--	--	--	--	--
Fluoride (F-, Anion)			610	--	--	--	--	--	660	--	--	--	--	--	--	750	--	--	--	--	--	--
Nitrate/Nitrite			< 0.05 U	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--
Sulfate			41000	--	--	--	--	--	13000	--	--	--	--	--	--	57000	--	--	--	--	--	--
Sulfide			< 1000 UJ	--	--	--	--	--	< 1000 UJ	--	--	--	--	--	--	< 1000 UJ	--	--	--	--	--	--
General Chemistry (µg/L)																						
Cyanide			< 10 U	--	--	--	--	--	< 10 U	--	--	--	--	--	--	< 10 U	--	--	--	--	--	--
Residue, filterable			270000	--	--	--	--	--	240000	--	--	--	--	--	--	300000	--	--	--	--	--	--
Total Organic Carbon			1800	--	--	--	--	--	14000	--	--	--	--	--	--	1500	--	--	--	--	--	--
Metals (µg/L)																						
Antimony			< 20 U	--	< 20 U	--	< 6 U	--	2.4	--	< 20 U	--	< 6 U	--	--	< 20 U	< 20 U	--	--	< 20 U	< 6 U	--
Arsenic			< 10 U	--	< 10 U	--	< 10 U	--	3.3	--	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--
Barium			8.5	--	< 10 U	--	< 10 U	--	5.6	--	< 10 U	--	< 10 U	--	--	13	35	--	--	30	17	--
Beryllium			< 4 U	--	< 4 U	--	< 4 U	--	0.12	--	< 4 U	--	< 4 U	--	--	< 4 U	< 4 U	--	--	< 4 U	< 4 U	--
Cadmium			< 5 U	--	--	--	< 5 U	--	< 5 U	--	--	--	< 5 U	--	--	< 5 U	--	--	--	--	< 5 U	--
Chromium			7.6	--	< 10 U	--	< 10 U	--	8.2	--	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--
Cobalt			< 10 U	--	< 10 U	--	< 10 U	--	< 10 U	--	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--
Copper			2.8	--	< 20 U	--	< 20 U	--	2.9	--	< 20 U	--	< 20 U	--	--	< 20 U	< 20 U	--	--	< 20 U	< 20 U	--
Lead			< 5 U	--	< 5 U	--	< 5 U	--	38	< 5 U	< 5 U	--	< 5 U	--	--	< 5 U	< 5 U	--	--	< 5 U	< 5 U	--
Mercury			< 0.2 U	--	--	--	< 0.2 U	--	< 0.2 U	--	--	--	< 0.2 U	--	--	< 0.2 U	--	--	--	--	< 0.2 U	--
Nickel			1.9	--	< 40 U	--	< 40 U	--	2.3	--	< 40 U	--	< 40 U	--	--	< 40 U	< 40 U	--	--	< 40 U	< 40 U	--
Selenium			< 10 U	--	--	--	< 10 U	--	< 10 U	--	--	--	< 10 U	--	--	< 10 U	--	--	--	--	< 10 U	--
Silver			< 10 U	--	--	--	< 10 U	--	< 10 U	--	--	--	< 10 U	--	--	< 10 U	--	--	--	--	< 10 U	--
Thallium			< 10 U	--	--	--	< 2 U	--	< 10 U	--	--	--	< 2 U	--	--	< 10 U	--	--	--	--	< 2 U	--
Tin			< 50 U	--	--	--	< 50 U	--	< 50 U	--	--	--	< 50 U	--	--	< 50 U	--	--	--	--	< 50 U	--
Vanadium			6.8	--	< 10 U	--	< 10 U	--	3.3	--	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--
Zinc			< 11 UJ	--	< 20 U	--	24	--	< 290 UJ	--	< 20 U	--	< 20 U	--	--	29 J	< 20 U	--	--	< 20 U	< 20 U	--
Herbicides (µg/L)																						
2,4,5-T (Trichlorophenoxyacetic Acid)			< 0.5 U	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--
2,4,5-TP (Silvex)			< 0.5 U	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--
2,4-D (Dichlorophenoxyacetic Acid)			< 0.5 U	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--
Pesticides (µg/L)																						
4,4-DDD (Rhothane)			< 0.1 U	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--
4,4-DDE (Dichlorodiphenyl-dichloroethylene)			< 0.1 U	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--
4,4-DDT (Dichlorodiphenyl-trichloroethane)			< 0.1 U	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--
Aldrin			< 0.05 U	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--
Alpha-BHC			< 0.05 U	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--
Beta-BHC			< 0.05 U	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--
Chlordane			< 0.5 U	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--
Chlorobenzilate			< 0.5 U	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--
Delta-BHC			< 0.05 U	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--
Dieldrin			< 0.1 U	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--
Endosulfan I			< 0.05 U	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--
Endosulfan II			< 0.1 U	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--
Endosulfan sulfate			< 0.1 U	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--
Endrin			< 0.1 U	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--
Endrin aldehyde			0.01	--	--	--	--	--	< 0.1 UJ	--	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--
Heptachlor			< 0.05 U	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--
Heptachlor epoxide			< 0.05 U	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--
Isodrin			< 0.05 U	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--
Kepone			< 1 U	--	--	--	--	--	< 1 U	--	--	--	--	--	--	< 1 U	--	--	--	--	--	--
Methoxychlor			< 0.5 U	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--
Technical BHC			< 0.05 U	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--
Toxaphene			< 5 U	--	--	--	--	--	< 5 U	--	--	--	--	--	--	< 5 U	--	--	--	--	--	--
Total Petroleum Hydrocarbon (µg/L)																						
Diesel Range Organics			700	--	--	< 100 UJ	--	--	330	--	--	< 100 U	--	--	--	--						



Well ID	Type 1 RRS	Type 3/4 RRS	MWD-F1 MWD- F1_11/4/00_NM 11/04/2000	MWD-F1 MWD- F1_7/26/02_NM 07/26/2002	MWD-F1 MWD- F1_11/1/02_NM 11/01/2002	MWD-F1 MWD- F1_1/23/04_NM 01/23/2004	MWD-F1 MW- 1_6/30/04_NM 06/30/2004	MWD-F1 (072211) 07/22/2011	MWD-F2 MWD- F2_11/3/00_NM 11/03/2000	MWD-F2 MWD- F2_7/26/02_NM 07/26/2002	MWD-F2 MWD- F2_11/1/02_NM 11/01/2002	MWD-F2 MWD- F2_1/23/04_NM 01/23/2004	MWD-F2 MW- 2_6/30/04_NM 06/30/2004	MWD-F2 (072211) 07/22/2011	MWD-F3 MWD- F3_11/3/00_NM 11/03/2000	MWD-F3 MWD- F3_11/1/02_NM 11/01/2002	MWD-F3 MWD- F3_1/23/04_NM 01/23/2004	MWD-F3 (072211) 07/22/2011	MWD-22 MWD- 22_11/1/02_NM 11/01/2002	MWD-22 MW- 10_7/1/04_NM 07/01/2004	MWD-22 (072111) 07/21/2011
Sample ID			N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Date																					
Sample Type																					
2-Naphthylamine			< 10 U	--	--	< 10 U	< 20 U	< 4.9 U	< 10 U	--	--	< 10 U	< 10 U	< 4.9 U	< 10 U	--	< 10 U	< 5.0 U	--	< 10 U	< 5.0 U
2-Nitroaniline			< 50 U	--	--	< 50 U	< 100 U	< 0.98 U	< 50 U	--	--	< 50 U	< 50 U	< 0.99 U	< 50 U	--	< 50 U	< 1.0 U	--	< 50 U	< 1.0 U
2-Nitrophenol			< 10 U	--	--	< 10 U	< 20 U	< 0.98 U	< 10 U	--	--	< 10 U	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 1.0 U	--	< 10 U	< 1.0 U
2-Picoline			< 10 U	--	--	< 10 U	< 20 U	< 2.0 U	< 10 U	--	--	< 10 U	< 10 U	< 2.0 U	< 10 U	--	< 10 U	< 2.0 U	--	< 10 U	< 2.0 U
3,3-Dichlorobenzidine			< 20 U	--	--	< 20 U	< 40 U	< 20 U	< 20 U	--	--	< 20 U	< 20 U	< 20 U	< 20 U	--	< 20 U	< 20 U	--	< 20 U	< 20 U
3,3-Dimethylbenzidine			< 20 U	--	--	< 20 U	< 40 U	< 20 U	< 20 U	--	--	< 20 U	< 20 U	< 20 U	< 20 U	--	< 20 U	< 20 U	--	< 20 U	< 20 U
3-Methylchloranthrene			< 10 U	--	--	< 10 U	< 20 U	< 0.98 U	< 10 U	--	--	< 10 U	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 1.0 U	--	< 10 U	< 1.0 U
3-Methylphenol, 4-Methylphenol	10	5100	--	--	--	--	--	< 2.0 U	--	--	--	--	--	< 2.0 U	--	--	--	< 2.0 U	--	--	< 2.0 U
3-Nitroaniline			< 50 U	--	--	< 50 U	< 100 U	< 4.9 U	< 50 U	--	--	< 50 U	< 50 U	< 4.9 U	< 50 U	--	< 50 U	< 5.0 U	--	< 50 U	< 5.0 U
4-Aminobiphenyl			< 10 U	--	--	< 10 U	< 20 U	< 4.9 U	< 10 U	--	--	< 10 U	< 10 U	< 4.9 U	< 10 U	--	< 10 U	< 5.0 U	--	< 10 U	< 5.0 U
4-Bromophenyl phenyl ether			< 10 U	--	--	< 10 U	< 20 U	< 0.98 U	< 10 U	--	--	< 10 U	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 1.0 U	--	< 10 U	< 1.0 U
4-Chloro-3-Methylphenol			< 10 U	--	--	< 10 U	< 20 U	< 0.98 U	< 10 U	--	--	< 10 U	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 1.0 U	--	< 10 U	< 1.0 U
4-Chlorophenyl phenyl ether			< 10 U	--	--	< 10 U	< 20 U	< 0.98 U	< 10 U	--	--	< 10 U	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 1.0 U	--	< 10 U	< 1.0 U
4-Dimethylaminoazobenzene			< 10 U	--	--	< 10 U	< 20 U	< 4.9 U	< 10 U	--	--	< 10 U	< 10 U	< 4.9 U	< 10 U	--	< 10 U	< 5.0 U	--	< 10 U	< 5.0 U
4-Methylphenol	10	10000	< 10 U	--	--	< 10 U	< 20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	< 10 U	--	--	< 10 U	--
4-Nitroaniline			< 50 U	--	--	< 50 U	< 100 U	< 4.9 U	< 50 U	--	--	< 50 U	< 50 U	< 4.9 U	< 50 U	--	< 50 U	< 5.0 U	--	< 50 U	< 5.0 U
4-Nitrophenol			< 50 U	--	--	< 50 U	< 100 U	< 4.9 U	< 50 U	--	--	< 50 U	< 50 U	< 4.9 U	< 50 U	--	< 50 U	< 5.0 U	--	< 50 U	< 5.0 U
4-Nitroquinoline-N-Oxide			< 20 U	--	--	< 20 U	< 40 U	< 2.0 U	< 20 U	--	--	< 20 U	< 20 U	< 2.0 U	< 20 U	--	< 20 U	< 2.0 U	--	< 20 U	< 2.0 U
5-Nitro-o-Toluidine			< 10 U	--	--	< 10 U	< 20 U	< 0.98 U	< 10 U	--	--	< 10 U	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 1.0 U	--	< 10 U	< 1.0 U
7,12-Dimethylbenz(a)anthracene			< 10 U	--	--	< 10 U	< 20 U	< 0.98 U	< 10 U	--	--	< 10 U	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 1.0 U	--	< 10 U	< 1.0 U
Acenaphthene	2000	6100	< 10 U	--	< 10 U	< 10 U	< 20 U	< 0.20 U	< 10 U	--	< 10 U	< 10 U	< 10 U	< 0.20 U	< 10 U	< 10 U	< 10 U	< 0.20 U	< 10 U	< 10 U	< 0.20 U
Acenaphthylene	10	10	< 10 U	--	--	< 10 U	< 20 U	< 0.20 U	< 10 U	--	--	< 10 U	< 10 U	< 0.20 U	< 10 U	--	< 10 U	< 0.20 U	--	< 10 U	< 0.20 U
Acetophenone	4000	10000	< 10 U	--	--	< 10 U	< 20 U	< 0.98 U	< 10 U	--	--	< 10 U	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 1.0 U	--	< 10 U	< 1.0 U
Aniline	20	500	< 20 U	--	--	< 20 U	< 40 U	< 2.0 U	< 20 U	--	--	< 20 U	< 20 U	< 2.0 U	< 20 U	--	< 20 U	< 2.0 U	--	< 20 U	< 2.0 U
Anthracene	10	31000	< 10 U	--	--	< 10 U	< 20 U	< 0.20 U	< 10 U	--	--	< 10 U	< 10 U	< 0.20 U	< 10 U	--	< 10 U	< 0.20 U	--	< 10 U	< 0.20 U
Aramite			< 10 U	--	--	< 10 U	< 20 U	< 1.5 U	< 10 U	--	--	< 10 U	< 10 U	< 1.5 U	< 10 U	--	< 10 U	< 1.5 U	--	< 10 U	< 1.5 U
Benzo(a)anthracene	10	10	< 10 U	--	--	< 10 U	< 20 U	< 0.20 U	< 10 U	--	--	< 10 U	< 10 U	< 0.20 U	< 10 U	--	< 10 U	< 0.20 U	--	< 10 U	< 0.20 U
Benzo(a)pyrene	10	10	< 10 U	--	--	< 10 U	< 20 U	< 0.20 U	< 10 U	--	--	< 10 U	< 10 U	< 0.20 U	< 10 U	--	< 10 U	< 0.20 U	--	< 10 U	< 0.20 U
Benzo(b)fluoranthene	10	10	< 10 U	--	--	--	< 20 U	< 0.20 U	< 10 U	--	--	--	< 10 U	< 0.20 U	< 10 U	--	--	< 0.20 U	--	< 10 U	< 0.20 U
Benzo(g,h,i)perylene	10	10	< 10 U	--	--	< 10 U	< 20 U	< 0.20 U	< 10 U	--	--	< 10 U	< 10 U	< 0.20 U	< 10 U	--	< 10 U	< 0.20 U	--	< 10 U	< 0.20 U
Benzo(k)fluoranthene	10	39	< 10 U	--	--	< 10 U	< 20 U	< 0.20 U	< 10 U	--	--	< 10 U	< 10 U	< 0.20 U	< 10 U	--	< 10 U	< 0.20 U	--	< 10 U	< 0.20 U
Benzyl Alcohol			< 10 U	--	--	< 10 U	< 20 U	< 0.98 U	< 10 U	--	--	< 10 U	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 1.0 U	--	< 10 U	< 1.0 U
beta-Pinene			< 100 U	--	--	< 10 U	--	--	< 100 U	--	--	< 10 U	--	--	< 100 U	--	< 10 U	--	--	--	--
bis(2-Chloroethoxy)methane			< 10 U	--	--	< 10 U	< 20 U	< 0.98 U	< 10 U	--	--	< 10 U	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 1.0 U	--	< 10 U	< 1.0 U
bis(2-Chloroethyl)ether			< 10 U	--	--	< 10 U	< 20 U	< 0.98 U	< 10 U	--	--	< 10 U	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 1.0 U	--	< 10 U	< 1.0 U
bis(2-Ethylhexyl)phthalate	10		< 10 U	--	< 10 U	< 10 U	< 20 U	< 2.0 U	< 10 U	--	< 10 U	< 10 U	28	< 2.0 U	< 10 U	< 10 U	< 10 U	< 2.0 U	< 10 U	< 10 U	4.3
Butyl benzyl phthalate	100	15061	< 10 U	--	< 10 U	< 10 U	< 0.98 U	< 10 U	< 10 U	--	< 10 U	< 10 U	150	< 0.99 U	< 10 U	< 10 U	< 10 U	< 1.0 U	< 10 U	< 10 U	< 1.0 U
Chrysene	10	40	< 10 U	--	< 10 U	< 10 U	< 20 U	< 0.20 U	< 10 U	--	< 10 U	< 10 U	< 10 U	< 0.20 U	< 10 U	< 10 U	< 10 U	< 0.20 U	< 10 U	< 10 U	< 0.20 U
Diallate			< 10 U	--	--	< 10 U	< 20 U	< 0.98 U	< 10 U	--	--	< 10 U	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 1.0 U	--	< 10 U	< 1.0 U
Dibenzo(a,h)anthracene	10	10	< 10 U	--	--	< 10 U	< 20 U	< 0.20 U	< 10 U	--	--	< 10 U	< 10 U	< 0.20 U	< 10 U	--	< 10 U	< 0.20 U	--	< 10 U	< 0.20 U
Dibenzofuran	10	10	< 10 U	--	--	< 10 U	< 20 U	< 0.98 U	< 10 U	--	--	< 10 U	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 1.0 U	--	< 10 U	< 1.0 U
Diethyl phthalate			< 10 U	--	--	< 10 U	< 20 U	< 0.98 U	< 10 U	--	--	< 10 U	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 1.0 U	--	< 10 U	< 1.0 U
Dimethoate			< 10 U	--	--	--	--	< 2.0 U	< 10 U	--	--	--	--	< 2.0 U	< 10 U	--	--	< 2.0 U	--	--	< 2.0 U
Dimethyl phthalate			< 10 U	--	--	< 10 U	< 20 U	< 0.98 U	< 10 U	--	--	< 10 U	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 1.0 U	--	< 10 U	< 1.0 U
Dimethylphenethylamine			< 2000 U	--	--	< 2000 U	< 4000 U	< 9.8 U	< 2000 U	--	--	< 2000 U	< 2000 U	< 9.9 U	< 2000 U	--	< 2000 U	< 10 U	--	< 2000 U	< 10 U
Di-n-butyl phthalate			< 10 U	--	--	< 10 U	< 20 U	< 0.98 U	< 10 U	--	--	< 10 U	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 1.0 U	--	< 10 U	< 1.0 U
Di-n-octyl phthalate	700	700	< 10 U	--	--	< 10 U	< 20 U	< 0.98 U	< 10 U	--	--	< 10 U	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 1.0 U	--	< 10 U	< 1.0 U
Dinoseb			< 10 U	--	--	< 10 U	< 20 U	< 2.0 U	< 10 U	--	--	< 10 U	< 10 U	< 2.0 U	< 10 U	--	< 10 U	< 2.0 U	--	< 10 U	< 2.0 U
Diphenyl ether			< 10 U	--	< 10 U	--	--	--	< 10 U	--	< 10 U	--	--	--	< 10 U	< 10 U	--	--	< 10 U	--	--
Disulfoton			< 10 U	--	--	--	--	< 0.98 U	< 10 U	--	--	--	--	< 0.99 U	< 10 U	--	--	< 1.0 U	--	--	< 1.0 U
Ethyl Methanesulfonate			< 10 U	--	--	< 10 U	< 20 U	< 2.0 U	< 10 U	--	--	< 10 U	< 10 U	< 2.0 U	< 10 U	--	< 10 U	< 2.0 U	--	< 10 U	< 2.0 U
Famphur			< 10 U	--	--	--	--	< 0.98 U	< 10 U	--	--	--	--	< 0.99 U	< 10 U	--	--	< 1.0 U	--	--	< 1.0 U
Fluoranthene	1000	4100	< 10 U	--	< 10 U	< 10 U	< 20 U	< 0.20 U	< 10 U	--	< 10 U	< 10 U	< 10 U	< 0.20 U	< 10 U	< 10 U	< 10 U	< 0.20 U	< 10 U	< 10 U	< 0.20 U
Fluorene	1000	4100	< 10 U	--	--	< 10 U	< 20 U	< 0.20 U	< 10 U	--	--	< 10 U	< 10 U	< 0.20 U	< 10 U	--	< 10 U	< 0.20 U	--	< 10 U	< 0.20 U
Formaldehyde	1000	20000	< 50 U	--	--	--	--	--	< 50 U	--	--	--	--	--	< 50 U	--	--	--	--	--	--
Hexachloro-1,3-butadiene			< 10 U	--	--	< 10 U	< 20 U	< 0.98 U	< 10 U	--	--	< 10 U	< 10 U	&							



Sample ID	Type 1 RRS	Type 3/4 RRS	MWD-F1 MWD- F1_11/4/00_NM 11/04/2000	MWD-F1 MWD- F1_7/26/02_NM 07/26/2002	MWD-F1 MWD- F1_11/1/02_NM 11/01/2002	MWD-F1 MWD- F1_1/23/04_NM 01/23/2004	MWD-F1 MW- 1_6/30/04_NM 06/30/2004	MWD-F1 (072211) 07/22/2011	MWD-F2 MWD- F2_11/3/00_NM 11/03/2000	MWD-F2 MWD- F2_7/26/02_NM 07/26/2002	MWD-F2 MWD- F2_11/1/02_NM 11/01/2002	MWD-F2 MWD- F2_1/23/04_NM 01/23/2004	MWD-F2 MW- 2_6/30/04_NM 06/30/2004	MWD-F2 (072211) 07/22/2011	MWD-F3 MWD- F3_11/3/00_NM 11/03/2000	MWD-F3 MWD- F3_11/1/02_NM 11/01/2002	MWD-F3 MWD- F3_1/23/04_NM 01/23/2004	MWD-F3 (072211) 07/22/2011	MWD-22 MWD- 22_11/1/02_NM 11/01/2002	MWD-22 MW- 10_7/1/04_NM 07/01/2004	MWD-22 (072111) 07/21/2011
Sample Date			N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Type																					
Phenanthrene	10	10	< 10 U	--	--	< 10 U	< 20 U	< 0.20 U	< 10 U	--	--	< 10 U	< 10 U	< 0.20 U	< 10 U	--	< 10 U	< 0.20 U	--	< 10 U	< 0.20 U
Phenol	4		< 10 U	--	--	< 10 U	< 20 U	< 0.98 U	< 10 U	--	--	< 10 U	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 1.0 U	--	< 10 U	< 1.0 U
Phorate			< 10 U	--	--	--	--	< 0.98 U	< 10 U	--	--	--	--	< 0.99 U	< 10 U	--	--	< 1.0 U	--	--	< 1.0 U
Pinene			< 100 U	--	--	< 10 U	--	--	< 100 U	--	--	< 10 U	--	--	< 100 U	--	< 10 U	--	--	--	--
p-Phenylenediamine			< 2000 U	--	--	< 2000 U	< 4000 U	< 200 U	< 2000 U	--	--	< 2000 U	< 2000 U	< 200 U	< 2000 U	--	< 2000 U	< 200 U	--	< 2000 U	< 200 U
Propyzamide			< 10 U	--	--	< 10 U	< 20 U	< 0.98 U	< 10 U	--	--	< 10 U	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 1.0 U	--	< 10 U	< 1.0 U
Pyrene	1000	3100	< 10 U	--	< 10 U	< 10 U	< 20 U	< 0.20 U	< 10 U	--	< 10 U	< 10 U	< 10 U	< 0.20 U	< 10 U	< 10 U	< 10 U	< 0.20 U	< 10 U	< 10 U	< 0.20 U
Pyridine			< 50 U	--	--	< 50 U	< 100 U	< 4.9 U	< 50 U	--	--	< 50 U	< 50 U	< 4.9 U	< 50 U	--	< 50 U	< 5.0 U	--	< 50 U	< 5.0 U
Safrole			< 10 U	--	--	< 10 U	< 20 U	< 0.98 U	< 10 U	--	--	< 10 U	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 1.0 U	--	< 10 U	< 1.0 U
Sulfotep			< 10 U	--	--	--	--	< 0.98 U	< 10 U	--	--	--	--	< 0.99 U	< 10 U	--	--	< 1.0 U	--	--	< 1.0 U
Volatile Organic Compounds (µg/L)																					
1,1,1,2-Tetrachloroethane			< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1.0 U	--	< 1 U	< 1.0 U
1,1,1-Trichloroethane			< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1.0 U	--	< 1 U	< 1.0 U
1,1,2,2-Tetrachloroethane			< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1.0 U	--	< 1 U	< 1.0 U
1,1,2-Trichloroethane			< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1.0 U	--	< 1 U	< 1.0 U
1,1-Dichloroethane			< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1.0 U	--	< 1 U	< 1.0 U
1,1-Dichloroethene			< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1.0 U	--	< 1 U	< 1.0 U
1,2,3-Trichloropropane			< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1.0 U	--	< 1 U	< 1.0 U
1,2,4-Trichlorobenzene			--	--	--	--	--	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	< 1.0 U	--	--	< 1.0 U
1,2-Dibromo-3-chloropropane			< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1.0 U	--	< 1 U	< 1.0 U
1,2-Dibromoethane			< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1.0 U	--	< 1 U	< 1.0 U
1,2-Dichlorobenzene			--	--	--	--	--	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	< 1.0 U	--	--	< 1.0 U
1,2-Dichloroethane			< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1.0 U	--	< 1 U	< 1.0 U
1,2-Dichloropropane	5	7.4	< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1.0 U	--	< 1 U	< 1.0 U
1,3-Dichlorobenzene			--	--	--	--	--	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	< 1.0 U	--	--	< 1.0 U
1,4-Dichlorobenzene			--	--	--	--	--	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	< 1.0 U	--	--	< 1.0 U
1,4-Dioxane	70	70	--	--	--	--	--	< 50 U	--	--	--	--	--	< 50 U	--	--	--	< 50 U	--	--	< 50 U
2-Butanone (MEK)	2000	12000	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 10 U	--	< 10 U	< 10 U	--	< 10 U	< 10 U
2-Chlor-1,3-Butadiene			< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1.0 U	--	< 1 U	< 1.0 U
2-Chloroethyl vinyl ether			--	--	--	< 10 U	--	--	--	--	--	< 10 U	--	--	--	--	< 10 U	--	--	--	--
2-Methyl-1-propanol	10000	31000	< 40 U	--	< 200 U	< 40 U	< 40 U	< 40 U	< 40 U	--	< 200 U	< 40 U	< 40 U	< 40 U	< 40 U	< 200 U	< 40 U	< 40 U	< 200 U	< 40 U	< 40 U
4-Methyl-2-Pentanone	2000	4200	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 10 U	--	< 10 U	< 10 U	--	< 10 U	< 10 U
Acetone	4000	46000	< 25 U	--	< 50 U	< 25 U	< 25 U	< 25 U	< 25 U	--	< 50 U	< 25 U	< 25 U	< 25 U	< 25 U	< 50 U	< 25 U	< 25 U	< 50 U	< 25 U	< 25 U
Acetonitrile	200	200	< 40 U	--	--	< 40 U	< 40 U	< 40 U	< 40 U	--	--	< 40 U	< 40 U	< 40 U	< 40 U	--	< 40 U	< 40 U	--	< 40 U	< 40 U
Acrolein	700	700	< 20 U	--	< 100 U	< 20 U	< 20 U	< 20 U	< 20 U	--	< 100 U	< 20 U	< 20 U	< 20 U	< 20 U	< 100 U	< 20 U	< 20 U	< 100 U	< 20 U	< 20 U
Acrylonitrile			< 20 U	--	--	< 20 U	< 20 U	< 20 U	< 20 U	--	--	< 20 U	< 20 U	< 20 U	< 20 U	--	< 20 U	< 20 U	--	< 20 U	< 20 U
Allyl chloride			< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1.0 U	--	< 1 U	< 1.0 U
Benzene	5	8.7	< 1 U	--	< 5 U	< 1 U	< 1 U	< 1.0 U	< 1 U	--	< 5 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 5 U	< 1 U	< 1.0 U	< 5 U	< 1 U	< 1.0 U
Bromodichloromethane			< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1.0 U	--	< 1 U	< 1.0 U
Bromoform			< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	--	< 1 U	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1.0 U	--	< 1 U	< 1.0 U
Bromomethane			< 1 U	--	--	< 1 U	< 1 U	< 1.0 U													



Well ID			MWD-F1	MWD-F1	MWD-F1	MWD-F1	MWD-F1	MWD-F1	MWD-F2	MWD-F2	MWD-F2	MWD-F2	MWD-F2	MWD-F2	MWD-F3	MWD-F3	MWD-F3	MWD-F3	MWD-22	MWD-22	MWD-22
Sample ID	Type 1 RRS	Type 3/4 RRS	MWD- F1_11/4/00_NM	MWD- F1_7/26/02_NM	MWD- F1_11/1/02_NM	MWD- F1_1/23/04_NM	MW- 1_6/30/04_NM	MWD-F1 (072211)	MWD- F2_11/3/00_NM	MWD- F2_7/26/02_NM	MWD- F2_11/1/02_NM	MWD- F2_1/23/04_NM	MW- 2_6/30/04_NM	MWD-F2 (072211)	MWD- F3_11/3/00_NM	MWD- F3_11/1/02_NM	MWD- F3_1/23/04_NM	MWD-F3 (072211)	MWD- 22_11/1/02_NM	MW- 10_7/1/04_NM	MWD-22 (072111)
Sample Date			11/04/2000	07/26/2002	11/01/2002	01/23/2004	06/30/2004	07/22/2011	11/03/2000	07/26/2002	11/01/2002	01/23/2004	06/30/2004	07/22/2011	11/03/2000	11/01/2002	01/23/2004	07/22/2011	11/01/2002	07/01/2004	07/21/2011
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

U = Result is less than the laboratory detection limit



Well ID	Type 1 RRS	Type 3/4 RRS	MWD-22 (112513) N Deep	MWD-23 (11/01/2002) N Deep	MWD-23 MW- 8_6/30/04_NM N Deep	MWD-23 (072011) N Deep	MWD-23 (112513) N Deep	MWD-24 MW- 24_11/1/02_NM N Deep	MWD-24 MW- 4_6/30/04_NM N Deep	MWD-24 (072011) N Deep	MWD-24 (112613) N Deep	MWD-25 MW- 25_11/1/02_NM N Deep	MWD-25 MW- 12_7/1/04_NM N Deep	MWD-25 (072011) N Deep	MWD-25 (112513) N Deep	MWD-27 MWD- 27_12/19/02_NM N Deep	MWD-27 MW- 26_7/3/04_NM N Deep	MWD-27 MWD- 27_8/16/06_NM N Deep	MWD-27 (072211) N Deep	MWD-28 MWD- 28_12/19/02_NM N Deep	MWD-28 MW- 15_7/1/04_NM N Deep	
Anions (µg/L)																						
Ammonia Nitrogen			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Chloride			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Fluoride (F-, Anion)			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Nitrate/Nitrite			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Sulfate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Sulfide			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
General Chemistry (µg/L)																						
Cyanide			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Residue, filterable			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Total Organic Carbon			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Metals (µg/L)																						
Antimony			--	< 20 U	< 6 U	--	--	< 20 U	< 6 U	--	--	< 20 U	< 6 U	--	--	< 20 U	< 6 U	--	--	< 20 U	< 6 U	
Arsenic			--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	
Barium			--	35	< 10 U	--	--	22	15	--	--	17	< 10 U	--	--	34	23	--	--	24	< 10 U	
Beryllium			--	< 4 U	< 4 U	--	--	< 4 U	< 4 U	--	--	< 4 U	< 4 U	--	--	< 4 U	< 4 U	--	--	< 4 U	< 4 U	
Cadmium			--	--	< 5 U	--	--	--	< 5 U	--	--	--	< 5 U	--	--	--	< 5 U	--	--	--	< 5 U	
Chromium			--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	
Cobalt			--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	
Copper			--	< 20 U	< 20 U	--	--	< 20 U	< 20 U	--	--	< 20 U	< 20 U	--	--	< 20 U	< 20 U	--	--	< 20 U	< 20 U	
Lead			--	< 5 U	< 5 U	--	--	< 5 U	< 5 U	--	--	< 5 U	< 5 U	--	--	< 5 U	< 5 U	--	--	< 5 U	< 5 U	
Mercury			--	--	< 0.2 U	--	--	--	< 0.2 U	--	--	--	< 0.2 U	--	--	--	< 0.2 U	--	--	--	< 0.2 U	
Nickel			--	< 40 U	< 40 U	--	--	< 40 U	< 40 U	--	--	< 40 U	< 40 U	--	--	< 40 U	< 40 U	--	--	< 40 U	< 40 U	
Selenium			--	--	< 10 U	--	--	--	< 10 U	--	--	--	< 10 U	--	--	--	< 10 U	--	--	--	< 10 U	
Silver			--	--	< 10 U	--	--	--	< 10 U	--	--	--	< 10 U	--	--	--	< 10 U	--	--	--	< 10 U	
Thallium			--	--	< 2 U	--	--	--	< 2 U	--	--	--	< 2 U	--	--	--	< 2 U	--	--	--	< 2 U	
Tin			--	--	< 50 U	--	--	--	< 50 U	--	--	--	< 50 U	--	--	--	< 50 U	--	--	--	< 50 U	
Vanadium			--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	13	--	--	< 10 U	< 10 U	
Zinc			--	< 20 U	< 20 U	--	--	< 20 U	23	--	--	< 20 U	< 20 U	--	--	< 20 U	< 20 U	--	--	< 20 U	21	
Herbicides (µg/L)																						
2,4,5-T (Trichlorophenoxyacetic Acid)			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2,4,5-TP (Silvex)			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2,4-D (Dichlorophenoxyacetic Acid)			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Pesticides (µg/L)																						
4,4-DDD (Rhothane)			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4,4-DDE (Dichlorodiphenyl-dichloroethylene)			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4,4-DDT (Dichlorodiphenyl-trichloroethane)			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Aldrin			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Alpha-BHC			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Beta-BHC			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Chlordane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Chlorobenzilate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Delta-BHC			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Dieldrin			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Endosulfan I			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Endosulfan II			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Endosulfan sulfate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Endrin			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Endrin aldehyde			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Heptachlor			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Heptachlor epoxide			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Isodrin			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Kepone			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Methoxychlor			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		



Well ID	Type 1 RRS	Type 3/4 RRS	MWD-22 MWD-22(112513) 11/25/2013	MWD-23 MWD- 23_11/1/02_NM 11/01/2002	MWD-23 MW- 8_6/30/04_NM 06/30/2004	MWD-23 (072011) N	MWD-23 (112513) N	MWD-24 MWD- 24_11/1/02_NM 11/01/2002	MWD-24 MW- 4_6/30/04_NM 06/30/2004	MWD-24 (072011) N	MWD-24 (112613) N	MWD-25 MWD- 25_11/1/02_NM 11/01/2002	MWD-25 MW- 12_7/1/04_NM 07/01/2004	MWD-25 (072011) N	MWD-25 (112513) N	MWD-27 MWD- 27_12/19/02_NM 12/19/2002	MWD-27 MW- 26_7/3/04_NM 07/03/2004	MWD-27 MWD- 27_8/16/06_NM 08/16/2006	MWD-27 (072211) N	MWD-28 MWD- 28_12/19/02_NM 12/19/2002	MWD-28 MW- 15_7/1/04_NM 07/01/2004
Sample ID			N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Date																					
Sample Type																					
2-Naphthylamine			--	--	< 10 U	< 4.9 U	--	--	< 10 U	< 5.0 U	--	--	< 10 U	< 5.0 U	--	--	< 10 U	--	< 5.0 U	--	< 10 U
2-Nitroaniline			--	--	< 50 U	< 0.97 U	--	--	< 50 U	< 1.0 U	--	--	< 50 U	< 0.99 U	--	--	< 50 U	--	< 0.99 U	--	< 50 U
2-Nitrophenol			--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
2-Picoline			--	--	< 10 U	< 1.9 U	--	--	< 10 U	< 2.0 U	--	--	< 10 U	< 2.0 U	--	--	< 10 U	--	< 2.0 U	--	< 10 U
3,3-Dichlorobenzidine			--	--	< 20 U	< 19 U	--	--	< 20 U	< 20 U	--	--	< 20 U	< 20 U	--	--	< 20 U	--	< 20 U	--	< 20 U
3,3-Dimethylbenzidine			--	--	< 20 U	< 19 U	--	--	< 20 U	< 20 U	--	--	< 20 U	< 20 U	--	--	< 20 U	--	< 20 U	--	< 20 U
3-Methylchloranthrene			--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
3-Methylphenol, 4-Methylphenol	10	5100	--	--	--	< 1.9 U	--	--	--	< 2.0 U	--	--	--	< 2.0 U	--	--	--	--	< 2.0 U	--	--
3-Nitroaniline			--	--	< 50 U	< 4.9 U	--	--	< 50 U	< 5.0 U	--	--	< 50 U	< 5.0 U	--	--	< 50 U	--	< 5.0 U	--	< 50 U
4-Aminobiphenyl			--	--	< 10 U	< 4.9 U	--	--	< 10 U	< 5.0 U	--	--	< 10 U	< 5.0 U	--	--	< 10 U	--	< 5.0 U	--	< 10 U
4-Bromophenyl phenyl ether			--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
4-Chloro-3-Methylphenol			--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
4-Chlorophenyl phenyl ether			--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
4-Dimethylaminoazobenzene			--	--	< 10 U	< 4.9 U	--	--	< 10 U	< 5.0 U	--	--	< 10 U	< 5.0 U	--	--	< 10 U	--	< 5.0 U	--	< 10 U
4-Methylphenol	10	10000	--	--	< 10 U	--	--	--	< 10 U	--	--	--	< 10 U	--	--	--	< 10 U	--	--	--	< 10 U
4-Nitroaniline			--	--	< 50 U	< 4.9 U	--	--	< 50 U	< 5.0 U	--	--	< 50 U	< 5.0 U	--	--	< 50 U	--	< 5.0 U	--	< 50 U
4-Nitrophenol			--	--	< 50 U	< 4.9 U	--	--	< 50 U	< 5.0 U	--	--	< 50 U	< 5.0 U	--	--	< 50 U	--	< 5.0 U	--	< 50 U
4-Nitroquinoline-N-Oxide			--	--	< 20 U	< 1.9 U	--	--	< 20 U	< 2.0 U	--	--	< 20 U	< 2.0 U	--	--	< 20 U	--	< 2.0 U	--	< 20 U
5-Nitro-o-Toluidine			--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
7,12-Dimethylbenz(a)anthracene			--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
Acenaphthene	2000	6100	--	< 10 U	< 10 U	< 0.19 U	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	< 10 U	--	< 0.20 U	< 10 U	< 10 U
Acenaphthylene	10	10	--	--	< 10 U	< 0.19 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	--	< 0.20 U	--	< 10 U
Acetophenone	4000	10000	--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
Aniline	20	500	--	--	< 20 U	< 1.9 U	--	--	< 20 U	< 2.0 U	--	--	< 20 U	< 2.0 U	--	--	< 20 U	--	< 2.0 U	--	< 20 U
Anthracene	10	31000	--	--	< 10 U	< 0.19 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	--	< 0.20 U	--	< 10 U
Aramite			--	--	< 10 U	< 1.5 U	--	--	< 10 U	< 1.5 U	--	--	< 10 U	< 1.5 U	--	--	< 10 U	--	< 1.5 U	--	< 10 U
Benzo(a)anthracene	10	10	--	--	< 10 U	< 0.19 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	--	< 0.20 U	--	< 10 U
Benzo(a)pyrene	10	10	--	--	< 10 U	< 0.19 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	--	< 0.20 U	--	< 10 U
Benzo(b)fluoranthene	10	10	--	--	< 10 U	< 0.19 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	--	< 0.20 U	--	< 10 U
Benzo(g,h,i)perylene	10	10	--	--	< 10 U	< 0.19 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	--	< 0.20 U	--	< 10 U
Benzo(k)fluoranthene	10	39	--	--	< 10 U	< 0.19 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	--	< 0.20 U	--	< 10 U
Benzyl Alcohol			--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
beta-Pinene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Chloroethoxy)methane			--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
bis(2-Chloroethyl)ether			--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
bis(2-Ethylhexyl)phthalate	10	200	< 2.0 U	< 10 U	< 10 U	19	< 2.0 U	< 10 U	< 10 U	28	< 1.9 U	< 10 U	< 10 U	18	< 2.0 U	< 10 U	< 10 U	--	< 2.0 U	< 10 U	< 10 U
Butyl benzyl phthalate	100	15061	--	< 10 U	< 10 U	< 0.97 U	--	< 10 U	100	< 1.0 U	--	< 10 U	< 10 U	< 0.99 U	--	< 10 U	< 10 U	--	< 0.99 U	< 10 U	< 10 U
Chrysene	10	40	--	< 10 U	< 10 U	< 0.19 U	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	< 10 U	--	< 0.20 U	< 10 U	< 10 U
Diallate			--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
Dibenzo(a,h)anthracene	10	10	--	--	< 10 U	< 0.19 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	--	< 0.20 U	--	< 10 U
Dibenzofuran	10	10	--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
Diethyl phthalate			--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
Dimethoate			--	--	--	< 1.9 U	--	--	--	< 2.0 U	--	--	--	< 2.0 U	--	--	--	--	< 2.0 U	--	--
Dimethyl phthalate			--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
Dimethylphenethylamine			--	--	< 2000 U	< 9.7 U	--	--	< 2000 U	< 10 U	--	--	< 2000 U	< 9.9 U	--	--	< 2000 U	--	< 9.9 U	--	< 2000 U
Di-n-butyl phthalate			--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
Di-n-octyl phthalate	700	700	--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
Dinoseb			--	--	< 10 U	< 1.9 U	--	--	< 10 U	< 2.0 U	--	--	< 10 U	< 2.0 U	--	--	< 10 U	--	< 2.0 U	--	< 10 U
Diphenyl ether			--	< 10 U	--	--	--	< 10 U	--	--	--	< 10 U	--	--	--	< 10 U	--	--	--	< 10 U	--
Disulfoton			--	--	--	< 0.97 U	--	--	--	< 1.0 U	--	--	--	< 0.99 U	--	--	--	--	< 0.99 U	--	--
Ethyl Methanesulfonate			--	--	< 10 U	< 1.9 U	--	--	< 10 U	< 2.0 U	--	--	< 10 U	< 2.0 U	--	--	< 10 U	--	< 2.0 U	--	< 10 U
Famphur			--	--	--	< 0.97 U	--	--	--	< 1.0 U	--	--	--	< 0.99 U	--	--	--	--	< 0.99 U	--	--
Fluoranthene	1000	4100	--	< 10 U	< 10 U	< 0.19 U	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	< 10 U	--	< 0.20 U	< 10 U	< 10 U
Fluorene	1000	4100	--	--	< 10 U	< 0.19 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	--	< 0.20 U	--	< 10 U
Formaldehyde	1000	20000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 50 U	--	--	--
Hexachloro-1,3-butadiene			--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
Hexachlorobenzene			--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
Hexachlorocyclopentadiene			--	--	< 10 U	< 1.9 U	--	--	< 10 U	< 2.0 U	--	--	< 10 U	< 2.0 U	--	--	< 10 U	--	< 2.0 U	--	< 10 U
Hexachloroethane			--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
Hexachlorophene			--	--	< 5000 U	< 490 U	--	--	< 5000 U	< 500 U	--	--	< 5000 U	< 500 U	--	--	< 5000 U	--	< 500 U	--	< 5000 U
Hexachloropropene			--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
Indeno(1,2,3-cd)pyrene	10	10	--	--	< 10 U	< 0.19 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	--	< 0.20 U	--	< 10 U
Isophorone			--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--					



Well ID	Type 1 RRS	Type 3/4 RRS	MWD-22 MWD-22(112513) 11/25/2013	MWD-23 MWD- 23_11/1/02_NM 11/01/2002	MWD-23 MW- 8_6/30/04_NM 06/30/2004	MWD-23 MWD-23 (072011) 07/20/2011	MWD-23 MWD-23(112513) 11/25/2013	MWD-24 MWD- 24_11/1/02_NM 11/01/2002	MWD-24 MW- 4_6/30/04_NM 06/30/2004	MWD-24 MWD-24 (072011) 07/20/2011	MWD-24 MWD-24(112613) 11/26/2013	MWD-25 MWD- 25_11/1/02_NM 11/01/2002	MWD-25 MW- 12_7/1/04_NM 07/01/2004	MWD-25 MWD-25 (072011) 07/20/2011	MWD-25 MWD-25(112513) 11/25/2013	MWD-27 MWD- 27_12/19/02_NM 12/19/2002	MWD-27 MW- 26_7/3/04_NM 07/03/2004	MWD-27 MWD- 27_8/16/06_NM 08/16/2006	MWD-27 MWD-27 (072211) 07/22/2011	MWD-28 MWD- 28_12/19/02_NM 12/19/2002	MWD-28 MW- 15_7/1/04_NM 07/01/2004
Sample ID	Type 1 RRS	Type 3/4 RRS	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Date																					
Sample Type																					
Phenanthrene	10	10	--	--	< 10 U	< 0.19 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	--	< 0.20 U	--	< 10 U
Phenol	4		--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
Phorate			--	--	--	< 0.97 U	--	--	--	< 1.0 U	--	--	--	< 0.99 U	--	--	--	--	< 0.99 U	--	--
Pinene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
p-Phenylenediamine			--	--	< 2000 U	< 190 U	--	--	< 2000 U	< 200 U	--	--	< 2000 U	< 200 U	--	--	< 2000 U	--	< 200 U	--	< 2000 U
Propyzamide			--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
Pyrene	1000	3100	--	< 10 U	< 10 U	< 0.19 U	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	< 10 U	--	< 0.20 U	< 10 U	< 10 U
Pyridine			--	--	< 50 U	< 4.9 U	--	--	< 50 U	< 5.0 U	--	--	< 50 U	< 5.0 U	--	--	< 50 U	--	< 5.0 U	--	< 50 U
Safrole			--	--	< 10 U	< 0.97 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	--	--	< 10 U	--	< 0.99 U	--	< 10 U
Sulfotep			--	--	--	< 0.97 U	--	--	--	< 1.0 U	--	--	--	< 0.99 U	--	--	--	--	< 0.99 U	--	--
Volatile Organic Compounds (µg/L)																					
1,1,1,2-Tetrachloroethane			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	--	< 1.0 U	--	< 1 U
1,1,1-Trichloroethane			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	--	< 1.0 U	--	< 1 U
1,1,2,2-Tetrachloroethane			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	--	< 1.0 U	--	< 1 U
1,1,2-Trichloroethane			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	--	< 1.0 U	--	< 1 U
1,1-Dichloroethane			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	--	< 1.0 U	--	< 1 U
1,1-Dichloroethene			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	--	< 1.0 U	--	< 1 U
1,2,3-Trichloropropane			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	--	< 1.0 U	--	< 1 U
1,2,4-Trichlorobenzene			--	--	--	< 1.0 U	--	--	--	< 1.0 U	--	--	--	< 1.0 U	--	--	--	--	< 1.0 U	--	--
1,2-Dibromo-3-chloropropane			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	--	< 1.0 U	--	< 1 U
1,2-Dibromoethane			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	--	< 1.0 U	--	< 1 U
1,2-Dichlorobenzene			--	--	--	< 1.0 U	--	--	--	< 1.0 U	--	--	--	< 1.0 U	--	--	--	--	< 1.0 U	--	--
1,2-Dichloroethane			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	--	< 1.0 U	--	< 1 U
1,2-Dichloropropane	5	7.4	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	--	< 1.0 U	--	< 1 U
1,3-Dichlorobenzene			--	--	--	< 1.0 U	--	--	--	< 1.0 U	--	--	--	< 1.0 U	--	--	--	--	< 1.0 U	--	--
1,4-Dichlorobenzene			--	--	--	< 1.0 U	--	--	--	< 1.0 U	--	--	--	< 1.0 U	--	--	--	--	< 1.0 U	--	--
1,4-Dioxane	70	70	--	--	--	< 50 U	--	--	--	< 50 U	--	--	--	< 50 U	--	--	--	--	< 50 U	--	--
2-Butanone (MEK)	2000	12000	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	--	< 10 U	--	< 10 U
2-Chlor-1,3-Butadiene			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	--	< 1.0 U	--	< 1 U
2-Chloroethyl vinyl ether			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl-1-propanol	10000	31000	--	< 200 U	< 40 U	< 40 U	--	< 200 U	< 40 U	< 40 U	--	< 200 U	< 40 U	< 40 U	--	< 200 U	< 40 U	--	< 40 U	< 200 U	< 40 U
4-Methyl-2-Pentanone	2000	4200	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	--	< 10 U	--	< 10 U
Acetone	4000	46000	--	< 50 U	< 25 U	< 25 U	--	< 50 U	< 25 U	< 25 U	--	< 50 U	< 25 U	< 25 U	--	< 50 U	< 25 U	--	< 25 U	< 50 U	< 25 U
Acetonitrile	200	200	--	--	< 40 U	< 40 U	--	--	< 40 U	< 40 U	--	--	< 40 U	< 40 U	--	--	< 40 U	--	< 40 U	--	< 40 U
Acrolein	700	700	--	< 100 U	< 20 U	< 20 U	--	< 100 U	< 20 U	< 20 U	--	< 100 U	< 20 U	< 20 U	--	< 100 U	< 20 U	--	< 20 U	< 100 U	< 20 U
Acrylonitrile			--	--	< 20 U	< 20 U	--	--	< 20 U	< 20 U	--	--	< 20 U	< 20 U	--	--	< 20 U	--	< 20 U	--	< 20 U
Allyl chloride			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	--	< 1.0 U	--	< 1 U
Benzene	5	8.7	--	< 5 U	< 1 U	< 1.0 U	--	< 5 U	< 1 U	< 1.0 U	--	< 5 U	< 1 U	< 1.0 U	--	< 5 U	< 1 U	< 1 U	< 1.0 U	< 5 U	< 1 U
Bromodichloromethane			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	--	< 1.0 U	--	< 1 U
Bromoform			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	--	< 1.0 U	--	< 1 U
Bromomethane			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	--	< 1.0 U	--	< 1 U
Carbon Disulfide	4000	4000	--	--	< 1 U	< 2.0 U	--	--	< 1 U	< 2.0 U	--	--	< 1 U	< 2.0 U	--	--	< 1 U	--	< 2.0 U	--	< 1 U
Carbon Tetrachloride			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	--	< 1.0 U	--	< 1 U
CFC-11 (Trichlorofluoromethane)			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--</						



Well ID			MWD-22	MWD-23	MWD-23	MWD-23	MWD-23	MWD-24	MWD-24	MWD-24	MWD-24	MWD-25	MWD-25	MWD-25	MWD-25	MWD-27	MWD-27	MWD-27	MWD-27	MWD-28	MWD-28
Sample ID	Type 1 RRS	Type 3/4 RRS	MWD-22(112513)	23_11/1/02_NM	8_6/30/04_NM	MWD-23 (072011)	MWD-23(112513)	24_11/1/02_NM	4_6/30/04_NM	MWD-24 (072011)	MWD-24(112613)	25_11/1/02_NM	12_7/1/04_NM	MWD-25 (072011)	MWD-25(112513)	27_12/19/02_NM	26_7/3/04_NM	27_8/16/06_NM	MWD-27 (072211)	28_12/19/02_NM	15_7/1/04_NM
Sample Date			11/25/2013	11/01/2002	06/30/2004	07/20/2011	11/25/2013	11/01/2002	06/30/2004	07/20/2011	11/26/2013	11/01/2002	07/01/2004	07/20/2011	11/25/2013	12/19/2002	07/03/2004	08/16/2006	07/22/2011	12/19/2002	07/01/2004
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

U = Result is less than the laboratory detection limit



Well ID	Type 1 RRS	Type 3/4 RRS	MWD-28	MWD-29	MWD-29	MWD-29	MWD-30	MWD-30	MWD-30	MWD-30	MWD-30	MWD-30	MWD-30	MWD-30	MWD-30	MWD-30	MWD-30
Sample ID			MWD-28 (072211)	MWD-29	MWD-29 (072111)	MWD-29(112613)	MWD-30	MWD-30	MWD-30	MWD-30 (072211)	MWD-30	MWD-30 (052214)	MWD-30 (110414)	MWD-30 (050415)	DUP-01 (050415)	MWD-30 (110315)	MWD-30 (050316)
Sample Date			07/22/2011	29_11/19/08_NM	07/21/2011	11/26/2013	30_11/19/08_NM	07/22/2011	30(11122013)	07/22/2011	11/12/2013	05/22/2014	11/04/2014	05/04/2015	05/04/2015	11/03/2015	05/03/2016
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Aquifer			Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep
<b>Anions (µg/L)</b>																	
Ammonia Nitrogen			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoride (F-, Anion)			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate/Nitrite			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfide			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>General Chemistry (µg/L)</b>																	
Cyanide			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Residue, filterable			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Organic Carbon			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>Metals (µg/L)</b>																	
Antimony			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tin			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>Herbicides (µg/L)</b>																	
2,4,5-T (Trichlorophenoxyacetic Acid)			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-TP (Silvex)			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-D (Dichlorophenoxyacetic Acid)			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>Pesticides (µg/L)</b>																	
4,4-DDD (Rhothane)			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,4-DDE (Dichlorodiphenyl-dichloroethylene)			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,4-DDT (Dichlorodiphenyl-trichloroethane)			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aldrin			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Alpha-BHC			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beta-BHC			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlordane			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzilate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Delta-BHC			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dieldrin			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Endosulfan I			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Endosulfan II			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Endosulfan sulfate			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Endrin			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Endrin aldehyde			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlor			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlor epoxide			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isodrin			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Kepone			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methoxychlor			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Technical BHC			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toxaphene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>Total Petroleum Hydrocarbon (µg/L)</b>																	
Diesel Range Organics			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Gasoline Range Organics			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>Semi-Volatile Organic Compounds (µg/L)</b>																	
1,1-Biphenyl	10	10	--	--	--	--	--	--	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	< 1.1 U	< 1.1 U	< 1.0 U	--
1,2,4,5-Tetrachlorobenzene			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	--
1,2,4-Trichlorobenzene			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	--
1,2-Dichlorobenzene			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	--
1,3,5-Trinitrobenzene			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	--
1,3-Dichlorobenzene			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	--
1,3-Dinitrobenzene	10	10	< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	< 1.1 U	< 1.1 U	< 1.0 U	--
1,4-Dichlorobenzene			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	--
1,4-Dioxane	70	70	< 2.0 U	--	< 2.0 U	--	--	< 1.9 U	< 2.0 U	< 2.1 U	< 2.0 U	< 1.9 U	--	< 2.1 U	< 2.3 U	< 2.1 U	--
1,4-Naphthoquinone			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	--
1-Naphthylamine			< 5.0 U	--	< 5.0 U	--	--	< 4.8 U	< 5.0 U	< 5.3 U	< 4.9 U	< 4.8 U	--	--	--	--	--
2,2-Oxybis(1-Chloropropane)			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	--
2,3,4,6-Tetrachlorophenol			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	--
2,4,5-Trichlorophenol			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	--
2,4,6-Trichlorophenol			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	--
2,4-Dichlorophenol			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	--
2,4-Dimethylphenol	700	2000	< 2.0 U	--	< 2.0 U	--	--	< 1.9 U	< 2.0 U	< 2.1 U	< 2.0 U	< 1.9 U	--	< 2.1 U	< 2.3 U	< 2.1 U	--
2,4-Dinitrophenol			< 9.9 U	--	< 10 U	--	--	< 9.6 U	< 9.9 U	< 11 U	< 9.9 U	< 9.7 U	--	--	--	--	--
2,4-Dinitrotoluene			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	--
2,6-Dichlorophenol			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	--
2,6-Dinitrotoluene			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	--
2-Acetylaminofluorene			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	--
2-Chloronaphthalene			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	--
2-Chlorophenol			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	--
2-Methyl-4,6-dinitrophenol			< 5.0 U	--	< 5.0 U	--	--	< 4.8 U	< 5.0 U	< 5.3 U	< 4.9 U	< 4.8 U	--	--	--	--	--
2-Methylnaphthalene			< 0.20 U	--	< 0.20 U	--	--	< 0.19 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.19 U	--	--	--	--	--
2-Methylphenol	10	5100	< 2.0 U	--	< 2.0 U	--	--	< 1.9 U	< 2.0 U	< 2.1 U	< 2.0 U	< 1.9 U	--	< 2.1 U	< 2.3 U	< 2.1 U	--



Well ID	Type 1 RRS		MWD-28	MWD-29	MWD-29	MWD-29	MWD-30	MWD-30	MWD-30	MWD-30	MWD-30	MWD-30	MWD-30	MWD-30	MWD-30	MWD-30	MWD-30
Sample ID	Type 1 RRS	Type 3/4 RRS	MWD-28 (072211)	29_11/19/08_NM	MWD-29 (072111)	MWD-29(112613)	30_11/19/08_NM	MWD-30 (072211)	30(1122013)	MWD-30 (052214)	MWD-30 (110414)	MWD-30 (050415)	DUP-01 (050415)	MWD-30 (110315)	MWD-30 (050316)	MWD-30 (122717)	
Sample Date			07/22/2011	11/19/2008	07/21/2011	11/26/2013	11/19/2008	07/22/2011	11/12/2013	05/22/2014	11/04/2014	05/04/2015	05/04/2015	11/03/2015	05/03/2016	12/27/2017	
Sample Type			N	N	N	N	N	N	N	N	N	N	FD	N	N	N	
2-Naphthylamine			< 5.0 U	--	< 5.0 U	--	--	< 4.8 U	< 5.0 U	< 5.3 U	< 4.9 U	< 4.8 U	--	--	--	--	
2-Nitroaniline			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
2-Nitrophenol			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	--	
2-Picoline			< 2.0 U	--	< 2.0 U	--	--	< 1.9 U	< 2.0 U	< 2.1 U	< 2.0 U	< 1.9 U	--	--	--	--	
3,3-Dichlorobenzidine			< 20 U	--	< 20 U	--	--	< 19 U	< 20 U	< 21 U	< 20 U	< 19 U	--	--	--	--	
3,3-Dimethylbenzidine			< 20 U	--	< 20 U	--	--	< 19 U	< 20 U	< 21 U	< 20 U	< 19 U	--	--	--	--	
3-Methylchloranthrene			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
3-Methylphenol, 4-Methylphenol	10	5100	< 2.0 U	--	< 2.0 U	--	--	< 1.9 U	--	--	--	--	--	--	--	--	
3-Nitroaniline			< 5.0 U	--	< 5.0 U	--	--	< 4.8 U	< 5.0 U	< 5.3 U	< 4.9 U	< 4.8 U	--	--	--	--	
4-Aminobiphenyl			< 5.0 U	--	< 5.0 U	--	--	< 4.8 U	< 5.0 U	< 5.3 U	< 4.9 U	< 4.8 U	--	--	--	--	
4-Bromophenyl phenyl ether			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
4-Chloro-3-Methylphenol			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
4-Chlorophenyl phenyl ether			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
4-Dimethylaminoazobenzene			< 5.0 U	--	< 5.0 U	--	--	< 4.8 U	< 5.0 U	< 5.3 U	< 4.9 U	< 4.8 U	--	--	--	--	
4-Methylphenol	10	10000	--	--	--	--	--	--	< 2.0 U	< 2.1 U	< 2.0 U	< 1.9 U	--	< 2.1 U	< 2.3 U	< 2.1 U	
4-Nitroaniline			< 5.0 U	--	< 5.0 U	--	--	< 4.8 U	< 5.0 U	< 5.3 U	< 4.9 U	< 4.8 U	--	--	--	--	
4-Nitrophenol			< 5.0 U	--	< 4.8 U	--	--	< 4.8 U	< 5.0 U	< 5.3 U	< 7.9 U	< 7.7 U	--	--	--	--	
4-Nitroquinoline-N-Oxide			< 2.0 U	--	< 2.0 U	--	--	< 1.9 U	< 2.0 U	< 2.1 U	< 2.0 U	< 1.9 U	--	--	--	--	
5-Nitro-o-Toluidine			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
7,12-Dimethylbenz(a)anthracene			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 2.0 U	< 1.9 U	--	--	--	--	
Acenaphthene	2000	6100	< 0.20 U	--	< 0.20 U	--	--	< 0.19 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.19 U	--	< 0.21 U	< 0.23 U	< 0.21 U	
Acenaphthylene	10	10	< 0.20 U	--	< 0.20 U	--	--	< 0.19 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.19 U	--	< 0.21 U	< 0.23 U	< 0.21 U	
Acetophenone	4000	10000	< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	< 1.1 U	< 1.1 U	< 1.0 U	
Aniline	20	500	< 2.0 U	--	< 2.0 U	--	--	< 1.9 U	< 2.0 U	< 2.1 U	< 2.0 U	< 1.9 U	--	< 2.1 U	< 2.3 U	< 2.1 U	
Anthracene	10	31000	< 0.20 U	--	< 0.20 U	--	--	< 0.19 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.19 U	--	< 0.21 U	< 0.23 U	< 0.21 U	
Aramite			< 1.5 U	--	< 1.5 U	--	--	< 1.4 U	< 1.5 U	< 1.6 U	< 2.0 U	< 1.9 U	--	--	--	--	
Benzo(a)anthracene	10	10	< 0.20 U	--	< 0.20 U	--	--	< 0.19 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.19 U	--	< 0.21 U	< 0.23 U	< 0.21 U	
Benzo(a)pyrene	10	10	< 0.20 U	--	< 0.20 U	--	--	< 0.19 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.19 U	--	< 0.21 U	< 0.23 U	< 0.21 U	
Benzo(b)fluoranthene	10	10	< 0.20 U	--	< 0.20 U	--	--	< 0.19 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.19 U	--	< 0.21 U	< 0.23 U	< 0.21 U	
Benzo(g,h,i)perylene	10	10	< 0.20 U	--	< 0.20 U	--	--	< 0.19 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.19 U	--	< 0.21 U	< 0.23 U	< 0.21 U	
Benzo(k)fluoranthene	10	39	< 0.20 U	--	< 0.20 U	--	--	< 0.19 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.19 U	--	< 0.21 U	< 0.23 U	< 0.21 U	
Benzyl Alcohol			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
beta-Pinene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	
bis(2-Chloroethoxy)methane			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
bis(2-Chloroethyl)ether			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	< 1.1 U	< 1.1 U	< 1.0 U	
bis(2-Ethylhexyl)phthalate	10	200	< 2.0 U	--	2.7 B	< 2.0 U	--	< 1.9 U	< 2.0 U	< 2.1 U	< 4.9 U	< 4.8 U	--	< 5.4 U	< 5.6 U	< 5.2 U	
Butyl benzyl phthalate	100	15061	< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	< 1.1 U	< 1.1 U	< 1.0 U	
Chrysene	10	40	< 0.20 U	--	< 0.20 U	--	--	< 0.19 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.19 U	--	< 0.21 U	< 0.23 U	< 0.21 U	
Diallyte			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
Dibenzo(a,h)anthracene	10	10	< 0.20 U	--	< 0.20 U	--	--	< 0.19 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.19 U	--	< 0.21 U	< 0.23 U	< 0.21 U	
Dibenzofuran	10	10	< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	0.17 J	0.15 J	0.15 J	
Diethyl phthalate			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
Dimethoate			< 2.0 U	--	< 2.0 U	--	--	< 1.9 U	< 2.0 U	< 2.1 U	< 2.0 U	< 1.9 U	--	--	--	--	
Dimethyl phthalate			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
Dimethylphenethylamine			< 9.9 U	--	< 10 U	--	--	< 9.6 U	< 9.9 U	< 11 U	< 9.9 U	< 9.7 U	--	--	--	--	
Di-n-butyl phthalate			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
Di-n-octyl phthalate	700	700	< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	< 1.1 U	< 1.1 U	< 1.0 U	
Dinoseb			< 2.0 U	--	< 2.0 U	--	--	< 1.9 U	< 2.0 U	< 2.1 U	< 2.0 U	< 1.9 U	--	--	--	--	
Diphenyl ether			--	--	--	--	--	--	--	--	--	< 0.97 U	--	--	--	--	
Disulfoton			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
Ethyl Methanesulfonate			< 2.0 U	--	< 2.0 U	--	--	< 1.9 U	< 2.0 U	< 2.1 U	< 2.0 U	< 1.9 U	--	--	--	--	
Famphur			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
Fluoranthene	1000	4100	< 0.20 U	--	< 0.20 U	--	--	< 0.19 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.19 U	--	< 0.21 U	< 0.23 U	< 0.21 U	
Fluorene	1000	4100	< 0.20 U	--	< 0.20 U	--	--	< 0.19 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.19 U	--	0.15 J	0.13 J	0.13 J	
Formaldehyde	1000	20000	--	--	--	--	--	--	--	--	--	--	--	--	< 50 U	--	
Hexachloro-1,3-butadiene			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
Hexachlorobenzene			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
Hexachlorocyclopentadiene			< 2.0 U	--	< 2.0 U	--	--	< 1.9 U	< 2.0 U	< 2.1 U	< 2.0 U	< 1.9 U	--	--	--	--	
Hexachloroethane			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
Hexachlorophene			< 500 U	--	< 500 U	--	--	< 480 U	< 500 U	< 530 U	< 490 U	< 480 U	--	--	--	--	
Hexachloropropene			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
Indeno(1,2,3-cd)pyrene	10	10	< 0.20 U	--	< 0.20 U	--	--	< 0.19 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.19 U	--	< 0.21 U	< 0.23 U	< 0.21 U	
Isophorone			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
Isosafrole			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
Methapyrilene			< 200 U	--	< 200 U	--	--	< 190 U	< 200 U	< 210 U	< 200 U	< 190 U	--	--	--	--	
Methyl methanesulfonate			< 2.0 U	--	< 2.0 U	--	--	< 1.9 U	< 2.0 U	< 2.1 U	< 2.0 U	< 1.9 U	--	--	--	--	
Methyl parathion			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
Methylphenol			--	--	--	--	--	--	--	--	--	--	--	--	< 4.5 U	--	
Naphthalene	20	20	< 0.20 U	< 0.19 U	0.22	--	0.059 J	< 0.19 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.19 U	--	< 0.21 U	< 0.23 U	< 0.21 U	
Nitrobenzene			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
N-Nitrosodiethylamine			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
N-Nitrosodimethylamine			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
N-Nitrosodi-n-butylamine	10	10	< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	< 1.1 U	< 1.1 U	< 1.0 U	
N-Nitrosodi-n-propylamine			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
N-Nitrosodiphenylamine			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--	
N-Nitrosomorpholine			< 0.99 U	--	< 1.0 U	--	--	<									



Well ID	Type 1 RRS	Type 3/4 RRS	MWD-28 (07/22/2011)	MWD-29 MWD-29 (11/19/2008)	MWD-29 (07/21/2011)	MWD-29 (11/26/2013)	MWD-30 MWD-30 (11/19/2008)	MWD-30 (07/22/2011)	MWD-30 MWD-30 (11/12/2013)	MWD-30 (05/22/2014)	MWD-30 (11/04/2014)	MWD-30 (05/04/2015)	MWD-30 (05/04/2015)	MWD-30 (11/03/2015)	MWD-30 (05/03/2016)	MWD-30 (12/27/2017)
Sample ID	Type 1 RRS	Type 3/4 RRS	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Phenanthrene	10	10	< 0.20 U	--	< 0.20 U	--	--	< 0.19 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.19 U	--	< 0.21 U	< 0.23 U	< 0.21 U
Phenol	4		< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	< 1.1 U	< 1.1 U	< 1.0 U
Phorate			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--
Pinene			--	--	--	--	--	--	--	--	--	--	--	--	--	--
p-Phenylenediamine			< 200 U	--	< 200 U	--	--	< 190 U	< 200 U	< 210 U	< 200 U	< 190 U	--	--	--	--
Propyzamide			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--
Pyrene	1000	3100	< 0.20 U	--	< 0.20 U	--	--	< 0.19 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.19 U	--	< 0.21 U	< 0.23 U	< 0.21 U
Pyridine			< 5.0 U	--	< 5.0 U	--	--	< 4.8 U	< 5.0 U	< 5.3 U	< 4.9 U	< 4.8 U	--	--	--	--
Safrole			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--
Sulfotep			< 0.99 U	--	< 1.0 U	--	--	< 0.96 U	< 0.99 U	< 1.1 U	< 0.99 U	< 0.97 U	--	--	--	--
Volatile Organic Compounds (µg/L)																
1,1,1,2-Tetrachloroethane			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
1,1,1-Trichloroethane			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
1,1,2,2-Tetrachloroethane			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
1,1,2-Trichloroethane			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
1,1-Dichloroethane			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
1,1-Dichloroethene			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
1,2,3-Trichloropropane			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
1,2,4-Trichlorobenzene			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	--	--	< 5.0 U	< 5.0 U	< 5.0 U	--	--	--
1,2-Dibromo-3-chloropropane			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	--	--	< 5.0 U	< 5.0 U	< 5.0 U	--	--	--
1,2-Dibromoethane			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
1,2-Dichlorobenzene			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
1,2-Dichloroethane			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
1,2-Dichloropropane	5	7.4	< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U
1,3-Dichlorobenzene			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
1,4-Dichlorobenzene			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
1,4-Dioxane	70	70	< 50 U	--	< 50 U	--	--	< 50 U	--	--	< 100 U	< 100 U	< 100 U	--	--	--
2-Butanone (MEK)	2000	12000	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 250 U	< 10 U
2-Chlor-1,3-Butadiene			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
2-Chloroethyl vinyl ether			--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl-1-propanol	10000	31000	< 40 U	--	< 40 U	--	--	< 40 U	< 40 U	< 40 U	< 50 U	< 50 U	< 50 U	< 50 U	< 250 U	< 50 U
4-Methyl-2-Pentanone	2000	4200	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 50 U	< 10 U
Acetone	4000	46000	< 25 U	--	< 25 U	--	--	< 25 U	< 25 U	< 25 U	< 10 U	< 10 U	< 10 U	< 10 U	< 130 U	< 10 U
Acetonitrile	200	200	< 40 U	--	< 40 U	--	--	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	< 100 U	< 40 U
Acrolein	700	700	< 20 U	--	< 20 U	--	--	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 250 U	< 20 U
Acrylonitrile			< 20 U	--	< 20 U	--	--	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	--	--	--
Allyl chloride			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
Benzene	5	8.7	< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U
Bromodichloromethane			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
Bromoform			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
Bromomethane			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	--	--
Carbon Disulfide	4000	4000	< 2.0 U	--	< 2.0 U	--	--	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 5.0 U	< 2.0 U
Carbon Tetrachloride			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
CFC-11 (Trichlorofluoromethane)			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
CFC-12 (Dichlorodifluoromethane)			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
Chlorobenzene	100	140	< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U
Chlorodibromomethane			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
Chloroethane			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	--	--
Chloroform			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
Chloromethane			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
cis-1,3-Dichloropropene			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
Dibromomethane			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--
Dichloromethane			< 5.0 U	--	< 5.0 U	--	--	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	--	--
Ethyl Methacrylate	3000	3000	< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 1.0 U
Ethylbenzene	700	700	< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U
Hexachloro-1,3-butadiene			--	--	--	--	--	--	--	--	< 5.0 U	< 5.0 U	< 5.0 U	--	--	--
Iodomethane			< 5.0 U	--	< 5.0 U	--	--	< 5.0 U	< 5.0 U	< 5.0 U	< 10 U	< 10 U	< 10 U	--	--	--
m&p-Xylenes			--	--	< 2.0 U	--	--	--	--	--	--	--	--	--	--	< 1.0 U
Methyl methacrylate			< 1.0 U	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 2.0 U	--	--	--
Methyl N-Butyl Ketone (2-Hexanone)			< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	--	--	--
Methylacrylonitrile			< 20 U	--	< 20 U	--	--	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	--	--	--
Naphthalene	20	20	--	--	--	--	--	--	--	--	< 5.0 U	< 5.0 U	<			

**Notes:**  
**Bold:** Concentration exceeds the Type 1/2 RRS  
Shaded: Concentration exceeds the Type 3/4 RRS  
**Acronyms and Abbreviations:**  
DUP = field duplicate  
mg/L = milligram per liter  
PCB = polychlorinated biphenyl  
RRS = Risk Reduction Standard  
µg/L = microgram per liter  
**Data Validation Qualifiers:**  
B = Compound was detected in the associated blank  
J = Result is estimated



Well ID			MWD-28	MWD-29	MWD-29	MWD-29	MWD-30	MWD-30	MWD-30	MWD-30	MWD-30	MWD-30	MWD-30	MWD-30	MWD-30	MWD-30
Sample ID	Type 1 RRS	Type 3/4 RRS	MWD-28 (072211)	29_11/19/08_NM MWD-	MWD-29 (072111)	MWD-29(112613)	30_11/19/08_NM MWD-	MWD-30 (072211)	30(11122013) MWD-	MWD-30 (062214)	MWD-30 (110414)	MWD-30 (050415)	DUP-01 (050415)	MWD-30 (110315)	MWD-30 (050316)	MWD-30 (122717)
Sample Date			07/22/2011	11/19/2008	07/21/2011	11/26/2013	11/19/2008	07/22/2011	11/12/2013	05/22/2014	11/04/2014	05/04/2015	05/04/2015	11/03/2015	05/03/2016	12/27/2017
Sample Type			N	N	N	N	N	N	N	N	N	N	FD	N	N	N

U = Result is less than the laboratory detection limit



Well ID			MW-F1	MW-F1	MW-F1	MW-F1	MW-F1	MW-F1	MW-F1	MW-F1	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2
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Well ID	Type 1	Type 3/4	MW-F1	MW-F1	MW-F1	MW-F1	MW-F1	MW-F1	MW-F1	MW-F1	MW-F1	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F2	MW-F3	MW-F3	MW-F3	MW-F3	MW-F3	MW-F3	MW-F3	MW-F3
Sample ID	RRS	RRS	MW- F1_10/31/00_NM	MW- F1_11/1/02_NM	MW- F1_1/20/04_NM	MW- F1_1/20/04_DUP	MW- 6_6/30/04_NM	MW- 6_6/30/04_DUP	MW-F1 (071911)	MW-F1(112613)	MW- F2_10/31/00_NM	MW- F2_1/25/01_NM	MW- F2_11/1/02_NM	MW- F2_1/20/04_NM	MW- 7_6/30/04_NM	MW- F2_11/19/08_NM	MW-F2 (071911)	MW-F2(112513)	MW- F3_10/30/00_NM	MW- F3_10/30/00_DUP	MW- F3_1/25/01_NM	MW- F3_7/26/02_NM	MW- F3_11/1/02_NM	MW- F3_1/21/04_NM	MW- 27_7/3/04_NM	MW- F3_8/16/06_NM	MW-F3 DUP #
Sample Date			N	N	N	FD	N	FD	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	FD
Sample Type			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	
Acquifer																											
2-Naphthylamine			< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 5.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 4.9 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
2-Nitroaniline			< 50 U	--	< 50 U	< 50 U	< 50 U	< 50 U	< 0.99 U	--	< 50 U	--	--	< 50 U	< 50 U	--	< 0.99 U	--	< 50 U	< 50 U	--	--	--	< 50 U	< 50 U	--	--
2-Nitrophenol			< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.99 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.99 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
2-Picoline			< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 2.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 2.0 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
3,3-Dichlorobenzidine			< 20 U	--	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	--	< 20 U	--	--	< 20 U	< 20 U	--	< 20 U	--	< 20 U	< 20 U	--	--	--	< 20 U	< 20 U	--	--
3,3-Dimethylbenzidine			< 20 U	--	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	--	< 20 U	--	--	< 20 U	< 20 U	--	< 20 U	--	< 20 U	< 20 U	--	--	--	< 20 U	< 20 U	--	--
3-Methylchloranthrene			< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.99 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.99 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
3-Methylphenol, 4-Methylphenol	10	5100	--	--	--	--	--	--	< 2.0 U	--	--	--	--	--	--	--	< 2.0 U	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline			< 50 U	--	< 50 U	< 50 U	< 50 U	< 50 U	< 5.0 U	--	< 50 U	--	--	< 50 U	< 50 U	--	< 4.9 U	--	< 50 U	< 50 U	--	--	--	< 50 U	< 50 U	--	--
4-Aminobiphenyl			< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 5.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 4.9 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
4-Bromophenyl phenyl ether			< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.99 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.99 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
4-Chloro-3-Methylphenol			< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.99 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.99 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
4-Chlorophenyl phenyl ether			< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.99 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.99 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
4-Dimethylaminoazobenzene			< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 5.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 4.9 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
4-Methylphenol	10	10000	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	--	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
4-Nitroaniline			< 50 U	--	< 50 U	< 50 U	< 50 U	< 50 U	< 5.0 U	--	< 50 U	--	--	< 50 U	< 50 U	--	< 4.9 U	--	< 50 U	< 50 U	--	--	--	< 50 U	< 50 U	--	--
4-Nitrophenol			< 50 U	--	< 50 U	< 50 U	< 50 U	< 50 U	< 5.0 U	--	< 50 U	--	--	< 50 U	< 50 U	--	< 4.9 U	--	< 50 U	< 50 U	--	--	--	< 50 U	< 50 U	--	--
4-Nitroquinoline-N-Oxide			< 20 U	--	< 20 U	< 20 U	< 20 U	< 20 U	< 2.0 U	--	< 20 U	--	--	< 20 U	< 20 U	--	< 2.0 U	--	< 20 U	< 20 U	--	--	--	< 20 U	< 20 U	--	--
5-Nitro-o-Toluidine			< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.99 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.99 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
7,12-Dimethylbenz(a)anthracene			< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.99 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.99 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
Acenaphthene	2000	6100	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	< 10 U	14	0.032 U	< 0.20 U	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 10 U	--	--
Acenaphthylene	10	10	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.20 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
Acetophenone	4000	10000	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.99 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.99 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
Aniline	20	500	< 20 U	--	< 20 U	< 20 U	< 20 U	< 20 U	< 2.0 U	--	< 20 U	--	--	< 20 U	< 20 U	--	< 2.0 U	--	--	< 20 U	--	--	--	< 20 U	< 20 U	--	--
Anthracene	10	31000	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.20 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
Aramite			< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 1.5 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 1.5 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
Atrazine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzaldehyde			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	10	10	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.20 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
Benzo(a)pyrene	10	10	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.20 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
Benzo(b)fluoranthene	10	10	< 10 U	--	--	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.20 U	--	< 10 U	< 10 U	--	--	--	--	< 10 U	--	--
Benzo(g,h,i)perylene	10	10	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.20 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
Benzo(k)fluoranthene	10	39	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.20 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
Benzyl Alcohol			< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.99 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.99 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
beta-Pinene			< 100 U	--	< 10 U	< 10 U	--	--	--	--	< 100 U	--	--	< 10 U	--	--	--	--	< 100 U	< 100 U	--	--	--	< 10 U	--	--	--
bis(2-Chloroethoxy)methane			< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.99 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.99 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
bis(2-Chloroethyl)ether			< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.99 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.99 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
bis(2-Ethylhexyl)phthalate	10	200	17	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	22	< 2.0 U	< 10 U	--	< 10 U	< 10 U	< 10 U	--	18	< 2.0 U	110	21	< 10 U	--	< 10 U	< 10 U	< 10 U	--	--
Butyl benzyl phthalate	100	15061	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 0.99 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 0.99 U	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	< 10 U	--	--
Caprolactam			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	10	40	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 0.20 U	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	< 10 U	--	--
Diallate			< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.99 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.99 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
Dibenzo(a,h)anthracene	10	10	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.20 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
Dibenzofuran	10	10	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.99 U	--	< 10 U	--	--	< 10 U	11	--	< 0.99 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
Diethyl phthalate			< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.99 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.99 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
Dimethoate			< 10 U	--	--	--	--	--	< 2.0 U	--	< 10 U	--	--	< 10 U	--	--	< 2.0 U	--	< 10 U	< 10 U	--	--	--	--	--	--	--
Dimethyl phthalate			< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.99 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 0.99 U	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	--	--
Dimethylphenethylamine			< 2000 U	--	&																						



**Notes:**  
**Bold** = Concentration is greater than the laboratory detection limit  
 Shaded = Concentration exceeds the GA EPD Type 3/4 RRS  
**Acronyms and Abbreviations:**  
 DUP = field duplicate  
 GA EPD = Georgia Environmental Protection Division  
 MFL = million fibers per liter  
 PCB = polychlorinated biphenyl  
 RRS = Risk Reduction Standard  
 µg/L = microgram per liter  
**Data Validation Qualifiers:**  
 B = Compound was detected in the associated blank  
 H = Sample was analyzed outside of the hold time  
 J = Result is estimated  
 U = Result is less than the laboratory detection limit



			MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F4	MW-F4	MW-F4	MW-F5	MW-F5	MW-F5	MW-F5	MW-F5	MW-F5	MW-F5	MW-F5	MW-F5	MW-F5	MW-F5
Sample ID	Type 1	Type 3/4	MW-F3R_11/19/08_NM	MW-F3R (072011)	MW-F3R_11/12/2013	MW-F3R(112613)	MW-F3R (052214)	MW-F3R (110314)	MW-F3R (050515)	MW-F3R (110415)	MW-F3R (050316)	MW-F3R (122817)	MW-F4_10/30/00_NM	MW-F4_F4_1/25/01_NM	MW-F4_F4_7/26/02_NM	MW-F5_F5_10/31/00_NM	MW-F5_F5_11/1/02_NM	MW-F5_F5_1/21/04_NM	MW-F5_23_7/2/04_NM	MW-F5_F5_8/16/06_NM	MW-F5_F5_7/30/08_NM	MW-F5_F5_11/19/08_NM	MW-F5_07/20/2011	MW-F5_F5(1112013)	MW-F5_11/26/2013	MW-F5 (052214)	
Sample Date			11/19/2008	07/20/2011	11/12/2013	11/26/2013	05/22/2014	11/03/2014	05/05/2015	11/04/2015	05/03/2016	12/28/2017	10/30/2000	01/25/2001	07/26/2002	10/31/2000	11/01/2002	01/21/2004	07/02/2004	08/16/2006	07/30/2008	11/19/2008	07/20/2011	11/11/2013	11/26/2013	05/22/2014	
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Aquifer			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	
Anions (µg/L)																											
Ammonia Nitrogen			--	--	--	--	--	--	--	--	--	--	230	--	--	200	--	--	--	--	--	--	--	--	--	--	
Chloride			--	--	--	--	--	--	--	--	--	--	12000	--	--	12000	--	--	--	--	--	--	--	--	--	--	
Fluoride (F-, Anion)			--	--	--	--	--	--	--	--	--	--	< 200 U	--	--	< 200 U	--	--	--	--	--	--	--	--	--	--	
Nitrate/Nitrite			--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	< 0.05 U	--	--	--	--	--	--	--	--	--	--	
Sulfate			--	--	--	--	--	--	--	--	--	--	24000	--	--	21000	--	--	--	--	--	--	--	--	--	--	
Sulfide			--	--	--	--	--	--	--	--	--	--	< 1000 UJ	--	--	< 1000 UJ	--	--	--	--	--	--	--	--	--	--	
Asbestos (MFL)																											
Asbestos	7	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
General Chemistry (µg/L)																											
Cyanide			--	--	--	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	--	--	--	--	--	--	--	--	--	
pH			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Residue, filterable			--	--	--	--	--	--	--	--	--	--	420000	--	--	400000	--	--	--	--	--	--	--	--	--	--	
Total Organic Carbon			--	--	--	--	--	--	--	--	--	--	3800	--	--	4500	--	--	--	--	--	--	--	--	--	--	
Dioxins and Furans (µg/L)																											
2,3,7,8-Tetrachlorodibenzo-p-dioxin			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Metals (µg/L)																											
Antimony			--	--	--	--	--	--	--	--	--	--	< 20 U	--	--	< 20 U	< 20 U	--	< 6 U	--	--	--	--	--	--	--	
Arsenic			--	--	--	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	--	--	--	--	--	
Barium			--	--	--	--	--	--	--	--	--	--	15	--	--	64	75	--	78	--	--	--	--	--	--	--	
Beryllium			--	--	--	--	--	--	--	--	--	--	< 4 U	--	--	< 4 U	< 4 U	--	< 4 U	--	--	--	--	--	--	--	
Cadmium			--	--	--	--	--	--	--	--	--	--	< 5 U	--	--	< 5 U	--	--	< 5 U	--	--	--	--	--	--	--	
Chromium			--	--	--	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	--	--	--	--	--	
Cobalt			--	--	--	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	--	--	--	--	--	
Copper			--	--	--	--	--	--	--	--	--	--	< 20 U	--	--	< 20 U	< 20 U	--	< 20 U	--	--	--	--	--	--	--	
Lead			--	--	--	--	--	--	--	--	--	--	< 5 U	--	--	< 5 U	< 5 U	--	< 5 U	--	--	--	--	--	--	--	
Mercury			--	--	--	--	--	--	--	--	--	--	< 0.2 U	--	--	< 0.2 U	--	--	< 0.2 U	--	--	--	--	--	--	--	
Nickel			--	--	--	--	--	--	--	--	--	--	< 40 U	--	--	< 40 U	< 40 U	--	< 40 U	--	--	--	--	--	--	--	
Selenium			--	--	--	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	--	< 10 U	--	--	--	--	--	--	--	
Silver			--	--	--	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	--	< 10 U	--	--	--	--	--	--	--	
Thallium			--	--	--	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	--	< 2 U	--	--	--	--	--	--	--	
Tin			--	--	--	--	--	--	--	--	--	--	< 50 U	--	--	< 50 U	--	--	< 50 U	--	--	--	--	--	--	--	
Vanadium			--	--	--	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	--	--	--	--	--	
Zinc			--	--	--	--	--	--	--	--	--	--	< 20 UJ	--	--	< 20 UJ	< 20 U	--	< 20 U	--	--	--	--	--	--	--	
Herbicides (µg/L)																											
2,4,5-T (Trichlorophenoxyacetic Acid)			--	--	--	--	--	--	--	--	--	--	< 0.5 U	--	--	< 0.5 U	--	--	--	--	--	--	--	--	--	--	
2,4,5-TP (Silvex)			--	--	--	--	--	--	--	--	--	--	< 0.5 U	--	--	< 0.5 U	--	--	--	--	--	--	--	--	--	--	
2,4-D (Dichlorophenoxyacetic Acid)			--	--	--	--	--	--	--	--	--	--	< 0.5 U	--	--	< 0.5 U	--	--	--	--	--	--	--	--	--	--	
Pesticides (µg/L)																											
4,4-DDD (Rhothane)			--	--	--	--	--	--	--	--	--	--	< 0.1 U	--	--	< 0.1 U	--	--	--	--	--	--	--	--	--	--	
4,4-DDE (Dichlorodiphenyl-dichloroethylene)			--	--	--	--	--	--	--	--	--	--	< 0.1 U	--	--	< 0.1 U	--	--	--	--	--	--	--	--	--	--	
4,4-DDT (Dichlorodiphenyl-trichloroethane)			--	--	--	--	--	--	--	< 0.052 U	< 0.053 U	< 0.050 U	< 0.1 U	--	--	< 0.1 U	--	--	--	--	--	--	--	--	--	--	
Aldrin			--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	< 0.05 U	--	--	--	--	--	--	--	--	--	--	
Alpha-BHC			--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	< 0.05 U	--	--	--	--	--	--	--	--	--	--	
Beta-BHC			--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	< 0.05 U	--	--	--	--	--	--	--	--	--	--	
Chlordane			--	--	--	--	--	--	--	--	--	--	< 0.5 U	--	--	< 0.5 U	--	--	--	--	--	--	--	--	--	--	
Chlorobenzilate			--	--	--	--	--	--	--	--	--	--	< 0.5 U	--	--	< 0.5 U	--	--	--	--	--	--	--	--	--	--	
Delta-BHC			--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	< 0.05 U	--	--	--	--	--	--	--	--	--	--	
Dieldrin			--	--	--	--	--	--	--	--	--	--	< 0.1 U	--	--	< 0.1 U	--	--	--	--	--	--	--	--	--	--	
Endosulfan I			--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	< 0.05 U	--	--	--	--	--	--	--	--	--	--	
Endosulfan II			--	--	--	--	--	--	--	--	--	--	< 0.1 U	--	--	< 0.1 U	--	--	--	--	--	--	--	--	--	--	
Endosulfan sulfate			--	--	--	--	--	--	--	--	--	--	< 0.1 U	--	--	< 0.1 U	--	--	--	--	--	--	--	--	--	--	
Endrin			--	--	--	--	--	--	--	< 0.052 U	< 0.053 U	< 0.050 U	< 0.1 U	--	--	< 0.1 U	--	--	--	--	--	--	--	--	--	--	
Endrin aldehyde			--	--	--	--	--	--	--	< 0.052 U	< 0.053 U	< 0.050 U	< 0.1 U	--	--	< 0.1 U	--	--	--	--	--	--	--	--	--	--	
Heptachlor			--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	< 0.05 U	--	--	--	--	--	--	--	--	--	--	
Heptachlor epoxide			--	--	--	--	--	--	--	--	--	--	< 0.05 U	--	--	< 0.05 U	--	--	--	--	--	--	--	--	--	--	
Isodrin			--	--	--	--	--	--	--	--	--	--	< 0.05 U														



Well ID			MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F4	MW-F4	MW-F4	MW-F5	MW-F5	MW-F5	MW-F5	MW-F5	MW-F5	MW-F5	MW-F5	MW-F5	MW-F5
Sample ID	Type 1	Type 3/4	MW-F3R_11/19/08_NM	MW-F3R (072011)	MW-F3R (11/12/2013)	MW-F3R (11/26/13)	MW-F3R (05/22/14)	MW-F3R (11/03/14)	MW-F3R (05/05/15)	MW-F3R (11/04/15)	MW-F3R (05/03/16)	MW-F3R (12/28/17)	MW-F4_10/30/00_NM	MW-F4_1/25/01_NM	MW-F4_7/26/02_NM	MW-F5_10/31/00_NM	MW-F5_11/1/02_NM	MW-F5_1/21/04_NM	MW-F5_23_7/2/04_NM	MW-F5_8/16/06_NM	MW-F5_7/30/08_NM	MW-F5_11/19/08_NM	MW-F5 (072011)	MW-F5 (11/11/2013)	MW-F5 (11/26/13)	MW-F5 (05/22/14)
Sample Date	RRS	RRS	11/19/2008	07/20/2011	11/12/2013	11/26/2013	05/22/2014	11/03/2014	05/05/2015	11/04/2015	05/03/2016	12/28/2017	10/30/2000	01/25/2001	07/26/2002	10/31/2000	11/01/2002	01/21/2004	07/02/2004	08/16/2006	07/30/2008	11/19/2008	07/20/2011	11/11/2013	11/26/2013	05/22/2014
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Aquifer			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
2-Naphthylamine			--	< 4.7 U	< 4.9 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 4.8 U	< 4.9 U	--	< 4.8 U
2-Nitroaniline			--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 50 U	--	--	< 50 U	--	< 50 U	< 50 U	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
2-Nitrophenol			--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
2-Picoline			--	< 1.9 U	< 2.0 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 1.9 U	< 1.9 U	--	< 1.9 U
3,3-Dichlorobenzidine			--	< 19 U	< 20 U	--	--	--	--	--	--	--	< 20 U	--	--	< 20 U	--	< 20 U	< 20 U	--	--	--	< 19 U	< 19 U	--	< 19 U
3,3-Dimethylbenzidine			--	< 19 U	< 20 U	--	--	--	--	--	--	--	< 20 U	--	--	< 20 U	--	< 20 U	< 20 U	--	--	--	< 19 U	< 19 U	--	< 19 U
3-Methylchloranthrene			--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
3-Methylphenol, 4-Methylphenol	10	5100	--	< 1.9 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline			--	< 4.7 U	< 4.9 U	--	--	--	--	--	--	--	< 50 U	--	--	< 50 U	--	< 50 U	< 50 U	--	--	--	< 4.8 U	< 4.9 U	--	< 4.8 U
4-Aminobiphenyl			--	< 4.7 U	< 4.9 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 4.8 U	< 4.9 U	--	< 4.8 U
4-Bromophenyl phenyl ether			--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
4-Chloro-3-Methylphenol			--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
4-Chlorophenyl phenyl ether			--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
4-Dimethylaminoazobenzene			--	< 4.7 U	< 4.9 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 4.8 U	< 4.9 U	--	< 4.8 U
4-Methylphenol	10	10000	--	--	< 2.0 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	--	< 1.9 U	--	< 1.9 U
4-Nitroaniline			--	< 4.7 U	< 4.9 U	--	--	--	--	--	--	--	< 50 U	--	--	< 50 U	--	< 50 U	< 50 U	--	--	--	< 4.8 U	< 4.9 U	--	< 4.8 U
4-Nitrophenol			--	< 4.7 U	< 4.9 U	--	--	--	--	--	--	--	< 50 U	--	--	< 50 U	--	< 50 U	< 50 U	--	--	--	< 4.8 U	< 4.9 U	--	< 4.8 U
4-Nitroquinoline-N-Oxide			--	< 1.9 U	< 2.0 U	--	--	--	--	--	--	--	< 20 U	--	--	< 20 U	--	< 20 U	< 20 U	--	--	--	< 1.9 U	< 1.9 U	--	< 1.9 U
5-Nitro-o-Toluidine			--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
7,12-Dimethylbenz(a)anthracene			--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
Acenaphthene	2000	6100	--	0.43	0.54	--	--	--	--	--	--	--	< 10 U	--	--	15	< 10 U	< 10 U	14	--	13	20 D	4.9	7.5	--	10
Acenaphthylene	10	10	--	< 0.19 U	< 0.20 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.19 U	< 0.19 U	--	< 0.19 U
Acetophenone	4000	10000	--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
Aniline	20	500	--	< 1.9 U	< 2.0 U	--	--	--	--	--	--	--	< 20 U	--	--	< 20 U	--	< 20 U	< 20 U	--	--	--	< 1.9 U	< 1.9 U	--	< 1.9 U
Anthracene	10	31000	--	< 0.19 U	< 0.20 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.19 U	< 0.19 U	--	< 0.19 U
Aramite			--	< 1.4 U	< 1.5 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 1.5 U	< 1.5 U	--	< 1.4 U
Atrazine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzaldehyde			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	10	10	--	< 0.19 U	< 0.20 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.19 U	< 0.19 U	--	< 0.19 U
Benzo(a)pyrene	10	10	--	< 0.19 U	< 0.20 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.19 U	< 0.19 U	--	< 0.19 U
Benzo(b)fluoranthene	10	10	--	< 0.19 U	< 0.20 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	--	< 10 U	--	--	--	< 0.19 U	< 0.19 U	--	< 0.19 U
Benzo(g,h,i)perylene	10	10	--	< 0.19 U	< 0.20 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.19 U	< 0.19 U	--	< 0.19 U
Benzo(k)fluoranthene	10	39	--	< 0.19 U	< 0.20 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.19 U	< 0.19 U	--	< 0.19 U
Benzyl Alcohol			--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
beta-Pinene			--	--	--	--	--	--	--	--	--	--	< 100 U	--	--	< 100 U	--	< 10 U	--	--	--	--	--	--	--	--
bis(2-Chloroethoxy)methane			--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
bis(2-Chloroethyl)ether			--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
bis(2-Ethylhexyl)phthalate	10	200	--	2.5	< 2.0 U	< 2.0 U	--	--	--	--	--	--	< 51 UJ	< 10 U	--	< 10 UJ	< 10 U	< 10 U	< 10 U	--	--	--	22	< 1.9 U	< 2.0 U	< 1.9 U
Butyl benzyl phthalate	100	15061	--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 10 U	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
Caprolactam			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	10	40	--	< 0.19 U	< 0.20 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 10 U	--	--	--	< 0.19 U	< 0.19 U	--	< 0.19 U
Diallyate			--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
Dibenzo(a,h)anthracene	10	10	--	< 0.19 U	< 0.20 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.19 U	< 0.19 U	--	< 0.19 U
Dibenzofuran	10	10	--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
Diethyl phthalate			--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
Dimethoate			--	< 1.9 U	< 2.0 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	--	--	--	--	--	< 1.9 U	< 1.9 U	--	< 1.9 U
Dimethyl phthalate			--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
Dimethylphenethylamine			--	< 9.5 U	< 9.9 U	--	--	--	--	--	--	--	< 2000 U	--	--	< 2000 U	--	< 2000 U	< 2000 U	--	--	--	< 9.7 U	< 9.7 U	--	< 9.6 U
Di-n-butyl phthalate			--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
Di-n-octyl phthalate	700	700	--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
Dinoseb			--	< 1.9 U	< 2.0 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	< 1.9 U	< 1.9 U	--	< 1.9 U
Diphenyl ether			--	--	--	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	--	--	--	--	--
Disulfoton			--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	--	--	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
Ethyl Methanesulfonate			--	< 1.9 U	< 2																					



Sample ID	Type 1 RRS	Type 3/4 RRS	MW- F3R F3R_11/19/08_NM N Shallow	MW-F3R (072011) N Shallow	MW- F3R F3R(11/22013) N Shallow	MW-F3R (112613) N Shallow	MW-F3R (052214) N Shallow	MW-F3R (110314) N Shallow	MW-F3R (050515) N Shallow	MW-F3R (110415) N Shallow	MW-F3R (050316) N Shallow	MW-F3R (122817) N Shallow	MW-F4 MW- F4_10/30/00_NM N Shallow	MW-F4 MW- F4_1/25/01_NM N Shallow	MW-F4 MW- F4_7/26/02_NM N Shallow	MW-F5 MW- F5_10/31/00_NM N Shallow	MW-F5 MW- F5_11/1/02_NM N Shallow	MW-F5 MW- F5_1/21/04_NM N Shallow	MW-F5 MW- 23_7/2/04_NM N Shallow	MW-F5 MW- F5_8/16/06_NM N Shallow	MW-F5 MW- F5_7/30/08_NM N Shallow	MW-F5 MW- F5_11/19/08_NM N Shallow	MW-F5 (072011) N Shallow	MW-F5 F5(11/2013) N Shallow	MW-F5 (112613) N Shallow	MW-F5 (052214) N Shallow	
Pinene			--	--	--	--	--	--	--	--	--	--	< 100 U	--	--	< 100 U	--	< 10 U	--	--	--	--	--	--	--	--	--
p-Phenylenediamine			--	< 190 U	< 200 U	--	--	--	--	--	--	--	< 2000 U	--	--	< 2000 U	--	< 2000 U	< 2000 U	--	--	--	--	< 190 U	< 190 U	--	< 190 U
Propyzamide	1000	3100	--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
Pyrene			--	< 0.19 U	< 0.20 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 10 U	--	--	--	--	< 0.19 U	< 0.19 U	--	< 0.19 U
Pyridine			--	< 4.7 U	< 4.9 U	--	--	--	--	--	--	--	< 50 U	--	--	< 50 U	--	< 50 U	< 50 U	--	--	--	--	< 4.8 U	< 4.9 U	--	< 4.8 U
Safrole			--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
Sulfotep			--	< 0.95 U	< 0.99 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	--	--	--	--	--	--	< 0.97 U	< 0.97 U	--	< 0.96 U
Volatile Organic Compounds (µg/L)																											
1,1,1,2-Tetrachloroethane			--	< 1.0 U	< 1.0 U	--	--	--	--	--	--	--	< 1 U	--	--	< 1 U	--	< 1 U	< 1 U	--	--	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U
1,1,1-Trichloroethane			--	< 1.0 U	< 1.0 U	--	--	--	--	--	--	--	< 1 U	--	--	< 1 U	--	< 1 U	< 1 U	--	--	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U
1,1,2,2-Tetrachloroethane			--	< 1.0 U	< 1.0 U	--	--	--	--	--	--	--	< 1 U	--	--	< 1 U	--	< 1 U	< 1 U	--	--	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U
1,1,2-Trichloroethane			--	< 1.0 U	< 1.0 U	--	--	--	--	--	--	--	< 1 U	--	--	< 1 U	--	< 1 U	< 1 U	--	--	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U
1,1-Dichloroethane			--	< 1.0 U	< 1.0 U	--	--	--	--	--	--	--	< 1 U	--	--	< 1 U	--	< 1 U	< 1 U	--	--	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U
1,1-Dichloroethene			--	< 1.0 U	< 1.0 U	--	--	--	--	--	--	--	< 1 U	--	--	< 1 U	--	< 1 U	< 1 U	--	--	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U
1,2,3-Trichloropropane			--	< 1.0 U	--	--	--	--	--	--	--	--	< 1 U	--	--	< 1 U	--	< 1 U	< 1 U	--	--	--	--	< 1.0 U	--	--	--
1,2,4-Trichlorobenzene			--	< 1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.0 U	--	--	--
1,2-Dibromo-3-chloropropane			--	< 1.0 U	--	--	--	--	--	--	--	--	< 1 U	--	--	< 1 U	--	< 1 U	< 1 U	--	--	--	--	< 1.0 U	--	--	--
1,2-Dibromothane			--	< 1.0 U	--	--	--	--	--	--	--	--	< 1 U	--	--	< 1 U	--	< 1 U	< 1 U	--	--	--	--	< 1.0 U	--	--	--
1,2-Dichlorobenzene			--	< 1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.0 U	--	--	--
1,2-Dichloroethane			--	< 1.0 U	< 1.0 U	--	--	--	--	--	--	--	< 1 U	--	--	< 1 U	--	< 1 U	< 1 U	--	--	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U
1,2-Dichloropropane	5	7.4	--	< 1.0 U	< 1.0 U	--	--	--	--	--	--	--	< 1 U	--	--	< 1 U	--	< 1 U	< 1 U	--	--	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U
1,3-Dichlorobenzene			--	< 1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.0 U	--	--	--
1,4-Dichlorobenzene			--	< 1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.0 U	--	--	--
1,4-Dioxane	70	70	--	< 50 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 50 U	--	--	--
2-Butanone (MEK)	2000	12000	--	< 10 U	< 10 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	--	< 10 U	< 10 U	--	< 10 U
2-Chlor-1,3-Butadiene			--	< 1.0 U	< 1.0 U	--	--	--	--	--	--	--	< 1 U	--	--	< 1 U	--	< 1 U	< 1 U	--	--	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U
2-Chloroethyl vinyl ether			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 10 U	--	--	--	--	--	--	--	--	--
2-Methyl-1-propanol	10000	31000	--	< 40 U	< 40 U	--	--	--	--	--	--	--	< 40 U	--	--	< 40 U	< 200 U	< 40 U	< 40 U	--	--	--	--	< 40 U	< 40 U	--	< 40 U
4-Methyl-2-Pentanone	2000	4200	--	< 10 U	< 10 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	--	< 10 U	< 10 U	--	< 10 U
Acetone	4000	46000	--	< 25 U	< 25 U	--	--	--	--	--	--	--	< 25 U	--	--	< 25 U	< 50 U	< 25 U	< 25 U	--	--	--	--	< 25 U	< 25 U	--	< 25 U
Acetonitrile	200	200	--	< 40 U	< 40 U	--	--	--	--	--	--	--	< 40 U	--	--	< 40 U	--	< 40 U	< 40 U	--	--	--	--	< 40 U	< 40 U	--	< 40 U
Acrolein	700	700	--	< 20 U	< 20 U	--	--	--	--	--	--	--	< 20 U	--	--	< 20 U	< 100 U	< 20 U	< 20 U	--	--	--	--	< 20 U	< 20 U	--	< 20 U
Acrylonitrile			--	< 20 U	< 20 U	--	--	--	--	--	--	--	< 20 U	--	--	< 20 U	--	< 20 U	< 20 U	--	--	--	--	< 20 U	< 20 U	--	< 20 U
Allyl chloride			--	< 1.0 U	< 1.0 U	--	--	--	--	--	--	--	< 1 U	--	--	< 1 U	--	< 1 U	< 1 U	--	--	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U
Benzene	5	8.7	--	< 1.0 U	< 1.0 U	--	--	--	--	--	--	--	< 1 U	--	--	< 1 U	< 5 U	< 1 U	< 1 U	< 1 U	< 1 U	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U
Bromodichloromethane			--	< 1.0 U	< 1.0 U	--	--	--	--	--	--	--	< 1 U	--	--	< 1 U	--	< 1 U	< 1 U	--	--	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U
Bromoform			--	< 1.0 U	< 1.0 U	--	--	--	--	--	--	--	< 1 U	--	--	< 1 U	--	< 1 U	< 1 U	--	--	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U
Bromomethane			--	< 1.0 U	< 5.0 U	--	--	--	--	--	--	--	< 1 U	--	--	< 1 U	--	< 1 U	< 1 U	--	--	--	--	< 1.0 U	< 5.0 U	--	< 5.0 U
Carbon Dioxide			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	4000	4000	--	< 2.0 U	< 2.0 U	--	--	--	--	--	--	--	< 1 U	--	--	< 1 U	--	< 1 U	< 1 U	--	--	--	--	< 2.0 U	< 2.0 U	--	< 2.0 U
Carbon Tetrachloride			--	< 1.0 U	< 1.0 U	--	--	--	--	--	--	--	< 1 U	--	--	< 1 U	--	< 1 U	< 1 U	--	--	--	--	< 1.0 U	< 1.0 U	--	< 1.0 U
CFC-11 (																											



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Well ID			MW-F5	MW-F5	MW-F5	MW-F5	MW-F5	MW-F5	MW-F5	MW-F6	MW-F6	MW-F6	MW-F6	MW-F6	MW-F6	MW-F6	MW-F6	MW-F7	MW-F7	MW-F7	MW-F7	MW-F7	MW-F7	MW-F7	MW-F7	MW-F7	MW-F7	MW-F7
Sample ID	Type 1 RRS	Type 3/4 RRS	MW-F5 (110314) N Shallow	MW-F5 (050515) N Shallow	MW-F5 (110415) N Shallow	MW-F5 (050316) N Shallow	MW-F5 (050316) FD Shallow	MW-F5 (122717) N Shallow	MW-F6 F6_10/28/00_NM N Shallow	MW-F6 F6_1/25/01_NM N Shallow	MW-F6 F6_11/1/02_NM N Shallow	MW-F6 F6_1/21/04_NM N Shallow	MW-F6 24_7/2/04_NM N Shallow	MW-F6 (072011) N Shallow	MW-F6 (112713) N Shallow	MW-F7 F7_10/30/00_NM N Shallow	MW-F7 F7_1/25/01_NM N Shallow	MW-F7 F7_11/1/02_NM N Shallow	MW-F7 F7_12/19/02_NM N Shallow	MW-F7 F7_1/20/04_NM N Shallow	MW-F7 21_7/1/04_NM N Shallow	MW-F7 F7_8/16/06_NM N Shallow	MW-F7 F7_7/30/08_NM N Shallow	MW-F7 F7_11/19/08_NM N Shallow	MW-F7 (072211) N Shallow	MW-F7 (11122013) N Shallow	MW-F7 (052214) N Shallow	
Sample Date			11/03/2014	05/05/2015	11/04/2015	05/03/2016	05/03/2016	12/27/2017	10/28/2000	01/25/2001	11/01/2002	01/21/2004	07/02/2004	07/20/2011	11/27/2013	10/30/2000	01/25/2001	11/01/2002	12/19/2002	01/20/2004	07/01/2004	08/16/2006	07/30/2008	11/19/2008	07/22/2011	11/12/2013	05/22/2014	
Aquifer			N Shallow	N Shallow	N Shallow	N Shallow	FD Shallow	N Shallow	N Shallow	N Shallow	N Shallow	N Shallow	N Shallow	N Shallow	N Shallow	N Shallow	N Shallow	N Shallow	N Shallow	N Shallow	N Shallow	N Shallow	N Shallow	N Shallow	N Shallow	N Shallow	N Shallow	
2-Naphthylamine			< 5.0 U	< 5.0 U	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	< 5.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 4.8 U	< 5.0 U	< 5.0 U	
2-Nitroaniline			< 0.99 U	< 0.99 U	--	--	--	--	< 50 U	--	--	< 50 U	< 50 U	< 1.0 U	--	< 50 U	--	--	< 50 U	< 50 U	--	--	--	--	< 0.95 U	< 1.0 U	< 1.0 U	
2-Nitrophenol			< 0.99 U	< 0.99 U	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 0.95 U	< 1.0 U	< 1.0 U	
2-Picoline			< 2.0 U	< 2.0 U	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	< 2.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 1.9 U	< 2.0 U	< 2.0 U	
3,3-Dichlorobenzidine			< 20 U	< 20 U	--	--	--	--	< 20 U	--	--	< 20 U	< 20 U	< 20 U	--	< 20 U	--	--	< 20 U	< 20 U	--	--	--	--	< 19 U	< 20 U	< 20 U	
3,3-Dimethylbenzidine			< 20 U	< 20 U	--	--	--	--	< 20 U	--	--	< 20 U	< 20 U	< 20 U	--	< 20 U	--	--	< 20 U	< 20 U	--	--	--	--	< 19 U	< 20 U	< 20 U	
3-Methylchloranthrene			< 0.99 U	< 0.99 U	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 0.95 U	< 1.0 U	< 1.0 U	
3-Methylphenol, 4-Methylphenol	10	5100	--	--	--	--	--	--	--	--	--	--	--	< 2.0 U	--	--	--	--	--	--	--	--	--	--	--	< 1.9 U	--	--
3-Nitroaniline			< 5.0 U	< 5.0 U	--	--	--	--	< 50 U	--	--	< 50 U	< 50 U	< 5.0 U	--	< 50 U	--	--	< 50 U	< 50 U	--	--	--	--	< 4.8 U	< 5.0 U	< 5.0 U	
4-Aminobiphenyl			< 5.0 U	< 5.0 U	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	< 5.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 4.8 U	< 5.0 U	< 5.0 U	
4-Bromophenyl phenyl ether			< 0.99 U	< 0.99 U	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 0.95 U	< 1.0 U	< 1.0 U	
4-Chloro-3-Methylphenol			< 0.99 U	< 0.99 U	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 0.95 U	< 1.0 U	< 1.0 U	
4-Chlorophenyl phenyl ether			< 0.99 U	< 0.99 U	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 0.95 U	< 1.0 U	< 1.0 U	
4-Dimethylaminoazobenzene			< 5.0 U	< 5.0 U	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	< 5.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 4.8 U	< 5.0 U	< 5.0 U	
4-Methylphenol	10	10000	< 2.0 U	< 2.0 U	< 2.0 U	< 2.4 U	--	< 2.1 U	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	--	< 2.0 U	< 2.0 U	
4-Nitroaniline			< 5.0 U	< 5.0 U	--	--	--	--	< 50 U	--	--	< 50 U	< 50 U	< 5.0 U	--	< 50 U	--	--	< 50 U	< 50 U	--	--	--	--	< 4.8 U	< 5.0 U	< 5.0 U	
4-Nitrophenol			< 8.0 U	< 7.9 U	--	--	--	--	< 50 U	--	--	< 50 U	< 50 U	< 5.0 U	--	< 50 U	--	--	< 50 U	< 50 U	--	--	--	--	< 4.8 U	< 5.0 U	< 5.0 U	
4-Nitroquinoline-N-Oxide			< 2.0 U	< 2.0 U	--	--	--	--	< 20 U	--	--	< 20 U	< 20 U	< 2.0 U	--	< 20 U	--	--	< 20 U	< 20 U	--	--	--	--	< 1.9 U	< 2.0 U	< 2.0 U	
5-Nitro-o-Toluidine			< 0.99 U	< 0.99 U	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 0.95 U	< 1.0 U	< 1.0 U	
7,12-Dimethylbenz(a)anthracene			< 2.0 U	< 2.0 U	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 0.95 U	< 1.0 U	< 1.0 U	
Acenaphthene	2000	6100	12	4.9	16	9.6	--	11	< 10 U	--	< 10 U	< 10 U	< 0.20 U	--	--	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	--	--	--	< 0.19 U	< 0.20 U	< 0.20 U	
Acenaphthylene	10	10	< 0.20 U	< 0.20 U	< 0.20 U	< 0.24 U	--	< 0.21 U	< 10 U	--	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 0.19 U	< 0.20 U	< 0.20 U	
Acetophenone	4000	10000	< 0.99 U	< 0.99 U	< 0.99 U	< 1.2 U	--	< 1.1 U	< 10 U	--	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 0.95 U	< 1.0 U	< 1.0 U	
Aniline	20	500	< 2.0 U	< 2.0 U	< 0.20 U	< 2.4 U	--	< 2.1 U	< 20 U	--	--	< 20 U	< 20 U	< 2.0 U	--	< 20 U	--	--	< 20 U	< 20 U	--	--	--	--	< 1.9 U	< 2.0 U	< 2.0 U	
Anthracene	10	31000	< 0.20 U	< 0.20 U	< 0.20 U	< 0.24 U	--	< 0.21 U	< 10 U	--	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 0.19 U	< 0.20 U	< 0.20 U	
Aramite			< 2.0 U	< 2.0 U	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	< 1.5 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 1.4 U	< 1.5 U	< 1.5 U	
Atrazine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzaldehyde			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	10	10	< 0.20 U	< 0.20 U	< 0.20 U	< 0.24 U	--	< 0.21 U	< 10 U	--	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 0.19 U	< 0.20 U	< 0.20 U	
Benzo(a)pyrene	10	10	< 0.20 U	< 0.20 U	< 0.20 U	< 0.24 U	--	< 0.21 U	< 10 U	--	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 0.19 U	< 0.20 U	< 0.20 U	
Benzo(b)fluoranthene	10	10	< 0.20 U	< 0.20 U	< 0.20 U	< 0.24 U	--	< 0.21 U	< 10 U	--	--	--	< 10 U	< 0.20 U	--	< 10 U	--	--	--	--	--	--	--	--	< 0.19 U	< 0.20 U	< 0.20 U	
Benzo(g,h,i)perylene	10	10	< 0.20 U	< 0.20 U	< 0.20 U	< 0.24 U	--	< 0.21 U	< 10 U	--	--	< 10 U	< 0.20 U	--	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 0.19 U	< 0.20 U	< 0.20 U	
Benzo(k)fluoranthene	10	39	< 0.20 U	< 0.20 U	< 0.20 U	< 0.24 U	--	< 0.21 U	< 10 U	--	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 0.19 U	< 0.20 U	< 0.20 U	
Benzyl Alcohol			< 0.99 U	< 0.99 U	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 0.95 U	< 1.0 U	< 1.0 U	
beta-Pinene			--	--	--	--	--	--	< 100 U	--	--	< 10 U	--	--	--	< 100 U	--	--	< 10 U	--	--	--	--	--	--	--	--	--
bis(2-Chloroethoxy)methane			< 0.99 U	< 0.99 U	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 0.95 U	< 1.0 U	< 1.0 U	
bis(2-Chloroethyl)ether			< 0.99 U	< 0.99 U	< 0.99 U	< 1.2 U	--	< 1.1 U	< 10 U	--	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 0.95 U	< 1.0 U	< 1.0 U	
bis(2-Ethylhexyl)phthalate	10	200	< 5.0 U	< 5.0 U	< 5.0 U	< 6.1 U	--	< 5.3 U	< 13 U	< 10 U	< 10 U	< 10 U	< 10 U	24	< 2.5 U	230	--	< 10 U	< 10 U	< 10 U	< 10 U	--	--	--	< 1.9 U	< 2.0 U	< 2.0 U	
Butyl benzyl phthalate	100	15061	< 0.99 U	< 0.99 U	< 0.99 U	< 1.2 U	--	< 1.1 U	10	< 10 U	< 10 U	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	--	--	--	< 0.95 U	< 1.0 U	< 1.0 U	
Caprolactam			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	10	40	< 0.20 U	< 0.20 U	< 0.20 U	< 0.24 U	--	< 0.21 U	11	< 10 U	< 10 U	< 10 U	< 0.20 U	--	--	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	--	--	--	< 0.19 U	< 0.20 U	< 0.20 U	
Diallate			< 0.99 U	< 0.99 U	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 0.95 U	< 1.0 U	< 1.0 U	
Dibenzo(a,h)anthracene	10	10	< 0.20 U	< 0.20 U	< 0.20 U	0.16 U	--	< 0.21 U	< 10 U	--	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 0.19 U	< 0.20 U	< 0.20 U	
Dibenzofuran	10	10	< 0.99 U	< 0.99 U	< 0.99 U	< 1.2 U	--	< 1.1 U	< 10 U	--	--	< 10 U	< 1.0 U	--	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 0.95 U	< 1.0 U	< 1.0 U	
Diethyl phthalate			< 0.99 U	< 0.99 U	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	--	--	--	< 0.95 U	< 1.0 U	< 1.0 U	
Dimethoate																												



			MW-F5	MW-F5	MW-F5	MW-F5	MW-F5	MW-F5	MW-F6	MW-F6	MW-F6	MW-F6	MW-F6	MW-F6	MW-F6	MW-F6	MW-F6	MW-F7	MW-F7	MW-F7	MW-F7	MW-F7	MW-F7	MW-F7	MW-F7	MW-F7	MW-F7	MW-F7	MW-F7	MW-F7
Sample ID	Type 1	Type 3/4	MW-F5 (110314)	MW-F5 (050515)	MW-F5 (110415)	MW-F5 (050316)	DUP-01 (050316)	MW-F5 (122717)	MW-F6_10/28/00_NM	MW-F6_11/1/02_NM	MW-F6_11/01/2002	MW-F6_10/21/2004	MW-F6_07/02/2004	MW-F6_07/20/2011	MW-F6_11/27/2013	MW-F6_10/30/2000	MW-F7_01/25/2001	MW-F7_11/01/2002	MW-F7_12/19/2002	MW-F7_01/20/2004	MW-F7_07/01/2004	MW-F7_08/16/2006	MW-F7_07/30/2008	MW-F7_11/19/2008	MW-F7_07/22/2011	MW-F7_11/12/2013	MW-F7_05/22/2014			
Sample Date	RRS	RRS	11/03/2014	05/05/2015	11/04/2015	05/03/2016	05/03/2016	12/27/2017	10/28/2000	01/25/2001	11/01/2002	01/21/2004	07/02/2004	07/20/2011	11/27/2013	10/30/2000	01/25/2001	11/01/2002	12/19/2002	01/20/2004	07/01/2004	08/16/2006	07/30/2008	11/19/2008	07/22/2011	11/12/2013	05/22/2014			
Sample Type			N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
Aquifer			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow			
Pinene			--	--	--	--	--	--	< 100 U	--	--	< 10 U	--	--	--	< 100 U	--	--	--	< 10 U	--	--	--	--	--	--	--	--		
p-Phenylenediamine			< 200 U	< 200 U	--	--	--	--	< 2000 U	--	--	< 2000 U	< 2000 U	< 200 U	--	< 2000 U	--	--	--	< 2000 U	< 2000 U	--	--	--	--	< 190 U	< 200 U	< 200 U		
Propyzamide			< 0.99 U	< 0.99 U	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	--	< 10 U	< 10 U	--	--	--	--	< 0.95 U	< 10 U	< 10 U		
Pyrene	1000	3100	< 0.20 U	< 0.20 U	< 0.20 U	< 0.24 U	--	< 0.21 U	16	--	< 10 U	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	--	--	--	--	< 0.19 U	< 0.20 U	< 0.20 U		
Pyridine			< 5.0 U	< 5.0 U	--	--	--	--	< 50 U	--	--	< 50 U	< 50 U	< 5.0 U	--	< 50 U	--	--	--	< 50 U	< 50 U	--	--	--	--	< 4.8 U	< 5.0 U	< 5.0 U		
Safrole			< 0.99 U	< 0.99 U	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	--	< 10 U	< 10 U	--	--	--	--	< 0.95 U	< 10 U	< 10 U		
Sulfotep			< 0.99 U	< 0.99 U	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	--	< 10 U	--	--	--	--	--	--	--	--	--	--	< 0.95 U	< 10 U	< 10 U	
Volatile Organic Compounds (µg/L)																														
1,1,1,2-Tetrachloroethane			< 10 U	< 10 U	--	--	--	--	< 1 U	--	--	< 1 U	< 1 U	< 10 U	--	< 1 U	--	--	--	< 1 U	< 1 U	--	--	--	--	< 10 U	< 10 U	< 10 U		
1,1,1-Trichloroethane			< 10 U	< 10 U	--	--	--	--	< 1 U	--	--	< 1 U	< 1 U	< 10 U	--	< 1 U	--	--	--	< 1 U	< 1 U	--	--	--	--	< 10 U	< 10 U	< 10 U		
1,1,2,2-Tetrachloroethane			< 10 U	< 10 U	--	--	--	--	< 1 U	--	--	< 1 U	< 1 U	< 10 U	--	< 1 U	--	--	--	< 1 U	< 1 U	--	--	--	--	< 10 U	< 10 U	< 10 U		
1,1,2-Trichloroethane			< 10 U	< 10 U	--	--	--	--	< 1 U	--	--	< 1 U	< 1 U	< 10 U	--	< 1 U	--	--	--	< 1 U	< 1 U	--	--	--	--	< 10 U	< 10 U	< 10 U		
1,1-Dichloroethane			< 10 U	< 10 U	--	--	--	--	< 1 U	--	--	< 1 U	< 1 U	< 10 U	--	< 1 U	--	--	--	< 1 U	< 1 U	--	--	--	--	< 10 U	< 10 U	< 10 U		
1,1-Dichloroethene			< 10 U	< 10 U	--	--	--	--	< 1 U	--	--	< 1 U	< 1 U	< 10 U	--	< 1 U	--	--	--	< 1 U	< 1 U	--	--	--	--	< 10 U	< 10 U	< 10 U		
1,2,3-Trichloropropane			< 10 U	< 10 U	--	--	--	--	< 1 U	--	--	< 1 U	< 1 U	< 10 U	--	< 1 U	--	--	--	< 1 U	< 1 U	--	--	--	--	< 10 U	--	--		
1,2,4-Trichlorobenzene			< 50 U	< 50 U	--	--	--	--	--	--	--	--	--	< 10 U	--	--	--	--	--	--	--	--	--	--	--	--	< 10 U	--	--	
1,2-Dibromo-3-chloropropane			< 50 U	< 50 U	--	--	--	--	< 1 U	--	--	< 1 U	< 1 U	< 10 U	--	< 1 U	--	--	--	< 1 U	< 1 U	--	--	--	--	< 10 U	--	--		
1,2-Dibromoethane			< 10 U	< 10 U	--	--	--	--	< 1 U	--	--	< 1 U	< 1 U	< 10 U	--	< 1 U	--	--	--	< 1 U	< 1 U	--	--	--	--	< 10 U	--	--		
1,2-Dichlorobenzene			< 10 U	< 10 U	--	--	--	--	--	--	--	--	--	< 10 U	--	--	--	--	--	--	--	--	--	--	--	--	< 10 U	--	--	
1,2-Dichloroethane			< 10 U	< 10 U	--	--	--	--	< 1 U	--	--	< 1 U	< 1 U	< 10 U	--	< 1 U	--	--	--	< 1 U	< 1 U	--	--	--	--	< 10 U	< 10 U	< 10 U		
1,2-Dichloropropane	5	7.4	< 10 U	< 10 U	< 10 U	< 50 U	< 10 U	< 10 U	< 1 U	--	--	< 1 U	< 1 U	< 10 U	--	< 1 U	--	--	--	< 1 U	< 1 U	--	--	--	--	< 10 U	< 10 U	< 10 U		
1,3-Dichlorobenzene			< 10 U	< 10 U	--	--	--	--	--	--	--	--	--	< 10 U	--	--	--	--	--	--	--	--	--	--	--	--	< 10 U	< 10 U	< 10 U	
1,4-Dichlorobenzene			< 10 U	< 10 U	--	--	--	--	--	--	--	--	--	< 10 U	--	--	--	--	--	--	--	--	--	--	--	--	< 10 U	--	--	
1,4-Dioxane	70	70	< 100 U	< 100 U	--	--	--	--	--	--	--	--	--	< 50 U	--	--	--	--	--	--	--	--	--	--	--	--	< 50 U	--	--	
2-Butanone (MEK)	2000	12000	< 10 U	< 10 U	< 10 U	< 250 U	< 50 U	< 10 U	< 10 U	--	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	--	< 10 U	< 10 U	--	--	--	--	< 10 U	< 10 U	< 10 U		
2-Chlor-1,3-Butadiene			< 10 U	< 10 U	--	--	--	--	< 1 U	--	--	< 1 U	< 1 U	< 10 U	--	< 1 U	--	--	--	< 1 U	< 1 U	--	--	--	--	< 10 U	< 10 U	< 10 U		
2-Chloroethyl vinyl ether			--	--	--	--	--	--	--	--	--	< 10 U	--	--	--	< 1 U	--	--	--	< 10 U	--	--	--	--	--	--	--	--	--	
2-Methyl-1-propanol	10000	31000	< 50 U	< 50 U	< 50 U	< 250 U	< 50 U	< 50 U	< 40 U	--	< 200 U	< 40 U	< 40 U	< 40 U	--	< 40 U	--	< 200 U	< 200 U	< 40 U	< 40 U	--	--	--	--	< 40 U	< 40 U	< 40 U		
4-Methyl-2-Pentanone	2000	4200	< 10 U	< 10 U	< 10 U	< 50 U	< 10 U	< 10 U	< 10 U	--	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	--	< 10 U	< 10 U	--	--	--	--	< 10 U	< 10 U	< 10 U		
Acetone	4000	46000	< 10 U	< 10 U	< 10 U	25 J	< 25 U	< 10 U	< 25 U	--	< 50 U	< 25 U	< 25 U	< 25 U	--	< 25 U	--	< 50 U	< 50 U	< 25 U	< 25 U	--	--	--	--	< 25 U	< 25 U	< 25 U		
Acetonitrile	200	200	< 40 U	< 40 U	< 40 U	< 100 U	< 20 U	< 40 U	< 40 U	--	--	< 40 U	< 40 U	< 40 U	--	< 40 U	--	--	--	< 40 U	< 40 U	--	--	--	--	< 40 U	< 40 U	< 40 U		
Acrolein	700	700	< 20 U	< 20 U	< 20 U	< 250 U	< 50 U	< 20 U	< 20 U	--	< 100 U	< 20 U	< 20 U	< 20 U	--	< 20 U	--	< 100 U	< 100 U	< 20 U	< 20 U	--	--	--	--	< 20 U	< 20 U	< 20 U		
Acrylonitrile			< 20 U	< 20 U	--	--	--	--	< 20 U	--	--	< 20 U	< 20 U	< 20 U	--	< 20 U	--	--	--	< 20 U	< 20 U	--	--	--						



Well ID			MW-F7	MW-F7	MW-F7	MW-F7	MW-F7	MW-F8	MW-F8	MW-F8	MW-F8	MW-F8	MW-F8	MW-F8	MW-F8	MW-F8	MW-F8	MW-F9	MW-F9	MW-F9	MW-F9	MW-F9	MW-F9	MW-F9	MW-F10	MW-F10	MW-F10	MW-F10	MW-F11
Sample ID	Type 1 RRS	Type 3/4 RRS	MW-F7 (110314)	MW-F7 (05042015)	MW-F7 (110415)	MW-F7 (050316)	MW-F7 (122717)	MW-F8 F8_10/27/00_NM	MW-F8 F8_1/25/01_NM	MW-F8 F8_11/1/02_NM	MW-F8 F8_12/19/02_NM	MW-F8 F8_1/22/04_NM	MW-F8 (072111)	MW-F8 (112613)	MW-F8 (110414)	MW-F9 F9_10/27/00_NM	MW-F9 F9_11/1/02_NM	MW-F9 F9_1/22/04_NM	MW-F9 20_7/1/04_NM	MW-F9 (072111)	MW-F9 (112613)	MW-F9 (112613)	MW-F9 (112613)	MW-F10 F10_10/30/00_NM	MW-F10 F10_11/1/02_NM	MW-F10 F10_1/22/04_NM	MW-F10 19_7/1/04_NM	MW-F11 F11_10/28/00_NM	
Sample Date			11/03/2014	05/04/2015	11/04/2015	05/03/2016	12/27/2017	10/27/2000	01/25/2001	11/01/2002	12/19/2002	01/22/2004	07/21/2011	11/26/2013	11/04/2014	10/27/2000	11/01/2002	01/22/2004	07/01/2004	07/21/2011	11/26/2013	11/26/2013	11/26/2013	10/30/2000	11/01/2002	01/22/2004	07/01/2004	10/28/2000	
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Aquifer			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	
Anions (µg/L)																													
Ammonia Nitrogen			--	--	--	--	--	690	--	--	--	--	--	--	--	< 0.03 U	--	--	--	--	--	--	--	110	--	--	--	--	40
Chloride			--	--	--	--	--	48000	--	--	--	--	--	--	--	20000	--	--	--	--	--	--	--	12000	--	--	--	--	39000
Fluoride (F-, Anion)			--	--	--	--	--	260	--	--	--	--	--	--	--	< 200 U	--	--	--	--	--	--	--	380	--	--	--	--	260
Nitrate/Nitrite			--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	--	< 0.05 U	--	--	--	--	< 0.05 U
Sulfate			--	--	--	--	--	19000	--	--	--	--	--	--	--	31000	--	--	--	--	--	--	--	130000	--	--	--	--	23000
Sulfide			--	--	--	--	--	< 1000 UJ	--	--	--	--	--	--	--	< 1000 UJ	--	--	--	--	--	--	--	< 1000 UJ	--	--	--	--	< 1000 UJ
Asbestos (MFL)																													
Asbestos	7	7	--	--	--	--	--	--	--	--	--	--	< 0.2 U	--	< 1.6 U	--	--	--	--	< 0.2 U	--	--	--	--	--	--	--	--	--
General Chemistry (µg/L)																													
Cyanide			--	--	--	--	--	< 10 U	--	--	--	--	--	--	--	< 10 U	--	--	--	--	--	--	--	< 10 U	--	--	--	--	< 10 U
pH			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Residue, filterable			--	--	--	--	--	1000000	--	--	--	--	--	--	--	130000	--	--	--	--	--	--	--	810000	--	--	--	--	520000
Total Organic Carbon			--	--	--	--	--	130000	--	--	--	--	--	--	--	< 1 U	--	--	--	--	--	--	--	31000	--	--	--	--	54000
Dioxins and Furans (µg/L)																													
2,3,7,8-Tetrachlorodibenzo-p-dioxin			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Metals (µg/L)																													
Antimony			--	--	--	--	--	< 20 U	--	< 20 U	< 20 U	--	--	--	--	< 20 U	< 20 U	--	< 6 U	--	--	--	--	< 20 U	< 20 U	--	< 6 U	< 20 U	
Arsenic			--	--	--	--	--	< 10 U	--	20	57	--	--	--	--	< 10 U	< 10 U	--	< 10 U	--	--	--	--	< 10 U	< 10 U	--	< 10 U	< 10 U	
Barium			--	--	--	--	--	44	--	36	46	--	--	--	--	42	67	--	44	--	--	--	49	44	--	42	71		
Beryllium			--	--	--	--	--	< 4 U	--	< 4 U	< 4 U	--	--	--	--	< 4 U	< 4 U	--	< 4 U	--	--	--	--	< 4 U	< 4 U	--	< 4 U	< 4 U	
Cadmium			--	--	--	--	--	< 5 U	--	--	--	--	--	--	--	< 5 U	--	--	< 5 U	--	--	--	--	< 5 U	--	--	< 5 U	< 5 U	
Chromium			--	--	--	--	--	12	--	< 10 U	< 10 U	--	--	--	--	< 10 U	< 10 U	--	< 10 U	--	--	--	--	< 10 U	< 10 U	--	< 10 U	< 10 U	
Cobalt			--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	--	< 10 U	< 10 U	--	< 10 U	--	--	--	--	< 10 U	< 10 U	--	< 10 U	< 10 U	
Copper			--	--	--	--	--	< 20 U	--	< 20 U	< 20 U	--	--	--	--	< 20 U	< 20 U	--	< 20 U	--	--	--	--	< 20 U	< 20 U	--	< 20 U	< 20 U	
Lead			--	--	--	--	--	< 5 U	--	< 5 U	< 5 U	--	--	--	--	< 5 U	< 5 U	--	< 5 U	--	--	--	--	< 5 U	< 5 U	--	< 5 U	< 5 U	
Mercury			--	--	--	--	--	< 0.2 U	--	--	--	--	--	--	--	< 0.2 U	--	--	< 0.2 U	--	--	--	--	< 0.2 U	--	--	< 0.2 U	< 0.2 U	
Nickel			--	--	--	--	--	< 40 U	--	< 40 U	< 40 U	--	--	--	--	< 40 U	< 40 U	--	< 40 U	--	--	--	--	< 40 U	< 40 U	--	< 40 U	< 40 U	
Selenium			--	--	--	--	--	< 10 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	
Silver			--	--	--	--	--	< 10 U	--	--	--	--	--	--	--	< 10 U	--	--	< 10 U	--	--	--	--	< 10 U	--	--	< 10 U	< 10 U	
Thallium			--	--	--	--	--	< 10 U	--	--	--	--	--	--	--	< 10 U	--	--	< 2 U	--	--	--	--	< 10 U	--	--	< 2 U	< 10 U	
Tin			--	--	--	--	--	< 50 U	--	--	--	--	--	--	--	< 50 U	--	--	< 50 U	--	--	--	--	< 50 U	--	--	< 50 U	< 50 U	
Vanadium			--	--	--	--	--	23	--	< 10 U	< 10 U	--	--	--	--	< 10 U	< 10 U	--	< 10 U	--	--	--	--	< 10 U	< 10 U	--	< 10 U	< 10 U	
Zinc			--	--	--	--	--	36	--	< 20 U	< 20 U	--	--	--	--	< 20 UJ	< 20 U	--	< 20 U	--	--	--	--	< 20 UJ	< 20 U	--	< 20 U	53	
Herbicides (µg/L)																													
2,4,5-T (Trichlorophenoxyacetic Acid)			--	--	--	--	--	< 0.5 U	--	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--	--	< 0.5 U	--	--	--	--	< 0.5 U
2,4,5-TP (Silvex)			--	--	--	--	--	< 0.5 U	--	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--	--	< 0.5 U	--	--	--	--	< 0.5 U
2,4-D (Dichlorophenoxyacetic Acid)			--	--	--	--	--	< 0.5 U	--	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--	--	< 0.5 U	--	--	--	--	< 0.5 U
Pesticides (µg/L)																													
4,4-DDD (Rhothane)			--	--	--	--	--	< 0.1 U	--	--	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--	--	< 0.1 U	--	--	--	--	< 0.1 U
4,4-DDE (Dichlorodiphenyl-dichloroethylene)			--	--	--	--	--	< 0.1 U	--	--	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--	--	< 0.1 U	--	--	--	--	< 0.1 U
4,4-DDT (Dichlorodiphenyl-trichloroethane)			--	--	--	--	--	< 0.1 U	--	--	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--	--	< 0.1 U	--	--	--	--	< 0.1 U
Aldrin			--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	--	< 0.05 U	--	--	--	--	< 0.05 U
Alpha-BHC			--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	--	< 0.05 U	--	--	--	--	< 0.05 U
Beta-BHC			--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	--	< 0.05 U	--	--	--	--	< 0.05 U
Chlordane			--	--	--	--	--	< 0.5 U	--	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--	--	< 0.5 U	--	--	--	--	< 0.5 U
Chlorobenzilate			--	--	--	--	--	< 0.5 U	--	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--	--	< 0.5 U	--	--	--	--	< 0.5 U
Delta-BHC			--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	--	< 0.05 U	--	--			



Well ID			MW-F7	MW-F7	MW-F7	MW-F7	MW-F7	MW-F8	MW-F8	MW-F8	MW-F8	MW-F8	MW-F8	MW-F8	MW-F8	MW-F8	MW-F8	MW-F9	MW-F9	MW-F9	MW-F9	MW-F9	MW-F9	MW-F9	MW-F10	MW-F10	MW-F10	MW-F10	MW-F11
Sample ID	Type 1 RRS	Type 3/4 RRS	MW-F7 (110314)	MW-F7 (05042015)	MW-F7 (110415)	MW-F7 (050316)	MW-F7 (122717)	MW-F8_10/27/00_NM	MW-F8_1/25/01_NM	MW-F8_11/1/02_NM	MW-F8_12/19/02_NM	MW-F8_1/22/04_NM	MW-F8_07/21/2011	MW-F8_11/26/2013	MW-F8_11/04/2014	MW-F9_10/27/00_NM	MW-F9_11/1/02_NM	MW-F9_1/22/04_NM	MW-F9_20_7/1/04_NM	MW-F9_07/21/2011	MW-F9_11/26/2013	MW-F9_10/30/00_NM	MW-F10_11/1/02_NM	MW-F10_1/22/04_NM	MW-F10_19_7/1/04_NM	MW-F11_10/28/00_NM			
Sample Date			11/03/2014	05/04/2015	11/04/2015	05/03/2016	12/27/2017	10/27/2000	01/25/2001	11/01/2002	12/19/2002	01/22/2004	07/21/2011	11/26/2013	11/04/2014	10/27/2000	11/01/2002	01/22/2004	07/01/2004	07/21/2011	11/26/2013	10/30/2000	11/01/2002	01/22/2004	07/01/2004	10/28/2000			
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N			
Acquifer			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow			
2-Naphthylamine			< 6.1 U	< 4.8 U	--	--	--	< 10 U	--	--	--	< 10 U	< 4.9 U	--	--	< 10 U	--	< 10 U	< 10 U	< 5.0 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
2-Nitroaniline			< 1.2 U	< 0.96 U	--	--	--	< 50 U	--	--	--	< 50 U	< 0.98 U	--	--	< 50 U	--	< 50 U	< 50 U	< 1.0 U	--	< 50 U	--	< 50 U	< 50 U	< 50 U			
2-Nitrophenol			< 1.2 U	< 0.96 U	--	--	--	< 10 U	--	--	--	< 10 U	< 0.98 U	--	--	< 10 U	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
2-Picoline			< 2.5 U	< 1.9 U	--	--	--	< 10 U	--	--	--	< 10 U	< 2.0 U	--	--	< 10 U	--	< 10 U	< 10 U	< 2.0 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
3,3-Dichlorobenzidine			< 25 U	< 19 U	--	--	--	< 20 U	--	--	--	< 20 U	< 20 U	--	--	< 20 U	--	< 20 U	< 20 U	< 20 U	--	< 20 U	--	< 20 U	< 20 U	< 20 U			
3,3-Dimethylbenzidine			< 25 U	< 19 U	--	--	--	< 20 U	--	--	--	< 20 U	< 20 U	--	--	< 20 U	--	< 20 U	< 20 U	< 20 U	--	< 20 U	--	< 20 U	< 20 U	< 20 U			
3-Methylchloranthrene			< 1.2 U	< 0.96 U	--	--	--	< 10 U	--	--	--	< 10 U	< 0.98 U	--	--	< 10 U	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
3-Methylphenol, 4-Methylphenol	10	5100	--	--	--	--	--	--	--	--	--	--	< 2.0 U	--	--	--	--	--	--	< 2.0 U	--	--	--	--	--	--			
3-Nitroaniline			< 6.1 U	< 4.8 U	--	--	--	< 50 U	--	--	--	< 50 U	< 4.9 U	--	--	< 50 U	--	< 50 U	< 50 U	< 5.0 U	--	< 50 U	--	< 50 U	< 50 U	< 50 U			
4-Aminobiphenyl			< 6.1 U	< 4.8 U	--	--	--	< 10 U	--	--	--	< 10 U	< 4.9 U	--	--	< 10 U	--	< 10 U	< 10 U	< 5.0 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
4-Bromophenyl phenyl ether			< 1.2 U	< 0.96 U	--	--	--	< 10 U	--	--	--	< 10 U	< 0.98 U	--	--	< 10 U	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
4-Chloro-3-Methylphenol			< 1.2 U	< 0.96 U	--	--	--	< 10 U	--	--	--	< 10 U	< 0.98 U	--	--	< 10 U	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
4-Chlorophenyl phenyl ether			< 1.2 U	< 0.96 U	--	--	--	< 10 U	--	--	--	< 10 U	< 0.98 U	--	--	< 10 U	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
4-Dimethylaminoazobenzene			< 6.1 U	< 4.8 U	--	--	--	< 10 U	--	--	--	< 10 U	< 4.9 U	--	--	< 10 U	--	< 10 U	< 10 U	< 5.0 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
4-Methylphenol	10	10000	< 2.5 U	< 1.9 U	< 2.1 U	< 2.3 U	< 2.0 U	< 10 U	--	--	--	< 10 U	--	--	--	< 10 U	--	< 10 U	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
4-Nitroaniline			< 6.1 U	< 4.8 U	--	--	--	< 50 U	--	--	--	< 50 U	< 4.9 U	--	--	< 50 U	--	< 50 U	< 50 U	< 5.0 U	--	< 50 U	--	< 50 U	< 50 U	< 50 U			
4-Nitrophenol			< 9.8 U	< 7.7 U	--	--	--	< 50 U	--	--	--	< 50 U	< 4.9 U	--	--	< 50 U	--	< 50 U	< 50 U	< 5.0 U	--	< 50 U	--	< 50 U	< 50 U	< 50 U			
4-Nitroquinoline-N-Oxide			< 2.5 U	< 1.9 U	--	--	--	< 20 U	--	--	--	< 20 U	< 2.0 U	--	--	< 20 U	--	< 20 U	< 20 U	< 2.0 U	--	< 20 U	--	< 20 U	< 20 U	< 20 U			
5-Nitro-o-Toluidine			< 1.2 U	< 0.96 U	--	--	--	< 10 U	--	--	--	< 10 U	< 0.98 U	--	--	< 10 U	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
7,12-Dimethylbenz(a)anthracene			< 2.5 U	< 1.9 U	--	--	--	< 10 U	--	--	--	< 10 U	< 0.98 U	--	--	< 10 U	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
Acenaphthene	2000	6100	< 0.25 U	< 0.19 U	< 0.21 U	< 0.23 U	< 0.20 U	< 10 U	--	< 10 U	< 10 U	< 10 U	< 0.20 U	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.20 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U			
Acenaphthylene	10	10	< 0.25 U	< 0.19 U	< 0.21 U	< 0.23 U	< 0.20 U	< 10 U	--	--	--	< 10 U	< 0.20 U	--	--	< 10 U	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
Acetophenone	4000	10000	< 1.2 U	< 0.96 U	< 1.0 U	< 1.2 U	< 1.0 U	< 10 U	--	--	--	61	< 0.98 U	--	--	< 10 U	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
Aniline	20	500	< 2.5 U	< 1.9 U	< 2.1 U	< 2.3 U	< 2.0 U	< 20 U	--	--	--	< 20 U	< 2.0 U	--	--	< 20 U	--	< 20 U	< 20 U	< 2.0 U	--	< 20 U	--	< 20 U	< 20 U	< 20 U			
Anthracene	10	31000	< 0.25 U	< 0.19 U	< 0.21 U	< 0.23 U	< 0.20 U	< 10 U	--	--	--	< 10 U	< 0.20 U	--	--	< 10 U	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
Aramite			< 2.5 U	< 1.9 U	--	--	--	< 10 U	--	--	--	< 10 U	< 1.5 U	--	--	< 10 U	--	< 10 U	< 10 U	< 1.5 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
Atrazine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Benzaldehyde			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Benzo(a)anthracene	10	10	< 0.25 U	< 0.19 U	< 0.21 U	< 0.23 U	< 0.20 U	< 10 U	--	< 10 U	< 10 U	< 10 U	< 0.20 U	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
Benzo(a)pyrene	10	10	< 0.25 U	< 0.19 U	< 0.21 U	< 0.23 U	< 0.20 U	< 10 U	--	--	--	< 10 U	< 0.20 U	--	--	< 10 U	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
Benzo(b)fluoranthene	10	10	< 0.25 U	< 0.19 U	< 0.21 U	< 0.23 U	< 0.20 U	< 10 U	--	--	--	--	< 0.20 U	--	--	< 10 U	--	--	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U			
Benzo(g,h,i)perylene	10	10	< 0.25 U	< 0.19 U	< 0.21 U	< 0.23 U	< 0.20 U	< 10 U	--	--	--	< 10 U	< 0.20 U	--	--	< 10 U	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
Benzo(k)fluoranthene	10	39	< 0.25 U	< 0.19 U	< 0.21 U	< 0.23 U	< 0.20 U	< 10 U	--	--	--	< 10 U	< 0.20 U	--	--	< 10 U	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
Benzyl Alcohol			< 1.2 U	< 0.96 U	--	--	--	< 10 U	--	--	--	< 10 U	< 0.98 U	--	--	< 10 U	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
beta-Pinene			--	--	--	--	--	< 100 U	--	--	--	< 10 U	--	--	--	< 100 U	--	< 10 U	--	--	--	< 100 U	--	< 10 U	--	< 100 U			
bis(2-Chloroethoxy)methane			< 1.2 U	< 0.96 U	--	--	--	< 10 U	--	--	--	< 10 U	< 0.98 U	--	--	< 10 U	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
bis(2-Chloroethyl)ether			< 1.2 U	< 0.96 U	< 1.0 U	< 1.2 U	< 1.0 U	< 10 U	--	--	--	< 10 U	< 0.98 U	--	--	< 10 U	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
bis(2-Ethylhexyl)phthalate	10	200	< 6.1 U	< 4.8 U	< 5.2 U	< 5.8 U	< 5.0 U	< 10 U	--	< 10 U	< 10 U	< 10 U	20	< 2.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U	3.8	< 2.0 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U			
Butyl benzyl phthalate	100	15061	< 1.2 U	< 0.96 U	< 1.0 U	< 1.2 U	< 1.0 U	< 10 U	--	< 10 U	< 10 U	< 10 U	< 0.98 U	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U			
Caprolactam			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Carbazole			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Chrysene	10	40	< 0.25 U	< 0.19 U	< 0.21 U	< 0.23 U	< 0.20 U	< 10 U	--	< 10 U	< 10 U	< 10 U	< 0.20 U	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.20 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U			
Diallate			< 1.2 U	< 0.96 U	--	--	--	< 10 U	--	--	--	< 10 U	< 0.98 U	--	--	< 10 U	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
Dibenzo(a,h)anthracene	10	10	< 0.25 U	< 0.19 U	< 0.21 U	< 0.23 U	< 0.20 U	< 10 U	--	--	--	< 10 U	< 0.20 U	--	--	< 10 U	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
Dibenzofuran	10	10	< 1.2 U	< 0.96 U	< 1.0 U	< 1.2 U	< 1.0 U	< 10 U	--	--	--	< 10 U	< 0.98 U	--	--	< 10 U	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
Diethyl phthalate			< 1.2 U	< 0.96 U	--	--	--	< 10 U	--	--	--	< 10 U	< 0.98 U	--	--	< 10 U	--	< 10 U	< 10 U	< 1.0 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U			
Dimethoate			< 2.5 U	< 1.9 U	--	--	--	< 20 U	--	--	--	--	< 2.0 U	--	--	< 10 U	--	--	--	< 2.0 U	--	< 10 U	--	--	--	< 10 U			
Dimethyl phthalate			< 1.																										



Well ID			MW-F7	MW-F7	MW-F7	MW-F7	MW-F7	MW-F8	MW-F8	MW-F8	MW-F8	MW-F8	MW-F8	MW-F8	MW-F8	MW-F8	MW-F8	MW-F9	MW-F9	MW-F9	MW-F9	MW-F9	MW-F9	MW-F9	MW-F10	MW-F10	MW-F10	MW-F10	MW-F11
Sample ID	Type 1	Type 3/4	MW-F7 (110314)	MW-F7 (05042015)	MW-F7 (110415)	MW-F7 (050316)	MW-F7 (122717)	MW-F8_10/27/00_NM	MW-F8_11/25/01_NM	MW-F8_11/1/02_NM	MW-F8_12/19/02_NM	MW-F8_12/22/04_NM	MW-F8_07/21/2011	MW-F8_11/26/2013	MW-F8 (110414)	MW-F9_10/27/00_NM	MW-F9_11/1/02_NM	MW-F9_12/22/04_NM	MW-F9_20_7/1/04_NM	MW-F9 (072111)	MW-F9 (112613)	MW-F9 (1030/00_NM)	MW-F9 (072111)	MW-F9 (112613)	MW-F10_10/30/00_NM	MW-F10_11/1/02_NM	MW-F10_01/22/04_NM	MW-F10_19_7/1/04_NM	MW-F11_10/28/00_NM
Sample Date	RRS	RRS	11/03/2014	05/04/2015	11/04/2015	05/03/2016	12/27/2017	10/27/2000	01/25/2001	11/01/2002	12/19/2002	01/22/2004	07/21/2011	11/26/2013	11/04/2014	10/27/2000	11/01/2002	01/22/2004	07/01/2004	07/21/2011	11/26/2013	10/30/2000	11/01/2002	01/22/2004	07/01/2004	01/22/2004	07/01/2004	10/28/2000	
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Aquifer			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Pinene			--	--	--	--	--	< 100 U	--	--	--	--	< 10 U	--	--	< 100 U	--	< 10 U	--	--	--	--	--	--	< 100 U	--	< 10 U	< 100 U	< 100 U
p-Phenylenediamine			< 250 U	< 190 U	--	--	--	< 2000 U	--	--	--	--	< 2000 U	< 200 U	--	< 2000 U	--	< 2000 U	< 2000 U	< 200 U	--	--	--	< 2000 U	--	< 2000 U	< 2000 U	< 2000 U	< 2000 U
Propylzamide			< 1.2 U	< 0.96 U	--	--	--	< 10 U	--	--	--	--	< 10 U	< 0.98 U	--	< 10 U	--	< 10 U	< 10 U	< 1.0 U	--	--	--	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Pyrene	1000	3100	< 0.25 U	< 0.19 U	< 0.21 U	< 0.23 U	< 0.20 U	< 10 U	--	< 10 U	< 10 U	< 10 U	< 0.20 U	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 0.20 U	--	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Pyridine			< 6.1 U	< 4.8 U	--	--	--	< 50 U	--	--	--	--	< 50 U	< 4.9 U	--	< 50 U	< 50 U	< 50 U	< 50 U	< 5.0 U	--	--	--	< 50 U	--	< 50 U	< 50 U	< 50 U	< 50 U
Safrole			< 1.2 U	< 0.96 U	--	--	--	< 10 U	--	--	--	--	< 10 U	< 0.98 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 1.0 U	--	--	--	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Sulfotep			< 1.2 U	< 0.96 U	--	--	--	< 10 U	--	--	--	--	< 0.98 U	--	--	< 10 U	--	--	--	< 1.0 U	--	--	--	< 10 U	--	--	--	--	< 10 U
Volatile Organic Compounds (µg/L)																													
1,1,1,2-Tetrachloroethane			< 1.0 U	< 1.0 U	--	--	--	< 1 U	--	--	--	--	< 5 U	< 1.0 U	--	--	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	--	--	< 1 U	--	< 1 U	< 1 U	< 1 U
1,1,1-Trichloroethane			< 1.0 U	< 1.0 U	--	--	--	< 1 U	--	--	--	--	< 5 U	< 1.0 U	--	--	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	--	--	< 1 U	--	< 1 U	< 1 U	< 1 U
1,1,2,2-Tetrachloroethane			< 1.0 U	< 1.0 U	--	--	--	< 1 U	--	--	--	--	< 5 U	< 1.0 U	--	--	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	--	--	< 1 U	--	< 1 U	< 1 U	< 1 U
1,1,2-Trichloroethane			< 1.0 U	< 1.0 U	--	--	--	< 1 U	--	--	--	--	< 5 U	< 1.0 U	--	--	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	--	--	< 1 U	--	< 1 U	< 1 U	< 1 U
1,1-Dichloroethane			< 1.0 U	< 1.0 U	--	--	--	< 1 U	--	--	--	--	< 5 U	< 1.0 U	--	--	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	--	--	< 1 U	--	< 1 U	< 1 U	< 1 U
1,1-Dichloroethene			< 1.0 U	< 1.0 U	--	--	--	< 1 U	--	--	--	--	< 5 U	< 1.0 U	--	--	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	--	--	< 1 U	--	< 1 U	< 1 U	< 1 U
1,2,3-Trichloropropane			< 1.0 U	< 1.0 U	--	--	--	< 1 U	--	--	--	--	< 5 U	< 1.0 U	--	--	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	--	--	< 1 U	--	< 1 U	< 1 U	< 1 U
1,2,4-Trichlorobenzene			< 5.0 U	< 5.0 U	--	--	--	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane			< 5.0 U	< 5.0 U	--	--	--	< 1 U	--	--	--	--	< 5 U	< 1.0 U	--	--	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	--	--	< 1 U	--	< 1 U	< 1 U	< 1 U
1,2-Dibromoethane			< 1.0 U	< 1.0 U	--	--	--	< 1 U	--	--	--	--	< 5 U	< 1.0 U	--	--	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	--	--	< 1 U	--	< 1 U	< 1 U	< 1 U
1,2-Dichlorobenzene			< 1.0 U	< 1.0 U	--	--	--	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane			< 1.0 U	< 1.0 U	--	--	--	< 1 U	--	--	--	--	< 5 U	< 1.0 U	--	--	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	--	--	< 1 U	--	< 1 U	< 1 U	< 1 U
1,2-Dichloropropane	5	7.4	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1 U	--	--	--	--	< 5 U	< 1.0 U	--	--	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	--	--	< 1 U	--	< 1 U	< 1 U	< 1 U
1,3-Dichlorobenzene			< 1.0 U	< 1.0 U	--	--	--	--	--	--	--	--	--	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene			< 1.0 U	< 1.0 U	--	--	--	--	--	--	--	--	--	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	--	--
1,4-Dioxane			< 100 U	< 100 U	--	--	--	--	--	--	--	--	< 50 U	--	--	--	--	--	--	< 50 U	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)			< 10 U	< 10 U	< 10 U	< 250 U	< 10 U	< 10 U	--	--	--	--	< 50 U	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	< 10 U	--	--	--	< 10 U	--	< 10 U	< 10 U	< 10 U
2-Chlor-1,3-Butadiene			< 1.0 U	< 1.0 U	--	--	--	< 1 U	--	--	--	--	< 5 U	< 1.0 U	--	--	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	--	--	< 1 U	--	< 1 U	< 1 U	< 1 U
2-Chloroethyl vinyl ether			--	--	--	--	--	--	--	--	--	--	< 50 U	--	--	--	--	--	--	< 10 U	--	--	--	--	--	--	--	--	--
2-Methyl-1-propanol	10000	31000	< 50 U	< 50 U	< 50 U	< 250 U	< 50 U	< 40 U	--	< 200 U	< 200 U	< 200 U	< 40 U	--	--	< 40 U	< 200 U	< 40 U	< 40 U	< 40 U	< 40 U	--	--	< 40 U	< 200 U	< 40 U	< 40 U	< 40 U	< 40 U
4-Methyl-2-Pentanone	2000	4200	< 10 U	< 10 U	< 10 U	< 50 U	< 10 U	< 10 U	--	--	--	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Acetone	4000	46000	< 10 U	< 10 U	< 10 U	< 130 U	< 10 U	< 34 U	53	< 50 U	< 50 U	< 120 U	< 25 U	--	--	< 25 U	< 50 U	< 25 U	< 25 U	< 25 U	< 25 U	--	--	< 25 U	< 50 U	< 25 U	< 25 U	< 25 U	< 25 U
Acetonitrile	200	200	< 40 U	< 40 U	< 40 U	< 100 U	< 40 U	< 40 U	--	--	--	--	< 200 U	< 40 U	--	--	< 40 U	--	< 40 U	< 40 U	< 40 U	< 40 U	--	--	< 40 U	--	< 40 U	< 40 U	< 40 U
Acrolein	700	700	< 20 U	< 20 U	< 20 U	< 250 U	< 20 U	< 20 U	--	<																			



Sample ID	Type 1 RRS	Type 3/4 RRS	MW-F11 F11_11/1/02_NM	MW-F11 F11_1/21/04_NM	MW-F11 F11_1/21/04_DUP	MW-F11 30_7/4/04_NM	MW-F11 30_7/4/04_DUP	MW-F11 (071911)	MW-F11(112613)	MW-F12 F12_10/31/00_NM	MW-F12 F12_11/1/02_NM	MW-F12 F12_1/21/04_NM	MW-F12 29_7/3/04_NM	MW-F12 (071911)	MW-F12 (112713)	MW-F13 F13_10/27/00_NM	MW-F13 F13_11/1/02_NM	MW-F13 F13_12/19/02_NM	MW-F13 F13_1/22/04_NM	MW-F13 18_7/1/04_NM	MW-F13 18_7/1/04_DUP	MW-F13 F13_7/6/06_NM	MW-F13 MW-F13 (072111)	MW-F13 (112513)	MW-F13-13022017	MW-F13 DUP #2-13022017	
Sample Date			11/01/2002	01/21/2004	01/21/2004	07/04/2004	07/04/2004	07/19/2011	11/26/2013	10/31/2000	11/01/2002	01/21/2004	07/03/2004	07/19/2011	11/27/2013	10/27/2000	11/01/2002	12/19/2002	01/22/2004	07/01/2004	07/01/2004	07/06/2006	07/21/2011	11/25/2013	02/13/2017	02/13/2017	
Sample Type			N	N	FD	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	FD	
Aquifer			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	
Anions (µg/L)																											
Ammonia Nitrogen			--	--	--	--	--	--	--	30	--	--	--	--	--	120	--	--	--	--	--	--	--	--	--	--	
Chloride			--	--	--	--	--	--	--	20000	--	--	--	--	--	54000	--	--	--	--	--	--	--	--	--	--	
Fluoride (F-, Anion)			--	--	--	--	--	--	--	< 200 U	--	--	--	--	--	220	--	--	--	--	--	--	--	--	--	--	
Nitrate/Nitrite			--	--	--	--	--	--	--	< 0.05 U	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	--	--	--	--	
Sulfate			--	--	--	--	--	--	--	4100	--	--	--	--	--	56000	--	--	--	--	--	--	--	--	--	--	
Sulfide			--	--	--	--	--	--	--	< 1000 UJ	--	--	--	--	--	< 1000 UJ	--	--	--	--	--	--	--	--	--	--	
Asbestos (MFL)																											
Asbestos	7	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
General Chemistry (µg/L)																											
Cyanide			--	--	--	--	--	--	--	< 10 U	--	--	--	--	--	< 10 U	--	--	--	--	--	--	--	--	--	--	
pH			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Residue, filterable			--	--	--	--	--	--	--	930000	--	--	--	--	--	340000	--	--	--	--	--	--	--	--	--	--	
Total Organic Carbon			--	--	--	--	--	--	--	53000	--	--	--	--	--	8500	--	--	--	--	--	--	--	--	--	--	
Dioxins and Furans (µg/L)																											
2,3,7,8-Tetrachlorodibenzo-p-dioxin			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Metals (µg/L)																											
Antimony			< 20 U	--	--	< 6 U	< 6 U	--	--	< 20 U	< 20 U	--	< 6 U	--	--	< 20 U	< 20 U	< 20 U	--	< 6 U	< 6 U	--	--	--	--	--	
Arsenic			< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	16	< 10 U	--	16	15	--	--	--	--	--	
Barium			46	--	--	96	97	--	--	120	210	--	300	--	--	100	140	160	--	260	250	--	--	--	--	--	
Beryllium			< 4 U	--	--	< 4 U	< 4 U	--	--	< 4 U	< 4 U	--	< 4 U	--	--	< 4 U	< 4 U	< 4 U	--	< 4 U	< 4 U	--	--	--	--	--	
Cadmium			--	--	--	< 5 U	< 5 U	--	--	< 5 U	--	--	< 5 U	--	--	< 5 U	--	--	--	< 5 U	< 5 U	--	--	--	--	--	
Chromium			< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	--	< 10 U	< 10 U	--	--	--	--	--	
Cobalt			< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	24	46	37	--	39	40	--	--	--	--	--	
Copper			< 20 U	--	--	< 20 U	< 20 U	--	--	< 20 U	< 20 U	--	< 20 U	--	--	< 20 U	< 20 U	< 20 U	--	< 20 U	< 20 U	--	--	--	--	--	
Lead			< 5 U	--	--	< 5 U	< 5 U	--	--	< 5 U	< 5 U	--	< 5 U	--	--	< 5 U	< 5 U	< 5 U	--	< 5 U	< 5 U	--	--	--	--	--	
Mercury			--	--	--	< 0.2 U	< 0.2 U	--	--	< 0.2 U	--	--	< 0.2 U	--	--	< 0.2 U	--	--	--	< 0.2 U	< 0.2 U	--	--	--	--	--	
Nickel			< 40 U	--	--	< 40 U	< 40 U	--	--	< 40 U	< 40 U	--	< 40 U	--	--	< 40 U	60	< 40 U	--	< 40 U	< 40 U	--	--	--	--	--	
Selenium			--	--	--	< 10 U	< 10 U	--	--	< 10 U	--	--	< 10 U	--	--	< 10 U	--	--	--	< 10 U	< 10 U	--	--	--	--	--	
Silver			--	--	--	< 10 U	< 10 U	--	--	< 10 U	--	--	< 10 U	--	--	< 10 U	--	--	--	< 10 U	< 10 U	--	--	--	--	--	
Thallium			--	--	--	< 2 U	< 2 U	--	--	< 10 U	--	--	< 2 U	--	--	< 10 U	--	--	--	< 2 U	< 2 U	--	--	--	--	--	
Tin			--	--	--	< 50 U	< 50 U	--	--	< 50 U	--	--	< 50 U	--	--	< 50 U	--	--	--	< 50 U	< 50 U	--	--	--	--	--	
Vanadium			< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	--	< 10 U	< 10 U	--	--	--	--	--	
Zinc			< 20 U	--	--	< 20 U	< 20 U	--	--	< 24 UJ	< 20 U	--	< 20 U	--	--	< 32 UJ	34	40	--	< 20 U	20	--	--	--	--	--	
Herbicides (µg/L)																											
2,4,5-T (Trichlorophenoxyacetic Acid)			--	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--	--	--	--	--	
2,4,5-TP (Silvex)			--	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--	--	--	--	--	
2,4-D (Dichlorophenoxyacetic Acid)			--	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--	--	--	--	--	
Pesticides (µg/L)																											
4,4-DDD (Rhothane)			--	--	--	--	--	--	--	< 0.1 U	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--	--	--	--	--	
4,4-DDE (Dichlorodiphenyl-dichloroethylene)			--	--	--	--	--	--	--	< 0.1 U	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--	--	--	--	--	
4,4-DDT (Dichlorodiphenyl-trichloroethane)			--	--	--	--	--	--	--	< 0.1 U	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--	--	--	--	--	
Aldrin			--	--	--	--	--	--	--	< 0.05 U	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	--	--	--	--	
Alpha-BHC			--	--	--	--	--	--	--	< 0.05 U	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	--	--	--	--	
Beta-BHC			--	--	--	--	--	--	--	< 0.05 U	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	--	--	--	--	
Chlordane			--	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--	--	--	--	--	
Chlorobenzilate			--	--	--	--	--	--	--	< 0.5 U	--	--	--	--	--	< 0.5 U	--	--	--	--	--	--	--	--	--	--	
Delta-BHC			--	--	--	--	--	--	--	< 0.05 U	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	--	--	--	--	
Dieldrin			--	--	--	--	--	--	--	< 0.1 U	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--	--	--	--	--	
Endosulfan I			--	--	--	--	--	--	--	< 0.05 U	--	--	--	--	--	< 0.05 U	--	--	--	--	--	--	--	--	--	--	
Endosulfan II			--	--	--	--	--	--	--	< 0.1 U	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--	--	--	--	--	
Endosulfan sulfate			--	--	--	--	--	--	--	< 0.1 U	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--	--	--	--	--	
Endrin			--	--	--	--	--	--	--	< 0.1 U	--	--	--	--	--	< 0.1 U	--	--	--	--	--	--	--	--	--	--	
Endrin aldehyde			--	--	--</																						



Well ID			MW-F11	MW-F11	MW-F11	MW-F11	MW-F11	MW-F11	MW-F11	MW-F11	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F13	MW-F13	MW-F13	MW-F13	MW-F13	MW-F13	MW-F13	MW-F13	MW-F13	MW-F13
Sample ID	Type 1	Type 3/4	F11_11/1/02_NM	F11_1/21/04_NM	F11_1/21/04_DUP	30_7/4/04_NM	30_7/4/04_DUP	MW-F11 (071911)	MW-F11 (112613)	MW-F12_10/31/00_NM	MW-F12_11/1/02_NM	MW-F12_1/21/04_NM	MW-F12_29_7/3/04_NM	MW-F12 (071911)	MW-F12 (112713)	MW-F13_10/27/00_NM	MW-F13_11/1/02_NM	MW-F13_12/19/02_NM	MW-F13_1/22/04_NM	MW-F13_18_7/1/04_NM	MW-F13_18_7/1/04_DUP	MW-F13_07/06/2006	MW-F13_07/21/2011	MW-F13_11/25/2013	MW-F13_02/13/2017	MW-F13_02/13/2017	
Sample Date	RRS	RRS	N	N	FD	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	FD	
Aquifer			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	
2-Naphthylamine			--	< 10 U	< 10 U	< 10 U	< 10 U	< 50 U	--	< 10 U	--	< 10 U	< 10 U	< 50 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	--	< 5.0 U	--	--	--	
2-Nitroaniline			--	< 50 U	< 50 U	< 50 U	< 50 U	< 9.9 U	--	< 50 U	--	< 50 U	< 10 U	< 10 U	--	< 50 U	--	--	< 50 U	< 50 U	< 50 U	< 48 U	< 0.99 U	--	--	--	
2-Nitrophenol			--	< 10 U	< 10 U	< 10 U	< 10 U	< 9.9 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 9.6 U	< 0.99 U	--	--	--	
2-Picoline			--	< 10 U	< 10 U	< 10 U	< 10 U	< 20 U	--	< 10 U	--	< 10 U	< 10 U	< 20 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	--	< 2.0 U	--	--	--	
3,3-Dichlorobenzidine			--	< 20 U	< 20 U	< 20 U	< 20 U	< 200 U	--	< 20 U	--	< 20 U	< 20 U	< 200 U	--	< 20 U	--	--	< 20 U	< 20 U	< 20 U	< 19 U	< 20 U	--	--	--	
3,3-Dimethylbenzidine			--	< 20 U	< 20 U	< 20 U	< 20 U	< 200 U	--	< 20 U	--	< 20 U	< 20 U	< 200 U	--	< 20 U	--	--	< 20 U	< 20 U	< 20 U	--	< 20 U	--	--	--	
3-Methylchloranthrene			--	< 10 U	< 10 U	< 10 U	< 10 U	< 9.9 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	--	< 0.99 U	--	--	--	
3-Methylphenol, 4-Methylphenol	10	5100	--	--	--	--	--	< 20 U	--	--	--	--	< 20 U	--	--	--	--	--	--	--	--	< 9.6 U	< 2.0 U	--	--	--	
3-Nitroaniline			--	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	--	< 50 U	--	< 50 U	< 50 U	< 50 U	--	< 50 U	--	--	< 50 U	< 50 U	< 50 U	< 48 U	< 5.0 U	--	--	--	
4-Aminobiphenyl			--	< 10 U	< 10 U	< 10 U	< 10 U	< 50 U	--	< 10 U	--	< 10 U	< 10 U	< 50 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	--	< 5.0 U	--	--	--	
4-Bromophenyl phenyl ether			--	< 10 U	< 10 U	< 10 U	< 10 U	< 9.9 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 9.6 U	< 0.99 U	--	--	--	
4-Chloro-3-Methylphenol			--	< 10 U	< 10 U	< 10 U	< 10 U	< 9.9 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 9.6 U	< 0.99 U	--	--	--	
4-Chlorophenyl phenyl ether			--	< 10 U	< 10 U	< 10 U	< 10 U	< 9.9 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 9.6 U	< 0.99 U	--	--	--	
4-Dimethylaminoazobenzene			--	< 10 U	< 10 U	< 10 U	< 10 U	< 50 U	--	< 10 U	--	< 10 U	< 10 U	< 50 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	--	< 5.0 U	--	--	--	
4-Methylphenol	10	10000	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	--	--	--	--	--	
4-Nitroaniline			--	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	--	< 50 U	--	< 50 U	< 50 U	< 50 U	--	< 50 U	--	--	< 50 U	< 50 U	< 50 U	< 48 U	< 5.0 U	--	--	--	
4-Nitrophenol			--	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	--	< 50 U	--	< 50 U	< 50 U	< 50 U	--	< 50 U	--	--	< 50 U	< 50 U	< 50 U	< 48 U	< 5.0 U	--	--	--	
4-Nitroquinoline-N-Oxide			--	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	--	< 20 U	--	< 20 U	< 20 U	< 20 U	--	< 20 U	--	--	< 20 U	< 20 U	< 20 U	--	< 2.0 U	--	--	--	
5-Nitro-o-Toluidine			--	< 10 U	< 10 U	< 10 U	< 10 U	< 9.9 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	--	< 0.99 U	--	--	--	
7,12-Dimethylbenz(a)anthracene			--	< 10 U	< 10 U	< 10 U	< 10 U	< 9.9 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	--	< 0.99 U	--	--	--	
Acenaphthene	2000	6100	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 2.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 2.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 9.6 U	< 0.20 U	--	--	--	
Acenaphthylene	10	10	--	< 10 U	< 10 U	< 10 U	< 10 U	< 2.0 U	--	< 10 U	--	< 10 U	< 10 U	< 2.0 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 9.6 U	< 0.20 U	--	--	--	
Acetophenone	4000	10000	--	< 10 U	< 10 U	< 10 U	< 10 U	< 9.9 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 9.6 U	< 0.99 U	--	--	--	
Aniline	20	500	--	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	--	< 20 U	--	< 20 U	< 20 U	< 20 U	--	< 20 U	--	--	< 20 U	< 20 U	< 20 U	--	< 2.0 U	--	--	--	
Anthracene	10	31000	--	< 10 U	< 10 U	< 10 U	< 10 U	< 2.0 U	--	< 10 U	--	< 10 U	< 10 U	< 2.0 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 9.6 U	< 0.20 U	--	--	--	
Aramite			--	< 10 U	< 10 U	< 10 U	< 10 U	< 15 U	--	< 10 U	--	< 10 U	< 10 U	< 15 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	--	< 1.5 U	--	--	--	
Atrazine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 9.6 U	--	--	--	--	
Benzaldehyde			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 9.6 U	--	--	--	--	
Benzo(a)anthracene	10	10	--	< 10 U	< 10 U	< 10 U	< 10 U	< 2.0 U	--	< 10 U	--	< 10 U	< 10 U	< 2.0 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 9.6 U	< 0.20 U	--	--	--	
Benzo(a)pyrene	10	10	--	< 10 U	< 10 U	< 10 U	< 10 U	< 2.0 U	--	< 10 U	--	< 10 U	< 10 U	< 2.0 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 9.6 U	< 0.20 U	--	--	--	
Benzo(b)fluoranthene	10	10	--	--	--	< 10 U	< 10 U	< 2.0 U	--	< 10 U	--	--	< 10 U	< 2.0 U	--	< 10 U	--	--	--	< 10 U	< 10 U	< 10 U	< 9.6 U	< 0.20 U	--	--	
Benzo(g,h,i)perylene	10	10	--	< 10 U	< 10 U	< 10 U	< 10 U	< 2.0 U	--	< 10 U	--	< 10 U	< 10 U	< 2.0 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 9.6 U	< 0.20 U	--	--	--	
Benzo(k)fluoranthene	10	39	--	< 10 U	< 10 U	< 10 U	< 10 U	< 2.0 U	--	< 10 U	--	< 10 U	< 10 U	< 2.0 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 9.6 U	< 0.20 U	--	--	--	
Benzyl Alcohol			--	< 10 U	< 10 U	< 10 U	< 10 U	< 9.9 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	--	< 0.99 U	--	--	--	
beta-Pinene			--	< 10 U	< 10 U	--	--	--	--	< 100 U	--	< 10 U	--	--	--	< 100 U	--	--	< 10 U	--	--	--	--	--	--	--	
bis(2-Chloroethoxy)methane			--	< 10 U	< 10 U	< 10 U	< 10 U	< 9.9 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 9.6 U	< 0.99 U	--	--	--	
bis(2-Chloroethyl)ether			--	< 10 U	< 10 U	< 10 U	< 10 U	< 9.9 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 9.6 U	< 0.99 U	--	--	--	
bis(2-Ethylhexyl)phthalate	10	200	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	46	< 2.0 U	< 10 U	< 10 U	< 10 U	< 10 U	41 B	< 2.7 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 9.6 U	16	< 2.0 U	--	--	
Butyl benzyl phthalate	100	15061	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 9.9 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 9.6 U	< 0.99 U	--	--	--	
Caprolactam			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	270 D	--	--	--	--	
Carbazole			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 9.6 U	--	--	--	--	
Chrysene	10	40	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 2.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 2.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 9.6 U	< 0.20 U	--	--	--	
Diallate			--	< 10 U	< 10 U	< 10 U	< 10 U	< 9.9 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	--	< 0.99 U	--	--	--	
Dibenzo(a,h)anthracene	10	10	--	< 10 U	< 10 U	< 10 U	< 10 U	< 2.0 U	--	< 10 U	--	< 10 U	< 10 U	< 2.0 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 9.6 U	< 0.20 U	--	--	--	
Dibenzofuran	10	10	--	< 10 U	< 10 U	< 10 U	< 10 U	< 9.9 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 9.6 U	< 0.99 U	--	--	--	
Diethyl phthalate			--	< 10 U	< 10 U	< 10 U	< 10 U	< 9.9 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 9.6 U	< 0.99 U	--	--	--	
Dimethoate			--	--	--	--	--	< 20 U	--	< 10 U	--	--	< 20 U	--	--	< 10 U	--	--	--	--	--	--	< 2.0 U	--	--	--	
Dimethyl phthalate			--	< 10 U	< 10 U	< 10 U	< 10 U	< 9.9 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	< 10 U	< 9.6 U	< 0.99 U	--	--	--	
Dimethylphenethylamine			--	< 2000 U	< 2000 U	< 2000 U	< 2000 U	< 99 U	--	< 2000 U	--	< 2000 U	< 2000 U	< 100 U	--	< 2000 U	--	--	< 2000 U	< 2000 U	< 2000 U	--	< 9.9 U	--			



Well ID	Type 1	Type 3/4	MW-F11	MW-F11	MW-F11	MW-F11	MW-F11	MW-F11	MW-F11	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12	MW-F12
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28/51



Well ID	Type 1	Type 3/4	MW-F14	MW-F14	MW-F14	MW-F14	MW-F14	MW-F14	MW-F14	MW-F14	MW-F14	MW-F14	MW-F14	MW-F14	MW-F15	MW-F15	MW-F15	MW-F15	MW-F15	MW-F15	MW-F15	MW-F15	MW-F15	MW-F16	MW-F16	MW-F16	MW-F16
Sample ID	RRS	RRS	MW-F14_10/27/00_NM	MW-F14_11/25/01_NM	MW-F14_11/01/02_NM	MW-F14_12/19/02_NM	MW-F14_01/23/04_NM	MW-F14_07/01/2004	MW-F14_07/06/2006	MW-F14_08/17/2006	MW-F14_07/21/2011	MW-F14_11/25/2013	MW-F14_02/13/2017	MW-F15_10/30/2000	MW-F15_11/01/2002	MW-F15_01/22/2004	MW-F15_07/22/2011	MW-F15_05/05/2015	MW-F15_11/04/2015	MW-F15_05/03/2016	MW-F16_13022017	MW-F15_12/28/2017	MW-F16_10/26/00_NM	MW-F16_11/01/2002	MW-F16_01/23/2004	MW-F16_01/23/2004_DUP	
Sample Date			N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Type			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	
Acquifer																											
2-Naphthylamine			< 10 U	--	--	--	< 10 U	< 10 U	--	--	< 4.9 U	--	--	< 10 U	--	< 10 U	< 4.9 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
2-Nitroaniline			< 50 U	--	--	--	< 50 U	< 50 U	< 48 U	--	< 0.97 U	--	--	< 50 U	--	< 50 U	< 0.99 U	--	--	--	--	--	< 50 U	--	< 50 U	< 50 U	
2-Nitrophenol			< 10 U	--	--	--	< 10 U	< 10 U	< 9.5 U	--	< 0.97 U	--	--	< 10 U	--	< 10 U	< 0.99 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
2-Picoline			< 10 U	--	--	--	< 10 U	< 10 U	--	--	< 1.9 U	--	--	< 10 U	--	< 10 U	< 2.0 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
3,3-Dichlorobenzidine			< 20 U	--	--	--	< 20 U	< 20 U	< 19 U	--	< 19 U	--	--	< 20 U	--	< 20 U	< 20 U	--	--	--	--	--	< 20 U	--	< 20 U	< 20 U	
3,3-Dimethylbenzidine			< 20 U	--	--	--	< 20 U	< 20 U	--	--	< 19 U	--	--	< 20 U	--	< 20 U	< 20 U	--	--	--	--	--	< 20 U	--	< 20 U	< 20 U	
3-Methylchloranthrene			< 10 U	--	--	--	< 10 U	< 10 U	--	--	< 0.97 U	--	--	< 10 U	--	< 10 U	< 0.99 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
3-Methylphenol, 4-Methylphenol	10	5100	--	--	--	--	--	--	< 9.5 U	--	< 1.9 U	--	--	--	--	--	< 2.0 U	--	--	--	--	--	--	--	--	--	
3-Nitroaniline			< 50 U	--	--	--	< 50 U	< 50 U	< 48 U	--	< 4.9 U	--	--	< 50 U	--	< 50 U	< 4.9 U	--	--	--	--	--	< 50 U	--	< 50 U	< 50 U	
4-Aminobiphenyl			< 10 U	--	--	--	< 10 U	< 10 U	--	--	< 4.9 U	--	--	< 10 U	--	< 10 U	< 4.9 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
4-Bromophenyl phenyl ether			< 10 U	--	--	--	< 10 U	< 10 U	< 9.5 U	--	< 0.97 U	--	--	< 10 U	--	< 10 U	< 0.99 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
4-Chloro-3-Methylphenol			< 10 U	--	--	--	< 10 U	< 10 U	< 9.5 U	--	< 0.97 U	--	--	< 10 U	--	< 10 U	< 0.99 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
4-Chlorophenyl phenyl ether			< 10 U	--	--	--	< 10 U	< 10 U	< 9.5 U	--	< 0.97 U	--	--	< 10 U	--	< 10 U	< 0.99 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
4-Dimethylaminoazobenzene			< 10 U	--	--	--	< 10 U	< 10 U	--	--	< 4.9 U	--	--	< 10 U	--	< 10 U	< 4.9 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
4-Methylphenol	10	10000	< 10 U	--	--	--	< 10 U	< 10 U	--	--	--	--	--	< 10 U	--	< 10 U	--	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
4-Nitroaniline			< 50 U	--	--	--	< 50 U	< 50 U	< 48 U	--	< 4.9 U	--	--	< 50 U	--	< 50 U	< 4.9 U	--	--	--	--	--	< 50 U	--	< 50 U	< 50 U	
4-Nitrophenol			< 50 U	--	--	--	< 50 U	< 50 U	< 48 U	--	< 4.9 U	--	--	< 50 U	--	< 50 U	< 4.9 U	--	--	--	--	--	< 50 U	--	< 50 U	< 50 U	
4-Nitroquinoline-N-Oxide			< 20 U	--	--	--	< 20 U	< 20 U	--	--	< 1.9 U	--	--	< 20 U	--	< 20 U	< 2.0 U	--	--	--	--	--	< 20 U	--	< 20 U	< 20 U	
5-Nitro-o-Toluidine			< 10 U	--	--	--	< 10 U	< 10 U	--	--	< 0.97 U	--	--	< 10 U	--	< 10 U	< 0.99 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
7,12-Dimethylbenz(a)anthracene			< 10 U	--	--	--	< 10 U	< 10 U	--	--	< 0.97 U	--	--	< 10 U	--	< 10 U	< 0.99 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
Acenaphthene	2000	6100	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 9.5 U	--	< 0.19 U	--	--	< 10 U	< 10 U	< 10 U	< 0.20 U	--	--	--	--	--	< 10 U	< 10 U	< 10 U	< 10 U	
Acenaphthylene	10	10	< 10 U	--	--	--	< 10 U	< 10 U	< 9.5 U	--	< 0.19 U	--	--	< 10 U	--	< 10 U	< 0.20 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
Acetophenone	4000	10000	< 10 U	--	--	--	< 10 U	< 10 U	< 9.5 U	--	< 0.97 U	--	--	< 10 U	--	< 10 U	< 0.99 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
Aniline	20	500	< 20 U	--	--	--	< 20 U	< 20 U	--	--	< 1.9 U	--	--	< 20 U	--	< 20 U	< 2.0 U	--	--	--	--	--	< 20 U	--	< 20 U	< 20 U	
Anthracene	10	31000	< 10 U	--	--	--	< 10 U	< 10 U	< 9.5 U	--	< 0.19 U	--	--	< 10 U	--	< 10 U	< 0.20 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
Aramite			< 10 U	--	--	--	< 10 U	< 10 U	--	--	< 1.5 U	--	--	< 10 U	--	< 10 U	< 1.5 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
Atrazine			--	--	--	--	--	--	< 9.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzaldehyde			--	--	--	--	--	--	< 9.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo(a)anthracene	10	10	< 10 U	--	--	--	< 10 U	< 10 U	< 9.5 U	--	< 0.19 U	--	--	< 10 U	--	< 10 U	< 0.20 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
Benzo(a)pyrene	10	10	< 10 U	--	--	--	< 10 U	< 10 U	< 9.5 U	--	< 0.19 U	--	--	< 10 U	--	< 10 U	< 0.20 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
Benzo(b)fluoranthene	10	10	< 10 U	--	--	--	--	< 10 U	< 9.5 U	--	< 0.19 U	--	--	< 10 U	--	--	< 0.20 U	--	--	--	--	--	< 10 U	--	--	--	
Benzo(g,h,i)perylene	10	10	< 10 U	--	--	--	< 10 U	< 10 U	< 9.5 U	--	< 0.19 U	--	--	< 10 U	--	< 10 U	< 0.20 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
Benzo(k)fluoranthene	10	39	< 10 U	--	--	--	< 10 U	< 10 U	< 9.5 U	--	< 0.19 U	--	--	< 10 U	--	< 10 U	< 0.20 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
Benzyl Alcohol			< 10 U	--	--	--	< 10 U	< 10 U	--	--	< 0.97 U	--	--	< 10 U	--	< 10 U	< 0.99 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
beta-Pinene			< 100 U	--	--	--	< 10 U	--	--	--	--	--	--	< 100 U	--	< 10 U	--	--	--	--	--	--	< 100 U	--	< 10 U	< 10 U	
bis(2-Chloroethoxy)methane			< 10 U	--	--	--	< 10 U	< 10 U	< 9.5 U	--	< 0.97 U	--	--	< 10 U	--	< 10 U	< 0.99 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
bis(2-Chloroethyl)ether			< 10 U	--	--	--	< 10 U	< 10 U	< 9.5 U	--	< 0.97 U	--	--	< 10 U	--	< 10 U	< 0.99 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
bis(2-Ethylhexyl)phthalate	10	200	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 9.5 U	--	16	< 2.0 U	--	< 10 U	< 10 U	< 10 U	< 2.0 U	--	--	--	--	--	< 10 U	< 10 U	< 10 U	< 10 U	
Butyl benzyl phthalate	100	15061	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 9.5 U	--	< 0.97 U	--	--	< 10 U	< 10 U	< 10 U	< 0.99 U	--	--	--	--	--	< 10 U	< 10 U	< 10 U	< 10 U	
Caprolactam			--	--	--	--	--	--	370 D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Carbazole			--	--	--	--	--	--	< 9.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Chrysene	10	40	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 9.5 U	--	< 0.19 U	--	--	< 10 U	< 10 U	< 10 U	< 0.20 U	--	--	--	--	--	< 10 U	< 10 U	< 10 U	< 10 U	
Diallate			< 10 U	--	--	--	< 10 U	< 10 U	--	--	< 0.97 U	--	--	< 10 U	--	< 10 U	< 0.99 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
Dibenzo(a,h)anthracene	10	10	< 10 U	--	--	--	< 10 U	< 10 U	< 9.5 U	--	< 0.19 U	--	--	< 10 U	--	< 10 U	< 0.20 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
Dibenzofuran	10	10	< 10 U	--	--	--	< 10 U	< 10 U	< 9.5 U	--	< 0.97 U	--	--	< 10 U	--	< 10 U	< 0.99 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
Diethyl phthalate			< 10 U	--	--	--	< 10 U	< 10 U	< 9.5 U	--	< 0.97 U	--	--	< 10 U	--	< 10 U	< 0.99 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
Dimethoate			< 10 U	--	--	--	--	--	--	--	< 1.9 U	--	--	< 10 U	--	--	< 2.0 U	--	--	--	--	--	< 10 U	--	--	--	
Dimethyl phthalate			< 10 U	--	--	--	< 10 U	< 10 U	< 9.5 U	--	< 0.97 U	--	--	< 10 U	--	< 10 U	< 0.99 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
Dimethylphenethylamine			< 2000 U	--	--	--	< 2000 U	< 2000 U	--	--	< 9.7 U	--	--	< 2000 U	--	< 2000 U	< 9.9 U	--	--	--	--	--	< 2000 U	--	< 2000 U	< 2000 U	
Di-n-butyl phthalate			< 10 U	--	--	--	< 10 U	< 10 U	< 9.5 U	--	< 0.97 U	--	--	< 10 U	--	< 10 U	< 0.99 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
Di-n-octyl phthalate	700	700	< 10 U	--	--	--	< 10 U	< 10 U	< 9.5 U	--	< 0.97 U	--	--	< 10 U	--	< 10 U	< 0.99 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
Dinoseb			< 10 U	--	--	--	< 10 U	< 10 U	--	--	< 1.9 U	--	--	< 10 U	--	< 10 U	< 2.0 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
Diphenyl ether			< 10 U	--	< 10 U	< 10 U	--	--	--	--	--	--	--	< 10 U	< 10 U	--	--	--	--	--	--	--	< 10 U	< 10 U	--	--	
Disulfoton																											



			MW-F14	MW-F14	MW-F14	MW-F14	MW-F14	MW-F14	MW-F14	MW-F14	MW-F14	MW-F14	MW-F14	MW-F15	MW-F15	MW-F15	MW-F15	MW-F15	MW-F15	MW-F15	MW-F15	MW-F15	MW-F16	MW-F16	MW-F16	MW-F16	
Sample ID	Type 1	Type 3/4	MW-F14_10/27/00_NM	MW-F14_11/25/01_NM	MW-F14_11/01/02_NM	MW-F14_12/19/02_NM	MW-F14_01/23/04_NM	MW-F14_17_7/1/04_NM	MW-F14_14_7/6/06_NM	MW-F14_14_8/17/06_NM	MW-F14_07/21/2011	MW-F14_11/25/2013	MW-F14_13022017	MW-F15_10/30/2000	MW-F15_11/01/2002	MW-F15_01/22/2004	MW-F15_07/22/2011	MW-F15_05/05/2015	MW-F15_11/04/2015	MW-F15_05/03/2016	MW-F16_10/23/2017	MW-F15_12/28/2017	MW-F16_10/26/00_NM	MW-F16_11/01/2002	MW-F16_01/23/04_NM	MW-F16_01/23/04_DUP	
Sample Date	RRS	RRS	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Sample Type			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	
Aquifer																											
Pinene			< 100 U	--	--	--	< 10 U	--	--	--	< 190 U	--	--	< 100 U	--	< 10 U	--	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
p-Phenylenediamine			< 2000 U	--	--	--	< 2000 U	< 2000 U	--	--	< 10 U	--	--	< 2000 U	--	< 2000 U	< 200 U	--	--	--	--	--	< 2000 U	--	< 2000 U	< 2000 U	
Propyzamide			< 10 U	--	--	--	< 10 U	< 10 U	--	--	< 0.97 U	--	--	< 10 U	--	< 10 U	< 0.99 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
Pyrene	1000	3100	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 9.5 U	--	< 0.19 U	--	--	< 10 U	< 10 U	< 10 U	< 0.20 U	--	--	--	--	--	< 10 U	< 10 U	< 10 U	< 10 U	
Pyridine			< 50 U	--	--	--	< 50 U	< 50 U	--	--	< 4.9 U	--	--	< 50 U	--	< 50 U	< 4.9 U	--	--	--	--	--	< 50 U	--	< 50 U	< 50 U	
Safrole			< 10 U	--	--	--	< 10 U	< 10 U	--	--	< 0.97 U	--	--	< 10 U	--	< 10 U	< 0.99 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
Sulfotep			< 10 U	--	--	--	--	--	--	--	< 0.97 U	--	--	< 10 U	--	--	< 0.99 U	--	--	--	--	--	< 10 U	--	--	--	
Volatile Organic Compounds (µg/L)																											
1,1,1,2-Tetrachloroethane			< 1 U	--	--	--	< 1 U	< 1 U	--	--	< 1.0 U	--	--	< 1 U	--	< 1 U	< 1.0 U	--	--	--	--	--	< 1 U	--	< 1 U	< 1 U	
1,1,1-Trichloroethane			< 1 U	--	--	--	< 1 U	< 1 U	< 1 U	--	< 1.0 U	--	UJ	< 1 U	--	< 1 U	< 1.0 U	--	--	--	UJ	--	< 1 U	--	< 1 U	< 1 U	
1,1,2,2-Tetrachloroethane			< 1 U	--	--	--	< 1 U	< 1 U	< 1 U	--	< 1.0 U	--	UJ	< 1 U	--	< 1 U	< 1.0 U	--	--	--	< 1.0 UJ	--	< 1 U	--	< 1 U	< 1 U	
1,1,2-Trichloroethane			< 1 U	--	--	--	< 1 U	< 1 U	< 1 U	--	< 1.0 U	--	UJ	< 1 U	--	< 1 U	< 1.0 U	--	--	--	UJ	--	< 1 U	--	< 1 U	< 1 U	
1,1-Dichloroethane			< 1 U	--	--	--	< 1 U	< 1 U	< 1 U	--	< 1.0 U	--	UJ	< 1 U	--	< 1 U	< 1.0 U	--	--	--	UJ	--	< 1 U	--	< 1 U	< 1 U	
1,1-Dichloroethene			< 1 U	--	--	--	< 1 U	< 1 U	< 1 U	--	< 1.0 U	--	UJ	< 1 U	--	< 1 U	< 1.0 U	--	--	--	UJ	--	< 1 U	--	< 1 U	< 1 U	
1,2,3-Trichloropropane			< 1 U	--	--	--	< 1 U	< 1 U	--	--	< 1.0 U	--	--	< 1 U	--	< 1 U	< 1.0 U	--	--	--	--	--	< 1 U	--	< 1 U	< 1 U	
1,2,4-Trichlorobenzene			--	--	--	--	--	--	--	--	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	--	--	
1,2-Dibromo-3-chloropropane			< 1 U	--	--	--	< 1 U	< 1 U	--	--	< 1.0 U	--	--	< 1 U	--	< 1 U	< 1.0 U	--	--	--	--	--	< 1 U	--	< 1 U	< 1 U	
1,2-Dibromothane			< 1 U	--	--	--	< 1 U	< 1 U	--	--	< 1.0 U	--	--	< 1 U	--	< 1 U	< 1.0 U	--	--	--	--	--	< 1 U	--	< 1 U	< 1 U	
1,2-Dichlorobenzene			--	--	--	--	--	--	--	--	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	--	--	
1,2-Dichloroethane			< 1 U	--	--	--	< 1 U	< 1 U	< 1 U	--	< 1.0 U	--	UJ	< 1 U	--	< 1 U	< 1.0 U	--	--	--	UJ	--	< 1 U	--	< 1 U	< 1 U	
1,2-Dichloropropane	5	7.4	< 1 U	--	--	--	2.1	1.9	< 1 U	--	< 1.0 U	--	UJ	< 1 U	--	< 1 U	< 1.0 U	--	--	--	UJ	--	< 1 U	--	< 1 U	< 1 U	
1,3-Dichlorobenzene			--	--	--	--	--	--	--	--	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	--	--	
1,4-Dichlorobenzene			--	--	--	--	--	--	--	--	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	--	--	
1,4-Dioxane	70	70	--	--	--	--	--	--	--	--	< 50 U	--	--	--	--	--	< 50 U	--	--	--	--	--	--	--	--	--	
2-Butanone (MEK)	2000	12000	< 10 U	--	--	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	UJ	< 10 U	--	< 10 U	< 10 U	--	--	--	UJ	--	< 10 U	--	< 10 U	< 10 U	
2-Chlor-1,3-Butadiene			< 1 U	--	--	--	< 1 U	< 1 U	--	--	< 1.0 U	--	--	< 1 U	--	< 1 U	< 1.0 U	--	--	--	--	--	< 1 U	--	< 1 U	< 1 U	
2-Chloroethyl vinyl ether			--	--	--	--	< 10 U	--	--	--	--	--	UJ	--	--	< 10 U	--	--	--	--	UJ	--	--	--	< 10 U	< 10 U	
2-Methyl-1-propanol	10000	31000	< 40 U	--	< 200 U	< 200 U	< 40 U	< 40 U	--	--	< 40 U	--	--	< 40 U	< 200 U	< 40 U	< 40 U	--	--	--	--	--	< 40 U	< 200 U	< 40 U	< 40 U	
4-Methyl-2-Pentanone	2000	4200	< 10 U	--	--	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	--	< 10 U	< 10 U	--	--	--	--	--	< 10 U	--	< 10 U	< 10 U	
Acetone	4000	46000	< 59 U	< 50 U	< 50 U	< 50 U	< 25 U	< 25 U	< 25 U	--	< 25 U	--	43 J	< 25 U	< 50 U	< 25 U	< 25 U	--	--	--	UJ	--	< 25 U	< 50 U	< 25 U	< 25 U	
Acetonitrile	200	200	< 40 U	--	--	--	< 40 U	< 40 U	--	--	< 40 U	--	--	< 40 U	--	< 40 U	< 40 U	--	--	--	--	--	< 40 U	--	< 40 U	< 40 U	
Acrolein	700	700	< 20 U	--	< 100 U	< 100 U	< 20 U	< 20 U	--	--	< 20 U	--	< 20 UJ	< 20 U	< 100 U	< 20 U	< 20 U	--	--	--	UJ	--	< 20 U	< 100 U	< 20 U	< 20 U	
Acrylonitrile			< 20 U	--	--	--	< 20 U	< 20 U	--	--	< 20 U	--	UJ	< 20 U	--	< 20 U	< 20 U	--	--	--	UJ	--	< 20 U	--	< 20 U	< 20 U	
Allyl chloride			< 1 U	--	--	--	< 1 U	< 1 U	--	--	< 1.0 U	--	--	< 1 U	--	< 1 U	< 1.0 U	--	--	--	--	--	< 1 U	--	< 1 U	< 1 U	
Benzene	5	8.7	10	5.4	5.3	9.4	14	9.2	2.2	3.4	3.1	--	UJ	< 1 U	< 5 U	< 1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	UJ	< 1.0 U	< 1 U	< 5 U	< 1 U	< 1 U	
Bromodichloromethane			< 1 U	--	--	--	< 1 U	< 1 U	< 1 U	--	< 1.0 U	--	UJ	< 1 U	--	< 1 U	< 1.0 U	--	--	--	UJ	--	< 1 U	--	< 1 U	< 1 U	
Bromoform			< 1 U	--	--	--	< 1 U	< 1 U	< 1 U	--	< 1.0 U	--	UJ	< 1 U	--	< 1 U	< 1.0 U	--	--	--	UJ	--	< 1 U	--	< 1 U	< 1 U	
Bromomethane			< 1 U	--	--	--	< 1 U	< 1 U	< 1 U	--	< 1.0 U	--	UJ	< 1 U</													



31/51



Well ID			MW-F16	MW-F16	MW-F16	MW-F16	MW-F17	MW-F17	MW-F17	MW-F17	MW-F19	MW-F19	MW-F19	MW-F19	MW-F19	MW-F19	MW-F19	MW-F20	MW-F20	MW-F20	MW-F20	MW-F20	MW-F20	MW-F21	MW-F21	MW-F21
Sample ID	Type 1	Type 3/4	MW-14_7/1/04_NM	MW-F16_7/6/06_NM	MW-F16 (072011)	MW-F16(112513)	MW-F17_11/1/00_NM	MW-F17_11/1/02_NM	MW-F17_11/22/04_NM	MW-F17 (072211)	MW-F19_10/31/00_NM	MW-F19_11/1/02_NM	MW-F19_11/20/04_NM	MW-F19_3_6/30/04_NM	MW-F19 (071911)	MW-F19(112613)	MW-F20_11/1/00_NM	MW-F20_11/1/02_NM	MW-F20_12/19/02_NM	MW-F20_1/21/04_NM	MW-F20_22_7/2/04_NM	MW-F20_8/17/06_NM	MW-F21_11/1/00_NM	MW-F21_1/25/01_NM	MW-F21_11/01/02_NM	
Sample Date	RRS	RRS	07/01/2004	07/06/2006	07/20/2011	11/25/2013	11/01/2000	11/01/2002	01/22/2004	07/22/2011	10/31/2000	11/01/2002	01/20/2004	06/30/2004	07/19/2011	11/26/2013	11/01/2000	11/01/2002	12/19/2002	01/21/2004	07/02/2004	08/17/2006	11/01/2000	01/25/2001	11/01/2002	
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Acquifer			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	
2-Naphthylamine			< 10 U	--	< 5.0 U	--	< 10 U	--	< 10 U	< 4.9 U	< 10 U	--	< 10 U	< 10 U	< 4.9 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
2-Nitroaniline			< 50 U	< 48 U	< 0.99 U	--	< 50 U	--	< 50 U	< 0.99 U	< 50 U	--	< 50 U	< 50 U	< 0.98 U	--	< 50 U	--	--	< 50 U	< 50 U	--	< 50 U	--	--	
2-Nitrophenol			< 10 U	< 9.5 U	< 0.99 U	--	< 10 U	--	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 10 U	< 0.98 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
2-Picoline			< 10 U	--	< 2.0 U	--	< 10 U	--	< 10 U	< 2.0 U	< 10 U	--	< 10 U	< 10 U	< 2.0 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
3,3-Dichlorobenzidine			< 20 U	< 19 U	< 20 U	--	< 20 U	--	< 20 U	< 20 U	< 20 U	--	< 20 U	< 20 U	< 20 U	--	< 20 U	--	--	< 20 U	< 20 U	--	< 20 U	--	--	
3,3-Dimethylbenzidine			< 20 U	--	< 20 U	--	< 20 U	--	< 20 U	< 20 U	< 20 U	--	< 20 U	< 20 U	< 20 U	--	< 20 U	--	--	< 20 U	< 20 U	--	< 20 U	--	--	
3-Methylchloranthrene			< 10 U	--	< 0.99 U	--	< 10 U	--	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 10 U	< 0.98 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
3-Methylphenol, 4-Methylphenol	10	5100	--	< 9.5 U	< 2.0 U	--	--	--	--	< 2.0 U	--	--	--	--	< 2.0 U	--	--	--	--	--	--	--	--	--	--	
3-Nitroaniline			< 50 U	< 48 U	< 5.0 U	--	< 50 U	--	< 50 U	< 4.9 U	< 50 U	--	< 50 U	< 50 U	< 4.9 U	--	< 50 U	--	--	< 50 U	< 50 U	--	< 50 U	--	--	
4-Aminobiphenyl			< 10 U	--	< 5.0 U	--	< 10 U	--	< 10 U	< 4.9 U	< 10 U	--	< 10 U	< 10 U	< 4.9 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
4-Bromophenyl phenyl ether			< 10 U	< 9.5 U	< 0.99 U	--	< 10 U	--	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 10 U	< 0.98 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
4-Chloro-3-Methylphenol			< 10 U	< 9.5 U	< 0.99 U	--	< 10 U	--	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 10 U	< 0.98 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
4-Chlorophenyl phenyl ether			< 10 U	< 9.5 U	< 0.99 U	--	< 10 U	--	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 10 U	< 0.98 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
4-Dimethylaminoazobenzene			< 10 U	--	< 5.0 U	--	< 10 U	--	< 10 U	< 4.9 U	< 10 U	--	< 10 U	< 10 U	< 4.9 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
4-Methylphenol	10	10000	< 10 U	--	--	--	< 10 U	--	< 10 U	--	< 10 U	--	< 10 U	< 10 U	--	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
4-Nitroaniline			< 50 U	< 48 U	< 5.0 U	--	< 50 U	--	< 50 U	< 4.9 U	< 50 U	--	< 50 U	< 50 U	< 4.9 U	--	< 50 U	--	--	< 50 U	< 50 U	--	< 50 U	--	--	
4-Nitrophenol			< 50 U	< 48 U	< 5.0 U	--	< 50 U	--	< 50 U	< 4.9 U	< 50 U	--	< 50 U	< 50 U	< 4.9 U	--	< 50 U	--	--	< 50 U	< 50 U	--	< 50 U	--	--	
4-Nitroquinoline-N-Oxide			< 20 U	--	< 2.0 U	--	< 20 U	--	< 20 U	< 2.0 U	< 20 U	--	< 20 U	< 20 U	< 2.0 U	--	< 20 U	--	--	< 20 U	< 20 U	--	< 20 U	--	--	
5-Nitro-o-Toluidine			< 10 U	--	< 0.99 U	--	< 10 U	--	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 10 U	< 0.98 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
7,12-Dimethylbenz(a)anthracene			< 10 U	--	< 0.99 U	--	< 10 U	--	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 10 U	< 0.98 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
Acenaphthene	2000	6100	< 10 U	< 9.5 U	< 0.20 U	--	< 10 U	< 10 U	< 10 U	< 0.20 U	< 10 U	< 10 U	< 10 U	< 10 U	< 0.20 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	--	< 10 U	--	< 10 U	
Acenaphthylene	10	10	< 10 U	< 9.5 U	< 0.20 U	--	< 10 U	--	< 10 U	< 0.20 U	< 10 U	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
Acetophenone	4000	10000	< 10 U	< 9.5 U	< 0.99 U	--	< 10 U	--	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 10 U	< 0.98 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
Aniline	20	500	< 20 U	--	< 2.0 U	--	< 20 U	--	< 20 U	< 2.0 U	< 20 U	--	< 20 U	< 20 U	< 2.0 U	--	< 20 U	--	--	< 20 U	< 20 U	--	< 20 U	--	--	
Anthracene	10	31000	< 10 U	< 9.5 U	< 0.20 U	--	< 10 U	--	< 10 U	< 0.20 U	< 10 U	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
Aramite			< 10 U	--	< 1.5 U	--	< 10 U	--	< 10 U	< 1.5 U	< 10 U	--	< 10 U	< 10 U	< 1.5 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
Atrazine			--	< 9.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzaldehyde			--	< 9.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo(a)anthracene	10	10	< 10 U	< 9.5 U	< 0.20 U	--	< 10 U	--	< 10 U	< 0.20 U	< 10 U	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
Benzo(a)pyrene	10	10	< 10 U	< 9.5 U	< 0.20 U	--	< 10 U	--	< 10 U	< 0.20 U	< 10 U	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
Benzo(b)fluoranthene	10	10	< 10 U	< 9.5 U	< 0.20 U	--	< 10 U	--	--	< 0.20 U	< 10 U	--	--	< 10 U	< 0.20 U	--	< 10 U	--	--	--	< 10 U	--	< 10 U	--	--	
Benzo(g,h,i)perylene	10	10	< 10 U	< 9.5 U	< 0.20 U	--	< 10 U	--	< 10 U	< 0.20 U	< 10 U	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
Benzo(k)fluoranthene	10	39	< 10 U	< 9.5 U	< 0.20 U	--	< 10 U	--	< 10 U	< 0.20 U	< 10 U	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
Benzyl Alcohol			< 10 U	--	< 0.99 U	--	< 10 U	--	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 10 U	< 0.98 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
beta-Pinene			--	--	--	--	< 100 U	--	< 10 U	--	< 100 U	--	< 10 U	--	--	--	< 100 U	--	--	< 10 U	--	--	< 100 U	--	--	
bis(2-Chloroethoxy)methane			< 10 U	< 9.5 U	< 0.99 U	--	< 10 U	--	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 10 U	< 0.98 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
bis(2-Chloroethyl)ether			< 10 U	< 9.5 U	< 0.99 U	--	< 10 U	--	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 10 U	< 0.98 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
bis(2-Ethylhexyl)phthalate	10	200	< 10 U	< 9.5 U	23	< 2.0 U	< 10 UJ	< 10 U	< 10 U	< 2.0 U	< 10 UJ	< 10 U	< 10 U	< 10 U	19	< 2.0 U	< 10 UJ	< 10 U	< 10 U	< 10 U	< 10 U	< 10 UJ	--	< 10 U		
Butyl benzyl phthalate	100	15061	< 10 U	< 9.5 U	< 0.99 U	--	< 10 U	< 10 U	< 10 U	< 0.99 U	< 10 U	< 10 U	< 10 U	< 10 U	< 0.98 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	--	< 10 U	--	< 10 U	
Caprolactam			--	570 D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Carbazole			--	< 9.5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Chrysene	10	40	< 10 U	< 9.5 U	< 0.20 U	--	< 10 U	< 10 U	< 10 U	< 0.20 U	< 10 U	< 10 U	< 10 U	< 10 U	< 0.20 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	--	< 10 U	--	< 10 U	
Diallate			< 10 U	--	< 0.99 U	--	< 10 U	--	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 10 U	< 0.98 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
Dibenzo(a,h)anthracene	10	10	< 10 U	< 9.5 U	< 0.20 U	--	< 10 U	--	< 10 U	< 0.20 U	< 10 U	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
Dibenzofuran	10	10	< 10 U	< 9.5 U	< 0.99 U	--	< 10 U	--	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 10 U	< 0.98 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
Diethyl phthalate			< 10 U	< 9.5 U	< 0.99 U	--	< 10 U	--	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 10 U	< 0.98 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
Dimethoate			--	--	< 2.0 U	--	< 10 U	--	--	< 2.0 U	< 10 U	--	--	--	< 2.0 U	--	< 10 U	--	--	--	--	--	< 10 U	--	--	
Dimethoate			--	--	< 2.0 U	--	< 10 U	--	--	< 2.0 U	< 10 U	--	--	--	< 2.0 U	--	< 10 U	--	--	--	--	--	< 10 U	--	--	
Dimethyl phthalate			< 10 U	< 9.5 U	< 0.99 U	--	< 10 U	--	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 10 U	< 0.98 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
Dimethylphenethylamine			< 2000 U	--	< 9.9 U	--	< 2000 U	--	< 2000 U	< 9.9 U	< 2000															



			MW-F16	MW-F16	MW-F16	MW-F16	MW-F17	MW-F17	MW-F17	MW-F17	MW-F19	MW-F19	MW-F19	MW-F19	MW-F19	MW-F19	MW-F20	MW-F20	MW-F20	MW-F20	MW-F20	MW-F20	MW-F21	MW-F21	MW-F21	
Sample ID	Type 1	Type 3/4	MW-14_7/1/04_NM	MW-F16_7/6/06_NM	MW-F16 (072011)	MW-F16(112513)	MW-F17_11/1/00_NM	MW-F17_11/1/02_NM	MW-F17_17/10/2004_NM	MW-F17 (072211)	MW-F19_10/31/00_NM	MW-F19_11/1/02_NM	MW-F19_19/12/04_NM	MW-F19_3_6/30/04_NM	MW-F19 (071911)	MW-F19(112613)	MW-F20_11/1/00_NM	MW-F20_11/1/02_NM	MW-F20_12/19/02_NM	MW-F20_1/21/04_NM	MW-F20_22_7/2/04_NM	MW-F20_8/17/06_NM	MW-F21_11/01/00_NM	MW-F21_01/25/2001_NM	MW-F21_11/01/02_NM	
Sample Date	RRS	RRS	07/01/2004	07/06/2006	07/20/2011	11/25/2013	11/01/2000	11/01/2002	01/22/2004	07/22/2011	10/31/2000	11/01/2002	01/20/2004	06/30/2004	07/19/2011	11/26/2013	11/01/2000	11/01/2002	12/19/2002	01/21/2004	07/02/2004	08/17/2006	11/01/2000	01/25/2001	11/01/2002	
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Aquifer			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	
Pinene			--	--	--	--	< 100 U	--	< 10 U	--	< 100 U	--	< 10 U	--	--	--	< 100 U	--	--	< 10 U	--	--	< 100 U	--	--	
p-Phenylenediamine			< 2000 U	--	< 200 U	--	< 2000 U	--	< 2000 U	< 200 U	< 2000 U	--	< 2000 U	< 2000 U	< 200 U	--	< 2000 U	--	--	< 2000 U	< 2000 U	--	< 2000 U	--	--	
Propyzamide			< 10 U	--	< 0.99 U	--	< 10 U	--	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 10 U	< 0.98 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
Pyrene	1000	3100	< 10 U	< 9.5 U	< 0.20 U	--	< 10 U	< 10 U	< 10 U	< 0.20 U	< 10 U	< 10 U	< 10 U	< 10 U	< 0.20 U	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	--	< 10 U	--	< 10 U	
Pyridine			< 50 U	--	< 5.0 U	--	< 50 U	--	< 50 U	< 4.9 U	< 50 U	--	< 50 U	< 50 U	< 4.9 U	--	< 50 U	--	--	< 50 U	< 50 U	--	< 50 U	--	--	
Safrole			< 10 U	--	< 0.99 U	--	< 10 U	--	< 10 U	< 0.99 U	< 10 U	--	< 10 U	< 10 U	< 0.98 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
Sulfotep			--	--	< 0.99 U	--	< 10 U	--	--	< 0.99 U	< 10 U	--	--	--	< 0.98 U	--	< 10 U	--	--	--	--	--	< 10 U	--	--	
Volatile Organic Compounds (µg/L)																										
1,1,1,2-Tetrachloroethane			< 1 U	--	< 1.0 U	--	< 1 U	--	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	< 1 U	--	--	< 1 U	< 1 U	--	< 1 U	--	--	
1,1,1-Trichloroethane			< 1 U	< 1 U	< 1.0 U	--	< 1 U	--	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	< 1 U	--	--	< 1 U	< 1 U	--	< 1 U	--	--	
1,1,2,2-Tetrachloroethane			< 1 U	< 1 U	< 1.0 U	--	< 1 U	--	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	< 1 U	--	--	< 1 U	< 1 U	--	< 1 U	--	--	
1,1,2-Trichloroethane			< 1 U	< 1 U	< 1.0 U	--	< 1 U	--	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	< 1 U	--	--	< 1 U	< 1 U	--	< 1 U	--	--	
1,1-Dichloroethane			< 1 U	< 1 U	< 1.0 U	--	< 1 U	--	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	< 1 U	--	--	< 1 U	< 1 U	--	< 1 U	--	--	
1,1-Dichloroethene			< 1 U	< 1 U	< 1.0 U	--	< 1 U	--	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	< 1 U	--	--	< 1 U	< 1 U	--	< 1 U	--	--	
1,2,3-Trichloropropane			< 1 U	--	< 1.0 U	--	< 1 U	--	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	< 1 U	--	--	< 1 U	< 1 U	--	< 1 U	--	--	
1,2,4-Trichlorobenzene			--	--	< 1.0 U	--	--	--	--	< 1.0 U	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	--	--	--	
1,2-Dibromo-3-chloropropane			< 1 U	--	< 1.0 U	--	< 1 U	--	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	< 1 U	--	--	< 1 U	< 1 U	--	< 1 U	--	--	
1,2-Dibromomethane			< 1 U	--	< 1.0 U	--	< 1 U	--	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	< 1 U	--	--	< 1 U	< 1 U	--	< 1 U	--	--	
1,2-Dichlorobenzene			--	--	< 1.0 U	--	--	--	--	< 1.0 U	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	--	--	--	
1,2-Dichloroethane			< 1 U	< 1 U	< 1.0 U	--	< 1 U	--	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	< 1 U	--	--	< 1 U	< 1 U	--	< 1 U	--	--	
1,2-Dichloropropane	5	7.4	< 1 U	< 1 U	< 1.0 U	--	< 1 U	--	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	< 1 U	--	--	< 1 U	< 1 U	--	< 1 U	--	--	
1,3-Dichlorobenzene			--	--	< 1.0 U	--	--	--	--	< 1.0 U	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	--	--	--	
1,4-Dichlorobenzene			--	--	< 1.0 U	--	--	--	--	< 1.0 U	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	--	--	--	
1,4-Dioxane	70	70	--	--	< 50 U	--	--	--	--	< 50 U	--	--	--	--	< 50 U	--	--	--	--	--	--	--	--	--	--	
2-Butanone (MEK)	2000	12000	< 10 U	< 10 U	< 10 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
2-Chlor-1,3-Butadiene			< 1 U	--	< 1.0 U	--	< 1 U	--	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	< 1 U	--	--	< 1 U	< 1 U	--	< 1 U	--	--	
2-Chloroethyl vinyl ether			--	--	--	--	--	--	< 10 U	--	--	--	< 10 U	--	--	--	--	--	--	< 10 U	--	--	--	--	--	
2-Methyl-1-propanol	10000	31000	< 40 U	--	< 40 U	--	< 40 U	< 200 U	< 40 U	< 40 U	< 40 U	< 200 U	< 40 U	< 40 U	< 40 U	--	< 40 U	< 200 U	< 200 U	< 40 U	< 40 U	--	140	< 200 U	< 200 U	
4-Methyl-2-Pentanone	2000	4200	< 10 U	< 10 U	< 10 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 10 U	< 10 U	< 10 U	--	< 10 U	--	--	< 10 U	< 10 U	--	< 10 U	--	--	
Acetone	4000	46000	< 25 U	< 25 U	< 25 U	--	< 25 U	< 50 U	< 25 U	< 25 U	< 25 U	< 50 U	< 25 U	< 25 U	< 25 U	--	< 25 U	< 50 U	< 50 U	< 25 U	< 25 U	--	< 93 U	< 50 U	< 50 U	
Acetonitrile	200	200	< 40 U	--	< 40 U	--	< 40 U	--	< 40 U	< 40 U	< 40 U	--	< 40 U	< 40 U	< 40 U	--	< 40 U	--	--	< 40 U	< 40 U	--	< 40 U	--	--	
Acrolein	700	700	< 20 U	--	< 20 U	--	< 20 U	< 100 U	< 20 U	< 20 U	< 20 U	< 100 U	< 20 U	< 20 U	< 20 U	--	< 20 U	< 100 U	< 100 U	< 20 U	< 20 U	--	< 20 U	--	< 100 U	
Acrylonitrile			< 20 U	--	< 20 U	--	< 20 U	--	< 20 U	< 20 U	< 20 U	--	< 20 U	< 20 U	< 20 U	--	< 20 U	--	--	< 20 U	< 20 U	--	< 20 U	--	--	
Allyl chloride			< 1 U	--	< 1.0 U	--	< 1 U	--	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	< 1 U	--	--	< 1 U	< 1 U	--	< 1 U	--	--	
Benzene	5	8.7	< 1 U	< 1 U	< 1.0 U	--	< 1 U	< 5 U	< 1 U	< 1.0 U	< 1 U	< 5 U	< 1 U	< 1 U	< 1.0 U	--	< 1 U	< 5 U	< 5 U	< 1 U	< 1 U	< 1 U	32	40	42	
Bromodichloromethane			< 1 U	< 1 U	< 1.0 U	--	< 1 U	--	< 1 U	< 1.0 U	< 1 U	--	< 1 U	< 1 U	< 1.0 U	--	< 1 U									



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Well ID			MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-22	MW-22	MW-22	MW-22	MW-23	MW-23	MW-23
Sample ID	Type 1 RRS	Type 3/4 RRS	MW- F21_12/19/02_NM 12/19/2002 N Shallow	MW- F21_1/22/04_NM 01/22/2004 N Shallow	MW- 28_7/3/04_NM 07/03/2004 N Shallow	MW- F21_8/16/06_NM 08/16/2006 N Shallow	MW- F21_7/30/08_NM 07/30/2008 N Shallow	MW- F21_11/19/08_NM 11/19/2008 N Shallow	MW-F21 (072111) 07/21/2011 N Shallow	DUP-02 (072111) 07/21/2011 FD Shallow	MW- F21(11122013) 11/12/2013 N Shallow	MW-F21 (052214) 05/22/2014 N Shallow	MW-F21 (110314) 11/03/2014 N Shallow	MW-F21 (110314) 11/03/2014 FD Shallow	MW- F21(05042015) 05/04/2015 N Shallow	MW-F21 (110415) 11/04/2015 N Shallow	MW-F21 (050316) 05/03/2016 N Shallow	MW-F21 (122717) 12/27/2017 N Shallow	MW- 22_11/01/02_NM 11/01/2002 N Shallow	MW- 11_7/1/04_NM 07/01/2004 N Shallow	MW-22 (072111) 07/21/2011 N Shallow	MW-22(112513) 11/25/2013 N Shallow	MW- 23_11/1/02_NM 11/01/2002 N Shallow	MW-9_7/1/04_NM 07/01/2004 N Shallow	MW-23 (072011) 07/20/2011 N Shallow	
2-Naphthylamine			--	< 10 U	< 10 U	--	--	--	< 240 U	< 48 U	< 49 U	< 5.2 U	< 52 U	--	< 4.8 U	--	--	--	--	< 10 U	< 5.0 U	--	--	< 10 U	< 4.9 U	
2-Nitroaniline			--	< 50 U	< 50 U	--	--	--	< 48 U	< 9.5 U	< 9.9 U	< 1.0 U	< 10 U	--	< 0.97 U	--	--	--	--	< 50 U	< 1.0 U	--	--	< 50 U	< 0.99 U	
2-Nitrophenol			--	< 10 U	< 10 U	--	--	--	< 48 U	< 9.5 U	< 9.9 U	< 1.0 U	< 10 U	--	< 0.97 U	--	--	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	
2-Picoline			--	< 10 U	< 10 U	--	--	--	< 96 U	< 19 U	< 20 U	< 2.1 U	< 21 U	--	< 1.9 U	--	--	--	--	< 10 U	< 2.0 U	--	--	< 10 U	< 2.0 U	
3,3-Dichlorobenzidine			--	< 20 U	< 20 U	--	--	--	< 960 U	< 190 U	< 200 U	< 21 U	< 210 U	--	< 19 U	--	--	--	--	< 20 U	< 2.0 U	--	--	< 20 U	< 2.0 U	
3,3-Dimethylbenzidine			--	< 20 U	< 20 U	--	--	--	< 960 U	< 190 U	< 200 U	< 21 U	< 210 U	--	< 19 U	--	--	--	--	< 20 U	< 2.0 U	--	--	< 20 U	< 2.0 U	
3-Methylchloranthrene			--	< 10 U	< 10 U	--	--	--	< 48 U	< 9.5 U	< 9.9 U	< 1.0 U	< 10 U	--	< 0.97 U	--	--	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	
3-Methylphenol, 4-Methylphenol	10	5100	--	--	--	--	--	--	< 96 U	< 19 U	--	--	--	--	--	--	--	--	--	--	< 2.0 U	--	--	--	< 2.0 U	
3-Nitroaniline			--	< 50 U	< 50 U	--	--	--	< 240 U	< 48 U	< 49 U	< 5.2 U	< 52 U	--	< 4.8 U	--	--	--	--	< 50 U	< 5.0 U	--	--	< 50 U	< 4.9 U	
4-Aminobiphenyl			--	< 10 U	< 10 U	--	--	--	< 240 U	< 48 U	< 49 U	< 5.2 U	< 52 U	--	< 4.8 U	--	--	--	--	< 10 U	< 5.0 U	--	--	< 10 U	< 4.9 U	
4-Bromophenyl phenyl ether			--	< 10 U	< 10 U	--	--	--	< 48 U	< 9.5 U	< 9.9 U	< 1.0 U	< 10 U	--	< 0.97 U	--	--	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	
4-Chloro-3-Methylphenol			--	< 10 U	< 10 U	--	--	--	< 48 U	< 9.5 U	< 9.9 U	< 1.0 U	< 10 U	--	< 0.97 U	--	--	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	
4-Chlorophenyl phenyl ether			--	< 10 U	< 10 U	--	--	--	< 48 U	< 9.5 U	< 9.9 U	< 1.0 U	< 10 U	--	< 0.97 U	--	--	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	
4-Dimethylaminoazobenzene			--	< 10 U	< 10 U	--	--	--	< 240 U	< 48 U	< 49 U	< 5.2 U	< 52 U	--	< 4.8 U	--	--	--	--	< 10 U	< 5.0 U	--	--	< 10 U	< 4.9 U	
4-Methylphenol	10	10000	--	36	38	--	--	--	--	--	< 20 U	< 2.1 U	< 21 U	--	< 1.9 U	< 11 U	< 2.0 U	< 2.2 U	--	< 10 U	--	--	--	< 10 U	--	
4-Nitroaniline			--	< 50 U	< 50 U	--	--	--	< 240 U	< 48 U	< 49 U	< 5.2 U	< 52 U	--	< 4.8 U	--	--	--	--	< 50 U	< 5.0 U	--	--	< 50 U	< 4.9 U	
4-Nitrophenol			--	< 50 U	< 50 U	--	--	--	< 240 U	< 48 U	< 49 U	< 5.2 U	< 84 U	--	< 7.7 U	--	--	--	--	< 50 U	< 5.0 U	--	--	< 50 U	< 4.9 U	
4-Nitroquinoline-N-Oxide			--	< 20 U	< 20 U	--	--	--	< 96 U	< 19 U	< 20 U	< 2.1 U	< 21 U	--	< 1.9 U	--	--	--	--	< 20 U	< 2.0 U	--	--	< 20 U	< 2.0 U	
5-Nitro-o-Toluidine			--	< 10 U	< 10 U	--	--	--	< 48 U	< 9.5 U	< 9.9 U	< 1.0 U	< 10 U	--	< 0.97 U	--	--	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	
7,12-Dimethylbenz(a)anthracene			--	< 10 U	< 10 U	--	--	--	< 48 U	< 9.5 U	< 9.9 U	< 1.0 U	< 21 U	--	< 1.9 U	--	--	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	
Acenaphthene	2000	6100	< 10 U	< 10 U	< 10 U	--	--	--	< 9.6 U	6.2	< 2.0 U	1.7	3.4	--	2.4	3.4	2.2	1.3	< 10 U	< 10 U	< 0.20 U	--	< 10 U	< 10 U	< 0.20 U	
Acenaphthylene	10	10	--	< 10 U	< 10 U	--	--	--	< 9.6 U	< 1.9 U	< 2.0 U	< 2.1 U	< 2.1 U	--	< 0.19 U	< 1.1 U	< 0.20 U	< 0.22 U	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	
Acetophenone	4000	10000	--	< 10 U	< 10 U	--	--	--	< 48 U	< 9.5 U	< 9.9 U	< 1.0 U	< 10 U	--	< 0.97 U	< 5.6 U	< 0.99 U	< 1.1 U	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	
Aniline	20	500	--	< 20 U	< 20 U	--	--	--	< 96 U	< 19 U	< 20 U	< 2.1 U	< 21 U	--	< 1.9 U	< 11 U	< 2.0 UF1	< 2.2 U	--	< 20 U	< 2.0 U	--	--	< 20 U	< 2.0 U	
Anthracene	10	31000	--	< 10 U	< 10 U	--	--	--	< 9.6 U	< 1.9 U	< 2.0 U	< 0.21 U	< 2.1 U	--	< 0.19 U	< 1.1 U	< 0.20 UF1	< 0.22 U	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	
Aramite			--	< 10 U	< 10 U	--	--	--	< 72 U	< 14 U	< 15 U	< 1.6 U	< 21 U	--	< 1.9 U	--	--	--	--	< 10 U	< 1.5 U	--	--	< 10 U	< 1.5 U	
Atrazine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzaldehyde			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo(a)anthracene	10	10	--	< 10 U	< 10 U	--	--	--	< 9.6 U	< 1.9 U	< 2.0 U	< 0.21 U	< 2.1 U	--	< 0.19 U	< 1.1 U	< 0.20 U	< 0.22 U	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	
Benzo(a)pyrene	10	10	--	< 10 U	< 10 U	--	--	--	< 9.6 U	< 1.9 U	< 2.0 U	< 0.21 U	< 2.1 U	--	< 0.19 U	< 1.1 U	< 0.20 U	< 0.22 U	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	
Benzo(b)fluoranthene	10	10	--	--	< 10 U	--	--	--	< 9.6 U	< 1.9 U	< 2.0 U	< 0.21 U	< 2.1 U	--	< 0.19 U	< 1.1 U	< 0.20 U	< 0.22 U	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	
Benzo(g,h,i)perylene	10	10	--	< 10 U	< 10 U	--	--	--	< 9.6 U	< 1.9 U	< 2.0 U	< 0.21 U	< 2.1 U	--	< 0.19 U	< 1.1 U	< 0.20 UF1	< 0.22 U	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	
Benzo(k)fluoranthene	10	39	--	< 10 U	< 10 U	--	--	--	< 9.6 U	< 1.9 U	< 2.0 U	< 0.21 U	< 2.1 U	--	< 0.19 U	< 1.1 U	< 0.20 UF1	< 0.22 U	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	
Benzyl Alcohol			--	< 10 U	< 10 U	--	--	--	< 48 U	< 9.5 U	< 9.9 U	< 1.0 U	< 10 U	--	< 0.97 U	--	--	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	
beta-Pinene			--	< 10 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
bis(2-Chloroethoxy)methane			--	< 10 U	< 10 U	--	--	--	< 48 U	< 9.5 U	< 9.9 U	< 1.0 U	< 10 U	--	< 0.97 U	--	--	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	
bis(2-Chloroethyl)ether			--	< 10 U	< 10 U	--	--	--	< 48 U	< 9.5 U	< 9.9 U	1.2	< 10 U	--	< 0.97 U	< 5.6 U	< 0.99 U	< 1.1 U	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	
bis(2-Ethylhexyl)phthalate	10	200	< 10 U	< 10 U	< 10 U	--	--	--	< 96 U	< 19 U	< 20 U	3.8	< 52 U	--	< 4.8 U	< 28 U	< 4.9 U	< 5.4 U	< 10 U	< 10 U	3.4 B	< 2.0 U	< 10 U	< 10 U	25	
Butyl benzyl phthalate	100	15061	< 10 U	< 10 U	< 10 U	--	--	--	< 48 U	< 9.5 U	< 9.9 U	< 1.0 U	< 10 U	--	< 0.97 U	< 5.6 U	< 0.99 U	< 1.1 U	< 10 U	< 10 U	< 1.0 U	--	< 10 U	< 10 U	< 0.99 U	
Caprolactam			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Carbazole			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Chrysene	10	40	< 10 U	< 10 U	< 10 U	--	--	--	< 9.6 U	< 1.9 U	< 2.0 U	< 0.21 U	< 2.1 U	--	< 0.19 U	< 1.1 U	< 0.20 U	< 0.22 U	< 10 U	< 10 U	< 0.20 U	--	< 10 U	< 10 U	< 0.20 U	
Diallate			--	< 10 U	< 10 U	--	--	--	< 48 U	< 9.5 U	< 9.9 U	< 1.0 U	< 10 U	--	< 0.97 U	--	--	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	
Dibenzo(a,h)anthracene	10	10	--	< 10 U	< 10 U	--	--	--	< 9.6 U	< 1.9 U	< 2.0 U	< 0.21 U	< 2.1 U	--	< 0.19 U	< 1.1 U	< 0.20 UF1	< 0.22 U	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	
Dibenzofuran	10	10	--	< 10 U	< 10 U	--	--	--	< 48 U	< 9.5 U	< 9.9 U	< 1.0 U	< 10 U	--	< 0.97 U	< 5.6 U	< 0.99 U	< 1.1 U	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	
Diethyl phthalate			--	< 10 U	< 10 U	--	--	--	< 48 U	< 9.5 U	< 9.9 U	< 1.0 U	< 10 U	--	< 0.97 U	--	--	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	
Dimethoate			--	--	--	--	--	--	< 96 U	< 19 U	< 20 U	< 2.1 U	< 21 U	--	< 1.9 U	--	--	--	--	--	< 2.0 U	--	--	--	< 2.0 U	
Dimethyl phthalate			--	< 10 U	< 10 U	--	--	--	< 48 U	< 9.5 U	< 9.9 U	< 1.0 U	< 10 U	--	< 0.97 U	--	--	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	
Dimethylphenethylamine			--	< 2000 U	< 2000 U	--	--	--	< 480 U	< 95 U	< 99 U	< 10 U	< 100 U	--	< 9.7 U	--	--	--	--	< 2000 U	< 10 U	--	--	< 2000 U	< 9.9 U	
Di-n-butyl phthalate			--	< 10 U	< 10 U	--	--	--	< 48 U	< 9.5 U	< 9.9 U	< 1.0 U	< 10 U	--	< 0.97 U	--	--	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	
Di-n-octyl phthalate	700	700	--	< 10 U	< 10 U	--	--	--	< 48 U	< 9.5 U	< 9.9 U	< 1.0 U	&lt													



			MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-F21	MW-22	MW-22	MW-22	MW-22	MW-23	MW-23	MW-23
Sample ID	Type 1	Type 3/4	MW-F21_12/19/02_NM	MW-F21_1/22/04_NM	MW-F21_28_7/3/04_NM	MW-F21_8/16/06_NM	MW-F21_7/30/2008_NM	MW-F21_11/19/08_NM	MW-F21 (072111)	DUP-02 (072111)	MW-F21_11/12/2013	MW-F21_05/22/2014	MW-F21 (110314)	DUP-01 (110314)	MW-F21_05/04/2015	MW-F21 (110415)	MW-F21_05/03/2016	MW-F21 (12/27/2017)	MW-22_11/1/02_NM	MW-22_11_7/1/04_NM	MW-22 (072111)	MW-22(112513)	MW-23_11/1/02_NM	MW-23_7/1/04_NM	MW-23 (072011)	
Sample Type	RRS	RRS	N	N	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	
Aquifer			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	
Pinene			--	< 10 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
p-Phenylenediamine			--	< 2000 U	< 2000 U	--	--	--	< 9600 U	< 1900 U	< 2000 U	< 210 U	< 2100 U	--	< 190 U	--	--	--	--	< 2000 U	< 200 U	--	--	--	< 2000 U	< 200 U
Propyzamide			--	< 10 U	< 10 U	--	--	--	< 48 U	< 9.5 U	< 9.9 U	< 1.0 U	< 10 U	--	< 0.97 U	--	--	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 1.0 U	< 0.99 U
Pyrene	1000	3100	< 10 U	< 10 U	< 10 U	--	--	--	< 9.6 U	< 1.9 U	< 2.0 U	< 0.21 U	< 2.1 U	--	< 0.19 U	< 1.1 U	< 0.20 U	< 0.22 U	< 10 U	< 10 U	< 0.20 U	--	< 10 U	< 10 U	< 0.20 U	
Pyridine			--	< 50 U	< 50 U	--	--	--	< 240 U	< 48 U	< 49 U	< 5.2 U	< 52 U	--	< 4.8 U	--	--	--	--	< 50 U	< 5.0 U	--	--	< 50 U	< 4.9 U	
Safrole			--	< 10 U	< 10 U	--	--	--	< 48 U	< 9.5 U	< 9.9 U	< 1.0 U	< 10 U	--	< 0.97 U	--	--	--	--	< 10 U	< 1.0 U	--	--	< 10 U	< 0.99 U	
Sulfotep			--	--	--	--	--	--	< 48 U	< 9.5 U	< 9.9 U	< 1.0 U	< 10 U	--	< 0.97 U	--	--	--	--	--	< 1.0 U	--	--	--	< 0.99 U	
Volatile Organic Compounds (µg/L)																										
1,1,1,2-Tetrachloroethane			--	< 1 U	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	
1,1,1-Trichloroethane			--	< 1 U	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	
1,1,2,2-Tetrachloroethane			--	< 1 U	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	
1,1,2-Trichloroethane			--	< 1 U	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	
1,1-Dichloroethane			--	< 1 U	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	
1,1-Dichloroethene			--	< 1 U	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	
1,2,3-Trichloropropane			--	< 1 U	< 1 U	--	--	--	< 1.0 U	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	
1,2,4-Trichlorobenzene			--	--	--	--	--	--	< 1.0 U	< 1.0 U	--	--	< 5.0 U	< 5.0 U	< 5.0 U	--	--	--	--	--	< 1.0 U	--	--	--	< 1.0 U	
1,2-Dibromo-3-chloropropane			--	< 1 U	< 1 U	--	--	--	< 1.0 U	< 1.0 U	--	--	< 5.0 U	< 5.0 U	< 5.0 U	--	--	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	
1,2-Dibromoethane			--	< 1 U	< 1 U	--	--	--	< 1.0 U	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	
1,2-Dichlorobenzene			--	--	--	--	--	--	< 1.0 U	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	< 1.0 U	
1,2-Dichloroethane			--	< 1 U	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	
1,2-Dichloropropane	5	7.4	--	< 1 U	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	< 1 U	< 1.0 U		
1,3-Dichlorobenzene			--	--	--	--	--	--	< 1.0 U	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	
1,4-Dichlorobenzene			--	--	--	--	--	--	< 1.0 U	< 1.0 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	
1,4-Dioxane	70	70	--	--	--	--	--	--	< 50 U	< 50 U	--	--	< 100 U	< 100 U	< 100 U	--	--	--	--	--	< 50 U	--	--	--	< 50 U	
2-Butanone (MEK)	2000	12000	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 250 U	< 10 U	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	
2-Chlor-1,3-Butadiene			--	< 1 U	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	
2-Chloroethyl vinyl ether			--	< 10 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Methyl-1-propanol	10000	31000	< 200 U	< 40 U	< 40 U	--	--	--	< 40 U	< 40 U	< 40 U	< 40 U	< 50 U	< 50 U	< 50 U	< 50 U	< 250 U	< 50 U	< 200 U	< 40 U	< 40 U	--	< 200 U	< 40 U	< 40 U	
4-Methyl-2-Pentanone	2000	4200	--	< 10 U	< 10 U	--	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 50 U	< 10 U	--	< 10 U	< 10 U	--	< 10 U	< 10 U	< 10 U	
Acetone	4000	46000	< 50 U	< 25 U	< 25 U	--	--	--	< 25 U	< 25 U	< 25 U	< 25 U	18	20	16	< 10 U	60 J	< 10 U	< 50 U	< 25 U	< 25 U	--	< 50 U	< 25 U	< 25 U	
Acetonitrile	200	200	--	< 40 U	< 40 U	--	--	--	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	< 100 U	< 40 U	< 40 U	--	< 40 U	< 40 U	--	< 40 U	< 40 U	< 40 U	
Acrolein	700	700	< 100 U	< 20 U	< 20 U	--	--	--	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 250 U	< 20 U	< 100 U	< 20 U	< 20 U	--	< 100 U	< 20 U	< 20 U	
Acrylonitrile			--	< 20 U	< 20 U	--	--	--	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	--	--	--	--	< 20 U	< 20 U	--	--	< 20 U	< 20 U	
Allyl chloride			--	< 1 U	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	
Benzene	5	8.7	37	24	25	27	--	--	14	16	5.9	7.4	< 1.0 U	< 1.0 U	1.3	3.1	1.5 J	1.8	< 5 U	< 1 U	< 1.0 U	--	< 5 U	< 1 U	< 1.0 U	
Bromodichloromethane			--	< 1 U	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	
Bromoform			--	< 1 U	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	
Bromomethane			--	< 1 U	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	--	--	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	
Carbon Dioxide			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Carbon Disulfide	4000	4000	--	< 1 U	< 1 U	--	--	--	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 5.0 U	< 2.0 U	--	< 1 U	< 2.0 U	--	--	< 1 U	< 2.0 U	
Carbon Tetrachloride			--	< 1 U	< 1 U	--</																				

Notes:  
**Bold** = Concentration is greater than the laboratory detection limit  
Shaded = Concentration exceeds the GA EPD Type 3/4 RRS  
**Acronyms and Abbreviations:**  
DUP = field duplicate  
GA EPD = Georgia Environmental Protection Division  
MFL = million fibers per liter  
PCB = polychlorinated biphenyl  
RRS = Risk Reduction Standard  
µg/L = microgram per liter  
**Data Validation Qualifiers:**  
B = Compound was detected in the associated blank  
H = Sample was analyzed outside of the hold time  
J = Result is estimated  
U = Result is less than the laboratory detection limit



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Well ID			MW-23	MW-24	MW-24	MW-24	MW-24	MW-25	MW-25	MW-25	MW-25	MW-26	MW-26	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	
Sample ID	Type 1	Type 3/4	MW-23(112513)	MW-24_11/1/02_NM	MW-6_6/30/04_NM	MW-24 (072011)	MW-24(112613)	MW-25_25_11/1/02_NM	MW-13_7/1/04_NM	MW-25 (072011)	MW-25(112513)	MW-26_26_11/1/02_NM	MW-26 (072111)	MW-27_27_12/19/02_NM	MW-25_7/2/04_NM	MW-27_8/16/06_NM	MW-27_11/19/08_NM	DUP-1_11/19/08_DUP	MW-27 (072211)	MW-27(1122013)	MW-27 (052214)	MW-27 (110314)	MW-27(05042015)	MW-27 (110415)	MW-27 (050316)	MW-27 (122717)
Sample Date	RRS	RRS	11/25/2013	11/01/2002	06/30/2004	07/20/2011	11/26/2013	11/01/2002	07/01/2004	07/02/2011	11/25/2013	11/01/2002	07/21/2011	12/19/2002	07/02/2004	08/16/2006	11/19/2008	11/19/2008	07/22/2011	11/12/2013	05/22/2014	11/03/2014	05/04/2015	11/04/2015	05/03/2016	12/27/2017
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Aquifer			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	
2-Naphthylamine			--	--	< 10 U	< 5.0 U	--	--	< 10 U	< 5.0 U	--	--	< 5.0 U	--	< 10 U	--	--	--	< 5.0 U	< 4.9 U	< 4.9 U	< 5.2 U	< 4.9 U	--	--	--
2-Nitroaniline			--	--	< 50 U	< 0.99 U	--	--	< 50 U	< 1.0 U	--	--	< 1.0 U	--	< 50 U	--	--	--	< 0.99 U	< 0.98 U	< 0.99 U	< 1.0 U	< 0.98 U	--	--	--
2-Nitrophenol			--	--	< 10 U	< 0.99 U	--	--	< 10 U	< 1.0 U	--	--	< 1.0 U	--	< 10 U	--	--	--	< 0.99 U	< 0.98 U	< 0.99 U	< 1.0 U	< 0.98 U	--	--	--
2-Picoline			--	--	< 10 U	< 2.0 U	--	--	< 10 U	< 2.0 U	--	--	< 2.0 U	--	< 10 U	--	--	--	< 2.0 U	< 2.0 U	< 2.0 U	< 2.1 U	< 2.0 U	--	--	--
3,3-Dichlorobenzidine			--	--	< 20 U	< 20 U	--	--	< 20 U	< 20 U	--	--	< 20 U	--	< 20 U	--	--	--	< 20 U	< 20 U	< 20 U	< 21 U	< 20 UF	--	--	--
3,3-Dimethylbenzidine			--	--	< 20 U	< 20 U	--	--	< 20 U	< 20 U	--	--	< 20 U	--	< 20 U	--	--	--	< 20 U	< 20 U	< 20 U	< 21 U	< 20 U	--	--	--
3-Methylchloranthrene			--	--	< 10 U	< 0.99 U	--	--	< 10 U	< 1.0 U	--	--	< 1.0 U	--	< 10 U	--	--	--	< 0.99 U	< 0.98 U	< 0.99 U	< 1.0 U	< 0.98 U	--	--	--
3-Methylphenol, 4-Methylphenol	10	5100	--	--	--	< 2.0 U	--	--	--	< 2.0 U	--	--	< 2.0 U	--	--	--	--	--	< 2.0 U	--	--	--	--	--	--	--
3-Nitroaniline			--	--	< 50 U	< 5.0 U	--	--	< 50 U	< 5.0 U	--	--	< 5.0 U	--	< 50 U	--	--	--	< 5.0 U	< 4.9 U	< 4.9 U	< 5.2 U	< 4.9 U	--	--	--
4-Aminobiphenyl			--	--	< 10 U	< 5.0 U	--	--	< 10 U	< 5.0 U	--	--	< 5.0 U	--	< 10 U	--	--	--	< 5.0 U	< 4.9 U	< 4.9 U	< 5.2 U	< 4.9 U	--	--	--
4-Bromophenyl phenyl ether			--	--	< 10 U	< 0.99 U	--	--	< 10 U	< 1.0 U	--	--	< 1.0 U	--	< 10 U	--	--	--	< 0.99 U	< 0.98 U	< 0.99 U	< 1.0 U	< 0.98 UF	--	--	--
4-Chloro-3-Methylphenol			--	--	< 10 U	< 0.99 U	--	--	< 10 U	< 1.0 U	--	--	< 1.0 U	--	< 10 U	--	--	--	< 0.99 U	< 0.98 U	< 0.99 U	< 1.0 U	< 0.98 UF	--	--	--
4-Chlorophenyl phenyl ether			--	--	< 10 U	< 0.99 U	--	--	< 10 U	< 1.0 U	--	--	< 1.0 U	--	< 10 U	--	--	--	< 0.99 U	< 0.98 U	< 0.99 U	< 1.0 U	< 0.98 UF	--	--	--
4-Dimethylaminoazobenzene			--	--	< 10 U	< 5.0 U	--	--	< 10 U	< 5.0 U	--	--	< 5.0 U	--	< 10 U	--	--	--	< 5.0 U	< 4.9 U	< 4.9 U	< 5.2 U	< 4.9 U	--	--	--
4-Methylphenol	10	10000	--	--	< 10 U	--	--	--	< 10 U	--	--	--	--	--	< 10 U	--	--	--	--	< 2.0 U	< 2.0 U	< 2.1 U	< 2.0 UF	< 2.1 U	< 2.4 U	< 2.1 U
4-Nitroaniline			--	--	< 50 U	< 5.0 U	--	--	< 50 U	< 5.0 U	--	--	< 5.0 U	--	< 50 U	--	--	--	< 5.0 U	< 4.9 U	< 4.9 U	< 5.2 U	< 4.9 U	--	--	--
4-Nitrophenol			--	--	< 50 U	< 5.0 U	--	--	< 50 U	< 5.0 U	--	--	< 5.0 U	--	< 50 U	--	--	--	< 5.0 U	< 4.9 U	< 4.9 U	< 5.2 U	< 4.9 U	--	--	--
4-Nitroquinoline-N-Oxide			--	--	< 20 U	< 2.0 U	--	--	< 20 U	< 2.0 U	--	--	< 2.0 U	--	< 20 U	--	--	--	< 2.0 U	< 2.0 U	< 2.0 U	< 2.1 U	< 2.0 U	--	--	--
5-Nitro-o-Toluidine			--	--	< 10 U	< 0.99 U	--	--	< 10 U	< 1.0 U	--	--	< 1.0 U	--	< 10 U	--	--	--	< 0.99 U	< 0.98 U	< 0.99 U	< 1.0 U	< 0.98 U	--	--	--
7,12-Dimethylbenz(a)anthracene			--	--	< 10 U	< 0.99 U	--	--	< 10 U	< 1.0 U	--	--	< 1.0 U	--	< 10 U	--	--	--	< 0.99 U	< 0.98 U	< 0.99 U	< 2.1 U	< 2.0 U	--	--	--
Acenaphthene	2000	6100	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	< 10 U	< 0.20 U	--	--	< 0.20 U	< 10 U	< 10 U	--	--	--	< 0.20 U	< 0.20 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.21 U	< 0.24 U	< 0.21 U
Acenaphthylene	10	10	--	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	--	--	< 0.20 U	--	< 10 U	--	--	--	< 0.20 U	< 0.20 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.21 U	< 0.24 U	< 0.21 U
Acetophenone	4000	10000	--	--	< 10 U	< 0.99 U	--	--	< 10 U	< 1.0 U	--	--	< 1.0 U	--	< 10 U	--	--	--	< 0.99 U	< 0.98 U	< 0.99 U	< 1.0 U	< 0.98 U	< 1.1 U	< 1.2 U	< 1.0 U
Aniline	20	500	--	--	< 20 U	< 2.0 U	--	--	< 20 U	< 2.0 U	--	--	< 2.0 U	--	< 20 U	--	--	--	< 2.0 U	< 2.0 U	< 2.0 U	< 2.1 U	< 2.0 U	< 2.1 U	< 2.4 U	< 2.1 U
Anthracene	10	31000	--	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	--	--	< 0.20 U	--	< 10 U	--	--	--	< 0.20 U	< 0.20 U	< 0.20 U	< 0.21 U	< 0.20 UF	< 0.21 U	< 0.24 U	< 0.21 U
Aramite			--	--	< 10 U	< 1.5 U	--	--	< 10 U	< 1.5 U	--	--	< 1.5 U	--	< 10 U	--	--	--	< 1.5 U	< 1.5 U	< 1.5 U	< 2.1 U	< 2.0 U	--	--	--
Atrazine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzaldehyde			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	10	10	--	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	--	--	< 0.20 U	--	< 10 U	--	--	--	< 0.20 U	< 0.20 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.21 U	< 0.24 U	< 0.21 U
Benzo(a)pyrene	10	10	--	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	--	--	< 0.20 U	--	< 10 U	--	--	--	< 0.20 U	< 0.20 U	< 0.20 U	< 0.21 U	< 0.20 UF	< 0.21 U	< 0.24 U	< 0.21 U
Benzo(b)fluoranthene	10	10	--	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	--	--	< 0.20 U	--	< 10 U	--	--	--	< 0.20 U	< 0.20 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.21 U	< 0.24 U	< 0.21 U
Benzo(g,h,i)perylene	10	10	--	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	--	--	< 0.20 U	--	< 10 U	--	--	--	< 0.20 U	< 0.20 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.21 U	< 0.24 U	< 0.21 U
Benzo(k)fluoranthene	10	39	--	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	--	--	< 0.20 U	--	< 10 U	--	--	--	< 0.20 U	< 0.20 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.21 U	< 0.24 U	< 0.21 U
Benzyl Alcohol			--	--	< 10 U	< 0.99 U	--	--	< 10 U	< 1.0 U	--	--	< 1.0 U	--	< 10 U	--	--	--	< 0.99 U	< 0.98 U	< 0.99 U	< 1.0 U	< 0.98 U	--	--	--
beta-Pinene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Chloroethoxy)methane			--	--	< 10 U	< 0.99 U	--	--	< 10 U	< 1.0 U	--	--	< 1.0 U	--	< 10 U	--	--	--	< 0.99 U	< 0.98 U	< 0.99 U	< 1.0 U	< 0.98 U	--	--	--
bis(2-Chloroethyl)ether			--	--	< 10 U	< 0.99 U	--	--	< 10 U	< 1.0 U	--	--	< 1.0 U	--	< 10 U	--	--	--	< 0.99 U	< 0.98 U	< 0.99 U	< 1.0 U	< 0.98 U	< 1.1 U	< 1.2 U	< 1.0 U
bis(2-Ethylhexyl)phthalate	10	200	< 2.0 U	< 10 U	< 10 U	30	< 2.0 U	< 10 U	< 10 U	20	< 2.0 U	< 2.0 U	< 10 U	< 10 U	< 10 U	6.1	--	--	< 2.0 U	< 2.0 U	6.1	< 5.2 U	< 4.9 U	< 6.0 U	< 5.2 U	
Butyl benzyl phthalate	100	15061	--	< 10 U	< 10 U	< 0.99 U	--	< 10 U	< 10 U	< 1.0 U	--	--	< 1.0 U	< 10 U	< 10 U	--	--	--	< 0.99 U	< 0.98 U	< 0.99 U	< 1.0 U	< 0.98 UF	< 1.1 U	< 1.2 U	< 1.0 U
Caprolactam			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	10	40	--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	< 10 U	< 0.20 U	--	--	< 0.20 U	< 10 U	< 10 U	--	--	--	< 0.20 U	< 0.20 U	< 0.20 U	< 0.21 U	< 0.20 U	< 0.21 U	< 0.24 U	< 0.21 U
Diallate			--	--	< 10 U	< 0.99 U	--	--	< 10 U	< 1.0 U	--	--	< 1.0 U	--	< 10 U	--	--	--	< 0.99 U	< 0.98 U	< 0.99 U	< 1.0 U	< 0.98 U	--	--	--
Dibenzo(a,h)anthracene	10	10	--	--	< 10 U	< 0.20 U	--	--	< 10 U	< 0.20 U	--	--	< 0.20 U	--	< 10 U	--	--	--	< 0.20 U	< 0.20 U	< 0.20 U	< 0.21 U	< 0.20 UF	< 0.21 U	< 0.24 U	< 0.21 U
Dibenzofuran	10	10	--	--	< 10 U	< 0.99 U	--	--	< 10 U	< 1.0 U	--	--	< 1.0 U	--	< 10 U	--	--	--	< 0.99 U	< 0.98 U	< 0.99 U	< 1.0 U	< 0.98 UF	< 1.1 U	< 1.2 U	< 1.0 U
Diethyl phthalate			--	--	< 10 U	< 0.99 U	--	--	< 10 U	< 1.0 U	--	--	< 1.0 U	--	< 10 U	--	--	--	< 0.99 U	< 0.98 U	< 0.99 U	< 1.0 U	< 0.98 UF	--	--	--
Dimethoate			--	--	--	< 2.0 U	--	--	--	< 2.0 U	--	--	< 2.0 U	--	--	--	--	--	< 2.0 U	< 2.0 U	< 2.0 U	< 2.1 U	< 2.0 U	--	--	--
Dimethyl phthalate			--	--	< 10 U	< 0.99 U	--	--	< 10 U	< 1.0 U	--	--	< 1.0 U	--	< 10 U	--	--	--	< 0.99 U	< 0.98 U	< 0.99 U	< 1.0 U	< 0.98 UF	--	--	--
Dimethylphenethylamine			--	--	< 2000 U	< 9.9 U	--	--	< 2000 U	< 10 U	--	--	< 10 U	--	< 2000 U	--	--									



			MW-23	MW-24	MW-24	MW-24	MW-24	MW-25	MW-25	MW-25	MW-25	MW-26	MW-26	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	
Sample ID	Type 1	Type 3/4	MW-23(112513)	MW-24_11/1/02_NM	MW-24_5_6/30/04_NM	MW-24(072011)	MW-24(112613)	MW-25_25_11/1/02_NM	MW-25_13_7/1/04_NM	MW-25(072011)	MW-25(112513)	MW-26_26_11/1/02_NM	MW-26(072111)	MW-27_27_12/19/02_NM	MW-27_25_7/2/04_NM	MW-27_27_8/16/06_NM	MW-27_27_11/19/08_NM	MW-27_DUP-1_11/19/08_DUP	MW-27(072211)	MW-27(11122013)	MW-27(052214)	MW-27(110314)	MW-27(05042015)	MW-27(110415)	MW-27(050316)	MW-27(122717)	
Sample Date	RRS	RRS	11/25/2013	11/01/2002	06/30/2004	07/20/2011	11/26/2013	11/01/2002	07/01/2004	07/20/2011	11/25/2013	11/01/2002	07/21/2011	12/19/2002	07/02/2004	08/16/2006	11/19/2008	11/19/2008	07/22/2011	11/12/2013	05/22/2014	11/03/2014	05/04/2015	11/04/2015	05/03/2016	12/27/2017	
Sample Type			N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Aquifer			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	
Pinene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
p-Phenylenediamine			--	--	< 2000 U	< 200 U	--	--	< 2000 U	< 200 U	--	--	< 200 U	--	< 2000 U	--	--	--	< 200 U	< 200 U	< 200 U	< 210 U	< 200 U	--	--	--	
Propyzamide	1000	3100	--	--	< 10 U	< 0.99 U	--	--	< 10 U	< 1.0 U	--	--	< 1.0 U	--	< 10 U	--	--	--	< 0.99 U	< 0.98 U	< 0.99 U	< 1.0 U	< 0.98 U	--	--	--	
Pyrene			--	< 10 U	< 10 U	< 0.20 U	--	< 10 U	< 10 U	< 0.20 U	--	--	< 0.20 U	< 10 U	< 10 U	--	--	--	< 0.20 U	< 0.20 U	< 0.20 U	< 0.21 U	< 0.20 UF	< 0.21 U	< 0.24 U	< 0.21 U	
Pyridine			--	--	< 50 U	< 5.0 U	--	--	< 50 U	< 5.0 U	--	--	< 5.0 U	--	< 50 U	--	--	--	< 5.0 U	< 4.9 U	< 4.9 U	< 5.2 U	< 4.9 U	--	--	--	
Safrole			--	--	< 10 U	< 0.99 U	--	--	< 10 U	< 1.0 U	--	--	< 1.0 U	--	< 10 U	--	--	--	< 0.99 U	< 0.98 U	< 0.99 U	< 1.0 U	< 0.98 U	--	--	--	
Sulfotep			--	--	--	< 0.99 U	--	--	--	< 1.0 U	--	--	< 1.0 U	--	--	--	--	--	< 0.99 U	< 0.98 U	< 0.99 U	< 1.0 U	< 0.98 U	--	--	--	
Volatile Organic Compounds (µg/L)																											
1,1,1,2-Tetrachloroethane			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1.0 U	--	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	
1,1,1-Trichloroethane			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1.0 U	--	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	
1,1,2,2-Tetrachloroethane			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1.0 U	--	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	
1,1,2-Trichloroethane			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1.0 U	--	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	
1,1-Dichloroethane			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1.0 U	--	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	
1,1-Dichloroethene			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1.0 U	--	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	
1,2,3-Trichloropropane			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1.0 U	--	< 1 U	--	--	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	--	--	
1,2,4-Trichlorobenzene			--	--	--	< 1.0 U	--	--	--	< 1.0 U	--	--	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	< 5.0 U	< 5.0 U	--	--	--	
1,2-Dibromo-3-chloropropane			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1.0 U	--	< 1 U	--	--	--	< 1.0 U	--	--	< 5.0 U	< 5.0 U	--	--	--	
1,2-Dibromothane			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1.0 U	--	< 1 U	--	--	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	--	--	
1,2-Dichlorobenzene			--	--	--	< 1.0 U	--	--	--	< 1.0 U	--	--	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	--	--	
1,2-Dichloroethane			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1.0 U	--	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	
1,2-Dichloropropane	5	7.4	--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1.0 U	--	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	
1,3-Dichlorobenzene			--	--	--	< 1.0 U	--	--	--	< 1.0 U	--	--	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	--	--	
1,4-Dichlorobenzene			--	--	--	< 1.0 U	--	--	--	< 1.0 U	--	--	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	< 1.0 U	< 1.0 U	--	--	--	
1,4-Dioxane	70	70	--	--	--	< 50 U	--	--	--	< 50 U	--	--	< 50 U	--	--	--	--	--	< 50 U	--	--	< 100 U	< 100 U	--	--	--	
2-Butanone (MEK)	2000	12000	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	--	< 10 U	--	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 250 U	< 10 U	
2-Chlor-1,3-Butadiene			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1.0 U	--	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	
2-Chloroethyl vinyl ether			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	
2-Methyl-1-propanol	10000	31000	--	< 200 U	< 40 U	< 40 U	--	< 200 U	< 40 U	< 40 U	--	--	< 40 U	< 200 U	< 40 U	--	--	--	< 40 U	< 40 U	< 40 U	< 50 U	< 50 U	< 50 U	< 250 U	< 50 U	
4-Methyl-2-Pentanone	2000	4200	--	--	< 10 U	< 10 U	--	--	< 10 U	< 10 U	--	--	< 10 U	--	< 10 U	--	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 50 U	< 10 U	
Acetone	4000	46000	--	< 50 U	< 25 U	< 25 U	--	< 50 U	< 25 U	< 25 U	--	--	< 25 U	< 50 U	< 25 U	--	--	--	< 25 U	< 25 U	< 25 U	< 10 U	< 10 U	< 10 U	< 130 U	< 10 U	
Acetonitrile	200	200	--	--	< 40 U	< 40 U	--	--	< 40 U	< 40 U	--	--	< 40 U	--	< 40 U	--	--	--	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	< 100 U	< 40 U	
Acrolein	700	700	--	< 100 U	< 20 U	< 20 U	--	< 100 U	< 20 U	< 20 U	--	--	< 20 U	< 100 U	< 20 U	--	--	--	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 250 U	< 20 U	
Acrylonitrile			--	--	< 20 U	< 20 U	--	--	< 20 U	< 20 U	--	--	< 20 U	--	< 20 U	--	--	--	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	--	--	--	
Allyl chloride			--	--	< 1 U	< 1.0 U	--	--	< 1 U	< 1.0 U	--	--	< 1.0 U	--	< 1 U	--	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	--	--	--	
Benzene	5	8.7	--	< 5 U	< 1 U	< 1.0 U	--	< 5 U	< 1 U	< 1.0 U	--	--	< 1.0 U	< 5 U	< 1 U	< 1 U	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U</			



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Well ID			MW-27	MW-28	MW-28	MW-28	MW-29	MW-29	MW-29	MW-29	MW-29	MW-29	MW-29	MW-29	MW-29	MW-29	MW-29	MW-29	MW-32	MW-32	TMW-5	TMW-5	TMW-6	TMW-6	TMW-7	TMW-7	TMW-7	
Sample ID	Type 1 RRS	Type 3/4 RRS	DUP-01 (122717) FD Shallow	MW-28_12/19/02_NM 12/19/2002 N Shallow	MW-16_7/1/04_NM 07/01/2004 N Shallow	MW-28 (072111) 07/21/2011 N Shallow	MW-29_11/19/08_NM 11/19/2008 N Shallow	MW-29 (072111) 07/21/2011 N Shallow	MW-29 (11122013) 11/12/2013 N Shallow	MW-29 (112613) 11/26/2013 N Shallow	MW-29 (052214) 05/22/2014 N Shallow	DUP-1 (05222014) 05/22/2014 FD Shallow	MW-29 (110314) 11/03/2014 N Shallow	MW-29 (050515) 05/05/2015 N Shallow	MW-29 (110315) 11/03/2015 N Shallow	DUP-01 (11032015) 11/03/2015 FD Shallow	MW-29 (050316) 05/03/2016 N Shallow	MW-29 (122717) 12/27/2017 N Shallow	MW-32_12/19/08_NM 11/19/2008 N Shallow	MW-32 (072111) 07/21/2011 N Shallow	TMW-5_6/6/00_NM 06/06/2000 N Shallow	TMW-5_7/6/00_NM 07/06/2000 N Shallow	TMW-6_6/6/00_NM 06/06/2000 N Shallow	TMW-6_7/6/00_NM 07/06/2000 N Shallow	TMW-7_6/6/00_NM 06/05/2000 N Shallow	TMW-7_6/6/00_NM 06/06/2000 N Shallow	TMW-7_7/6/00_NM 07/06/2000 N Shallow	
2-Naphthylamine			--	--	< 10 U	< 5.0 U	--	< 5.0 U	< 4.8 U	--	< 5.0 U	--	< 4.8 U	< 5.7 U	--	--	--	--	--	< 5.0 U	--	--	--	--	--	--	--	--
2-Nitroaniline			--	--	< 50 U	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U	--	< 0.96 U	< 1.1 U	--	--	--	--	--	< 0.99 U	--	--	--	--	--	--	--	--
2-Nitrophenol			--	--	< 10 U	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U	--	< 0.96 U	< 1.1 U	--	--	--	--	--	< 0.99 U	--	--	--	--	--	--	--	--
2-Picoline			--	--	< 10 U	< 2.0 U	--	< 2.0 U	< 1.9 U	--	< 2.0 U	--	< 1.9 U	< 2.3 U	--	--	--	--	--	< 2.0 U	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine			--	--	< 20 U	< 20 U	--	< 20 U	< 19 U	--	< 20 U	--	< 19 U	< 23 U	--	--	--	--	--	< 20 U	--	--	--	--	--	--	--	--
3,3-Dimethylbenzidine			--	--	< 20 U	< 20 U	--	< 20 U	< 19 U	--	< 20 U	--	< 19 U	< 23 U	--	--	--	--	--	< 20 U	--	--	--	--	--	--	--	--
3-Methylchloranthrene			--	--	< 10 U	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U	--	< 0.96 U	< 1.1 U	--	--	--	--	--	< 0.99 U	--	--	--	--	--	--	--	--
3-Methylphenol, 4-Methylphenol	10	5100	--	--	--	< 2.0 U	--	< 2.0 U	--	--	--	--	--	--	--	--	--	--	--	< 2.0 U	--	--	--	--	--	--	--	--
3-Nitroaniline			--	--	< 50 U	< 5.0 U	--	< 5.0 U	< 4.8 U	--	< 5.0 U	--	< 4.8 U	< 5.7 U	--	--	--	--	--	< 5.0 U	--	--	--	--	--	--	--	--
4-Aminobiphenyl			--	--	< 10 U	< 5.0 U	--	< 5.0 U	< 4.8 U	--	< 5.0 U	--	< 4.8 U	< 5.7 U	--	--	--	--	--	< 5.0 U	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether			--	--	< 10 U	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U	--	< 0.96 U	< 1.1 U	--	--	--	--	--	< 0.99 U	--	--	--	--	--	--	--	--
4-Chloro-3-Methylphenol			--	--	< 10 U	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U	--	< 0.96 U	< 1.1 U	--	--	--	--	--	< 0.99 U	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether			--	--	< 10 U	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U	--	< 0.96 U	< 1.1 U	--	--	--	--	--	< 0.99 U	--	--	--	--	--	--	--	--
4-Dimethylaminoazobenzene			--	--	< 10 U	< 5.0 U	--	< 5.0 U	< 4.8 U	--	< 5.0 U	--	< 4.8 U	< 5.7 U	--	--	--	--	--	< 5.0 U	--	--	--	--	--	--	--	--
4-Methylphenol	10	10000	< 2.1 U	--	< 10 U	--	--	--	< 1.9 U	--	< 2.0 U	--	< 1.9 U	< 2.3 U	< 2.2 U	--	< 2.4 U	< 2.1 U	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline			--	--	< 50 U	< 5.0 U	--	< 5.0 U	< 4.8 U	--	< 5.0 U	--	< 4.8 U	< 5.7 U	--	--	--	--	--	< 5.0 U	--	--	--	--	--	--	--	--
4-Nitrophenol			--	--	< 50 U	< 5.0 U	--	< 5.0 U	< 4.8 U	--	< 5.0 U	--	< 7.6 U	< 9.2 U	--	--	--	--	--	< 5.0 U	--	--	--	--	--	--	--	--
4-Nitroquinoline-N-Oxide			--	--	< 20 U	< 2.0 U	--	< 2.0 U	< 1.9 U	--	< 2.0 U	--	< 1.9 U	< 2.3 U	--	--	--	--	--	< 2.0 U	--	--	--	--	--	--	--	--
5-Nitro-o-Toluidine			--	--	< 10 U	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U	--	< 0.96 U	< 1.1 U	--	--	--	--	--	< 0.99 U	--	--	--	--	--	--	--	--
7,12-Dimethylbenz(a)anthracene			--	--	< 10 U	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U	--	< 1.9 U	< 2.3 U	--	--	--	--	--	< 0.99 U	--	--	--	--	--	--	--	--
Acenaphthene	2000	6100	< 0.21 U	< 10 U	< 10 U	< 0.20 U	--	< 0.20 U	< 0.19 U	--	< 0.20 U	--	< 0.19 U	< 0.23 U	< 0.22 U	--	< 0.24 U	< 0.21 U	< 0.19 U	< 0.20 U	--	--	--	--	--	--	--	--
Acenaphthylene	10	10	< 0.21 U	--	< 10 U	< 0.20 U	--	< 0.20 U	< 0.19 U	--	< 0.20 U	--	< 0.19 U	< 0.23 U	< 0.22 U	--	< 0.24 U	< 0.21 U	--	< 0.20 U	--	--	--	--	--	--	--	--
Acetophenone	4000	10000	< 1.1 U	--	< 10 U	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U	--	< 0.96 U	< 1.1 U	< 1.1 U	--	< 1.2 U	< 1.1 U	--	< 0.99 U	--	--	--	--	--	--	--	--
Aniline	20	500	< 2.1 U	--	< 20 U	< 2.0 U	--	< 2.0 U	< 1.9 U	--	< 2.0 U	--	< 1.9 U	< 2.3 U	< 2.2 U	--	< 2.4 U	< 2.1 U	--	< 2.0 U	--	--	--	--	--	--	--	--
Anthracene	10	31000	< 0.21 U	--	< 10 U	< 0.20 U	--	< 0.20 U	< 0.19 U	--	< 0.20 U	--	< 0.19 U	< 0.23 U	< 0.22 U	--	< 0.24 U	< 0.21 U	--	< 0.20 U	--	--	--	--	--	--	--	--
Aramite			--	--	< 10 U	< 1.5 U	--	< 1.5 U	< 1.5 U	--	< 1.5 U	--	< 1.9 U	< 2.3 U	--	--	--	--	--	< 1.5 U	--	--	--	--	--	--	--	--
Atrazine			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzaldehyde			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	10	10	< 0.21 U	--	< 10 U	< 0.20 U	--	< 0.20 U	< 0.19 U	--	< 0.20 U	--	< 0.19 U	< 0.23 U	< 0.22 U	--	< 0.24 U	< 0.21 U	--	< 0.20 U	--	--	--	--	--	--	--	--
Benzo(a)pyrene	10	10	< 0.21 U	--	< 10 U	< 0.20 U	--	< 0.20 U	< 0.19 U	--	< 0.20 U	--	< 0.19 U	< 0.23 U	< 0.22 U	--	< 0.24 U	< 0.21 U	--	< 0.20 U	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	10	10	< 0.21 U	--	< 10 U	< 0.20 U	--	< 0.20 U	< 0.19 U	--	< 0.20 U	--	< 0.19 U	< 0.23 U	< 0.22 U	--	< 0.24 U	< 0.21 U	--	< 0.20 U	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	10	10	< 0.21 U	--	< 10 U	< 0.20 U	--	< 0.20 U	< 0.19 U	--	< 0.20 U	--	< 0.19 U	< 0.23 U	< 0.22 U	--	< 0.24 U	< 0.21 U	--	< 0.20 U	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	10	39	< 0.21 U	--	< 10 U	< 0.20 U	--	< 0.20 U	< 0.19 U	--	< 0.20 U	--	< 0.19 U	< 0.23 U	< 0.22 U	--	< 0.24 U	< 0.21 U	--	< 0.20 U	--	--	--	--	--	--	--	--
Benzyl Alcohol			--	--	< 10 U	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U	--	< 0.96 U	< 1.1 U	--	--	--	--	--	< 0.99 U	--	--	--	--	--	--	--	--
beta-Pinene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Chloroethoxy)methane			--	--	< 10 U	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U	--	< 0.96 U	< 1.1 U	--	--	--	--	--	< 0.99 U	--	--	--	--	--	--	--	--
bis(2-Chloroethyl)ether			< 1.1 U	--	< 10 U	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U	--	< 0.96 U	< 1.1 U	< 1.1 U	--	< 1.2 U	< 1.1 U	--	< 0.99 U	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	10	200	< 5.3 U	< 10 U	< 10 U	< 2.0 U	--	3.7	< 1.9 U	< 2.0 U	< 2.0 U	--	< 4.8 U	< 5.7 U	2.2 J	--	< 6.0 U	< 5.4 U	--	< 2.0 U	--	--	--	--	--	--	--	--
Butyl benzyl phthalate	100	15061	< 1.1 U	< 10 U	< 10 U	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U	--	< 0.96 U	< 1.1 U	< 1.1 U	--	< 1.2 U	< 1.1 U	--	< 0.99 U	--	--	--	--	--	--	--	--
Caprolactam			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	10	40	< 0.21 U	< 10 U	< 10 U	< 0.20 U	--	< 0.20 U	< 0.19 U	--	< 0.20 U	--	< 0.19 U	< 0.23 U	< 0.22 U	--	< 0.24 U	< 0.21 U	--	< 0.20 U	--	--	--	--	--	--	--	--
Diallate			--	--	< 10 U	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U	--	< 0.96 U	< 1.1 U	--	--	--	--	--	< 0.99 U	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	10	10	< 0.21 U	--	< 10 U	< 0.20 U	--	< 0.20 U	< 0.19 U	--	< 0.20 U	--	< 0.19 U	< 0.23 U	< 0.22 U	--	< 0.24 U	< 0.21 U	--	< 0.20 U	--	--	--	--	--	--	--	--
Dibenzofuran	10	10	< 1.1 U	--	< 10 U	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U	--	< 0.96 U	< 1.1 U	< 1.1 U	--	< 1.2 U	< 1.1 U	--	< 0.99 U	--	--	--	--	--	--	--	--
Diethyl phthalate			--	--	< 10 U	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U	--	< 0.96 U	< 1.1 U	--	--	--	--	--	< 0.99 U	--	--	--	--	--	--	--	--
Dimethoate			--	--	--	< 2.0 U	--	< 2.0 U	< 1.9 U	--	< 2.0 U	--	< 1.9 U	< 2.3 U	--	--	--	--	--	< 2.0 U	--	--	--	--	--	--	--	--
Dimethyl phthalate			--	--	< 10 U	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U	--	< 0.96 U	< 1.1 U	--	--	--	--	--	< 0.99 U	--	--	--	--	--	--	--	--
Dimethylphenethylamine			--	--	< 2000 U	< 9.9 U	--	< 9.9 U	< 9.7 U	--	< 9.9 U	--	< 9.6 U	< 11 U	--	--	--	--	--	< 9.9 U	--	--	--	--	--	--	--	--
Di-n-butyl phthalate			--	--	< 10 U	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U	--	< 0.96 U	< 1.1 U	--	--	--	--	--	< 0.99 U	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	700	700	< 1.1 U	--	< 10 U	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U																	



Well ID	Type 1	Type 3/4	MW-27	MW-28	MW-28	MW-28	MW-29	MW-29	MW-29	MW-29	MW-29	MW-29	MW-29	MW-29	MW-29	MW-29	MW-29	MW-29	MW-32	MW-32	TMW-5	TMW-5	TMW-6	TMW-6	TMW-7	TMW-7	TMW-7	
Sample ID	RRS	RRS	DUP-01 (122717)	MW-28_12/19/02_NM	MW-16_7/1/04_NM	MW-28 (072111)	MW-29_11/19/08_NM	MW-29 (072111)	MW-29 (11122013)	MW-29(112613)	MW-29 (052214)	DUP-1(05222014)	MW-29 (110314)	MW-29 (050515)	MW-29 (110315)	DUP-01(11032015)	MW-29 (050316)	MW-29 (122717)	MW-32_11/19/08_NM	MW-32 (072111)	TMW-5_6/6/00_NM	TMW-5_7/6/00_NM	TMW-6_6/6/00_NM	TMW-6_7/6/00_NM	TMW-7_6/5/00_NM	TMW-7_6/6/00_NM	TMW-7_7/6/00_NM	
Sample Date			12/27/2017	12/19/2002	07/01/2004	07/21/2011	11/19/2008	07/21/2011	11/12/2013	11/26/2013	05/22/2014	05/22/2014	11/03/2014	05/05/2015	11/03/2015	11/03/2015	05/03/2016	12/27/2017	11/19/2008	07/21/2011	06/06/2000	07/06/2000	06/06/2000	07/06/2000	06/05/2000	06/06/2000	07/06/2000	
Sample Type			FD	N	N	N	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	
Aquifer			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	
Pinene			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
p-Phenylenediamine			--	--	< 2000 U	< 200 U	--	< 200 U	< 190 U	--	< 200 U	--	< 190 U	< 230 U	--	--	--	--	--	< 200 U	--	--	--	--	--	--	--	
Propyzamide			--	--	< 10 U	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U	--	< 0.96 U	< 1.1 U	--	--	--	--	--	< 0.99 U	--	--	--	--	--	--	--	
Pyrene	1000	3100	< 0.21 U	< 10 U	< 10 U	< 0.20 U	--	< 0.20 U	< 0.19 U	--	< 0.20 U	--	< 0.19 U	< 0.23 U	< 0.22 U	--	< 0.24 U	< 0.21 U	--	< 0.20 U	--	--	--	--	--	--	--	
Pyridine			--	--	< 50 U	< 5.0 U	--	< 5.0 U	< 4.8 U	--	< 5.0 U	--	< 4.8 U	< 5.7 U	--	--	--	--	--	< 5.0 U	--	--	--	--	--	--	--	
Safrole			--	--	< 10 U	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U	--	< 0.96 U	< 1.1 U	--	--	--	--	--	< 0.99 U	--	--	--	--	--	--	--	
Sulfotep			--	--	--	< 0.99 U	--	< 0.99 U	< 0.97 U	--	< 0.99 U	--	< 0.96 U	< 1.1 U	--	--	--	--	--	< 0.99 U	--	--	--	--	--	--	--	
Volatile Organic Compounds (µg/L)																												
1,1,1,2-Tetrachloroethane			--	--	< 1 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UH	< 1.0 U	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	
1,1,1-Trichloroethane			--	--	< 1 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UH	< 1.0 U	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	
1,1,2,2-Tetrachloroethane			--	--	< 1 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UH	< 1.0 U	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	
1,1,2-Trichloroethane			--	--	< 1 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UH	< 1.0 U	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	
1,1-Dichloroethane			--	--	< 1 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UH	< 1.0 U	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	
1,1-Dichloroethene			--	--	< 1 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UH	< 1.0 U	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	
1,2,3-Trichloropropane			--	--	< 1 U	< 1.0 U	--	< 1.0 U	--	--	--	--	< 1.0 U	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	
1,2,4-Trichlorobenzene			--	--	--	< 1.0 U	--	< 1.0 U	--	--	--	--	< 5.0 U	< 5.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	
1,2-Dibromo-3-chloropropane			--	--	< 1 U	< 1.0 U	--	< 1.0 U	--	--	--	--	< 5.0 U	< 5.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	
1,2-Dibromoethane			--	--	< 1 U	< 1.0 U	--	< 1.0 U	--	--	--	--	< 1.0 U	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	
1,2-Dichlorobenzene			--	--	--	< 1.0 U	--	< 1.0 U	--	--	--	--	< 1.0 U	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	
1,2-Dichloroethane			--	--	< 1 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UH	< 1.0 U	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	
1,2-Dichloropropane	5	7.4	< 1.0 U	--	< 1 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UH	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	--	< 1.0 U	--	--	--	--	--	--	--	
1,3-Dichlorobenzene			--	--	--	< 1.0 U	--	< 1.0 U	--	--	--	--	< 1.0 U	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	
1,4-Dichlorobenzene			--	--	--	< 1.0 U	--	< 1.0 U	--	--	--	--	< 1.0 U	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	
1,4-Dioxane	70	70	--	--	--	< 50 U	--	< 50 U	--	--	--	--	< 100 U	< 100 U	--	--	--	--	--	< 50 U	--	--	--	--	--	--	--	
2-Butanone (MEK)	2000	12000	< 10 U	--	< 10 U	< 10 U	--	< 10 U	< 10 U	--	< 10 U	< 10 UH	< 10 U	< 10 U	< 10 U	< 10 U	< 250 U	< 10 U	--	< 10 U	--	--	--	--	--	--	--	
2-Chlor-1,3-Butadiene			--	--	< 1 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UH	< 1.0 U	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	
2-Chloroethyl vinyl ether			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Methyl-1-propanol	10000	31000	< 50 U	< 200 U	< 40 U	< 40 U	--	< 40 U	< 40 U	--	< 40 U	< 40 UH	< 50 U	< 50 U	< 50 U	< 50 U	< 250 U	< 50 U	--	< 40 U	--	--	--	--	--	--	--	
4-Methyl-2-Pentanone	2000	4200	< 10 U	--	< 10 U	< 10 U	--	< 10 U	< 10 U	--	< 10 U	< 10 UH	< 10 U	< 10 U	< 10 U	< 10 U	< 50 U	< 10 U	--	< 10 U	--	--	--	--	--	--	--	
Acetone	4000	46000	< 10 U	< 50 U	< 25 U	< 25 U	--	< 25 U	< 25 U	--	< 25 U	< 25 UH	< 10 U	< 10 U	< 10 U	< 10 U	< 130 U	< 10 U	--	< 25 U	--	--	--	--	--	--	--	
Acetonitrile	200	200	< 40 U	--	< 40 U	< 40 U	--	< 40 U	< 40 U	--	< 40 U	< 40 UH	< 40 U	< 40 U	< 40 U	< 40 U	< 100 U	< 40 U	--	< 40 U	--	--	--	--	--	--	--	
Acrolein	700	700	< 20 U	< 100 U	< 20 U	< 20 U	--	< 20 U	< 20 U	--	< 20 U	< 20 UH	< 20 U	< 20 U	< 20 U	< 20 U	< 250 U	< 20 U	--	< 20 U	--	--	--	--	< 20 U	--	--	
Acrylonitrile			--	--	< 20 U	< 20 U	--	< 20 U	< 20 U	--	< 20 U	< 20 UH	< 20 U	< 20 U	--	--	--	--	--	< 20 U	--	--	--	--	--	--	--	
Allyl chloride			--	--	< 1 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UH	< 1.0 U	< 1.0 U	--	--	--	--	--	< 1.0 U	--	--	--	--	--	--	--	
Benzene	5	8.7	< 1.0 U	< 5 U	< 1 U	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	< 1.0 UH	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	--	< 1.0 U	< 5 U	--	< 5 U	--	--	--	--	
Bromodichloromethane			--	--	< 1 U	< 1.0 U	--	< 1.0 U	< 1.0 U																			



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**Notes:**  
**Bold** = Concentration is greater than the laboratory detection limit  
 Shaded = Concentration exceeds the GA EPD Type 3/4 RRS

**Acronyms and Abbreviations:**  
 DUP = field duplicate  
 GA EPD = Georgia Environmental Protection Division  
 MFL = million fibers per liter  
 PCB = polychlorinated biphenyl  
 RRS = Risk Reduction Standard  
 µg/L = microgram per liter

**Data Validation Qualifiers:**  
 B = Compound was detected in the associated blank  
 H = Sample was analyzed outside of the hold time  
 J = Result is estimated  
 U = Result is less than the laboratory detection limit



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**Notes:**  
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 Shaded = Concentration exceeds the GA EPD Type 3/4 RRS

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Well ID			MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F3R	TMW-19	TMW-19	TMW-21	TMW-23
Sample ID	Type 1	Type 3/4	MW-F3R (052214)	MW-F3R (110314)	MW-F3R (050515)	MW-F3R (110415)	MW-F3R (050316)	MW-F3R (122817)	TMW-19 (122817)	TMW-19 (02202018)	TMW-21 (013118)	TMW-23 (122817)
Sample Date	RRS	RRS	05/22/2014	11/03/2014	05/05/2015	11/04/2015	05/03/2016	12/28/2017	12/28/2017	02/20/2018	01/31/2018	12/28/2017
Sample Type			N	N	N	N	N	N	N	N	N	N
Aquifer			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
<b>Polychlorinated Biphenyls (µg/L)</b>												
2,3,3',4,5'-Pentachloro-1,1'-biphenyl			--	--	0.0000056 JB	--	--	--	--	--	--	--
2,3,4,4',5,6-Hexachloro-1,1'-biphenyl			--	--	< 0.00019 U	--	--	--	--	--	--	--
Aroclor 1016			< 1.0 U	< 0.96 U	< 0.99 U	--	--	--	--	--	--	--
Aroclor 1221			< 2.0 U	< 0.96 U	< 0.99 U	--	--	--	--	--	--	--
Aroclor 1232			< 1.0 U	< 0.96 U	< 0.99 U	--	--	--	--	--	--	--
Aroclor 1242			< 1.0 U	< 0.96 U	< 0.99 U	--	--	--	--	--	--	--
Aroclor 1248			< 1.0 U	< 0.96 U	< 0.99 U	--	--	--	--	--	--	--
Aroclor 1254	0.5	1.4	< 1.0 U	< 0.96 U	< 0.99 U	< 1.0 U	< 1.1 U	< 1.0 U	< 0.99 U	--	< 1.0 U	< 1.0 U
Aroclor 1260	0.5	1.4	< 1.0 U	< 0.96 U	< 0.99 U	< 1.0 U	< 1.1 U	< 1.0 U	--	--	--	--
Aroclor 1262			< 1.0 U	< 0.96 U	< 0.99 U	--	< 1.1 U	< 1.0 U	--	--	--	--
Aroclor 1268			< 1.0 U	< 0.96 U	< 0.99 U	--	< 1.1 U	< 1.0 U	--	--	--	--
Decachlorobiphenyl			--	--	< 0.00019 U	< 0.00021 U	0.0000022 J	< 0.0002 U	--	0.0000018 J	< 0.0002 U	--
PCB-1			--	--	0.0000052 J	0.0000088 J	0.0000061 J	0.0000078 J	--	0.0000021 J	0.000016 J	--
PCB-10			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-100			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-101			--	--	0.0000062 JB	--	--	--	--	--	--	--
PCB-102			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-103			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-104			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-105			< 0.00002 U	< 0.00002 U	0.0000032 J	< 0.000021 U	< 0.00002 U	< 0.00002 U	--	0.00011	0.000036	--
PCB-106			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-107			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-107/124			--	--	--	< 0.00043 U	< 0.00041 U	< 0.00039 U	--	0.00001 J	0.0000040 J	--
PCB-109			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.000018 J	0.0000059 J	--
PCB-11			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	0.000018 J	--
PCB-110			--	--	0.0000081 JB	--	--	--	--	--	--	--
PCB-110/115			--	--	--	0.0000043 JB	0.0000042 JB	0.0000065 J	--	0.00035 JB	0.00021 JB	--
PCB-111			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-112			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-113			--	--	0.0000062 JB	--	--	--	--	--	--	--
PCB-114			< 0.00002 U	< 0.00002 U	< 0.000019 U	< 0.000021 U	< 0.00002 U	< 0.00002 U	--	< 0.00002 U	< 0.00002 U	--
PCB-115			--	--	0.0000081 JB	--	--	--	--	--	--	--
PCB-116			--	--	< 0.00058 U	--	--	--	--	--	--	--
PCB-117			--	--	< 0.00058 U	--	--	--	--	--	--	--
PCB-118			< 0.00002 U	< 0.00002 U	0.0000069 JB	0.0000033 J	0.0000037 J	0.0000047 J	--	0.00028 B	0.0000088 B	--
PCB-119			--	--	0.0000056 JB	--	--	--	--	--	--	--
PCB-12			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-12/13			--	--	--	< 0.00043 U	< 0.00041 U	< 0.00039 U	--	< 0.00039 U	< 0.00039 U	--
PCB-120			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-121			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-122			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-123			< 0.00002 U	< 0.00002 U	< 0.000019 U	< 0.000021 U	< 0.00002 U	< 0.00002 U	--	0.0000038 J	< 0.00002 U	--
PCB-124			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-125			--	--	0.0000056 JB	--	--	--	--	--	--	--
PCB-126			< 0.00002 U	< 0.00002 U	< 0.000019 U	< 0.000021 U	< 0.00002 U	< 0.00002 U	--	< 0.00002 U	< 0.00002 U	--
PCB-127			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-128			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-128/162			--	--	--	< 0.00043 U	--	--	--	--	--	--
PCB-128/166			--	--	--	--	< 0.00041 U	< 0.00039 U	--	0.000057 J	0.000011 J	--
PCB-129			--	--	0.0000046 J	--	--	--	--	--	--	--
PCB-129/138/163			--	--	--	0.0000025 J	0.0000048 JB	0.0000060 J	--	0.00032 JB	0.000067 JB	--
PCB-13			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-130			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.000021 J	0.0000048 J	--
PCB-131			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000043 J	< 0.0002 U	--
PCB-132			--	--	0.0000020 J	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000099 J	0.000028 J	--
PCB-133			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-134			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-134/143			--	--	--	< 0.00043 U	< 0.00041 U	< 0.00039 U	--	0.000016 J	0.0000052 J	--
PCB-135			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-135/151			--	--	--	< 0.00043 U	< 0.00041 U	< 0.00039 U	--	0.000064 J	0.000022 J	--
PCB-136			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.00003 J	0.000012 J	--
PCB-137			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.000016 J	0.0000030 J	--
PCB-138			--	--	0.0000046 J	--	--	--	--	--	--	--
PCB-139			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-139/140			--	--	--	< 0.00043 U	< 0.00041 U	< 0.00039 U	--	0.0000060 J	< 0.00039 U	--
PCB-14			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-140			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-141			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.000044 J	0.000012 J	--
PCB-142			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-143			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-144			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000097 J	0.0000037 J	--
PCB-145			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-146			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.000031 J	0.0000072 J	--
PCB-147			--	--	0.0000038 JB	--	--	--	--	--	--	--
PCB-147/149			--	--	--	0.0000026 J	0.0000031 JB	0.0000029 J	--	0.00017 JB	0.000055 JB	--
PCB-148			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-149			--	--	0.0000038 JB	--	--	--	--	--	--	--
PCB-15			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-150			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-151			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-152			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-153			--	--	0.0000027 JB	--	--	--	--	--	--	--
PCB-153/168			--	--	--	0.0000021 J	0.0000028 JB	0.0000037 J	--	0.00018 JB	0.000045 JB	--
PCB-154			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-155			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-156			< 0.00004 U	< 0.00004 U	< 0.000039 U	< 0.000043 U	< 0.000041 U	< 0.000039 U	--	0.000043	0.0000073 J	--
PCB-156/157			< 0.00004 U	--	--	--	--	--	--	--	--	--
PCB-157			< 0.00004 U	< 0.00004 U	< 0.000039 U	--	--	--	--	--	--	--
PCB-158			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.000034 J	0.0000076 J	--
PCB-159			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-16			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	0.0000067 J	--



Well ID			MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F3R	TMW-19	TMW-19	TMW-21	TMW-23
Sample ID	Type 1 RRS	Type 3/4 RRS	MW-F3R (052214)	MW-F3R (110314)	MW-F3R (050515)	MW-F3R (110415)	MW-F3R (050316)	MW-F3R (122817)	TMW-19 (122817)	TMW-19 19(02202018)	TMW-21 (013118)	TMW-23 (122817)
Sample Date			05/22/2014	11/03/2014	05/05/2015	11/04/2015	05/03/2016	12/28/2017	12/28/2017	02/20/2018	01/31/2018	12/28/2017
Sample Type			N	N	N	N	N	N	N	N	N	N
Aquifer			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
PCB-160			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-161			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-162			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-163			--	--	0.0000046 J	--	--	--	--	--	--	--
PCB-164			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.000023 J	0.0000053 J	--
PCB-165			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-167			< 0.00002 U	< 0.00002 U	< 0.000019 U	< 0.000021 U	< 0.00002 U	< 0.00002 U	--	0.000012 J	0.0000024 J	--
PCB-168			--	--	0.0000027 JB	--	--	--	--	--	--	--
PCB-169			< 0.00002 U	< 0.00002 U	< 0.000019 U	< 0.000021 U	< 0.00002 U	< 0.00002 U	--	< 0.00002 U	0.00000057 J	--
PCB-17			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000047 J	0.0000046 J	--
PCB-170			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.000027 JB	0.0000060 J	--
PCB-171			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-171/173			--	--	--	< 0.00043 U	< 0.00041 U	< 0.00039 U	--	0.0000093 J	0.0000022 J	--
PCB-172			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000041 J	< 0.0002 U	--
PCB-173			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-174			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.000024 JB	0.0000072 J	--
PCB-175			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-176			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000041 J	0.00000090 J	--
PCB-177			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.000013 J	0.0000034 J	--
PCB-178			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000036 J	0.0000013 J	--
PCB-179			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000084 J	0.0000024 J	--
PCB-18			--	--	0.0000031 JB	--	--	--	--	--	--	--
PCB-18/30			--	--	--	< 0.00043 U	< 0.00041 U	< 0.00039 U	--	0.0000061 J	0.000014 J	--
PCB-180			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-180/193			--	--	--	0.0000013 J	0.0000020 J	0.0000012 JB	--	0.000045 JB	0.000012 JB	--
PCB-181			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.00000064 J	< 0.0002 U	--
PCB-182			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-183			--	--	< 0.00019 U	< 0.00021 U	0.0000018 JB	0.0000013 JB	--	0.000012 JB	0.0000046 JB	--
PCB-184			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-185			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000017 J	< 0.0002 U	--
PCB-186			--	--	0.0000059 JB	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-187			--	--	0.0000016 J	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.000022 JB	0.0000067 J	--
PCB-188			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-189			< 0.00002 U	< 0.00002 U	< 0.000019 U	< 0.000021 U	< 0.00002 U	< 0.00002 U	--	0.0000014 J	< 0.00002 U	--
PCB-19			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	0.0000047 J	--
PCB-190			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000054 J	0.0000011 J	--
PCB-191			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000013 J	< 0.0002 U	--
PCB-192			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-193			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-194			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000063 J	0.0000019 JB	--
PCB-195			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000021 J	< 0.0002 U	--
PCB-196			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000034 J	< 0.0002 U	--
PCB-197			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-198			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-198/199			--	--	--	< 0.00043 U	< 0.00041 U	< 0.00039 U	--	0.0000067 J	0.0000018 J	--
PCB-199			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-2			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000013 J	0.0000027 J	--
PCB-20			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-20/28			--	--	--	< 0.00043 U	< 0.00041 U	< 0.00039 U	--	0.000014 J	0.0000089 J	--
PCB-200			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-201			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.00000085 J	< 0.0002 U	--
PCB-202			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000016 J	< 0.0002 U	--
PCB-203			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000045 J	< 0.0002 U	--
PCB-204			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-205			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-206			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000037 J	0.0000014 J	--
PCB-207			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-208			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000014 J	< 0.0002 U	--
PCB-21			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-21/33			--	--	--	< 0.00043 U	< 0.00041 U	< 0.00039 U	--	0.0000079 J	0.0000063 J	--
PCB-22			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	0.0000045 J	--
PCB-23			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-24			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-25			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	0.0000032 J	--
PCB-26			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-26/29			--	--	--	< 0.00043 U	< 0.00041 U	< 0.00039 U	--	< 0.00039 U	< 0.00039 U	--
PCB-27			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-28			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-29			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-3			--	--	0.0000014 J	< 0.00021 U	< 0.0002 U	0.0000025 J	--	0.0000018 J	0.0000040 J	--
PCB-30			--	--	0.0000031 JB	--	--	--	--	--	--	--
PCB-31			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000083 JB	0.000013 J	--
PCB-32			--	--	0.0000013 J	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000062 J	0.0000040 J	--
PCB-33			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-34			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-35			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-36			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-37			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-38			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-39			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-4			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-40			--	--	0.0000020 J	--	--	--	--	--	--	--
PCB-40/71			--	--	--	< 0.00043 U	< 0.00041 U	< 0.00039 U	--	0.000023 JB	0.000016 J	--
PCB-41			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-42			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000083 J	0.0000069 J	--
PCB-43			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-44			--	--	0.000033 JB	--	--	--	--	--	--	--
PCB-44/47/65			--	--	--	0.0000092 JB	< 0.00061 U	0.000047 JB	--	0.00017 JB	0.00019 JB	--
PCB-45			--	--	0.000028 J	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	0.0000040 J	--
PCB-46			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000033 J	< 0.0002 U	--
PCB-47			--	--	0.000033 JB	--	--	--	--	--	--	--
PCB-48			--	--	0.0000013 J	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000030 J	0.0000039 J	--



Well ID			MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F3R	MW-F3R	TMW-19	TMW-19	TMW-21	TMW-23
Sample ID	Type 1 RRS	Type 3/4 RRS	MW-F3R (052214)	MW-F3R (110314)	MW-F3R (050515)	MW-F3R (110415)	MW-F3R (050316)	MW-F3R (122817)	TMW-19 (122817)	TMW-19 19(02202018)	TMW-21 (013118)	TMW-23 (122817)
Sample Date			05/22/2014	11/03/2014	05/05/2015	11/04/2015	05/03/2016	12/28/2017	12/28/2017	02/20/2018	01/31/2018	12/28/2017
Sample Type			N	N	N	N	N	N	N	N	N	N
Aquifer			Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
PCB-49			--	--	0.0000033 J	--	--	--	--	--	--	--
PCB-49/69			--	--	--	< 0.00043 U	< 0.00041 U	0.0000018 J	--	0.000056 J	0.000038 J	--
PCB-5			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-50			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-50/53			--	--	--	< 0.00043 U	< 0.00041 U	< 0.00039 U	--	0.000015 J	0.0000096 J	--
PCB-51			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	0.0000092 J	--	0.000025 JB	0.000015 J	--
PCB-52			--	--	0.0000057 J	0.0000029 J	0.0000047 JB	0.0000021 JB	--	0.00017 J	0.00028 B	--
PCB-53			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-54			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-55			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-56			--	--	0.0000034 J	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.000012 J	0.000012 J	--
PCB-57			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-58			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-59			--	--	< 0.00058 U	--	--	--	--	--	--	--
PCB-59/62/75			--	--	--	< 0.00064 U	< 0.00061 U	< 0.00059 U	--	0.0000026 J	0.0000018 J	--
PCB-6			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-60			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	0.0000039 J	--
PCB-61			--	--	0.00001 J	--	--	--	--	--	--	--
PCB-61/70/74/76			--	--	--	< 0.00085 U	0.0000039 JB	0.0000022 JB	--	0.00012 JB	0.000096 J	--
PCB-62			--	--	< 0.00058 U	--	--	--	--	--	--	--
PCB-63			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-64			--	--	0.0000022 J	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.000018 J	0.000027 J	--
PCB-65			--	--	0.000033 JB	--	--	--	--	--	--	--
PCB-66			--	--	0.0000057 J	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.000049 JB	0.000024 J	--
PCB-67			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-68			--	--	0.0000070 J	< 0.00021 U	< 0.0002 U	0.0000026 J	--	0.0000063 JB	0.0000061 J	--
PCB-69			--	--	0.0000033 J	--	--	--	--	--	--	--
PCB-7			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-70			--	--	0.00001 J	--	--	--	--	--	--	--
PCB-71			--	--	0.0000020 J	--	--	--	--	--	--	--
PCB-72			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-73			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-74			--	--	0.00001 J	--	--	--	--	--	--	--
PCB-75			--	--	< 0.00058 U	--	--	--	--	--	--	--
PCB-76/66			--	--	0.00001 J	--	--	--	--	--	--	--
PCB-77			< 0.00002 U	< 0.00002 U	< 0.000019 U	< 0.000021 U	< 0.00002 U	< 0.00002 U	--	0.0000037 J	0.0000024 J	--
PCB-78			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-79			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-8			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-80			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-81			< 0.00002 U	< 0.00002 U	< 0.000019 U	< 0.000021 U	< 0.00002 U	< 0.00002 U	--	< 0.00002 U	< 0.00002 U	--
PCB-82			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.000028 J	0.000018 J	--
PCB-83			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-84			--	--	0.0000018 J	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.000076 J	0.000067 J	--
PCB-85			--	--	< 0.00058 U	--	--	--	--	--	--	--
PCB-85/116/117			--	--	--	< 0.00064 U	< 0.00061 U	< 0.00059 U	--	0.000045 J	0.000023 J	--
PCB-86			--	--	0.0000056 JB	--	--	--	--	--	--	--
PCB-86/87/97/108/119/125			--	--	--	< 0.0013 U	< 0.0012 U	< 0.0012 U	--	0.00019 J	0.00011 J	--
PCB-87			--	--	0.0000056 JB	--	--	--	--	--	--	--
PCB-88			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-88/91			--	--	--	< 0.00043 U	< 0.00041 U	< 0.00039 U	--	0.000038 J	0.000024 J	--
PCB-89			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-9			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-90			--	--	0.0000062 JB	--	--	--	--	--	--	--
PCB-90/101/113			--	--	--	0.0000036 J	0.0000046 J	< 0.00059 U	--	0.00029 JB	0.00016 JB	--
PCB-91			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-92			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.000056 J	0.000031 J	--
PCB-93			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-93/100			--	--	--	< 0.00043 U	< 0.00041 U	< 0.00039 U	--	< 0.00039 U	< 0.00039 U	--
PCB-94			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	< 0.0002 U	< 0.0002 U	--
PCB-95			--	--	0.0000039 J	0.0000028 J	< 0.0002 U	0.0000030 J	--	0.00022 B	0.00022 B	--
PCB-96			--	--	< 0.00019 U	< 0.00021 U	< 0.0002 U	< 0.0002 U	--	0.0000018 J	0.0000018 J	--
PCB-97			--	--	0.0000056 JB	--	--	--	--	--	--	--
PCB-98			--	--	< 0.00039 U	--	--	--	--	--	--	--
PCB-98/102			--	--	--	< 0.00043 U	< 0.00041 U	< 0.00039 U	--	< 0.00039 U	0.0000047 J	--
PCB-99			--	--	0.0000027 J	0.0000015 J	< 0.0002 U	< 0.0002 U	--	0.00012 J	0.000053 J	--
Polychlorinated biphenyls	0.5	1.4	< 0.002 U	< 0.002 U	--	0.000045 J	0.000044 J	0.0001 J	--	0.004	0.0023	--
<b>Toxicity Equivalent Quotient (µg/L)</b>												
TEQ WHO2005 ND=0.5			--	--	--	--	--	--	0.00000027	--	--	--
TEQ WHO2005 ND=DL			--	--	--	--	--	1.40E-10	0.00000027	--	0.000000021	--
Total PCB TEQ			--	--	--	--	--	1.40E-10	--	--	0.000000021	--

**Notes:**  
**Bold** = Concentration is greater than the laboratory detection limit  
**Shaded** = Concentration exceeds the GA EPD Type 3/4 RRS  
**Acronyms and Abbreviations:**  
DUP = field duplicate  
GA EPD = Georgia Environmental Protection Division  
PCB = polychlorinated biphenyl  
RRS = Risk Reduction Standard  
TEQ = toxicity equivalent quotient  
µg/L = microgram per liter  
**Data Validation Qualifiers:**  
B = Compound was detected in the associated blank  
H = Sample was analyzed outside of the hold time  
J = Result is estimated  
U = Result is less than the laboratory detection limit



Location ID	SW-1	SW-1	SW-2	SW-2	SW-2	SW-3	SW-3	SW-4	SW-F2	SW-F3	SW-F4	SW-F5
Sample ID	SW-1_7/6/06_NM	SW-1_10/8/2014	SW-2_7/6/06_NM	SW-2_2/08/2014	SW-2_DUP-01/08/2014	SW-3_7/6/06_NM	SW-3_3/08/2014	SW-4_7/6/06_NM	SW-F2_11/3/00_NM	SW-F3_11/2/00_NM	SW-F4_11/2/00_NM	SW-F5_11/2/00_NM
Sample Date	07/06/2006	08/28/2014	07/06/2006	08/28/2014	08/28/2014	07/06/2006	08/28/2014	07/06/2006	11/03/2000	11/02/2000	11/02/2000	11/02/2000
Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N
<b>Anions</b>												
Ammonia Nitrogen (mg/L)	0.093	0.32	0.34	0.15	--	0.1	0.13	0.27	0.13	0.53	0.09	0.79
Chloride (mg/L)	--	--	--	--	--	--	--	--	39	65	89	400
Fluoride (F-, Anion) (mg/L)	--	0.16	--	0.43	--	--	0.53	--	0.61	0.69	0.66	0.58
Nitrate/Nitrite (µg/L)	--	--	--	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Sulfate (mg/L)	--	--	--	--	--	--	--	--	35	38	32	74
Sulfide (µg/L)	--	--	--	--	--	--	--	--	< 1 U	< 1 U	< 1 U	< 1 U
<b>General Chemistry</b>												
Biological Oxygen Demand (mg/L)	8.5	--	110	--	--	7.4	--	8.1	--	--	--	--
Chemical Oxygen Demand (mg/L)	200	--	530	--	--	170	--	150	--	--	--	--
Cyanide (µg/L)	< 0.01 U	--	< 0.01 U	--	--	< 0.01 U	--	< 0.01 U	--	--	--	--
Residue, filterable (mg/L)	--	--	--	--	--	--	--	--	310	360	400	1100
Total Dissolved Solids (mg/L)	930	--	1700	--	--	800	--	720	--	--	--	--
Total Organic Carbon (mg/L)	--	--	--	--	--	--	--	--	5.5	6.2	5.7	5.8
<b>Metals (µg/L)</b>												
Antimony	< 2.5 U	--	< 2.5 U	--	--	< 2.5 U	--	< 2.5 U	< 20 U	< 20 U	< 20 U	< 20 U
Arsenic	0.55	--	1.1	--	--	0.74	--	0.97	< 10 U	< 10 U	< 10 U	< 10 U
Barium	--	--	--	--	--	--	--	--	28	28	28	27
Beryllium	< 0.5 U	--	< 0.5 U	--	--	< 0.5 U	--	< 0.5 U	< 4 U	< 4 U	< 4 U	< 4 U
Cadmium	< 0.5 U	--	< 0.5 U	--	--	< 0.5 U	--	< 0.5 U	< 5 U	< 5 U	< 5 U	< 5 U
Chromium	< 5 U	--	< 5 U	--	--	< 5 U	--	< 5 U	< 10 U	< 10 U	< 10 U	< 10 U
Chromium VI	< 0.01 U	--	< 0.01 U	--	--	< 0.01 U	--	< 0.01 U	--	--	--	--
Cobalt	--	--	--	--	--	--	--	--	< 10 U	< 10 U	< 10 U	< 10 U
Copper	< 5 U	--	< 5 U	--	--	< 5 U	--	< 5 U	< 20 U	< 20 U	< 20 U	< 20 U
Lead	< 1.5 U	--	< 1.5 U	--	--	< 1.5 U	--	0.16	< 5 U	< 5 U	< 5 U	< 5 U
Mercury	< 0.2 U	--	< 0.2 U	--	--	< 0.2 U	--	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U
Nickel	3.9	--	8	--	--	2.7	--	7.8	< 40 U	< 40 U	< 40 U	< 40 U
Selenium	< 2.5 U	--	< 2.5 U	--	--	< 2.5 U	--	< 2.5 U	< 10 U	< 10 U	< 10 U	< 10 U
Silver	< 1 U	--	< 1 U	--	--	< 1 U	--	< 1 U	< 10 U	< 10 U	< 10 U	< 10 U
Thallium	< 1 U	--	< 1 U	--	--	< 1 U	--	< 1 U	< 10 U	< 10 U	< 10 U	< 10 U
Tin	--	--	--	--	--	--	--	--	< 50 U	< 50 U	< 50 U	< 50 U
Vanadium	--	--	--	--	--	--	--	--	< 10 U	< 10 U	< 10 U	< 10 U
Zinc	< 20 U	--	< 20 U	--	--	< 20 U	--	< 20 U	23	< 27 U	< 25 U	< 26 U
<b>Herbicides (µg/L)</b>												
2,2-Dichloropropionic acid, Dalapon	< 10 U	--	< 9.7 U	--	--	< 9.8 U	--	< 9.7 U	--	--	--	--
2,4,5-T (Trichlorophenoxyacetic Acid)	< 0.5 U	--	< 0.49 U	--	--	< 0.49 U	--	< 0.49 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
2,4,5-TP (Silvex)	< 0.5 U	--	< 0.49 U	--	--	< 0.49 U	--	< 0.49 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
2,4-D (Dichlorophenoxyacetic Acid)	< 0.5 U	--	< 0.49 U	--	--	< 0.49 U	--	< 0.49 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
2,4-DB (Butanoic Acid)	< 0.5 U	--	< 0.49 U	--	--	< 0.49 U	--	< 0.49 U	--	--	--	--
2-Methyl-4-chlorophenoxyacetic Acid	< 120 U	--	< 120 U	--	--	< 120 U	--	< 120 U	--	--	--	--
Dicamba	< 1.2 U	--	< 1.2 U	--	--	< 1.2 U	--	< 1.2 U	--	--	--	--
Dichloroprop	< 0.5 U	--	< 0.49 U	--	--	< 0.49 U	--	< 0.49 U	--	--	--	--
Dinoseb	< 6 U	--	< 5.8 U	--	--	< 5.9 U	--	< 5.8 U	--	--	--	--
MCPP (Mecroprop)	< 120 U	--	< 120 U	--	--	< 120 U	--	< 120 U	--	--	--	--
<b>Pesticides (µg/L)</b>												
4,4-DDD (Rhothane)	--	--	--	--	--	--	--	--	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
4,4-DDE (Dichlorodiphenyl-dichloroethylene)	--	--	--	--	--	--	--	--	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
4,4-DDT (Dichlorodiphenyl-trichloroethane)	--	--	--	--	--	--	--	--	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
Aldrin	--	--	--	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Alpha-BHC	--	--	--	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Beta-BHC	--	--	--	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Chlordane	--	--	--	--	--	--	--	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
Chlorobenzilate	--	--	--	--	--	--	--	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
Delta-BHC	--	--	--	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Dieldrin	--	--	--	--	--	--	--	--	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
Endosulfan I	--	--	--	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Endosulfan II	--	--	--	--	--	--	--	--	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
Endosulfan sulfate	--	--	--	--	--	--	--	--	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
Endrin	--	--	--	--	--	--	--	--	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
Endrin aldehyde	--	--	--	--	--	--	--	--	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
Heptachlor	--	--	--	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Heptachlor epoxide	--	--	--	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Isodrin	--	--	--	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Kepone	--	--	--	--	--	--	--	--	< 1 U	< 1 U	< 1 U	< 1 U
Methoxychlor	--	--	--	--	--	--	--	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U
Technical BHC	--	--	--	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Toxaphene	--	--	--	--	--	--	--	--	< 5 U	< 5 U	< 5 U	< 5 U
<b>Pesticide PCBs (µg/L)</b>												
4,4-DDD (Rhothane)	< 0.1 U	--	< 0.98 U	--	--	< 0.098 U	--	< 0.095 U	--	--	--	--
4,4-DDE (Dichlorodiphenyl-dichloroethylene)	< 0.1 U	--	< 0.98 U	--	--	< 0.098 U	--	< 0.095 U	--	--	--	--
4,4-DDT (Dichlorodiphenyl-trichloroethane)	< 0.1 U	--	< 0.98 U	--	--	< 0.098 U	--	< 0.095 U	--	--	--	--
Aldrin	< 0.05 U	--	< 0.49 U	--	--	< 0.049 U	--	< 0.048 U	--	--	--	--
Alpha-BHC	< 0.05 U	--	< 0.49 U	--	--	< 0.049 U	--	< 0.048 U	--	--	--	--
Aroclor 1016	< 1 U	--	< 9.8 U	--	--	< 0.98 U	--	< 0.95 U	--	--	--	--
Aroclor 1221	< 2 U	--	< 20 U	--	--	< 2 U	--	< 1.9 U	--	--	--	--
Aroclor 1232	< 1 U	--	< 9.8 U	--	--	< 0.98 U	--	< 0.95 U	--	--	--	--
Aroclor 1242	< 1 U	--	< 9.8 U	--	--	< 0.98 U	--	< 0.95 U	--	--	--	--
Aroclor 1248	< 1 U	--	< 9.8 U	--	--	< 0.98 U	--	< 0.95 U	--	--	--	--
Aroclor 1254	< 1 U	--	< 9.8 U	--	--	< 0.98 U	--	< 0.95 U	--	--	--	--
Aroclor 1260	< 1 U	--	< 9.8 U	--	--	< 0.98 U	--	< 0.95 U	--	--	--	--
Beta-BHC	< 0.05 U	--	< 0.49 U	--	--	< 0.049 U	--	< 0.048 U	--	--	--	--
Chlordane	< 0.5 U	--	< 4.9 U	--	--	< 0.49 U	--	< 0.48 U	--	--	--	--
Delta-BHC	< 0.05 U	--	< 0.49 U	--	--	< 0.049 U	--	< 0.048 U	--	--	--	--
Dieldrin	< 0.1 U	--	< 0.98 U	--	--	< 0.098 U	--	< 0.095 U	--	--	--	--
Endosulfan I	< 0.05 U	--	< 0.49 U	--	--	< 0.049 U	--	< 0.048 U	--	--	--	--
Endosulfan II	< 0.1 U	--	< 0.98 U	--	--	< 0.098 U	--	< 0.095 U	--	--	--	--
Endosulfan sulfate	< 0.1 U	--	< 0.98 U	--	--	< 0.098 U	--	< 0.095 U	--	--	--	--
Endrin	< 0.1 U	--	< 0.98 U	--	--	< 0.098 U	--	< 0.095 U	--	--	--	--
Endrin aldehyde	< 0.1 U	--	< 0.98 U	--	--	< 0.098 U	--	< 0.095 U	--	--	--	--
Gamma-BHC	< 0.05 U	--	< 0.49 U	--	--	< 0.049 U	--	< 0.048 U	--	--	--	--
Heptachlor	< 0.05 U	--	< 0.49 U	--	--	< 0.049 U	--	< 0.048 U	--	--	--	--
Heptachlor epoxide	< 0.05 U	--	< 0.49 U	--	--	< 0.049 U	--	< 0.048 U	--	--	--	--
Methoxychlor	< 0.5 U	--	< 4.9 U	--	--	< 0.49 U	--	< 0.48 U	--	--	--	--
Toxaphene	< 5 U	--	< 49 U	--	--	< 4.9 U	--	< 4.8 U	--	--	--	--
<b>Total Petroleum Hydrocarbon</b>												
Diesel Range Organics (µg/L)	--	--	--	--	--	--	--	--	< 100 U	140	< 100 U	110
Gasoline Range Organics (µg/L)	--	--	--	--	--	--	--	--	< 50 U	< 50 U	< 50 U	< 50 U
Oil & Grease (mg/L)	--	--	5.6	--	--	--	--	--	--	--	--	--
Oil & Grease (µg/L)	< 5 U	--	--	--	--	< 5 U	--	< 5 U	--	--	--	--
Total Petroleum Hydrocarbon (TPH) (µg/L)	< 5 U	--	< 5 U	--	--	< 5 U	--	< 5 U	--	--	--	--



Location ID	SW-1	SW-1	SW-2	SW-2	SW-2	SW-3	SW-3	SW-4	SW-F2	SW-F3	SW-F4	SW-F5
Sample ID	SW-1_7/6/06_NM	SW-1_10/8/2014	SW-2_7/6/06_NM	SW-2_2/08/2014	SW-2_DUP-01/08/2014	SW-3_3_7/6/06_NM	SW-3_3/08/2014	SW-4_4_7/6/06_NM	SW-F2_F2_11/3/00_NM	SW-F3_F3_11/2/00_NM	SW-F4_F4_11/2/00_NM	SW-F5_F5_11/2/00_NM
Sample Date	07/06/2006	08/28/2014	07/06/2006	08/28/2014	08/28/2014	07/06/2006	08/28/2014	07/06/2006	11/03/2000	11/02/2000	11/02/2000	11/02/2000
Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N
<b>Semi-Volatile Organic Compounds (µg/L)</b>												
1,1-Biphenyl	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
1,2,4,5-Tetrachlorobenzene	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
1,2,4-Trichlorobenzene	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
1,2-Dichlorobenzene	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
1,3,5-Trinitrobenzene	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
1,3-Dichlorobenzene	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
1,3-Dihydro-2H-indol-2-one	--	--	71 NJ	--	--	--	--	45 NJ	--	--	--	--
1,3-Dinitrobenzene	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
1,4-Dichlorobenzene	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
1,4-Dioxane	--	< 2.0 U	--	< 1.9 U	--	--	< 2.0 U	--	< 10 U	12	12	10
1,4-Naphthoquinone	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
1-Naphthylamine	--	< 4.9 U	--	< 4.9 U	--	--	< 5.1 U	--	< 10 U	< 10 U	< 10 U	< 10 U
2,2-Oxybis(1-Chloropropane)	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	--	--	--	--
2,3,4,6-Tetrachlorophenol	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
2,4,5-Trichlorophenol	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
2,4,6-Trichlorophenol	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
2,4-Dichlorophenol	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
2,4-Dimethylphenol	< 9.8 U	< 2.0 U	< 9.7 U	< 1.9 U	--	< 10 U	< 2.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
2,4-Dinitrophenol	< 9.8 U	< 9.8 U	< 9.7 U	< 9.7 U	--	< 10 U	< 1.0 U	< 9.8 U	< 50 U	< 10 U	< 10 U	< 10 U
2,4-Dinitrotoluene	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
2,6-Dichlorophenol	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
2,6-Dinitrotoluene	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Acetylaminofluorene	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
2-Chloronaphthalene	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Chlorophenol	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Methyl-4,6-dinitrophenol	< 49 U	< 4.9 U	< 49 U	< 4.9 U	--	< 50 U	< 5.1 U	< 49 U	< 50 U	< 50 U	< 50 U	< 50 U
2-Methylnaphthalene	--	< 0.20 U	--	< 0.19 U	--	--	< 0.20 U	--	< 10 U	< 10 U	< 10 U	< 10 U
2-Methylphenol	--	< 2.0 U	--	< 1.9 U	--	--	< 2.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
2-Naphthylamine	--	< 4.9 U	--	< 4.9 U	--	--	< 5.1 U	--	< 10 U	< 10 U	< 10 U	< 10 U
2-Nitroaniline	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 50 U	< 50 U	< 50 U	< 50 U
2-Nitrophenol	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Picoline	--	< 2.0 U	--	< 1.9 U	--	--	< 2.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
3,3-Dichlorobenzidine	< 20 U	< 2.0 U	< 19 U	< 1.9 U	--	< 20 U	< 2.0 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
3,3-Dimethylbenzidine	--	< 2.0 U	--	< 1.9 U	--	--	< 2.0 U	--	< 20 U	< 20 U	< 20 U	< 20 U
3-Methylchloranthrene	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
3-Methylphenol, 4-Methylphenol	--	--	--	--	--	--	--	--	< 10 U	< 10 U	< 10 U	< 10 U
3-Nitroaniline	--	< 4.9 U	--	< 4.9 U	--	--	< 5.1 U	--	< 50 U	< 50 U	< 50 U	< 50 U
4-Aminobiphenyl	--	< 4.9 U	--	< 4.9 U	--	--	< 5.1 U	--	< 10 U	< 10 U	< 10 U	< 10 U
4-Bromophenyl phenyl ether	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Chloro-3-Methylphenol	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Chlorophenyl phenyl ether	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Dimethylaminoazobenzene	--	< 4.9 U	--	< 4.9 U	--	--	< 5.1 U	--	< 10 U	< 10 U	< 10 U	< 10 U
4-Methylphenol	--	< 2.0 U	480	< 1.9 U	--	--	< 2.0 U	--	--	--	--	--
4-Nitroaniline	--	< 4.9 U	--	< 4.9 U	--	--	< 5.1 U	--	< 50 U	< 50 U	< 50 U	< 50 U
4-Nitrophenol	< 49 U	< 4.9 U	< 49 U	< 4.9 U	--	< 50 U	< 5.1 U	< 49 U	< 50 U	< 50 U	< 50 U	< 50 U
4-Nitroquinoline-N-Oxide	--	< 2.0 U	--	< 1.9 U	--	--	< 2.0 U	--	< 20 U	< 20 U	< 20 U	< 20 U
5-Nitro-o-Toluidine	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
7,10,13-Hexadecatrienoic acid, methyl ester	--	--	--	--	--	47 NJ	--	--	--	--	--	--
7,12-Dimethylbenz(a)anthracene	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Acenaphthene	< 9.8 U	< 0.20 U	< 9.7 U	< 0.19 U	--	< 10 U	< 0.20 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
Acenaphthylene	< 9.8 U	< 0.20 U	< 9.7 U	< 0.19 U	--	< 10 U	< 0.20 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
Acetophenone	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
alpha,alpha-Dimethylphenethylamine	--	--	--	--	--	--	--	--	< 2000 U	< 2000 U	< 2000 U	< 2000 U
Aniline	--	< 2.0 U	--	< 1.9 U	--	--	< 2.0 U	--	< 20 U	< 20 U	< 20 U	< 20 U
Anthracene	< 9.8 U	< 0.20 U	< 9.7 U	< 0.19 U	--	< 10 U	< 0.20 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
Aramite	--	< 1.5 U	--	< 1.5 U	--	--	< 1.5 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Benzidine	< 78 U	--	< 78 U	--	--	< 80 U	--	< 78 U	--	--	--	--
Benzo(a)anthracene	< 9.8 U	< 0.20 U	< 9.7 U	< 0.19 U	--	< 10 U	< 0.20 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(a)pyrene	< 9.8 U	< 0.20 U	< 9.7 U	< 0.19 U	--	< 10 U	< 0.20 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(b)fluoranthene	< 9.8 U	< 0.20 U	< 9.7 U	< 0.19 U	--	< 10 U	< 0.20 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(g,h,i)perylene	< 9.8 U	< 0.20 U	< 9.7 U	< 0.19 U	--	< 10 U	< 0.20 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(k)fluoranthene	< 9.8 U	< 0.20 U	< 9.7 U	< 0.19 U	--	< 10 U	< 0.20 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzyl Alcohol	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
beta-Pinene	--	--	--	--	--	--	--	--	< 100 U	< 100 U	< 100 U	< 100 U
bis(2-Chloroethoxy)methane	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
bis(2-Chloroethyl)ether	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
bis(2-Chloroisopropyl)ether	--	--	--	--	--	--	--	--	< 10 U	< 10 U	< 10 U	< 10 U
bis(2-Ethylhexyl)phthalate	< 9.8 U	< 2.0 U	< 9.7 U	< 1.9 U	--	< 10 U	< 2.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
Butyl benzyl phthalate	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
Caprolactam	--	--	--	--	--	--	--	5.9 NJ	--	--	--	--
Chrysene	< 9.8 U	< 0.20 U	< 9.7 U	< 0.19 U	--	< 10 U	< 0.20 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
Diallate	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Dibenzo(a,h)anthracene	< 9.8 U	< 0.20 U	< 9.7 U	< 0.19 U	--	< 10 U	< 0.20 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
Dibenzofuran	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Diethyl phthalate	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
Dimethoate	--	< 2.0 U	--	< 1.9 U	--	--	< 2.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Dimethyl phthalate	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
Dimethylphenethylamine	--	< 9.8 U	--	< 9.7 U	--	--	< 10 U	--	--	--	--	--
Di-n-butyl phthalate	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
Di-n-octyl phthalate	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
Dinoseb	--	< 2.0 U	--	< 1.9 U	--	--	< 2.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Diphenyl ether	--	--	--	--	--	--	--	--	< 10 U	< 10 U	< 10 U	< 10 U
Disulfoton	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Ethyl Methanesulfonate	--	< 2.0 U	--	< 1.9 U	--	--	< 2.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Famphur	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Fluoranthene	< 9.8 U	< 0.20 U	< 9.7 U	< 0.19 U	--	< 10 U	< 0.20 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
Fluorene	< 9.8 U	< 0.20 U	< 9.7 U	< 0.19 U	--	< 10 U	< 0.20 U	< 9.8 U	< 10 U	< 10		



Location ID	SW-1	SW-1	SW-2	SW-2	SW-2	SW-3	SW-3	SW-4	SW-F2	SW-F3	SW-F4	SW-F5
Sample ID	SW-1 1_7/6/06_NM	SW-1 1(08282014)	SW-2 2_7/6/06_NM	SW-2 2(08282014)	SW-2 DUP- 01(08282014)	SW-3 3_7/6/06_NM	SW-3 3(08282014)	SW-4 4_7/6/06_NM	SW-F2 F2_11/3/00_NM	SW-F3 F3_11/2/00_NM	SW-F4 F4_11/2/00_NM	SW-F5 F5_11/2/00_NM
Sample Date	07/06/2006	08/28/2014	07/06/2006	08/28/2014	08/28/2014	07/06/2006	08/28/2014	07/06/2006	11/03/2000	11/02/2000	11/02/2000	11/02/2000
Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N
Naphthalene	< 9.8 U	< 0.20 U	< 9.7 U	< 0.19 U	--	< 10 U	< 0.20 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
Nitrobenzene	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
N-Nitrosodiethylamine	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
N-Nitrosodimethylamine	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
N-Nitrosodi-n-butylamine	--	< 0.98 U	--	7.8	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
N-Nitrosodi-n-propylamine	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
N-Nitrosodiphenylamine	< 9.8 U	< 0.98 U	< 9.7 U	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
N-Nitrosomorpholine	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
N-Nitroso-N-methylethylamine	--	< 2.0 U	--	< 1.9 U	--	--	< 2.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
N-Nitrosopiperidine	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
N-Nitrosopyrrolidine	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
o,o,o-Triethyl phosphorothioate	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	--	--	--	--
o,o,o-Trimethyl thiophosphate	--	--	--	--	--	--	--	--	< 10 U	< 10 U	< 10 U	< 10 U
o,o-Diethyl o-pyrazinyl phosphorothioate	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
o-Toluidine	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Parathion	--	< 2.0 U	--	< 1.9 U	--	--	< 2.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
p-Chloroaniline	--	< 2.0 U	--	< 1.9 U	--	--	< 2.0 U	--	< 20 U	< 20 U	< 20 U	< 20 U
Pentachlorobenzene	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Pentachloronitrobenzene	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Pentachlorophenol	< 49 U	< 4.9 U	< 49 U	< 4.9 U	--	< 50 U	< 5.1 U	< 49 U	< 50 U	< 50 U	< 50 U	< 50 U
Phenacetin	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Phenanthrene	< 9.8 U	< 0.20 U	< 9.7 U	< 0.19 U	--	< 10 U	< 0.20 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
Phenol	< 9.8 U	< 0.98 U	120	< 0.97 U	--	< 10 U	< 1.0 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
Phorate	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Pinene	--	--	--	--	--	--	--	--	< 100 U	< 100 U	< 100 U	< 100 U
p-Phenylenediamine	--	< 200 U	--	< 190 U	--	--	< 200 U	--	< 2000 U	< 2000 U	< 2000 U	< 2000 U
Propylamide	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Pyrene	< 9.8 U	< 0.20 U	< 9.7 U	< 0.19 U	--	< 10 U	< 0.20 U	< 9.8 U	< 10 U	< 10 U	< 10 U	< 10 U
Pyridine	--	< 4.9 U	--	< 4.9 U	--	--	< 5.1 U	--	< 50 U	< 50 U	< 50 U	< 50 U
Safrrole	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Sulfotep	--	< 0.98 U	--	< 0.97 U	--	--	< 1.0 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Tetradecanoic acid, hexadecyl ester	--	--	110 NJ	--	--	--	--	--	--	--	--	--
Unknown	--	--	11 J	--	--	--	--	--	--	--	--	--
Unknown	--	--	39 J	--	--	15 J	--	--	--	--	--	--
Unknown	18 J	--	67 J	--	--	11 J	--	--	--	--	--	--
Unknown	18 J	--	27 J	--	--	30 J	--	--	--	--	--	--
Unknown	25 J	--	63 J	--	--	--	--	--	--	--	--	--
Unknown alkane	--	--	--	--	--	--	--	6.2 J	--	--	--	--
Unknown alkene	--	--	--	--	--	--	--	6.8 J	--	--	--	--
Unknown C7H10O	--	--	9.4 J	--	--	--	--	--	--	--	--	--
Unknown Substituted Benzene	17 J	--	28 J	--	--	--	--	20 J	--	--	--	--
Unknown Substituted Benzene	19 J	--	37 J	--	--	--	--	--	--	--	--	--
Unknown Substituted Benzene	61 J	--	62 J	--	--	--	--	--	--	--	--	--
Unknown Substituted Benzene	--	--	100 J	--	--	--	--	--	--	--	--	--
Unknown Substituted PAH	--	--	--	--	--	9.5 J	--	5 J	--	--	--	--
Unknown Substituted PAH	--	--	--	--	--	12 J	--	--	--	--	--	--
Unknown_VOC	23 J	--	33 J	--	--	--	--	35 J	--	--	--	--
<b>Volatile Organic Compounds (µg/L)</b>												
1,1,1,2-Tetrachloroethane	--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	< 1 U	< 1 U	< 1 U	< 1 U
1,1,1-Trichloroethane	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1,2,2-Tetrachloroethane	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1,2-Trichloroethane	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1-Dichloroethane	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1-Dichloroethene	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2,3-Trichloropropane	--	--	--	--	--	--	--	--	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dibromoethane	--	--	--	--	--	--	--	--	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dichloroethane	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dichloropropane	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
2-Butanone (MEK)	--	< 10 U	12	< 10 U	< 10 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U
2-Chlor-1,3-Butadiene	--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	< 1 U	< 1 U	< 1 U	< 1 U
2-Chloroethyl vinyl ether	< 10 U	--	< 10 U	--	--	< 10 U	--	< 10 U	--	--	--	--
2-Methyl-1-propanol	--	< 40 U	--	< 40 U	< 40 U	--	< 40 U	--	< 40 U	< 40 U	< 40 U	< 40 U
4-Methyl-2-Pentanone	--	< 10 U	--	< 10 U	< 10 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Acetone	--	< 25 U	110	< 25 U	< 25 U	--	< 25 U	--	< 25 U	< 25 U	< 25 U	< 25 U
Acetonitrile	--	< 40 U	--	< 40 U	< 40 U	--	< 40 U	--	< 40 U	< 40 U	< 40 U	< 40 U
Acrolein	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
Acrylonitrile	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
Allyl chloride	--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	< 1 U	< 1 U	< 1 U	< 1 U
Benzene	< 1 U	< 1.0 U	2.4	< 1.0 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Bromodichloromethane	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Bromoform	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Bromomethane	< 1 U	< 5.0 U	< 1 U	< 5.0 U	< 5.0 U	< 1 U	< 5.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Carbon Dioxide	280 NJB	--	--	--	--	280	--	500	--	--	--	--
Carbon Disulfide	--	< 2.0 U	--	< 2.0 U	< 2.0 U	--	< 2.0 U	--	< 1 U	< 1 U	< 1 U	< 1 U
Carbon Tetrachloride	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
CFC-11 (Trichlorofluoromethane)	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
CFC-12 (Dichlorodifluoromethane)	--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	< 1 U	< 1 U	< 1 U	< 1 U
Chlorobenzene	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Chlorodibromomethane	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Chloroethane	< 1 U	< 5.0 U	< 1 U	< 5.0 U	< 5.0 U	< 1 U	< 5.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Chloroform	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Chloromethane	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
cis-1,3-Dichloropropene	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Dibromomethane	--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	< 1 U	< 1 U	< 1 U	< 1 U
Dichloromethane	< 5 U	< 5.0 U	< 5 U	< 5.0 U	< 5.0 U	< 5 U	< 5.0 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Ethyl Methacrylate	--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	< 1 U	< 1 U	< 1 U	< 1 U
Ethylbenzene	< 1 U	< 1.0 U	2.3	< 1.0 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Iodomethane	--	< 5.0 U	--	< 5.0 U	< 5.0 U	--	< 5.0 U	--	< 1 U	< 1 U	< 1 U	< 1 U
Methyl methacrylate	--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	< 1 U	< 1 U	< 1 U	< 1 U
Methyl N-Butyl Ketone (2-Hexanone)	--	< 10 U	--	< 10 U	< 10 U	--	< 10 U	--	< 10 U	< 10 U	< 10 U	< 10 U
Methylacrylonitrile	--	< 20 U	--	< 20 U	< 20 U	--	< 20 U	--	< 20 U	< 20 U	< 20 U	< 20 U
Pentachloroethane	--	< 5.0 U	--	< 5.0 U	< 5.0 U	--	< 5.0 U	--	< 5 U	< 5 U	< 5 U	< 5 U
Propionitrile	--	< 20 U	--	< 20 U	< 20 U	--	< 20 U	--	< 20 U	< 20 U	< 20 U	< 20 U
Styrene (Monomer)	--	< 1.0 U	--	< 1.0 U	< 1.0 U	--	< 1.0 U	--	< 1 U	< 1 U	< 1	



Location ID	SW-1	SW-1	SW-2	SW-2	SW-2	SW-3	SW-3	SW-4	SW-F2	SW-F3	SW-F4	SW-F5
Sample ID	SW-1_7/6/06_NM	SW-1(08282014)	SW-2_7/6/06_NM	SW-2(08282014)	SW-2 DUP-01(08282014)	SW-3_7/6/06_NM	SW-3(08282014)	SW-4_7/6/06_NM	SW-F2_11/3/00_NM	SW-F3_11/2/00_NM	SW-F4_11/2/00_NM	SW-F5_11/2/00_NM
Sample Date	07/06/2006	08/28/2014	07/06/2006	08/28/2014	08/28/2014	07/06/2006	08/28/2014	07/06/2006	11/03/2000	11/02/2000	11/02/2000	11/02/2000
Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N
Vinyl acetate	--	< 2.0 U	--	< 2.0 U	< 2.0 U	--	< 2.0 U	--	< 2 U	< 2 U	< 2 U	< 2 U
Vinyl chloride	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U

**Acronyms and Abbreviations:**

DUP = field duplicate

mg/L = milligram per liter

PCB = polychlorinated biphenyl

µg/L = microgram per liter

**Data Validation Qualifiers:**

B = Compound was detected in the associated blank

J = Result is estimated

U = Result is less than the laboratory detection limit



Location ID	SD-F2	SD-F2/F3/F4/F5	SD-F3	SD-F4	SD-F5	SED-1	SED-2	SED-3
Sample ID	SD-F2_11/02/00_(0-0.5)GRAB_NM	SD-F2/F3/F4/F5_11/2/00_(0-0.5)COMP_H_NM	SD-F3_11/2/00_(0-0.5)GRAB_NM	SD-F4_11/2/00_(0-0.5)GRAB_NM	SD-F5_11/2/00_(0-0.5)GRAB_NM	SED-1(08282014)	SED-2(08282014)	SED-3(08282014)
Sample Date	11/02/2000	11/02/2000	11/02/2000	11/02/2000	11/02/2000	08/28/2014	08/28/2014	08/28/2014
Sample Type	N	N	N	N	N	N	N	N
<b>Field Parameters</b>								
pH (Standard Units)	6.87	--	7.14	7.24	6.88	--	--	--
<b>Grain Size (percent)</b>								
Clay	--	--	--	--	--	4.3	10.3	26
Gravel	--	--	--	--	--	2.6	3	2.9
HYDROMETER, READING 1	--	--	--	--	--	12.5	2.5	6.7
HYDROMETER, READING 2	--	--	--	--	--	0.5	0.6	0.8
HYDROMETER, READING 3	--	--	--	--	--	0	0	1.8
HYDROMETER, READING 4	--	--	--	--	--	0.5	1.1	0.9
HYDROMETER, READING 5	--	--	--	--	--	0.5	0.6	2.6
HYDROMETER, READING 6	--	--	--	--	--	0.6	1.3	2.8
HYDROMETER, READING 7	--	--	--	--	--	0.5	2.3	2.6
Sand	--	--	--	--	--	79.2	81.9	58.3
Sand Coarse	--	--	--	--	--	5.6	2.2	3
Sand Fine	--	--	--	--	--	57.9	64.4	47
Sand Medium	--	--	--	--	--	15.7	15.3	8.3
Sieve 0.375 inch, % passing	--	--	--	--	--	0	0	0
Sieve 0.75 inch, % passing	--	--	--	--	--	0	0	0
Sieve 1 inch, % passing	--	--	--	--	--	0	0	0
Sieve 1.5 inch, % passing	--	--	--	--	--	0	0	0
Sieve 2 inch, % passing	--	--	--	--	--	0	0	0
Sieve 3 inch, % passing	--	--	--	--	--	0	0	0
Sieve No. 10, % passing	--	--	--	--	--	5.6	2.2	3
Sieve No. 100, % passing	--	--	--	--	--	10.1	11.8	10.5
Sieve No. 20, % passing	--	--	--	--	--	8.4	4.7	2.3
Sieve No. 200, % passing	--	--	--	--	--	35.5	32.6	20.9
Sieve No. 4, % passing	--	--	--	--	--	2.6	3	2.9
Sieve No. 40, % passing	--	--	--	--	--	7.3	10.6	6
Sieve No. 60, % passing	--	--	--	--	--	6.1	10.3	6.6
Sieve No. 80, % passing	--	--	--	--	--	6.2	9.7	9
Silt	--	--	--	--	--	14	4.8	12.8
<b>Metals (mg/kg)</b>								
Antimony	< 2.6 U	--	< 3.1 U	< 2.6 U	< 3.9 U	--	--	--
Arsenic	3	--	1.4	2	5.2	--	--	--
Barium	170	--	90	29	100	--	--	--
Beryllium	0.63	--	0.68	< 0.56 U	0.89	--	--	--
Cadmium	< 0.71 U	--	< 0.65 U	< 0.7 U	< 0.98 U	--	--	--
Chromium	7.6	--	5.5	5.2	15	--	--	--
Cobalt	8.9	--	1.8	1.3	2.3	--	--	--
Copper	3.2	--	3.7	7	11	--	--	--
Lead	14	--	12	43	37	--	--	--
Mercury	0.074	--	0.076	0.092	0.16	--	--	--
Nickel	< 6.2 U	--	< 5.7 U	< 5.6 U	< 7.8 U	--	--	--
Selenium	< 1.4 U	--	< 1.3 U	< 1.3 U	< 2 U	--	--	--
Silver	< 1.4 U	--	< 1.3 U	< 1.3 U	< 2 U	--	--	--
Thallium	< 1.4 U	--	< 1.3 U	< 1.3 U	< 2 U	--	--	--
Tin	< 7.8 U	--	< 7.1 U	< 7 U	< 9.8 U	--	--	--
Vanadium	11	--	6.5	6.2	23	--	--	--
Zinc	22	--	23	42	170	--	--	--
<b>General Chemistry (mg/kg)</b>								
Total Organic Carbon	2900	--	6000	6600	52000	14000	20000	9800
<b>Dioxins and Furans (pg/g)</b>								
1,2,3,4,6,7,8-Heptachlorodibenzofuran	--	10.2	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	--	917	--	--	--	--	--	--
1,2,3,4,7,8-Heptachlorodibenzofuran	--	< 0.84 U	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran	--	< 0.602 U	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	--	27	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran	--	< 0.555 U	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	--	< 1.98 U	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran	--	< 0.863 U	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	--	83.9	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran	--	< 0.267 U	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	--	1.65	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran	--	< 0.68 U	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran	--	0.802	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran	--	< 0.379 U	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin	--	< 0.328 U	--	--	--	< 1.5 U	< 1.9 U	< 1.4 U
Heptachlorodibenzofurans	--	37.6	--	--	--	--	--	--
Heptachlorodibenzo-p-dioxins	--	1470	--	--	--	--	--	--
Hexachlorodibenzofurans	--	14.1	--	--	--	13	77	34
Hexachlorodibenzo-p-dioxins	--	534	--	--	--	56	320	130
Octachlorodibenzofuran	--	28.1	--	--	--	--	--	--
Octachlorodibenzo-p-dioxin	--	21900	--	--	--	--	--	--
Pentachlorodibenzofurans, Total	--	11	--	--	--	< 7.3 U	28	15
Pentachlorodibenzo-p-dioxins, Total	--	59.2	--	--	--	< 7.3 U	20	11
Tetrachlorodibenzofuran	--	--	--	--	--	4.5	15	6.1
Tetrachlorodibenzofurans, Total	--	3.7	--	--	--	--	--	--
Tetrachlorodibenzo-p-dioxins, Total	--	42.1	--	--	--	1.8	4.2	4.9
Toxicity Equivalent Quotient	--	43.5	--	--	--	--	--	--



Location ID	SD-F2	SD-F2/F3/F4/F5	SD-F3	SD-F4	SD-F5	SED-1	SED-2	SED-3
Sample ID	SD-F2_11/2/00_(0-0.5)GRAB_NM	SD-F2/F3/F4/F5_11/2/00_(0-0.5)COMP_H_NM	SD-F3_11/2/00_(0-0.5)GRAB_NM	SD-F4_11/2/00_(0-0.5)GRAB_NM	SD-F5_11/2/00_(0-0.5)GRAB_NM	SED-1(08282014)	SED-2(08282014)	SED-3(08282014)
Sample Date	11/02/2000	11/02/2000	11/02/2000	11/02/2000	11/02/2000	08/28/2014	08/28/2014	08/28/2014
<b>Herbicides (µg/kg)</b>								
2,4,5-T (Trichlorophenoxyacetic Acid)	--	< 15 U	--	--	--	--	--	--
2,4,5-TP (Silvex)	--	< 15 U	--	--	--	--	--	--
2,4-D (Dichlorophenoxyacetic Acid)	--	< 15 U	--	--	--	--	--	--
<b>Pesticides (µg/kg)</b>								
4,4-DDD (Rhothane)	--	< 5.9 U	--	--	--	--	--	--
4,4-DDE (Dichlorodiphenyl-dichloroethyl)	--	< 5.9 U	--	--	--	--	--	--
4,4-DDT (Dichlorodiphenyl-trichloroethane)	--	< 5.9 U	--	--	--	--	--	--
Aldrin	--	< 3 U	--	--	--	--	--	--
Alpha-BHC	--	< 3 U	--	--	--	--	--	--
Beta-BHC	--	< 3 U	--	--	--	--	--	--
Chlordane	--	< 30 U	--	--	--	--	--	--
Chlorobenzilate	--	< 30 U	--	--	--	--	--	--
Delta-BHC	--	< 3 U	--	--	--	--	--	--
Dieldrin	--	< 5.9 U	--	--	--	--	--	--
Endosulfan I	--	< 3 U	--	--	--	--	--	--
Endosulfan II	--	< 5.9 U	--	--	--	--	--	--
Endosulfan sulfate	--	< 5.9 U	--	--	--	--	--	--
Endrin	--	< 5.9 U	--	--	--	--	--	--
Endrin aldehyde	--	< 5.9 U	--	--	--	--	--	--
Heptachlor	--	< 3 U	--	--	--	--	--	--
Heptachlor epoxide	--	< 3 U	--	--	--	--	--	--
Isodrin	--	< 5.9 U	--	--	--	--	--	--
Kepone	--	< 300 U	--	--	--	--	--	--
Methoxychlor	--	< 30 U	--	--	--	--	--	--
Technical BHC	--	< 3 U	--	--	--	--	--	--
Toxaphene	--	< 300 U	--	--	--	--	--	--
<b>PCBs (µg/kg)</b>								
Aroclor 1016	--	< 59 U	--	--	--	--	--	--
Aroclor 1221	--	< 120 U	--	--	--	--	--	--
Aroclor 1232	--	< 59 U	--	--	--	--	--	--
Aroclor 1242	--	< 59 U	--	--	--	--	--	--
Aroclor 1248	--	< 59 U	--	--	--	--	--	--
Aroclor 1254	--	< 59 U	--	--	--	--	--	--
Aroclor 1260	--	< 59 U	--	--	--	--	--	--
<b>Total Petroleum Hydrocarbons (mg/kg)</b>								
Diesel Range Organics	10 J	--	17 J	580 J	9.2 J	--	--	--
Gasoline Range Organics	< 0.39 U	--	< 0.38 U	< 0.38 U	< 0.48 U	--	--	--
<b>Semi-Volatile Organic Compounds (µg/kg)</b>								
1,1-Biphenyl	< 1000 U	--	< 940 U	< 930 U	< 1300 U	< 25000 U	< 32000 U	< 24000 U
1,2,4,5-Tetrachlorobenzene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
1,2,4-Trichlorobenzene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
1,2-Dichlorobenzene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
1,3,5-Trinitrobenzene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
1,3-Dichlorobenzene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
1,3-Dinitrobenzene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
1,4-Dichlorobenzene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
1,4-Dioxane	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
1,4-Naphthoquinone	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
1-Naphthylamine	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
2,2-Oxybis(1-Chloropropane)	--	--	--	--	--	< 4900 U	< 6100 U	< 4600 U
2,3,4,6-Tetrachlorophenol	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
2,4,5-Trichlorophenol	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
2,4,6-Trichlorophenol	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
2,4-Dichlorophenol	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
2,4-Dimethylphenol	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
2,4-Dinitrophenol	< 2600 U	--	< 2400 U	< 2400 U	< 3300 U	< 25000 U	< 32000 U	< 24000 U
2,4-Dinitrotoluene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
2,6-Dichlorophenol	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
2,6-Dinitrotoluene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
2-Acetylaminofluorene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
2-Chloronaphthalene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
2-Chlorophenol	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
2-Methyl-4,6-dinitrophenol	< 2600 U	--	< 2400 U	< 2400 U	< 3300 U	< 25000 U	< 32000 U	< 24000 U
2-Methylnaphthalene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
2-Methylphenol	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
2-Naphthylamine	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
2-Nitroaniline	< 2600 U	--	< 2400 U	< 2400 U	< 3300 U	< 25000 U	< 32000 U	< 24000 U
2-Nitrophenol	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
2-Picoline	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
3,3-Dichlorobenzidine	< 1000 U	--	< 940 U	< 930 U	< 1300 U	< 9900 U	< 12000 U	< 9200 U
3,3-Dimethylbenzidine	< 2600 U	--	< 2400 U	< 2400 U	< 3300 U	< 25000 U	< 32000 U	< 24000 U
3-Methylchloranthrene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
3-Methylphenol, 4-Methylphenol	< 520 U	--	< 470 U	< 460 U	< 650 U	--	--	--
3-Nitroaniline	< 2600 U	--	< 2400 U	< 2400 U	< 3300 U	< 25000 U	< 32000 U	< 24000 U
4-Aminobiphenyl	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
4-Bromophenyl phenyl ether	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
4-Chloro-3-Methylphenol	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
4-Chlorophenyl phenyl ether	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
4-Dimethylaminoazobenzene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
4-Methylphenol	--	--	--	--	--	< 4900 U	< 6100 U	< 4600 U
4-Nitroaniline	< 2600 U	--	< 2400 U	< 2400 U	< 3300 U	< 25000 U	< 32000 U	< 24000 U
4-Nitrophenol	< 2600 U	--	< 2400 U	< 2400 U	< 3300 U	< 25000 U	< 32000 U	< 24000 U



Location ID	SD-F2	SD-F2/F3/F4/F5	SD-F3	SD-F4	SD-F5	SED-1	SED-2	SED-3
Sample ID	SD-F2_11/2/00_(0-0.5)GRAB_NM	SD-F2/F3/F4/F5_11/2/00_(0-0.5)COMP_H_NM	SD-F3_11/2/00_(0-0.5)GRAB_NM	SD-F4_11/2/00_(0-0.5)GRAB_NM	SD-F5_11/2/00_(0-0.5)GRAB_NM	SED-1(08282014)	SED-2(08282014)	SED-3(08282014)
Sample Date	11/02/2000	11/02/2000	11/02/2000	11/02/2000	11/02/2000	08/28/2014	08/28/2014	08/28/2014
4-Nitroquinoline-N-Oxide	< 5200 U	--	< 4700 U	< 4600 U	< 6500 U	< 49000 U	< 61000 U	< 46000 U
5-Nitro-o-Toluidine	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
7,12-Dimethylbenz(a)anthracene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Acenaphthene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Acenaphthylene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Acetophenone	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
alpha, alpha-Dimethylphenethylamine	< 100000 U	--	< 96000 U	< 94000 U	< 130000 U	--	--	--
Aniline	< 520 U	--	< 470 U	< 460 U	< 650 U	< 9900 U	< 12000 U	< 9200 U
Anthracene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Aramite	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Benzo(a)anthracene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Benzo(a)pyrene	< 520 U	--	< 470 U	< 460 U	800	< 4900 U	< 6100 U	< 4600 U
Benzo(b)fluoranthene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Benzo(g,h,i)perylene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Benzo(k)fluoranthene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Benzyl Alcohol	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
beta-Pinene	< 5200 U	--	< 4700 U	< 4600 U	< 6500 U	--	--	--
bis(2-Chloroethoxy)methane	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
bis(2-Chloroethyl)ether	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
bis(2-Chloroisopropyl)ether	< 520 U	--	< 470 U	< 460 U	< 650 U	--	--	--
bis(2-Ethylhexyl)phthalate	540	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Butyl benzyl phthalate	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Chrysene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Diallate	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Dibenzo(a,h)anthracene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Dibenzofuran	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Diethyl phthalate	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Dimethoate	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Dimethyl phthalate	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Dimethylphenethylamine	--	--	--	--	--	< 1000000 U	< 1200000 U	< 940000 U
Di-n-butyl phthalate	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Di-n-octyl phthalate	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Dinoseb	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Diphenyl ether	< 1000 U	--	< 940 U	4000	< 1300 U	--	--	--
Disulfoton	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Ethyl Methanesulfonate	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Famphur	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Fluoranthene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Fluorene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Hexachloro-1,3-butadiene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Hexachlorobenzene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Hexachlorocyclopentadiene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Hexachloroethane	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Hexachlorophene	< 260000 U	--	< 240000 U	< 240000 U	< 330000 U	< 2500000 U	< 3200000 U	< 2400000 U
Hexachloropropene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Indeno(1,2,3-cd)pyrene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Isophorone	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Isosafrole	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Methapyrilene	< 100000 U	--	< 96000 U	< 94000 U	< 130000 U	< 1000000 U	< 1200000 U	< 940000 U
Methyl methanesulfonate	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Methyl parathion	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Naphthalene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Nitrobenzene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
N-Nitrosodiethylamine	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
N-Nitrosodimethylamine	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
N-Nitrosodi-n-butylamine	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
N-Nitrosodi-n-propylamine	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
N-Nitrosodiphenylamine	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
N-Nitrosomorpholine	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
N-Nitroso-N-methylethylamine	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
N-Nitrosopiperidine	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
N-Nitrosopyrrolidine	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
o,o,o-Triethyl phosphorothioate	--	--	--	--	--	< 4900 U	< 6100 U	< 4600 U
o,o,o-Trimethyl thiophosphate	< 520 U	--	< 470 U	< 460 U	< 650 U	--	--	--
o,o-Diethyl o-pyrazinyl phosphorothioate	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
o-Toluidine	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Parathion	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
p-Chloroaniline	< 1000 U	--	< 940 U	< 930 U	< 1300 U	< 9900 U	< 12000 U	< 9200 U
Pentachlorobenzene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Pentachloronitrobenzene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Pentachlorophenol	< 2600 U	--	< 2400 U	< 2400 U	< 3300 U	< 25000 U	< 32000 U	< 24000 U
Phenacetin	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Phenanthrene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Phenol	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Phorate	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Pinene	< 5200 U	--	< 4700 U	< 4600 U	< 6500 U	--	--	--
p-Phenylenediamine	< 2600 U	--	< 2400 U	< 2400 U	< 3300 U	< 25000 U	< 32000 U	< 24000 U
Propyzamide	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Pyrene	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Pyridine	< 520 U	--	< 470 U	< 460 U	< 650 U	< 9900 U	< 12000 U	< 9200 U
Safrole	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U
Sulfotep	< 520 U	--	< 470 U	< 460 U	< 650 U	< 4900 U	< 6100 U	< 4600 U



Location ID	SD-F2	SD-F2/F3/F4/F5	SD-F3	SD-F4	SD-F5	SED-1	SED-2	SED-3
Sample ID	SD-F2_11/2/00_(0-0.5)GRAB_NM	SD-F2/F3/F4/F5_11/2/00_(0-0.5)COMP_H_NM	SD-F3_11/2/00_(0-0.5)GRAB_NM	SD-F4_11/2/00_(0-0.5)GRAB_NM	SD-F5_11/2/00_(0-0.5)GRAB_NM	SED-1(08282014)	SED-2(08282014)	SED-3(08282014)
Sample Date	11/02/2000	11/02/2000	11/02/2000	11/02/2000	11/02/2000	08/28/2014	08/28/2014	08/28/2014
<b>Volatile Organic Compounds (µg/kg)</b>								
1,1,1,2-Tetrachloroethane	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
1,1,1-Trichloroethane	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
1,1,2,2-Tetrachloroethane	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
1,1,2-Trichloroethane	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
1,1-Dichloroethane	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
1,1-Dichloroethene	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
1,2,3-Trichloropropane	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
1,2,4-Trichlorobenzene	--	--	--	--	--	< 5.6 U	< 8.2 U	< 4.8 U
1,2-Dibromo-3-chloropropane	< 15 U	--	< 14 U	< 14 U	< 20 U	< 11 U	< 16 U	< 9.6 U
1,2-Dibromoethane	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
1,2-Dichlorobenzene	--	--	--	--	--	< 5.6 U	< 8.2 U	< 4.8 U
1,2-Dichloroethane	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
1,2-Dichloropropane	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
1,3-Dichlorobenzene	--	--	--	--	--	< 5.6 U	< 8.2 U	< 4.8 U
1,4-Dichlorobenzene	--	--	--	--	--	< 5.6 U	< 8.2 U	< 4.8 U
1,4-Dioxane	--	--	--	--	--	< 5.6 U	< 8.2 U	< 4.8 U
2-Butanone (MEK)	< 39 U	--	< 36 U	< 35 U	< 49 U	< 28 U	< 41 U	< 24 U
2-Chlor-1,3-Butadiene	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
2-Methyl-1-propanol	< 310 U	--	< 280 U	< 280 U	< 400 U	< 220 U	< 330 U	< 190 U
4-Methyl-2-Pentanone	< 38 U	--	< 35 U	< 34 U	< 50 U	< 28 U	< 41 U	< 24 U
Acetone	100	--	220	78	120	< 56 U	100	< 48 U
Acetonitrile	< 310 U	--	< 280 U	< 280 U	< 400 U	< 220 U	< 330 U	< 190 U
Acrolein	< 150 U	--	< 140 U	< 140 U	< 200 U	< 110 U	< 160 U	< 96 U
Acrylonitrile	< 150 U	--	< 140 U	< 140 U	< 200 U	< 110 U	< 160 U	< 96 U
Allyl chloride	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
Benzene	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
Bromodichloromethane	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
Bromoform	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
Bromomethane	< 15 U	--	< 14 U	< 35 U	< 20 U	< 5.6 U	< 8.2 U	< 4.8 U
Carbon Disulfide	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
Carbon Tetrachloride	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
CFC-11 (Trichlorofluoromethane)	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
CFC-12 (Dichlorodifluoromethane)	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
Chlorobenzene	--	--	--	--	--	< 5.6 U	< 8.2 U	< 4.8 U
Chlorobenzilate	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	--	--	--
Chlorodibromomethane	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
Chloroethane	< 15 U	--	< 14 U	< 14 U	< 20 U	< 5.6 U	< 8.2 U	< 4.8 U
Chloroform	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
Chloromethane	< 15 U	--	< 14 U	< 14 U	< 20 U	< 5.6 U	< 8.2 U	< 4.8 U
cis-1,3-Dichloropropene	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
Dibromomethane	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
Dichloromethane	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
Ethyl Methacrylate	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
Ethylbenzene	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
Hexachloro-1,3-butadiene	--	--	--	--	--	< 5.6 U	< 8.2 U	< 4.8 U
Iodomethane	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
Methyl methacrylate	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 11 U	< 16 U	< 9.6 U
Methyl N-Butyl Ketone (2-Hexanone)	< 38 U	--	< 35 U	< 34 U	< 50 U	< 28 U	< 41 U	< 24 U
Methylacrylonitrile	< 150 U	--	< 140 U	< 140 U	< 200 U	< 110 U	< 160 U	< 96 U
Naphthalene	--	--	--	--	--	< 5.6 U	< 8.2 U	< 4.8 U
Pentachloroethane	< 38 U	--	< 35 U	< 34 U	< 50 U	< 28 U	< 41 U	< 24 U
Propionitrile	< 150 U	--	< 140 U	< 140 U	< 200 U	< 110 U	< 160 U	< 96 U
Styrene (Monomer)	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
Tetrachloroethene	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
Toluene	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
Total Xylenes	< 15 U	--	< 14 U	< 14 U	< 20 U	< 11 U	< 16 U	< 9.6 U
trans-1,2-Dichloroethene	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
trans-1,3-Dichloropropene	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
trans-1,4-Dichloro-2-butene	< 15 U	--	< 14 U	< 14 U	< 20 U	< 11 U	< 16 U	< 9.6 U
Trichloroethene	< 7.6 U	--	< 7 U	< 6.9 U	< 10 U	< 5.6 U	< 8.2 U	< 4.8 U
Vinyl acetate	< 15 U	--	< 14 U	< 14 U	< 20 U	< 11 U	< 16 U	< 9.6 U
Vinyl chloride	< 15 U	--	< 14 U	< 14 U	< 20 U	< 5.6 U	< 8.2 U	< 4.8 U

**Acronyms and Abbreviations:**

DUP = field duplicate  
mg/L = milligram per liter  
PCB = polychlorinated biphenyl  
µg/L = microgram per liter

**Data Validation Qualifiers:**

B = Compound was detected in the associated blank  
J = Result is estimated  
U = Result is less than the laboratory detection limit



# APPENDIX H

## Risk Assessment Attachments





**Table H-1**  
**Soil Samples Samples Not Used in Risk Assessment Dataset**  
**Hercules LLC - Savannah Plant**  
**Savannah, Georgia**

Location	Date	Sample ID	Depth (ft bgs)	Reason Excluded
50-CC	1/19/2000	50-CC_1/19/00_(7-9)GRAB_NM	7 - 9	saturated
50-CC Composite	1/19/2000	50-CC COMPOSITE_1/19/00_(1-9)COMP_H_NM	1 - 9	composite
50-EC Composite	1/19/2000	50-EC COMPOSITE_1/19/00_(1-6)COMP_H_NM	1 - 6	composite
50-NC Composite	1/19/2000	50-NC COMPOSITE_1/19/00_(1-6)COMP_H_NM	1 - 6	composite
50-NE	1/19/2000	50-NE_1/19/00_(6-9)GRAB_NM	6 - 9	saturated
50-NE Composite	1/19/2000	50-NE COMPOSITE_1/19/00_(1-9)COMP_H_NM	1 - 9	composite
50-NW Composite	1/24/2000	50-NW COMPOSITE_1/24/00_(1-6)COMP_H_NM	1 - 6	composite
50-SC Composite	1/19/2000	50-SC COMPOSITE_1/19/00_(1-6)COMP_H_NM	1 - 6	composite
50-SE	1/19/2000	50-SE_1/19/00_(7-9)GRAB_NM	7 - 9	saturated
50-SE Composite	1/19/2000	50-SE COMPOSITE_1/19/00_(1-6)COMP_H_NM	1 - 6	composite
50-SW Composite	1/24/2000	50-SW COMPOSITE_1/24/00_(1-6)COMP_H_NM	1 - 6	composite
50-WC Composite	1/24/2000	50-WC COMPOSITE_1/24/00_(1-6)COMP_H_NM	1 - 6	composite
Confirmation_Sample	12/1/2000	CONFIRMATION_SAMPLE_12/1/00_(0-3)GRAB_NM	0 - 3	newer sample used
Confirmation_Sample	12/1/2000	CONFIRMATION_SAMPLE_12/1/00_(3-6)GRAB_NM	3 - 6	newer sample used
SB-36	11/8/2002	SB-36_11/8/02_(13-15)GRAB_NM	13 - 15	saturated
SB-36	11/8/2002	SB-36_11/8/02_(8-12)GRAB_NM	8 - 12	saturated
SB-37	11/8/2002	SB-37_11/8/02_(13-15)GRAB_NM	13 - 15	saturated
SB-37	11/8/2002	SB-37_11/8/02_(8-12)GRAB_NM	8 - 12	saturated
SB-38	11/8/2002	SB-38_11/8/02_(13-15)GRAB_NM	13 - 15	saturated
SB-38	11/8/2002	SB-38_11/8/02_(8-12)GRAB_NM	8 - 12	saturated
SB-39	11/8/2002	SB-39_11/8/02_(13-15)GRAB_NM	13 - 15	saturated
SB-39	11/8/2002	SB-39_11/8/02_(8-12)GRAB_NM	8 - 12	saturated
SB-40	11/8/2002	SB-40_11/8/02_(13-15)GRAB_NM	13 - 15	saturated
SB-40	11/8/2002	SB-40_11/8/02_(8-12)GRAB_NM	8 - 12	saturated
SB-41	11/8/2002	SB-41_11/8/02_(13-15)GRAB_NM	13 - 15	saturated
SB-41	11/8/2002	SB-41_11/8/02_(8-12)GRAB_NM	8 - 12	saturated
SB-42	11/8/2002	SB-42_11/8/02_(13-15)GRAB_NM	13 - 15	saturated
SB-42	11/8/2002	SB-42_11/8/02_(8-12)GRAB_NM	8 - 12	saturated
SB-F14/F12	10/20/2000	SB-F14/F12_10/20/00_(1-3)COMP_H_NM	1 - 3	composite
SB-F14/F12/F3	10/19/2000	SB-F14/F12/F3_10/19/00_(0-3)COMP_H_NM	0 - 3	composite
SB-F6/F4/F15/F27	10/20/2000	SB-F6/F4/F15/F27_10/20/00_(0.5-3)COMP_H	0.5 - 3	composite
SR-1	1/7/1998	SR-1_1/7/98_(10-10)GRAB_NM	10 - 10	saturated
SR-1	1/7/1998	SR-1_1/7/98_(15-15)GRAB_NM	15 - 15	saturated
SR-10	1/8/1998	SR-10_1/8/98_(10-10)GRAB_NM	10 - 10	saturated
SR-2	1/7/1998	SR-2_1/7/98_(10-10)GRAB_NM	10 - 10	saturated
SR-2	1/7/1998	SR-2_1/7/98_(15-15)GRAB_NM	15 - 15	saturated
SR-3	1/7/1998	SR-3_1/7/98_(10-10)GRAB_NM	10 - 10	saturated
SR-3	1/7/1998	SR-3_1/7/98_(15-15)GRAB_NM	15 - 15	saturated
SR-4	1/7/1998	SR-4_1/7/98_(10-10)GRAB_NM	10 - 10	saturated
SR-5	1/7/1998	SR-5_1/7/98_(10-10)GRAB_NM	10 - 10	saturated
SR-5	1/7/1998	SR-5_1/7/98_(15-15)GRAB_NM	15 - 15	saturated
SR-6	1/7/1998	SR-6_1/7/98_(10-10)GRAB_NM	10 - 10	saturated
SR-6	1/7/1998	SR-6_1/7/98_(15-15)GRAB_NM	15 - 15	saturated
SR-7	1/7/1998	SR-7_1/7/98_(10-10)GRAB_NM	10 - 10	saturated
SS-33	11/8/2002	SS-33_11/8/02_(0-2)GRAB_NM	0 - 2	outside VRP boundary

**Acronyms and Abbreviations:**

bgs = below ground surface

ft = foot/feet



Table H-2  
Soil Dioxins, Furans, and Polychlorinated Biphenyls  
Hercules LLC - Savannah Plant  
Savannah, Georgia

Sample ID				SB-116 (0-1)	SB-117 (0-1)	SB-122 (0-1)	SB-123 (0-1)	SB-123 (1-3)	SB-124 (0-1)	SB-126 (0-1)	SB-128 (0-1)	SB-129 (0-1)	SB-129 (1-3)	SB-130 (0-1)	SB-131 (0-1)	SB-132 (0-1)	SB-133 (0-1)	SB-134 (0-1)	SB-135 (0-1)	SB-136 (0-1)	SB-136 (1-3)
Sample Location				SB-116	SB-117	SB-122	SB-123	SB-123	SB-124	SB-126	SB-128	SB-129	SB-129	SB-130	SB-131	SB-132	SB-133	SB-134	SB-135	SB-136	SB-136
Sample Date				8/21/2014	8/20/2014	8/20/2014	8/19/2014	8/19/2014	8/19/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/19/2014	8/19/2014	8/21/2014	8/21/2014	8/21/2014
Sample Type				N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Depth (ft bgs)				0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3
Constituent	TEF	Units	RSS Tier1 Soil																		
Dioxins and Furans																					
1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.01	pg/g	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	0.01	pg/g	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.01	pg/g	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran	0.03	pg/g	19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1	pg/g	110	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran	0.3	pg/g	190	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1	pg/g	115	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlorodibenzofurans	0.01	pg/g	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlorodibenzo-p-dioxins	0.01	pg/g	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorodibenzofurans	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorodibenzo-p-dioxins	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzofuran	0.0003	pg/g	0.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzo-p-dioxin	0.0003	pg/g	0.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorodibenzofurans, Total	0.03	pg/g	19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorodibenzo-p-dioxins, Total	1	pg/g	110	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachlorodibenzofurans, Total	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachlorodibenzo-p-dioxins, Total	1	pg/g	110	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TEQ of dioxins and furans		pg/g	111	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Acronyms and Abbreviations:  
bgs = below ground surface  
ft = foot/feet  
pg/g = picogram per grams  
RRS = risk reduction standard  
TEF = toxic equivalency factor  
TEQ = toxicity equivalent quotient  
U = result is less than the laboratory detection limit



Table H-2  
Soil Dioxins, Furans, and Polychlorinated Biphenyls  
Hercules LLC - Savannah Plant  
Savannah, Georgia

Sample ID				SB-137 (0-1)	SB-F1 (1-3)	SB-F12 (0-1) (2014)	SB-F14 (0-1) (2014)	SB-F15 (0-1) (2014)	SB-F19 (0-3)	SB-F27 (0-1) (2014)	SB-F27 (1-3) (2014)	SB-F4 (0-1) (2014)	SB-F6 (0-1) (2014)	SS-88_11/6/08 _(0-2)RAB_NM	SS-90_11/6/08 _(0-2)RAB_NM	SS-95_11/6/08 _(0-2)RAB_NM	DS-9-1 (0-2) (102417)	DS-9-2 (0-4) (102417)	DS-9-3 (0-4) (102417)	DS-9-4 (0-4) (102417)	DS-9-2A (12292017)
Sample Location				SB-137	SB-F1	SB-F12	SB-F14	SB-F15	SB-F19	SB-F27	SB-F27	SB-F4	SB-F6	SS-88	SS-90	SS-95	DS-9	DS-9	DS-9	DS-9	DS-9
Sample Date				8/21/2014	10/19/2000	8/20/2014	8/20/2014	8/19/2014	10/17/2000	8/19/2014	8/19/2014	8/19/2014	8/19/2014	11/6/2008	11/6/2008	11/6/2008	10/24/2017	10/24/2017	10/24/2017	10/24/2017	12/29/2017
Sample Type				N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Depth (ft bgs)				0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 3	0 - 1	1 - 3	0 - 1	0 - 1	0 - 2	0 - 2	0 - 2	0-2	0-4	0-4	0-4	0-4
Constituent	TEF	Units	RSS Tier1 Soil																		
Dioxins and Furans																					
1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.01	pg/g	6.4	--	7.85	--	--	--	3.21	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	0.01	pg/g	6.4	--	101	--	--	--	39.9	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.01	pg/g	6.4	--	0.5	--	--	--	0.284	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran	0.1	pg/g	64	--	0.567	--	--	--	0.433	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	0.1	pg/g	64	--	13.4	--	--	--	1.68	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran	0.1	pg/g	64	--	0.469	--	--	--	0.265	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	0.1	pg/g	64	--	0.712	--	--	--	< 0.82 U	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran	0.1	pg/g	64	--	0.129	--	--	--	0.12	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	0.1	pg/g	64	--	6.75	--	--	--	1.15	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran	0.03	pg/g	19	--	0.165	--	--	--	0.154	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1	pg/g	110	--	0.893	--	--	--	< 0.262 U	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran	0.1	pg/g	64	--	0.588	--	--	--	0.297	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran	0.3	pg/g	190	--	0.628	--	--	--	0.388	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran	0.1	pg/g	64	--	1.13	--	--	--	0.618	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1	pg/g	115	--	0.142	< 1.1 U	< 1.1 U	< 1.2 U	0.106	< 1.1 U	< 1.1 U	< 1.1 U	< 1.2 U	--	--	--	--	--	--	--	--
Heptachlorodibenzofurans	0.01	pg/g	6.4	--	26.8	--	--	--	10.9	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlorodibenzo-p-dioxins	0.01	pg/g	6.4	--	244	--	--	--	121	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorodibenzofurans	0.1	pg/g	64	--	11.6	< 5.3 U	11	75	4.54	39	23	25	< 5.8 U	--	--	--	--	--	--	--	--
Hexachlorodibenzo-p-dioxins	0.1	pg/g	64	--	115	< 5.3 U	18	900	19.7	74	110	44	12	--	--	--	--	--	--	--	--
Octachlorodibenzofuran	0.0003	pg/g	0.19	--	17.8	--	--	--	10.7	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzo-p-dioxin	0.0003	pg/g	0.19	--	1800	--	--	--	4640	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorodibenzofurans, Total	0.03	pg/g	19	--	8.77	< 5.3 U	9.3	30	3.52	19	17	16	< 5.8 U	--	--	--	--	--	--	--	--
Pentachlorodibenzo-p-dioxins, Total	1	pg/g	110	--	9.92	< 5.3 U	< 5.7 U	51	1.75	5.8	5.9	< 5.7 U	< 5.8 U	--	--	--	--	--	--	--	--
Tetrachlorodibenzofurans, Total	0.1	pg/g	64	--	8.27	< 1.1 U	12	17	3.77	11	11	9.2	< 1.2 U	--	--	--	--	--	--	--	--
Tetrachlorodibenzo-p-dioxins, Total	1	pg/g	110	--	3.77	< 1.1 U	1.1	9.2	0.303	< 1.1 U	< 1.1 U	< 1.1 U	< 1.2 U	--	--	--	--	--	--	--	--
TEQ of dioxins and furans				--	5.2	--	--	--	2.51	--	--	--	--	--	--	--	--	--	--	--	--

Acronyms and Abbreviations:  
bgs = below ground surface  
ft = foot/feet  
pg/g = picogram per grams  
RRS = risk reduction standard  
TEF = toxic equivalency factor  
TEQ = toxicity equivalent quotient  
U = result is less than the laboratory detection limit



Table H-2  
Soil Dioxins, Furans, and Polychlorinated Biphenyls  
Hercules LLC - Savannah Plant  
Savannah, Georgia

Sample ID				EX-21-1 (0-2) (102517)	EX-21-2 (0-2) (102517)	EX-21-1A (12292017)	EX-22-1 (0-2) (102517)	EX-22-2 (0-2) (102517)	EX-22-3 (0-2) (102517)	EX-26-1 (0-2) (102617)	EX-26-2 (0-2) (102617)	EX-26-3 (0-2) (102617)	SB-122-1 (0-1) (102617)	SB-122-2 (0-1) (102617)	SB-122-3 (0-1) (102617)	SB-122-4 (0-1) (102617)	SB-126-1 (0-1) (102417)	SB-126-2 (0-1) (102417)	SB-126-3 (0-1) (102417)	SB-128-1 (0-1) (102417)	SB-128-2 (0-1) (102417)	SB-128-3 (0-1) (102417)
Sample Location				EX-21	EX-21	EX-21	EX-22	EX-22	EX-22	EX-26	EX-26	EX-26	SB-122	SB-122	SB-122	SB-122	SB-126	SB-126	SB-126	SB-128	SB-128	SB-128
Sample Date				10/25/2017	10/25/2017	12/29/2017	10/25/2017	10/25/2017	10/25/2017	10/26/2017	10/26/2017	10/26/2017	10/26/2017	10/26/2017	10/26/2017	10/26/2017	10/24/2017	10/24/2017	10/24/2017	10/24/2017	10/24/2017	10/24/2017
Sample Type				N	N	N	N	N	N	N [FD]	N	N	N	N	N	N	N	N	N	N	N [FD]	N
Sample Depth (ft bgs)				0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
Constituent	TEF	Units	RSS Tier1 Soil																			
Dioxins and Furans																						
1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.01	pg/g	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	0.01	pg/g	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.01	pg/g	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran	0.03	pg/g	19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1	pg/g	110	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran	0.3	pg/g	190	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1	pg/g	115	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlorodibenzofurans	0.01	pg/g	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlorodibenzo-p-dioxins	0.01	pg/g	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorodibenzofurans	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorodibenzo-p-dioxins	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzofuran	0.0003	pg/g	0.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzo-p-dioxin	0.0003	pg/g	0.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorodibenzofurans, Total	0.03	pg/g	19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorodibenzo-p-dioxins, Total	1	pg/g	110	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachlorodibenzofurans, Total	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachlorodibenzo-p-dioxins, Total	1	pg/g	110	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TEQ of dioxins and furans		pg/g	111	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Acronyms and Abbreviations:  
bgs = below ground surface  
ft = foot/feet  
pg/g = picogram per grams  
RRS = risk reduction standard  
TEF = toxic equivalency factor  
TEQ = toxicity equivalent quotient  
U = result is less than the laboratory detection limit



Table H-2  
Soil Dioxins, Furans, and Polychlorinated Biphenyls  
Hercules LLC - Savannah Plant  
Savannah, Georgia

Sample ID				SB-128-1A (12292017)	SB-128-3B (12292017)	SB-137-1 (0-1) (102417)	SB-137-1A (12292017)	SB-142-1 (0-1) (102617)	SB-142-2 (0-1) (102617)	SB-142-3 (0-1) (102617)	SB-159-1 (0-2) (102417)	SB-159-2 (0-2) (102417)	SB-159-3 (0-2) (102417)	SB-159-1A (12292017)	SB-165-1 (0-2) (102517)	SB-165-2 (0-2) (102517)	SB-168-1 (0-2) (102517)	SB-168-2 (0-2) (102517)	SB-168-3 (0-2) (102517)	SB-189-1 (0-2) (102517)	SB-189-2 (0-2) (102517)	SB-189-3 (0-2) (102517)
Sample Location				SB-128	SB-128	SB-137	SB-137	SB-142	SB-142	SB-142	SB-159	SB-159	SB-159	SB-159	SB-165	SB-165	SB-168	SB-168	SB-168	SB-189	SB-189	SB-189
Sample Date				12/29/2017	12/29/2017	10/24/2017	12/29/2017	10/26/2017	10/26/2017	10/26/2017	10/24/2017	10/24/2017	10/24/2017	12/29/2017	10/25/2017	10/25/2017	10/25/2017	10/25/2017	10/25/2017	10/25/2017	10/25/2017	10/25/2017
Sample Type				N [FD]	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sample Depth (ft bgs)				0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2
Constituent	TEF	Units	RSS Tier1 Soil																			
Dioxins and Furans																						
1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.01	pg/g	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	0.01	pg/g	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.01	pg/g	6.4	--	--	0.01	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran	0.1	pg/g	64	--	--	0.1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran	0.03	pg/g	19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1	pg/g	110	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran	0.3	pg/g	190	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1	pg/g	115	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlorodibenzofurans	0.01	pg/g	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlorodibenzo-p-dioxins	0.01	pg/g	6.4	--	--	0.01	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorodibenzofurans	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorodibenzo-p-dioxins	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzofuran	0.0003	pg/g	0.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzo-p-dioxin	0.0003	pg/g	0.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorodibenzofurans, Total	0.03	pg/g	19	--	--	--	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorodibenzo-p-dioxins, Total	1	pg/g	110	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachlorodibenzofurans, Total	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachlorodibenzo-p-dioxins, Total	1	pg/g	110	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TEQ of dioxins and furans		pg/g	111	-- [--]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Acronyms and Abbreviations:  
bgs = below ground surface  
ft = foot/feet  
pg/g = picogram per grams  
RRS = risk reduction standard  
TEF = toxic equivalency factor  
TEQ = toxicity equivalent quotient  
U = result is less than the laboratory detection limit



Table H-2  
Soil Dioxins, Furans, and Polychlorinated Biphenyls  
Hercules LLC - Savannah Plant  
Savannah, Georgia

Sample ID				SB-198-1 (0-2) (102517)	SB-198-2 (0-2) (102517)	SB-202-1 (0-2) (102417)	SB-202-2 (0-2) (102417)	SB-202-1A (12292017)	SB-204-1 (0-2) (102617)	SB-204-2 (0-2) (102617)	SB-204-3 (0-2) (102617)	SB-204-1A (12292017)	SB-204-2A (12292017)	SB-204-2B (12292017)	SB-204-3A (12292017)	SB-204-3B (12292017)	SB-207-1 (0-2) (102617)	SB-207-2 (0-2) (102617)	SB-207-3 (0-2) (102617)
Sample Location				SB-198	SB-198	SB-202	SB-202	SB-202	SB-204	SB-204	SB-204	SB-204	SB-204	SB-204	SB-204	SB-204	SB-207	SB-207	SB-207
Sample Date				10/25/2017	10/25/2017	10/24/2017	10/24/2017	12/29/2017	10/26/2017	10/26/2017	10/26/2017	12/29/2017	12/29/2017	12/29/2017	12/29/2017	12/29/2017	10/26/2017	10/26/2017	10/26/2017
Sample Type				N	N	N [FD]	N	N	N	N	N	N	N [FD]	N	N	N	N	N	N
Sample Depth (ft bgs)				0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2
Constituent	TEF	Units	RSS Tier1 Soil																
Dioxins and Furans																			
1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.01	pg/g	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	0.01	pg/g	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.01	pg/g	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran	0.03	pg/g	19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1	pg/g	110	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran	0.3	pg/g	190	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1	pg/g	115	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlorodibenzofurans	0.01	pg/g	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlorodibenzo-p-dioxins	0.01	pg/g	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorodibenzofurans	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorodibenzo-p-dioxins	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzofuran	0.0003	pg/g	0.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzo-p-dioxin	0.0003	pg/g	0.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorodibenzofurans, Total	0.03	pg/g	19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorodibenzo-p-dioxins, Total	1	pg/g	110	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachlorodibenzofurans, Total	0.1	pg/g	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachlorodibenzo-p-dioxins, Total	1	pg/g	110	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TEQ of dioxins and furans		pg/g	111	--	--	15 [79]	22	--	0.91	0.56	10	--	-- [--]	--	--	--	2.3	16	1.9

Acronyms and Abbreviations:  
bgs = below ground surface  
ft = foot/feet  
pg/g = picogram per grams  
RRS = risk reduction standard  
TEF = toxic equivalency factor  
TEQ = toxicity equivalent quotient  
U = result is less than the laboratory detection limit



**Table H-3**  
**Sediment Dioxins and Furans**  
**Hercules LLC - Savannah Plant**  
**Savannah, Georgia**

				Sample ID	SED-1	SED-2	SED-3
				Date	8/28/2014	8/28/2014	8/28/2014
				Sample Type	SED	SED	SED
Constituent	CAS Number	TEF	Units				
<b>Dioxins and Furans</b>							
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	1	mg/kg	< 0.0000015 Uq	< 0.0000019 Uq	< 0.0000014 Uq	
Hexachlorodibenzofurans	55684-94-1	0.1	mg/kg	0.000013	0.000077 q	0.000034	
Hexachlorodibenzo-p-dioxins	34465-46-8	0.1	mg/kg	0.000056	0.00032	0.00013	
Pentachlorodibenzofurans, Total	30402-15-4	0.03	mg/kg	< 0.0000073 Uq	0.000028 q	0.000015 q	
Pentachlorodibenzo-p-dioxins, Total	36088-22-9	1	mg/kg	< 0.0000073 Uq	0.00002 q	0.000011 q	
Tetrachlorodibenzofuran	30402-14-3	0.1	mg/kg	0.0000045 q	0.000015 q	0.0000061 q	
Tetrachlorodibenzo-p-dioxins, Total	41903-57-5	1	mg/kg	0.0000018 q	0.0000042 q	0.0000049 q	
<b>TEQ of dioxins and furans</b>				<b>0.000009</b>	<b>0.00007</b>	<b>0.00003</b>	

**Notes:**

The non-residential Risk Reduction Standard for 2,3,7,8-Tetrachlorodibenzo-p-dioxin TEQ is 0.00044 mg/kg.

**Acronyms and Abbreviations:**

CAS = Chemical Abstracts Service

mg/kg = milligram per kilogram

q = holding time exceeded

SED = sediment

TEF = toxic equivalency factor

TEQ = toxicity equivalent quotient

U = result is less than the laboratory detection limit



**Table H-4**  
**Comparison of Maximum Concentrations Detected in Soil to Risk Reduction Standards**  
**Hercules LLC - Savannah Plant**  
**Savannah, Georgia**

Regulated Substance [a]	Frequency of Detection				Detection Limit		Detected Concentration		Maximum Concentration: Location (depth interval = ft bgs)	Soil RRS [b]		Maximum Greater than RRS? [c]			
	Number of Detections	Number of Samples	(%) FOD	Minimum (mg/kg)	Maximum (mg/kg)	Minimum (mg/kg)	Maximum (mg/kg)	Residential (mg/kg)		Non-Residential (mg/kg)	Residential (Yes/no)	Non-Residential (Yes/no)			
Volatile Organic Compounds															
Acetone	66	-	113	58	0.029	-	37	0.048	-	10	DS-14(2 - 4)	400	400	no	no
Acetonitrile	1	-	85	1	0.12	-	150	0.075	-	0.075	DS-18(0 - 2)	20	20	no	no
Benzene	14	-	137	10	0.0029	-	3.7	0.00085	-	0.097	SB-99(4 - 6)	0.5	0.53	no	no
1,1-Biphenyl	43	-	173	25	0.037	-	490	0.012	-	4400	SB-128(8/21/2014)	2.1	2.1	YES	YES
Carbon disulfide	9	-	113	8	0.0029	-	3.7	0.0011	-	0.0083	DS-9(2 - 4)	400	400	no	no
Chlorobenzene	1	-	76	1	0.0029	-	3.7	0.0011	-	0.0011	DS-16(0 - 2)	10	10	no	no
trans-1,4-Dichlorobutene	1	-	85	1	0.0058	-	7.4	0.02	-	0.02	DS-15(0 - 2)	0.5	0.63	no	no
Ethylbenzene	22	-	135	16	0.0029	-	3.7	0.00087	-	10	SB-99(2 - 4)	70	70	no	no
Ethyl Methacrylate	1	-	85	1	0.0029	-	3.7	0.89	-	0.89	GP-16(0 - 2)	NA	NA	no	no
Isobutyl alcohol	1	-	85	1	0.12	-	150	0.17	-	0.17	DS-13(0 - 2)	1000	1000	no	no
Methyl ethyl ketone	37	-	118	31	0.014	-	19	0.0026	-	0.051	SS-55(1 - 2)	200	200	no	no
Methyl isobutyl ketone	4	-	85	5	0.014	-	19	0.0043	-	0.0099	DS-14(0 - 2)	200	200	no	no
Styrene	1	-	85	1	0.0029	-	3.7	0.0029	-	0.0029	DS-6(2 - 4)	29	150	no	no
Toluene	37	-	135	27	0.0029	-	3.7	0.00068	-	8.9	SB-99(2 - 4)	100	100	no	no
Xylenes (total)	37	-	135	27	0.0058	-	7.4	0.0029	-	83	SB-99(2 - 4)	1000	1000	no	no
m-Xylene	5	-	28	18	0.0055	-	0.007	0.016	-	0.024	SS-31(0 - 2)	20	20	no	no
o-Xylene	2	-	28	7	0.0055	-	0.007	0.0084	-	0.0099	SS-52(1 - 2)	20	20	no	no
Semi Volatile Organic Compounds															
Aniline	1	-	121	1	0.36	-	980	3.3	-	3.3	SB-F3(0 - 2)	2	2	YES	YES
Bis(2-ethylhexyl)phthalate	12	-	113	11	0.35	-	490	0.06	-	2.2	SS-32(0 - 2)	292	958	no	no
Butyl benzyl phthalate	2	-	85	2	0.35	-	490	0.047	-	0.072	DS-10(0 - 2)	131	435	no	no
Dibenzofuran	2	-	85	2	0.35	-	490	0.019	-	0.024	DS-10(0 - 2)	5.9	37	no	no
Di-n-octyl phthalate	1	-	85	1	0.35	-	490	0.062	-	0.062	DS-10(0 - 2)	780	5640	no	no
Formaldehyde	28	-	29	97	0.11	-	0.11	0.1	-	54	SS-82(0 - 2)	89	100	no	no
Polycyclic Aromatic Hydrocarbons															
Acenaphthene	3	-	85	4	0.35	-	490	0.019	-	0.073	DS-1(2 - 4)	410	1250	no	no
Acenaphthylene	6	-	85	7	0.36	-	490	0.019	-	0.18	DS-1(0 - 2)	130	778	no	no
Anthracene	8	-	85	9	0.36	-	490	0.037	-	0.21	DS-3(0 - 2)	3090	20400	no	no
Benzo(a)anthracene	7	-	85	8	0.36	-	490	0.07	-	0.4	DS-10(0 - 2)	71	198	no	no
Benzo(a)pyrene	8	-	115	7	0.075	-	490	0.063	-	0.72	SS-62(1 - 2)	9.1	1.64	no	no
Benzo(b)fluoranthene	12	-	85	14	0.36	-	490	0.047	-	0.77	DS-7(0 - 2)	91	570	no	no
Benzo(g,h,i)perylene	9	-	85	11	0.36	-	490	0.032	-	0.58	DS-17(2 - 4)	2300	61000	no	no
Benzo(k)fluoranthene	2	-	85	2	0.35	-	490	0.29	-	0.45	DS-7(0 - 2)	910	5700	no	no
Chrysene	9	-	85	11	0.36	-	490	0.1	-	0.65	DS-7(0 - 2)	6140	20900	no	no
Dibenzo(a,h)anthracene	2	-	85	2	0.35	-	490	0.23	-	0.56	DS-17(2 - 4)	9.1	57	no	no
Fluoranthene	19	-	85	22	0.36	-	490	0.042	-	1.5	DS-10(0 - 2)	2220	9110	no	no
Fluorene	3	-	85	4	0.35	-	490	0.04	-	0.045	DS-4(2 - 4)	370	1520	no	no
Indeno(1,2,3-cd)pyrene	8	-	85	9	0.36	-	490	0.045	-	0.51	DS-17(2 - 4)	91	570	no	no
Naphthalene	1	-	113	1	0.0029	-	490	2.6	-	2.6	SB-126(0 - 1)	100	100	no	no
Phenanthrene	15	-	85	18	0.36	-	490	0.021	-	0.46	SS-1(0 - 2)	560	3700	no	no
Pyrene	17	-	85	20	0.36	-	490	0.019	-	1	DS-4(2 - 4)	2180	6750	no	no
Pesticides															



**Table H-4**  
**Comparison of Maximum Concentrations Detected in Soil to Risk Reduction Standards**  
**Hercules LLC - Savannah Plant**  
**Savannah, Georgia**

Regulated Substance [a]	Frequency of Detection				Detection Limit		Detected Concentration			Maximum Concentration: Location (depth interval = ft bgs)	Soil RRS [b]		Maximum Greater than RRS? [c]	
	Number of Detections	Number of Samples	(%) FOD		Minimum (mg/kg)	Maximum (mg/kg)	Minimum (mg/kg)	Maximum (mg/kg)			Residential (mg/kg)	Non-Residential (mg/kg)	Residential (Yes/no)	Non-Residential (Yes/no)
4,4'-DDT	1	-	12	8	0.0019	- 0.0038	0.043	- 0.043	SB-122(10/26/2017)		17	57	no	no
Parathion	2	-	81	2	0.35	- 490	1.4	- 2.1	SB-F6(1 - 3)		20	62	no	no
<b>Dioxins and Furans</b>														
TCDD TEQ of dioxins and furans	10	-	10	100	-	-	5.60E-07	- 2.20E-05	SB-202(10/24/2017)		0.000115	0.00044	no	no
TCDD TEQ of dioxin like PCBs	35	-	35	100	-	-	1.30E-09	- 5.00E-04	SB-204(10/26/2017)		0.000115	0.00044	YES	YES
TCDD TEQ of dioxins and furans and dioxin like PCBs	37	-	37	100	-	-	1.30E-09	- 5.10E-04	SB-204(10/26/2017)		0.000115	0.00044	YES	YES
<b>Polychlorinated Biphenyls</b>														
Total Non-Dioxin like PCBs	35	-	35	100	-	-	0.000399	- 5.87	SB-204(12/29/2017)		1.55	1.55	YES	YES
<b>Aroclors</b>														
Aroclor 1254	37	-	44	84	0.036	- 0.044	0.043	- 14	SB-122(8/20/2014)		1.6	7.3	YES	YES
Aroclor 1260	2	-	39	5	0.035	- 0.17	0.094	- 0.25	SS-88(11/6/2008)		4.6	20	no	no

**Notes:**

[a] Data for all detected regulated substances are presented.

Data from all vadose zone soil samples were included with the exception of samples saturated samples and composite samples. Samples excluded are presented in Table I-1.

[b] Soil RRSs

The Soil RRS for the Residential Scenario is the maximum of the Type 1 RRS and the Type 2 RRS.

The Soil RRS for Non-Residential Scenario is the minimum of the Type 3 RRS and the Type 4 RRS.

[c] Constituents with maximum concentrations greater than residential RRS are identified for further evaluation.

**Acronyms and Abbreviations:**

-- = not applicable

bgs = below ground surface

DDT = Dichlorodiphenyl-trichloroethane

ft = foot/feet

FOD = frequency of detection

mg/kg = milligram per kilogram

PCB = polychlorinated biphenyl

RRS = Risk Reduction Standard

TCDD = 2,3,7,8-Tetrachlorodibenzo-p-dioxin

TEF = toxic equivalency factor

TEQ = toxicity equivalent quotient



**Table H-5a**  
**Comparison of Maximum Concentrations Detected in Groundwater to Risk Reduction Standards**  
**Hercules LLC - Savannah Plant**  
**Savannah, Georgia**

Regulated Substances [a]	Frequency of Detection				Detection Limit		Detected Concentration		Maximum Concentration: Location (Date)	Groundwater Type 1 RRS [b]	Maximum Greater than Type 1 RRS? [c]		
	Number of Detections	Number of Samples	(%) FOD	Minimum (mg/L)	Maximum (mg/L)	Minimum (mg/L)	Maximum (mg/L)						
Volatile Organic Compounds													
Acetone	4	-	21	19	0.01	-	0.13	0.016	-	0.060	MW-F21(05/03/2016)	4	no
Benzene	4	-	24	17	0.001	-	0.005	0.0013	-	0.0031	MW-F21(11/04/2015)	0.005	no
1,1-Biphenyl	2	-	24	8	0.00096	-	0.0056	0.84	-	1.4	TMW-22(12/28/2017)	0.01	YES
Biphenyl Ether	2	-	5	40	0	-	0.0011	0.00024	-	0.27	MW-F21(05/04/2015)	0.01	YES
Tetrachloroethene	8	-	20	40	0.001	-	0.005	0.00092	-	0.005	MW-F7(12/27/2017)	NA	no
Xylenes (total)	2	-	20	10	0.001	-	0.015	0.00046	-	0.00091	MW-F21(11/04/2015)	10	no
o-Xylene	1	-	15	7	0.001	-	0.005	0.00038	-	0.00038	MW-F21(11/04/2015)	0.001	no
m&p-Xylene	1	-	5	20	0.001	-	0.001	0.00046	-	0.00046	MW-F21(12/27/2017)	0.002	no
Semi Volatile Organic Compounds													
Bis(2-ethylhexyl)phthalate	1	-	20	5	0.0048	-	0.028	0.0022	-	0.0022	MW-29(11/03/2015)	0.01	no
2,4-Dichlorophenol	1	-	5	20	0.00097	-	0.0011	0.00044	-	0.00044	MW-F7(05/04/2015)	NA	no
2-Methylnaphthalene	1	-	5	20	0.00019	-	0.00023	0.0066	-	0.0066	MW-F21(05/04/2015)	0.02	no
1,4-Dioxane	4	-	20	20	0.0019	-	0.0024	0.0033	-	0.016	MW-F21(05/04/2015)	0.07	no
Phenol	2	-	20	10	0.00096	-	0.0012	0.0031	-	0.0036	MW-F21(11/04/2015)	4	no
Polycyclic Aromatic Hydrocarbons													
Acenaphthene	8	-	20	40	0.00019	-	0.00024	0.0013	-	0.016	MW-F5(11/04/2015)	2	no
Dibenzo(a,h)anthracene	1	-	20	5	0.00019	-	0.0011	0.00016	-	0.00016	MW-F5(05/03/2016)	0.01	no
Fluorene	2	-	20	10	0.00019	-	0.0011	0.00011	-	0.00042	MW-F21(05/03/2016)	1	no
Naphthalene	4	-	20	20	0.00019	-	0.00024	0.0045	-	0.13	MW-F21(05/04/2015)	0.02	YES
Dioxins and Furans													
TCDD TEQ of dioxins and furans	1	-	1	100	-	-	-	2.7E-10	-	2.7E-10	TMW-19(12/28/2017)	0.0001	no
TCDD TEQ of dioxin like PCBs	2	-	2	100	-	-	-	1.4E-13	-	2.1E-11	TMW-21(01/31/2018)	0.0001	no
Polychlorinated Biphenyls													
Total Non-Dioxin like PCBs	6	-	6	100	-	-	-	4.02E-08	-	3.516E-06	TMW-19(02/20/2018)	0.0005	no

**Notes:**

[a] Data for all regulated substances detected in the last three years (2015-2018).

[b] Groundwater Type 1 RRS.

[c] Constituents with maximum concentrations greater than the Type 1 RRS are identified for further evaluation.

**Acronyms and Abbreviations:**

-- = not detected/not analyzed

FOD = frequency of detection

mg/L = milligram per liter

NA = not applicable

PCB = polychlorinated biphenyl

RRS = Risk Reduction Standard

TCDD = 2,3,7,8-Tetrachlorodibenzo-p-dioxin

TEF = toxic equivalency factor

TEQ = toxicity equivalent quotient



**Table H-5b**  
**Comparison of Maximum Concentrations Detected in Groundwater to Risk Reduction Standards**  
**Hercules LLC - Savannah Plant**  
**Savannah, Georgia**

Regulated Substances [a]	Frequency of Detection				Detection Limit		Detected Concentration			Maximum Concentration: Location (Date)	Groundwater Type 1 RRS [b] (mg/L)	Maximum Greater than Type 1 RRS? [c] (Yes/no)
	Number of Detections	Number of Samples	(%) FOD	Minimum - Maximum		Minimum - Maximum						
				(mg/L)	(mg/L)	(mg/L)	(mg/L)					
Semi Volatile Organic Compounds												
Dibenzofuran	3	0	4	75	0.00097	- 0.00097	0.00015	- 0.00017	MWD-30(11/03/2015)	0.01	no	
Fluorene	3	-	4	75	0.00019	- 0.00019	0.00013	- 0.00015	MWD-30(11/03/2015)	1	no	

**Notes:**

[a] Data for all regulated substances detected in the last three years (2015-2018).

[b] Groundwater Type 1 RRS.

[c] Constituents with maximum concentrations greater than the Type 1 RRS are identified for further evaluation.

**Acronyms and Abbreviations:**

FOD = frequency of detection

mg/L = milligram per liter

RRS = Risk Reduction Standard



**Table H-6**  
**Comparison of Maximum Concentrations Detected in Sediment to Risk Reduction Standards**  
**Hercules LLC - Savannah Plant**  
**Savannah, Georgia**

Regulated Substance [a]	Frequency of Detection				Detection Limit			Detected Concentration			Maximum Concentration: Location (Date)	Soil RRS [b]		Maximum Greater than RRS? [c]	
	Number of Detections	Number of Samples	(%) FOD	Minimum - Maximum		Minimum - Maximum		Residential (mg/kg)	Non-Residential (mg/kg)	Residential (Yes/no)		Non-Residential (Yes/no)			
				(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)								
Acetone	1	-	3	33	0.048	-	0.056	0.1	-	0.1	SED-2 (8/28/2014)	400	400	no	no
2,3,7,8-TCDD TEQ	3	-	3	100	--	-	--	0.000009	-	0.00007	SED-2 (8/28/2014)	0.000115	0.00044	no	no

[a] Only detected constituents are presented.

[ b] Soil RRSs

The Soil RRS for the Residential Scenario is the maximum of the Type 1 RRS and the Type 2 RRS.

The Soil RRS for Non-Residential Scenario is the minimum of the Type 3 RRS and the Type 4 RRS.

[c] Constituents with maximum concentrations greater than residential RRS are identified for further evaluation.

**Acronyms and Abbreviations:**

-- = not applicable

FOD = frequency of detection

mg/kg = milligram per kilogram

RRS = Risk Reduction Standard

TCDD = 2,3,7,8-Tetrachlorodibenzo-p-dioxin

TEQ = toxicity equivalent quotient



**Table H-7**  
**Comparison of Maximum Concentrations Detected in Surface Water to Georgia In stream Criteria**  
**Hercules LLC - Savannah Plant**  
**Savannah, Georgia**

Regulated Substance [a]	Frequency of Detection				Detection Limit		Detected Concentration			Maximum Concentration: Location (Date)	Georgia In-stream Standard [b]  (mg/L)	Groundwater Type 1 RRS [c]  (mg/L)	Maximum Greater than Groundwater Type 1 RRS?  (Yes/no)	
	Number of Detections	Number of Samples	(%) FOD	Minimum - Maximum		Minimum - Maximum								
				(mg/L)	(mg/L)	(mg/L)	(mg/L)							
Ammonia (as N)	3	-	3	100	--	-	--	0.13	-	0.32	SW-01 (8/28/2014)	--	30	no
Fluoride	3	-	3	100	--	-	--	0.16	-	0.53	SW-03 (8/28/2014)	--	4	no
N-Nitrosodi-n-butylamine	1	-	3	33	0.00098	-	0.001	0.078	-	0.078	SW-02 (8/28/2014)	--	0.01	YES

**Notes:**

[a] Only detected constituents are presented.

[b] Georgia's Water Quality Standards. 391-3-6. Water Use Classifications and Water Quality Standards (GA EPD 2015).

[c] Groundwater Type 1 RRS.

**Acronyms and Abbreviations:**

FOD = frequency of detection

GA EPD = Georgia Environmental Protection Division

mg/L = milligram per liter

RRS = Risk Reduction Standard

**References:**

GA EPD. 2015. Rules and Regulations for Water Quality Control Chapter 391-3-6-.03 (revised 2015).



**Table H-8**  
**Selection of Constituents of Potential Concern for Soil**  
**Hercules LLC - Savannah Plant**  
**Savannah, Georgia**

Regulated Substance [a]	Frequency of Detection			Detected Concentration		EPC [b]		Soil RRS [c]		EPC Greater than RRS? [d]	
	Number of Detections	Number of Samples	(%) FOD	Minimum (mg/kg)	Maximum (mg/kg)			Residential (mg/kg)	Non-Residential (mg/kg)	Residential (Yes/no)	Non-Residential (Yes/no)
<b>Volatile Organic Compounds</b>											
1,1-Biphenyl	43	-	173	25	0.012 - 4400	156.096		2.1	2.1	YES	YES
<b>Semi Volatile Organic Compounds</b>											
Aniline	1	-	121	1	3.3 - 3.3	3.3	max	2	2	YES	YES
Benzyl alcohol	4	-	85	5	1.8 - 4.5	0.6174		7.8	49	no	no
<b>Pesticides</b>											
TCDD TEQ of dioxin like PCBs	35	-	35	100	1.3E-09 - 0.0005	0.0000731		0.00015	0.00044	no	no
TCDD TEQ of dioxins and furans and dioxin like PCBs	37	-	37	100	1.30E-09 - 5.10E-04	7.73E-05		0.00015	0.00044	no	no
<b>Polychlorinated Biphenyls</b>											
Total Non-Dioxin like PCBs	35	-	35	100	3.99E-04 - 5.87E+00	1.30E+00		1.6	1.55	no	no
<b>Aroclors</b>											
Aroclor 1254	37	-	44	84	0.043 - 14	2.29		1.6	7.3	YES	no

**Notes:**

[a] Data for all regulated substances present at maximum concentrations above the Type 1 RRS (Table I-4).

[b] The EPC is the UCL on the average, or the maximum concentration where the UCL was incalculable.

The UCLs were calculated using ProUCL (5.1.00). The UCL used is the one recommended by ProUCL (5.1.00).

EPCs marked with "max" are based on the maximum detected concentration.

[c] Soil RRSs

The Soil RRS for the Residential Scenario is the maximum of the Type 1 RRS and the Type 2 RRS.

The Soil RRS for Non-Residential Scenario is the minimum of the Type 3 RRS and the Type 4 RRS.

[d] Constituents present with EPCs greater than RRSs were selected as COPCs.

**Acronyms and Abbreviations:**

COPC = constituent of potential concern

EPC = exposure point concentration

FOD = frequency of detection

mg/kg = milligram per kilogram

PCB = polychlorinated biphenyl

RRS = Risk Reduction Standard

TCDD = 2,3,7,8-Tetrachlorodibenzo-p-dioxin

TEQ = toxicity equivalent quotient

UCL = upper confidence limit



**Table H-9**  
**Selection of Constituents of Potential Concern for Groundwater**  
**Hercules LLC - Savannah Plant**  
**Savannah, Georgia**

Constituent [a]	Detected Concentrations		EPC [b]	Groundwater RRS [c]		EPC Greater than RRS? [d]		Vapor Intrusion Screening Level [e]	Vapor Intrusion COPC? [f]
	Minimum	Maximum		Residential	Non-Residential	Residential	Non-Residential	Commercial	Commercial
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(Yes/no)	(Yes/no)	(mg/L)	(Yes/no)
1,1-Biphenyl	0.84	- 1.4	1.4 max	0.01	0.01	YES	YES	0.14	YES
Biphenyl Ether	0.00024	- 0.27	0.27 max	0.01	0.01	YES	YES	0.15	YES
Naphthalene	0.0045	- 0.13	0.02725 max	0.02	0.03	YES	no	0.20	no

**Notes:**

[a] Data for all regulated substances present at maximum concentrations above the Type 1 RRS (Table H-5a).

[b] The EPC is the UCL on the average or the maximum concentration where the UCL was incalculable.

The UCLs were calculated using ProUCL (5.1.00). The UCL used is the one recommended by ProUCL (5.1.00).

EPCs marked with "max" are based on the maximum detected concentration.

[c] The Groundwater RRS for Residential Scenario is the maximum of the Type 1 RRS and the Type 2 RRS.

The Groundwater RRS for Residential Scenario is the maximum of the Type 3 and the Type 4 RRS.

[d] Constituents with EPCs greater than RRSs are identified for further evaluation.

[e] Screening levels from United States Environmental Protection Agency Vapor Intrusion Screening Levels (VISL; USEPA 2018).

Based on target hazard quotients of 1 and lifetime cancer risk of  $1 \times 10^{-5}$  (consistent with risk reduction standard methods).

[f] Constituents with concentrations greater than the VISLs were considered COPCs for the vapor intrusion pathway.

**Acronyms and Abbreviations:**

COPC = constituent of potential concern

EPC = exposure point concentration

mg/L = milligram per liter

RRS = Risk Reduction Standard

UCL = upper confidence limit

USEPA = United States Environmental Protection Agency

VISL = vapor intrusion screening level

**References:**

Johnson, P.C., and R.A. Ettinger. 1991. Heuristic model for predicting the intrusion rate of contaminant vapors in buildings. Environ. Sci. Technology. 25: 1445-1452.

USEPA. 2018. Regional Screening Levels. May. Available at: <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>.



**Table H-10**  
**Toxicity Values**  
**Hercules LLC - Savannah Plant**  
**Savannah, Georgia**

Constituent	ABS <sub>GI</sub> [a]	Oral RfD (mg/kg/day) [b]				Dermal RfD (mg/kg/day) [c]		Inhalation RfC (mg/m <sup>3</sup> ) [b]				Oral CSF (mg/kg/day) <sup>-1</sup> [b]		Dermal CSF (mg/kg/day) <sup>-1</sup> [c]		Inhalation Unit Risk (µg/m <sup>3</sup> ) <sup>-1</sup> [b]	
		Subchronic		Chronic		Subchronic	Chronic	Subchronic		Chronic		Value	[ref]	Value	[ref]	Value	[ref]
		Value	[ref]	Value	[ref]			Value	Value	Value	[ref]						
1,1-Biphenyl	1	5.00E-01	c	5.00E-01	I	5.0E-01	5.0E-01	4.00E-03	X	4.00E-04	X	8.00E-03	I	8.0E-03		NA	
Aniline	1	7.0E-03	c	7.0E-03	P	7.0E-03	7.0E-03	1.0E-02	H	1.0E-03	I	5.7E-03	I	5.7E-03		1.6E-06	C
Aroclor 1254	1	5.00E-05	H	2.00E-05	I	5.0E-05	2.0E-05	NA		NA		2.00E+00	S	2.0E+00		5.70E-04	S
Benzyl Alcohol	1	1.00E-01	P	1.00E-01	P	1.0E-01	1.0E-01	NA		NA		NA		NA		NA	

**Notes:**

[a] ABS<sub>GI</sub> = Gastrointestinal track absorption factor; from USEPA 2018c or set at a default of 1.

[b] Toxicity values were obtained per USEPA hierarchy (USEPA 2003).

[c] RfD (dermal) = RfD (oral) × ABS<sub>GI</sub>.

CSF (dermal) = CSF (oral) / ABS<sub>GI</sub>.

**Acronyms and Abbreviations:**

CSF = cancer slope factor

mg/kg/day = milligram per kilogram per day

mg/m<sup>3</sup> = milligram per cubic meter

(mg/kg/day)<sup>-1</sup> = inverse milligram per kilogram per day (risk per unit dose)

(µg/m<sup>3</sup>)<sup>-1</sup> = inverse microgram per cubic meter

USEPA = United States Environmental Protection Agency

RfC = reference concentration

RfD = reference dose

**References [ref]:**

c = Chronic criteria used as subchronic.

C = CalEPA, Toxicity Criteria database (CalEPA 2018).

H = USEPA, Health Effects Summary Table (HEAST) (USEPA 2011).

I = USEPA, Integrated Risk Information System (IRIS) (USEPA 2018a).

P = Provisional Peer Reviewed Toxicity Values (PPRTV) (USEPA 2018b).

S = USEPA RSLs user guide (Section 5; USEPA 2018c).

X = Provisional Peer Reviewed Toxicity Values Appendix (PPRTV) (USEPA 2018b).

California Environmental Protection Agency (CalEPA). 2018. Office of Environmental Health Hazard Assessment (OEHHA).

Online Toxicity Criteria Database. Available at: <http://www.oehha.ca.gov/tcdb/index.asp>

USEPA. 2003. Human Health Toxicity Values in Superfund Risk Assessments. Memo from Michael B. Cook. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. Office of Solid Waste and Emergency Response Directive (OSWER). Directive 9285.7-53. December.

USEPA. 2011. Health Effects Assessment Summary Tables. Office of Research and Development and Office of Emergency and Remedial Response, Washington, DC. Current as of December 2011.

USEPA. 2018a. Integrated Risk Information System (IRIS). Office of Research and Development, National Center of Environmental Assessment (NCEA).

USEPA. 2018b. Provisional Peer Reviewed Toxicity Values for Superfund (PPRTV).

USEPA. 2018c. Regional Screening Levels. May.



**Table H-11**  
**Risk and Hazard Calculations for a Hypothetical Site Worker Receptor for Exposure to Soil**  
**Hercules LLC - Savannah Plant**  
**Savannah, Georgia**

Constituent	EPCs (mg/kg)	ABSd [a]	VF or PEF [a] (m³/kg)	CANCER RISK			Percent Total ELCR	NON-CANCER HAZARD			Percent Total HI		
				Route-Specific Risk				Calculated Risk	Route-Specific Hazard			Calculated Hazard	
				Oral	Dermal	Inhalation			Oral	Dermal			Inhalation
				ELCRo	ELCRd	ELCRi	ELCR		HQo	HQd	HQi	HI	
1,1-Biphenyl	156.1	0	1.10E+05 V	3.4E-07	–	NA	3.4E-07	15%	2.4E-04	–	7.3E-01	7.3E-01	84%
Aniline	3.3	0.1	1.36E+09 P	5.2E-09	2.2E-09	2.8E-13	7.3E-09	<1%	3.6E-04	1.5E-04	5.0E-07	5.2E-04	<1%
Aroclor 1254	2.29	0.14	1.36E+09 P	1.3E-06	7.3E-07	7.0E-11	2.0E-06	85%	8.8E-02	5.1E-02	NA	1.4E-01	16%
Total Risk or Hazard				Total ELCR			2E-06	100%	Total HI			0.9	100%

**Notes:**

[a] The dermal absorption factors (ABSd), the volatilization factor [VF], and the particulate emission factor [PEF] is from USEPA (USEPA 2015a).

**Acronyms and Abbreviations:**

–	not applicable	HQ	hazard quotient	NA	not available or not applicable
ELCR	excess lifetime cancer risk	m³/kg	cubic meter per kilogram	PEF	particulate emission factor
EPCs	exposure point concentration in soil	mg/kg	milligram per kilogram	VF	volatilization factor
HI	hazard index (sum of the HQs)				

**Equations:**

$$\text{ELCRo} = (\text{EPCs} \times 1 \times 100 \times 225 \times 25 \times \text{CSFo}) / (1,000,000 \times 80 \times 25,550)$$

$$\text{HQo} = (\text{EPCs} \times 1 \times 100 \times 225 \times 25) / (1,000,000 \times 80 \times 9,125 \times \text{RfDo})$$

$$\text{ELCRd} = (\text{EPCs} \times 3,470 \times 0.12 \times \text{ABSd} \times 225 \times 25 \times \text{CSFa}) / (1,000,000 \times 80 \times 25,550)$$

$$\text{HQd} = (\text{EPCs} \times 3,470 \times 0.12 \times \text{ABSd} \times 225 \times 25) / (1,000,000 \times 80 \times 9,125 \times \text{RfDa})$$

$$\text{ELCRi} = (\text{EPCs} \times 8 \times 0.042 \times 225 \times 25 \times \text{IUR} \times 1000) / ([\text{VF or PEF}] \times 25,550)$$

$$\text{HQi} = (\text{EPCs} \times 8 \times 0.042 \times 225 \times 25) / ([\text{VF or PEF}] \times 9,125 \times \text{RfC})$$

Constituent-specific toxicity values (chronic non-cancer values and cancer values) are presented in Table I-10.

Variables used in equations including receptor exposure parameter are presented below.

Variable	Acronym	Value	Unit	Source
Averaging time, cancer	ATc	25,550	days	USEPA 2014c
Averaging time, non -cancer	ATnc	9,125	days	USEPA 2014c
Body weight	BW	80	kg	USEPA 2014c
Exposure time	ET	8	hrs/day	USEPA 2014c
Exposure frequency	EF	225	days/ year	USEPA 2014c
Exposure duration	ED	25	years	USEPA 2014c
Conversion factor (days/hr)	CF	0.0417	days/hr	
Ingestion rate of soil	IRs	100	mg/day	USEPA 2014c
Soil-to-skin adherence rate	SAR	0.12	mg/cm²/day	USEPA 2004
Skin surface area (soil)	SSAs	3,470	cm²	USEPA 2014c

**References:**

- USEPA. 2004. Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment), Final. Office of Superfund Remediation and Technology Innovation, Washington, DC. OSWER 9285.7-02EP. EPA/540/R/99/005. PB99-963312. July.
- USEPA. 2014. Human Health Evaluation Manual, Supplemental Guidance, Update of Standard Default Exposure Factors. February – issued April.  
<http://www.epa.gov/oswer/riskassessment/pdf/superfund-hhexposure/OSWER-Directive-9200-1-120-ExposureFactors.pdf>.



**Table H-12**  
**Risk and Hazard Calculations for a Hypothetical Construction Worker Receptor for Exposure to Soil**  
**Hercules LLC - Savannah Plant**  
**Savannah, Georgia**

Constituent	EPCs (mg/kg)	ABSd [a]	VF or PEF [a] (m³/kg)	CANCER RISK				Percent Total ELCR	NON-CANCER HAZARD				Percent Total HI
				Route-Specific Risk			Calculated Risk		Route-Specific Hazard			Calculated Hazard	
				Oral	Dermal	Inhalation			Oral	Dermal	Inhalation		
				ELCRo	ELCRd	ELCRi	ELCR		HQo	HQd	HQi	HI	
1,1-Biphenyl	156.1	0	1.10E+05 V	2.6E-08	–	NA	2.6E-08	16%	9.2E-04	–	8.5E-02	8.5E-02	30%
Aniline	3.3	0.1	1.36E+09 P	3.9E-10	1.2E-10	6.6E-15	5.2E-10	<1%	1.4E-03	4.4E-04	5.8E-08	1.8E-03	<1%
Aroclor 1254	2.29	0.14	1.36E+09 P	9.6E-08	4.2E-08	1.6E-12	1.4E-07	84%	1.3E-01	5.9E-02	NA	1.9E-01	69%
Total Risk or Hazard				Total ELCR			2E-07	100%	Total HI			0.3	100%

**Notes:**

[a] The dermal absorption factors (ABSd), the volatilization factor [VF], and the particulate emission factor [PEF] is from USEPA (USEPA 2015).

**Acronyms and Abbreviations:**

–	not applicable	HQ	hazard quotient	NA	not available or not applicable
ELCR	excess lifetime cancer risk	m³/kg	cubic meter per kilogram	PEF	particulate emission factor
EPCs	exposure point concentration in soil	mg/kg	milligram per kilogram	VF	volatilization factor
HI	hazard index (sum of the HQs)				

**Equations:**

$$\begin{aligned} \text{ELCRo} &= (\text{EPCs} \times 1 \times 330 \times 5 \times 26 \times \text{CSFo}) / (1,000,000 \times 80 \times 25,550) & \text{HQo} &= (\text{EPCs} \times 1 \times 330 \times 5 \times 26) / (1,000,000 \times 80 \times 182 \times \text{RfDo}) \\ \text{ELCRd} &= (\text{EPCs} \times 3,470 \times 0.3 \times \text{ABSd} \times 5 \times 26 \times \text{CSFa}) / (1,000,000 \times 80 \times 25,550) & \text{HQd} &= (\text{EPCs} \times 3,470 \times 0.3 \times \text{ABSd} \times 5 \times 26) / (1,000,000 \times 80 \times 182 \times \text{RfDa}) \\ \text{ELCRi} &= (\text{EPCs} \times 8 \times 0.042 \times 5 \times 26 \times \text{IUR} \times 1000) / ([\text{VF or PEF}] \times 25,550) & \text{HQi} &= (\text{EPCs} \times 8 \times 0.042 \times 5 \times 26) / ([\text{VF or PEF}] \times 182 \times \text{RfCi}) \end{aligned}$$

Constituent-specific toxicity values (subchronic non-cancer values and cancer values) are presented in Table I-10.

Variables used in equations including receptor exposure parameter are presented below.

Variable	Acronym	Value	Unit	Source
Averaging time, cancer	ATc	25,550	days	USEPA 2014
Averaging time, non -cancer	ATnc	182	days	USEPA 1989
Body weight	BW	80	kg	USEPA 2014
Exposure time	ET	8	hrs/day	USEPA 2014
Exposure frequency	EFsc	5	days/week	
Exposure duration	EDsc	26	weeks	Professional Judgment
Conversion factor (days/hr)	CF	0.0417	days/hr	
Ingestion rate of soil	IRs	330	mg/day	USEPA 2014
Soil-to-skin adherence rate	SAR	0.3	mg/cm²/day	USEPA 2004
Skin surface area (soil)	SSAs	3,470	cm²	USEPA 2014

**References:**

- USEPA. 1989. Risk Assessment Guidance for Superfund, Human Health Evaluation Manual, Volume 1, Part A. Interim Final. Office of Emergency and Remedial Response, Washington, DC.EPA/540/1-89/002. December.
- USEPA. 2004. Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment), Final. Office of Superfund Remediation and Technology Innovation, Washington, DC. OSWER 9285.7-02EP. EPA/540/R/99/005. PB99-963312. July.
- USEPA. 2014. Human Health Evaluation Manual, Supplemental Guidance, Update of Standard Default Exposure Factors. February – issued April. <http://www.epa.gov/oswer/riskassessment/pdf/superfund-hhexposure/OSWER-Directive-9200-1-120-ExposureFactors.pdf>.



**Table H-13**  
**Julian Ettinger Vapor Intrusion Model Calculation for the Commercial Worker**  
**Hercules LLC - Savannah Plant**  
**Savannah, Georgia**

			Biphenyl, 1,1'-	Diphenyl Ether
Source Characteristics:	Units	Symbol	Value	Value
Source medium		Source	Groundwater	Groundwater
Groundwater concentration	(ug/L)	Cmedium	1400	270
Depth below grade to water table	(m)	Ls	2.00	2.00
Average groundwater temperature	(°C)	Ts	25	25
Calc: Source vapor concentration	(ug/m3)	Cs	17634	3081
Calc: % of pure component saturated vapor concentration	(%)	%Sat	23.804%	1.495%
Chemical:	Units	Symbol	Value	Value
Chemical Name		Chem	Biphenyl, 1,1'-	Diphenyl Ether
CAS No.		CAS	92-52-4	101-84-8
<b>Toxicity Factors</b>				
Unit risk factor	(ug/m <sup>3</sup> ) <sup>-1</sup>	IUR	Not Available	Not Available
Mutagenic compound		Mut	No	No
Reference concentration	(ug/m <sup>3</sup> )	RfC	4.00E-04	4.00E-04
Chemical Properties:	Units	Symbol	Value	Value
Pure component water solubility	(mg/L)	S	7.48E+00	1.80E+01
Henry's Law Constant @ 25°C	(atm-m <sup>3</sup> /mol)	Hc	3.08E-04	2.79E-04
Calc: Henry's Law Constant @ 25°C	(dimensionless)	Hr	1.26E-02	1.14E-02
Calc: Henry's Law Constant @ system temperature	(dimensionless)	Hs	1.26E-02	1.14E-02
Diffusivity in air	(cm2/s)	Dair	4.71E-02	3.97E-02
Diffusivity in water	(cm2/s)	Dwater	7.56E-06	7.23E-06
Building Characteristics:	Units	Symbol	Value	Value
Building setting		Bldg_Setting	Commercial	Commercial
Foundation type		Found_Type	Slab-on-grade	Slab-on-grade
Depth below grade to base of foundation	(m)	Lb	0.20	0.20
Foundation thickness	(m)	Lf	0.20	0.20
Fraction of foundation area with cracks	(-)	eta	0.001	0.001
Enclosed space floor area	(m2)	Ab	1500.00	1500.00
Enclosed space mixing height	(m)	Hb	3.00	3.00
Indoor air exchange rate	(1/hr)	ach	1.50	1.50
Qsoil/Qbuilding	(-)	Qsoil_Qb	0.0030	0.0030
Calc: Building ventilation rate	(m3/hr)	Qb	6750.00	6750.00
Calc: Average vapor flow rate into building	(m3/hr)	Qsoil	20.25	20.25



**Table H-13**  
**Julian Ettinger Vapor Intrusion Model Calculation for the Commercial Worker**  
**Hercules LLC - Savannah Plant**  
**Savannah, Georgia**

			Biphenyl, 1,1'-	Diphenyl Ether
Vadose zone characteristics:	Units	Symbol	Value	Value
<b>Stratum A (Top of soil profile):</b>				
Stratum A SCS soil type		SCS_A	Sand	Sand
Stratum A thickness (from surface)	(m)	hSA	2.00	2.00
Stratum A total porosity	(-)	nSA	0.375	0.375
Stratum A water-filled porosity	(-)	nwSA	0.054	0.054
Stratum A bulk density	(g/cm <sup>3</sup> )	rhoSA	1.660	1.660
<b>Stratum B (Soil layer below Stratum A):</b>				
Stratum B SCS soil type		SCS_B	Not Present	Not Present
Stratum B thickness	(m)	hSB	0.00	0.00
Stratum B total porosity	(-)	nSB		
Stratum B water-filled porosity	(-)	nwSB		
Stratum B bulk density	(g/cm <sup>3</sup> )	rhoSB		
<b>Stratum C (Soil layer below Stratum B):</b>				
Stratum C SCS soil type		SCS_C	Not Present	Not Present
Stratum C thickness	(m)	hSC	0.00	0.00
Stratum C total porosity	(-)	nSC		
Stratum C water-filled porosity	(-)	nwSC		
Stratum C bulk density	(g/cm <sup>3</sup> )	rhoSC		
<b>Stratum directly above the water table</b>				
Stratum A, B, or C		src_soil	Stratum A	Stratum A
Height of capillary fringe	(m)	hcz	0.170	0.170
Capillary zone total porosity	(-)	ncz	0.375	0.375
Capillary zone water filled porosity	(-)	nwcz	0.253	0.253
<b>Exposure Parameters:</b>			<b>Value</b>	<b>Value</b>
Target risk for carcinogens	(-)	Target_CR	1.00E-06	1.00E-06
Target hazard quotient for non-carcinogens	(-)	Target_HQ	1	1
Exposure Scenario		Scenario	Commercial	Commercial
Averaging time for carcinogens	(yrs)	ATc	70	70
Averaging time for non-carcinogens	(yrs)	ATnc	25	25
Exposure duration	(yrs)	ED	25	25
Exposure frequency	(days/yr)	EF	250	250
Exposure time	(hrs/24 hrs)	ET	8	8
Mutagenic mode-of-action factor	(yrs)	MMOAF	72	72
<b>Source to Indoor Air Attenuation Factor</b>			<b>Value</b>	<b>Value</b>
Groundwater to indoor air attenuation coefficient	(-)	alpha	1.1E-04	9.6E-05
		Range	5.4E-05 - 1.2E-04	5.0E-05 - 9.9E-05
<b>Predicted Indoor Air Concentration</b>			<b>Value</b>	<b>Value</b>
Indoor air concentration due to vapor intrusion	(ug/m3)	Cia	2.0E+00	3.0E-01
		Range	9.4E-01 - 2.0E+00	1.5E-01 - 3.1E-01
	(ppbv)	Cia	3.1E-01	4.3E-02
		Range	1.5E-01 - 3.2E-01	2.2E-02 - 4.4E-02
<b>Predicted Vapor Concentration Beneath the Foundation</b>			<b>Value</b>	<b>Value</b>
Subslab vapor concentration	(ug/m3)	Css	6.5E+02	9.9E+01
		Range	4.1E+01 - 9.4E+03	6.1E+00 - 1.5E+03
	(ppbv)	Css	1.0E+02	1.4E+01
		Range	6.4E+00 - 1.5E+03	8.8E-01 - 2.2E+02



**Table H-13**  
**Julian Ettinger Vapor Intrusion Model Calculation for the Commercial Worker**  
**Hercules LLC - Savannah Plant**  
**Savannah, Georgia**

			Biphenyl, 1,1'-	Diphenyl Ether
Diffusive Transport Upward Through Vadose Zone			Value	Value
Effective diffusion coefficient through Stratum A	(cm <sup>2</sup> /sec)	DeffA	7.6E-03	6.4E-03
Effective diffusion coefficient through Stratum B	(cm <sup>2</sup> /sec)	DeffB		
Effective diffusion coefficient through Stratum C	(cm <sup>2</sup> /sec)	DeffC		
Effective diffusion coefficient through capillary zone	(cm <sup>2</sup> /sec)	DeffCZ	3.5E-04	3.0E-04
Effective diffusion coefficient through unsaturated zone	(cm <sup>2</sup> /sec)	DeffT	2.5E-03	2.2E-03
Critical Parameters			Value	Value
a for diffusive transport from source to building with	(-)	A_Param	1.2E-04	9.9E-05
Pe (Peclet Number) for transport through the foundation	(-)	B_Param	9.7E+02	1.1E+03
a for convective transport from subslab to building	(-)	C_Param	3.0E-03	3.0E-03
			1.1E+03	
Interpretation				
			Advection is the dominant mechanism across the foundation.	Advection is the dominant mechanism across the foundation.
			Diffusion through soil is the overall rate limiting process.	Diffusion through soil is the overall rate limiting process.
Critical Parameters				
			Hb, Ls, DeffT, ach	Hb, Ls, DeffT, ach
Non-Critical Parameters				
			Qsoil_Qb, Lf, DeffA, eta	Qsoil_Qb, Lf, DeffA, eta
Risk Calculations				
	Units	Symbol	Value	Value
Risk-Based Target Screening Levels				
Target risk for carcinogens	(-)	Target_CR	1E-06	1E-06
Target hazard quotient for noncarcinogens	(-)	Target_HQ	1	1
Target indoor air concentration	(ug/m <sup>3</sup> )	Target_IA	1.75E+00	1.75E+00
	(ppbv)	Target_IA	2.78E-01	2.52E-01
Target groundwater concentration	(ug/L)	Target_GW	1.25E+03	1.59E+03
Incremental Risk Estimates				
Incremental cancer risk from vapor intrusion	(-)	Cancer_Risk	No IUR	No IUR
		Range	-	-
Hazard quotient from vapor intrusion	(-)	HQ	1.1	0.2
		Range	5.4E-01 - 1.2E+00	8.8E-02 - 1.7E-01
			8.8E-02 - 1.7E-01	
			6.0E-01 - 3.0E+00	

**Acronyms and Abbreviations:**

°C = degrees Celsius

cm<sup>2</sup>/sec = square centimeter per second

days/yr = days per year

g/cm<sup>3</sup> = gram per cubic centimeter

hr = hour

hrs/24 hrs = hours per 24 hours

m = meter

m<sup>2</sup> = square meter

m<sup>3</sup>/hr = cubic meter per hour

mg/L = milligram per liter

µg/L = microgram per liter

µg/m<sup>3</sup> = microgram per cubic meter

(µg/m<sup>3</sup>)<sup>-1</sup> = inverse microgram per cubic meter

ppbv = parts per billion by volume

yrs = years



**Table H-14**  
**Threatened and Endangered Species**  
**Hercules LLC - Savannah Plant**  
**Savannah, Georgia**

Group	Common Name	Species	Status	Notes
Amphibians	Frosted flatwoods salamander	<i>Ambystoma cingulatum</i>	Threatened	The small open channel section of Dundee Canal at southern survey boundary provides suitable habitat. This species determined as absent from the survey area due to heavy presence of predatory fish within canal waters & lack of sufficient cover within/surrounding the fire water pond.
Birds	Red-cockaded woodpecker	<i>Picoides borealis</i>	Endangered	No suitable nesting/foraging habitat observed within or adjacent to site.
Birds	Wood stork	<i>Mycteria americana</i>	Threatened	No suitable migratory 'stop-over' or foraging habitat observed within site.
Birds	Piping Plover	<i>Charadrius melodus</i>	Threatened	No suitable nesting/foraging habitat observed within/adjacent to site.
Flowering Plants	Pondberry	<i>Lindera melissifolia</i>	Endangered	The potential wetland area associated with the small open channel section of Dundee Canal at southern survey boundary may provide suitable habitat. A formal field survey of this area would need to be performed to establish presence/absence potential.
Mammals	West Indian Manatee	<i>Trichechus manatus</i>	Endangered	No suitable habitat observed within/adjacent to site.
Reptiles	Hawksbill sea turtle		Endangered	No suitable habitat observed within/adjacent to site.
Reptiles	Leatherback sea turtle	<i>Dermochelys coriacea</i>	Endangered	No suitable habitat observed within/adjacent to site.
Reptiles	Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	Endangered	No suitable habitat observed within/adjacent to site.
Reptiles	Green sea turtle	<i>Chelonia mydas</i>	Threatened	No suitable habitat observed within/adjacent to site.
Reptiles	Loggerhead sea turtle	<i>Caretta caretta</i>	Threatened	No suitable habitat observed within/adjacent to site.
Reptiles	Gopher tortoise	<i>Gopherus polyphemus</i>	Candidate	No ESA protection provided to candidate species. Suitable habitat observed within the site, but the perimeter fencing of site currently prevents occurrence of this species within the survey area.
IPAC Listed Species - Not Listed by Official USFWS ECOS List for Chatham County, GA				
Birds IPAC	Red Knot	<i>Calidris canutus rufa</i>	Threatened	This species nests north of the Arctic Circle. No suitable breeding or nonbreeding habitat observed within/adjacent to site.
Reptiles IPAC	Eastern Indigo snake	<i>Drymarchon corais couperi</i>	Threatened	Preferred habitat not observed within/adjacent to site. This species' presence is highly correlated to presence of gopher tortoise burrows.
Fishes IPAC	Atlantic sturgeon	<i>Acipenser oxyrinchus oxyrinchus</i>	Endangered	No suitable habitat observed within/adjacent to site.
Fishes IPAC	Shortnose sturgeon	<i>Acipenser brevirostrum</i>	Endangered	No suitable habitat observed within/adjacent to site.
Mammals IPAC	North Atlantic Right Whale	<i>Eubalaena glacialis</i>	Endangered	No suitable habitat observed within/adjacent to site.

**Notes:**

ECOS = Environmental Conservation Online System

ESA = Endangered Species Act

IPAC = Information, Planning and Conservation System

USFWS = United States Fish and Wildlife Service



**Table H-15**  
**Selection of Constituents of Potential Ecological Concern for Sediment**  
**Hercules LLC - Savannah Plant**  
**Savannah, Georgia**

Regulated Substance [a]	Frequency of Detection				Detection Limit			Detected Concentration		Maximum Concentration: Location (Date)	Ecological Screening Value (ESV) [b]		Maximum Greater than ESV? [c] (Yes/no)	Alternative Screening Value (ASV) [d] (mg/kg)	Maximum Greater than ASV? [e] (Yes/no)	
	Number of Detections	Number of Samples	(%) FOD	Minimum (mg/kg)	- Maximum (mg/kg)	Minimum (mg/kg)	- Maximum (mg/kg)									
											(mg/kg)	(mg/kg)				
Acetone	1	/	3	33	0.048	-	0.056	0.1	-	0.1	SED-2 (8/28/2014)	0.065	R4	YES	38.133	no
2,3,7,8-TCDD TEQ	3	/	3	100	--	-	--	0.000009	-	0.00007	SED-2 (8/28/2014)	0.0000025	R4	YES	0.000025	YES

**Notes:**

[a] Only detected constituents are presented.

[b] ESVs are from the USEPA Region 4 Ecological Risk Assessment Supplemental Guidance (USEPA 2018).

[c] Constituents with maximum concentrations greater than the ESV are identified as potential COPECs for further evaluation.

[d] ASVs are refinement screening values from the USEPA Region 4 Ecological Risk Assessment Supplemental Guidance (USEPA 2018).

[e] Constituents with maximum concentrations greater than the ASV are identified as refined COPECs.

**Acronyms and Abbreviations:**

-- = not applicable

ASV = alternative screening values

COPC = constituent of potential concern

ESV = ecological screening values

mg/kg = milligram per kilogram

TCDD = 2,3,7,8-Tetrachlorodibenzo-p-dioxin

TEQ = toxicity equivalent quotient

USEPA = United States Environmental Protection Agency

**References:**

USEPA. 2018. Region 4 Ecological Risk Assessment Supplemental Guidance. Scientific Support Section, Superfund Division. Atlanta, GA. March.



**Table H-16**  
**Selection of Constituents of Potential Ecological Concern for Surface Water**  
**Hercules LLC - Savannah Plant**  
**Savannah, Georgia**

Regulated Substance [a]	Frequency of Detection			Detection Limit			Detected Concentration			Maximum Concentration: Location (Date)	ESV [b]		Maximum Greater than ESV? [c] (Yes/no)	ASV [d] (mg/L)	Maximum Greater than ASV? [e] (Yes/no)
	Number of Detections	Number of Samples	(%) FOD	Minimum (mg/L)	-	Maximum (mg/L)	Minimum (mg/L)	-	Maximum (mg/L)		(mg/L)	source			
Ammonia (as N)	3	/	3	100	--	-	--	0.13	-	0.32	SW-01 (8/28/2014)	0.019 R3	YES	1.9	no
Fluoride	3	/	3	100	--	-	--	0.16	-	0.53	SW-03 (8/28/2014)	2.7 R4	no	—	—
N-Nitrosodi-n-butylamine	1	/	3	33	0.00098	-	0.001	0.078	-	0.078	SW-02 (8/28/2014)	NA	—	NA	—

**Notes:**

[a] Only detected constituents are presented.

[b] ESVs were identified from the following sources in order of priority:

Georgia's Water Quality Standards. 391-3-6. Water Use Classifications and Water Quality Standards (GAEPD 2015).

USEPA Region 4 Ecological Screening Values (R4; USEPA 2018).

USEPA Region 3 Ecological Screening Values (R3; USEPA 2006).

[c] Constituents with maximum concentrations greater than the ESV are identified as potential COPECs for further evaluation.

[d] The ASV for ammonia is the USEPA Chronic Aquatic Life Ambient Water Quality Criterion at a pH of 7 and a water temperature of 20°C (USEPA 2013).

[e] Constituents with maximum concentrations greater than the ASV are identified as refined COPECs.

**Acronyms and Abbreviations:**

-- = not applicable

ASV = alternative screening values

COPC = constituent of potential concern

ESV = ecological screening value

FOD = frequency of detection

GA EPD = Georgia Environmental Protection Division

mg/L = milligram per liter

NA = not available

USEPA = United States Environmental Protection Agency

**References:**

GA EPD. 2015. Rules and Regulations for Water Quality Control Chapter 391-3-6-.03 (revised 2015).

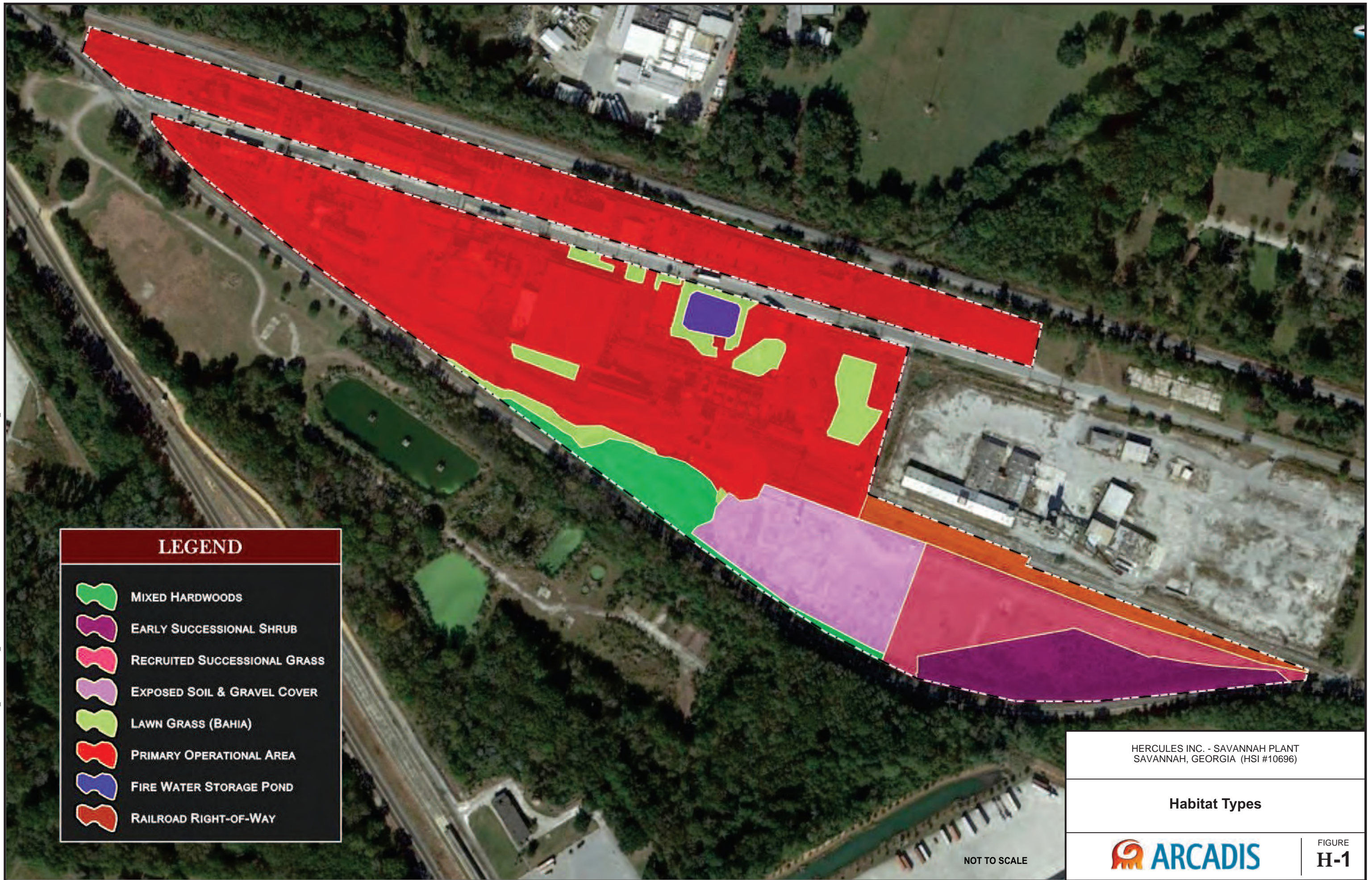
USEPA. 2006. Ecological Risk Assessment. Region 3, Ecological Risk Assessment. Freshwater Screening Benchmarks.

USEPA. 2013. Aquatic Life Ambient Water Quality Criteria for Ammonia - Freshwater. Office of Water. EPA 822-R-13-001. April.

USEPA. 2018. Region 4 Ecological Risk Assessment Supplemental Guidance. Scientific Support Section, Superfund Division. Atlanta, GA. March.



CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: T.SCHLEKAT BY: BALTOM  
PROJECT: OH008000.GA60 PATH: G:\GIS\ASHLAND\_HERCULES\GA\_SAVANNAH\MAPDOCS\2015\SA PROGRESS NO4\APPENDIX H GA60\_VRPSA4 ECO.cdr SAVED: 5MAR2015



## LEGEND

- MIXED HARDWOODS
- EARLY SUCCESSIONAL SHRUB
- RECRUITED SUCCESSIONAL GRASS
- EXPOSED SOIL & GRAVEL COVER
- LAWN GRASS (BAHIA)
- PRIMARY OPERATIONAL AREA
- FIRE WATER STORAGE POND
- RAILROAD RIGHT-OF-WAY

HERCULES INC. - SAVANNAH PLANT  
SAVANNAH, GEORGIA (HSI #10696)

## Habitat Types



FIGURE  
H-1





U.S. Fish and Wildlife Service  
National Wetlands Inventory

Zoom History



PABFh

PFO1C

PFO1Cd

PUBHx

PEM1Fx

PFO1C

PUBHx

PUBHx

Map Scale: 1:2257

Lat: 32.0889, Lng: -81.1534

## NWI CODE INTERPRETATIONS

- PABFh – Palustrine Aquatic Bed, Semi-permanently Flooded, Diked/Impounded
- PFO1C – Palustrine, Broad-leaved Deciduous Forested, Seasonally Flooded
- PFO1Cd – Palustrine, Broad-leaved Deciduous Forested, Seasonally Flooded, Partially Drained/Ditched
- PEM1Fx – Palustrine, Emergent (persistent), Excavated, Semi-permanently Flooded
- PUBHx – Palustrine, Unconsolidated Bottom, Excavated, Permanently Flooded

NOT TO SCALE

HERCULES INC. - SAVANNAH PLANT  
SAVANNAH, GEORGIA (HSI #10696)

National Wetlands Inventory



FIGURE  
H-2

# LOUISVILLE ROAD SITE – NWI FEATURES

0 km  
100 m  
0 m  
500 ft

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: T.SCHLEKAT BY: BAL TOM  
PROJECT: OH08000.GA60 PATH: G:\GIS\ASHLAND\_HERCULES\GA\_SAVANNAH\MAPDOCS\2015\SA\_PROGRESS\_NO4\APPENDIX H GA60\_VRPSA4 ECO.cdr SAVED: 5MAR2015



# LOUISVILLE ROAD SITE

\*NPW - NON-CONTACT PROCESS WATER



HERCULES INC. - SAVANNAH PLANT  
SAVANNAH, GEORGIA (HSI #10696)

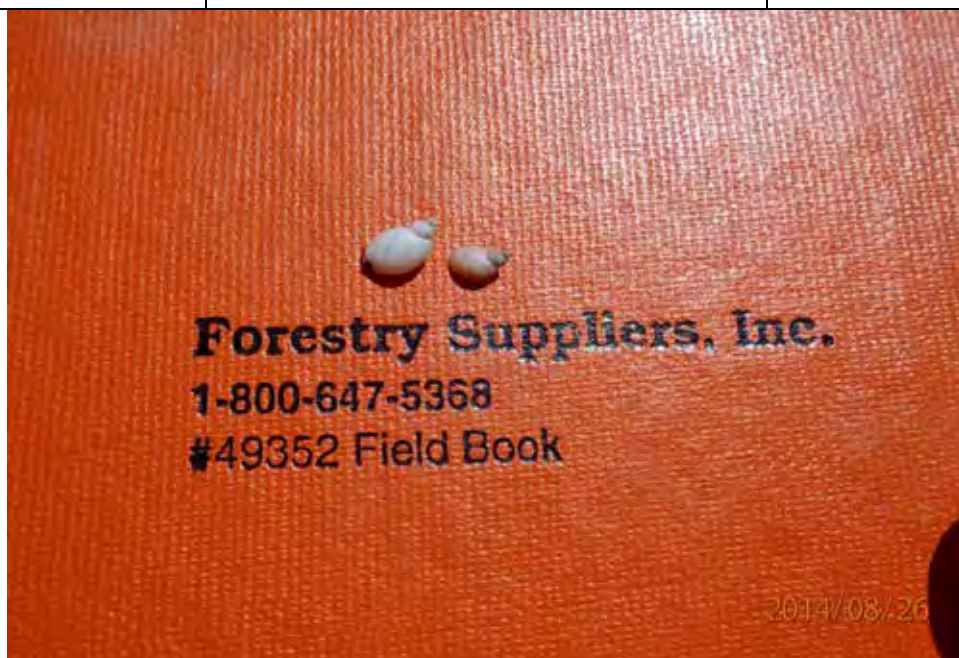
Dundee Canal



FIGURE  
H-3




<b>Project Name:</b> Louisville Road Habitat Assessment Photo Log		<b>Location:</b> Savannah, GA	<b>Project No.</b> OH008000.GA60
<b>Photo No.</b> 1	<b>Date:</b> 08/26/14		
<b>Description:</b>  Snails observed at the Dundee Canal/Process Water Outfall. These snails belong to the Lymnaeidae family, and the species is likely <i>Lymnaea columella</i> .			


<b>Project Name:</b> Louisville Road Habitat Assessment Photo Log		<b>Location:</b> Savannah, GA	<b>Project No.</b> OH008000.GA60
<b>Photo No.</b> 2	<b>Date:</b> 08/26/14		
<b>Description:</b>  Example specimens of observed Lymnaeidae snails			



<b>Project Name:</b> Louisville Road Habitat Assessment Photo Log		<b>Location:</b> Savannah, GA	<b>Project No.</b> OH008000.GA60
<b>Photo No.</b> 3	<b>Date:</b> 08/26/14		
<b>Description:</b>  View of conditions inside the Dundee Canal/Process Water mixing/outfall structure. Flora dominated by duck potato ( <i>Sagittaria lancifolia</i> ). Two manual gates can also be seen.			

<b>Project Name:</b> Louisville Road Habitat Assessment Photo Log		<b>Location:</b> Savannah, GA	<b>Project No.</b> OH008000.GA60
<b>Photo No.</b> 4	<b>Date:</b> 08/26/14		
<b>Description:</b>  Example of bream bead observed w/in the Dundee Canal/Process Water mixing/outfall structure			



<b>Project Name:</b> Louisville Road Habitat Assessment Photo Log		<b>Location:</b> Savannah, GA	<b>Project No.</b> OH008000.GA60
<b>Photo No.</b> <b>5</b>	<b>Date:</b> 08/26/14		
<b>Description:</b>  View of the Process Water outfall into the Dundee Canal/Process Water mixing/outfall structure			


<b>Project Name:</b> Louisville Road Habitat Assessment Photo Log		<b>Location:</b> Savannah, GA	<b>Project No.</b> OH008000.GA60
<b>Photo No.</b> <b>6</b>	<b>Date:</b> 08/26/14		
<b>Description:</b>  NW overview of the fire water pond located S of the main gate to facility			




<b>Project Name:</b> Louisville Road Habitat Assessment Photo Log		<b>Location:</b> Savannah, GA	<b>Project No.</b> OH008000.GA60
<b>Photo No.</b> <b>7</b>	<b>Date:</b> 08/26/14		
<b>Description:</b>  Example view of fire pond water conditions & the two pond drainage/overflow culvert inlets that discharge to Dundee Canal			

<b>Project Name:</b> Louisville Road Habitat Assessment Photo Log		<b>Location:</b> Savannah, GA	<b>Project No.</b> OH008000.GA60
<b>Photo No.</b> <b>8</b>	<b>Date:</b> 08/26/14		
<b>Description:</b>  Example of signage provided to grate-covered access structures (total of 3) of the subsurface Dundee Canal/stormwater conveyance pipe			



<b>Project Name:</b> Louisville Road Habitat Assessment Photo Log		<b>Location:</b> Savannah, GA	<b>Project No.</b> OH008000.GA60
<b>Photo No.</b> <b>9</b>	<b>Date:</b> 08/26/14		
<b>Description:</b>  Looking NE along downstream segment of the subsurface Dundee Canal/stormwater pipe from near midpoint of drainage pipe system. View is looking toward the WWTF & Dundee Canal/Process Water outfall.			

<b>Project Name:</b> Louisville Road Habitat Assessment Photo Log		<b>Location:</b> Savannah, GA	<b>Project No.</b> OH008000.GA60
<b>Photo No.</b> <b>10</b>	<b>Date:</b> 08/26/14		
<b>Description:</b>  Looking W over the loading dock area catch basin that drains to the Dundee Canal pipe ~225 LF downstream of the Dundee Canal pipe/culvert inlet. Box structure receiving stormwater from this area is equipped with a manual valve maintained in the closed position.			



<b>Project Name:</b> Louisville Road Habitat Assessment Photo Log		<b>Location:</b> Savannah, GA	<b>Project No.</b> OH008000.GA60
<b>Photo No.</b> <b>11</b>	<b>Date:</b> 08/26/14		
<b>Description:</b>  View of subsurface Dundee Canal pipe box structure mentioned by Photo 129			

<b>Project Name:</b> Louisville Road Habitat Assessment Photo Log		<b>Location:</b> Savannah, GA	<b>Project No.</b> OH008000.GA60
<b>Photo No.</b> <b>12</b>	<b>Date:</b> 08/26/14		
<b>Description:</b>  Example of water conditions w/in Dundee Canal pipe box structure mentioned by Photo 129			



<b>Project Name:</b> Louisville Road Habitat Assessment Photo Log		<b>Location:</b> Savannah, GA	<b>Project No.</b> OH008000.GA60
<b>Photo No.</b> <b>13</b>	<b>Date:</b> 08/26/14		
<b>Description:</b>  View of water condition at the Dundee Canal inlet pipe			

<b>Project Name:</b> Louisville Road Habitat Assessment Photo Log		<b>Location:</b> Savannah, GA	<b>Project No.</b> OH008000.GA60
<b>Photo No.</b> <b>14</b>	<b>Date:</b> 08/26/14		
<b>Description:</b>  SW view of conditions at the Dundee Canal inlet pipe located outside the southern facility fence line			



# APPENDIX I

Water Well Survey – 2012









Arcadis U.S., Inc.

10 Patewood Drive

Suite 375

Greenville, South Carolina 29615

Tel 864 987 3900

Fax 864 987 1609

[www.arcadis.com](http://www.arcadis.com)

A decorative graphic consisting of three thin orange lines. One line is horizontal, extending from the left edge of the page towards the right. Two other lines are diagonal, starting from the bottom left and extending towards the top right, intersecting the horizontal line.