



Phase II Environmental Site Assessment

Site:

Calgon Site

Port Bienville, Hancock County, Mississippi

Submitted to:

Hancock Port and Harbor Commission

Prepared by:

Cypress Environment & Infrastructure

September 9, 2019

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EXECUTIVE SUMMARY

Cypress Environment & Infrastructure, (Cypress) was retained by the Hancock County Port and Harbor Commission (Client) to conduct a Phase II Environmental Site Assessment (ESA) for the 5.74-acre Calgon Site in conformance with the American Society of Testing Materials (ASTM) in the standard ASTM E 1903-11 Standard.

The scope of this assessment was tailored to confirm or dismiss two recognized environmental conditions (REC)s identified onsite during the Phase I ESA completed by Cypress in May 2019. This assessment included site sampling conducted on July 18 and 19, 2019, and the associated laboratory analysis.

The identified RECs were:

- REC 1 – Coal duct and associated byproducts of the coal dust fire
- REC 2 – Pole transformer onsite which had evidence of leaking
- REC 3 – Railroad ties in piles onsite that could contain creosote

REC 2 from the Phase I investigation was removed from further study when the utility authority that owned the transformer was able to show the transformer information plate which showed that the transformer had very low or no PCBs. This Phase II was scoped to address REC 1 and 3.

In accordance with the approved Scope of Work, Cypress conducted Phase II ESA activities at the site. A summary of the tasks completed includes:

- groundwater wells from two deep borings with soil samples collected at two-foot depth intervals to a depth of approximately 25 feet below ground surface (ft bgs) or until the first permeable water-bearing zone was encountered, with the borings converted to temporary monitor wells;
- soil samples at three additional boring locations to an estimated depth of 10 ft bgs on two-foot depth intervals (e.g. 0-2, 2-4, 4-6, 6-8, and 8-10 ft bgs);
- surface soil samples at five additional locations; and
- groundwater sampling at the two temporary monitoring wells.

Analytical results were compared to Mississippi Department of Environmental Quality (MDEQ) Target Remediation Goals (TRG) Levels (2002 MDEQ Risk Evaluation Procedures for Voluntary Cleanup and Redevelopment of Brownfield Sites), Federal Safe Drinking Water Act Maximum Contaminant Levels (MCLs) or Secondary Maximum Contaminant Levels (SMCL). Based on the findings of this work, Cypress makes the following conclusions:

Groundwater:

- Concentrations of arsenic are present above the MCL and MDEQ TRG while concentrations of lead, and beryllium are present above MDEQ TRG Levels

Surface Soils (0-1 foot):

- Concentrations of benzo[a]pyrene exceeded MDEQ TRG limits for the Unrestricted Level in one location but did not exceed Restricted Levels.
- Concentrations of dibenz(a,h)anthracene exceeded MDEQ TRG limits for the Unrestricted Level but did not exceed Restricted Levels.
- Concentrations of arsenic exceeded MDEQ TRG limits for the Unrestricted Level and Restricted Levels for 2 samples and exceeded Unrestricted Levels for 2 samples; however, all samples are within the range of potential background values for coastal Mississippi.

Subsurface Soil (0-20 foot)

- Concentrations of arsenic exceeded MDEQ TRG limits for the Unrestricted Level and Restricted Levels for 4 samples and exceeded Unrestricted Levels for 11 samples; however, all samples were within the range of potential background values for coastal Mississippi.

Based on the findings and conclusions of this Phase II ESA, Cypress recommends:

- Coordination with MDEQ to determine the applicable regulatory requirements and any additional testing or removal requirements.

1 INTRODUCTION

Subject to the limitations included in this section, this report presents the results of a Phase II Environmental Site Assessment (ESA) of the 5.74-acre Calgon Site (Appendix A, Figure I).

This Phase II was commissioned by Hancock County Port and Harbor Commission and was conducted by Cypress Environment & Infrastructure (Cypress). This Phase II ESA was completed in conformance with the ASTM International (ASTM) E 1903-11 Standard Practice for Environmental Site Assessments: Phase II: Environmental Site Assessment Process.

The scope of this assessment was tailored to confirm or dismiss two recognized environmental conditions (REC)s identified onsite during the Phase I ESA completed by Cypress in May 2019. This assessment included site sampling conducted on July 18 and 19, 2019, and the associated laboratory analysis.

1.1 Summary of Phase I Findings

The Phase I ESA identified the following onsite RECs which were recommended for further investigation.

- REC 1 – Coal duct and associated byproducts of the coal dust fire
- REC 2 – Pole transformer onsite which had evidence of leaking
- REC 3 – Railroad ties in piles onsite that could contain creosote

No offsite findings were recommended for further investigation. REC 2 from the Phase I investigation was removed from further study when the utility authority that owned the transformer was able to show the transformer information plate which showed that the transformer had very low or no PCBs. This Phase II was scoped to address REC 1 and 3.

2 PROJECT BACKGROUND

Aerial photos show the site undeveloped and forested up to 1973. After 1973, the site was cleared. No structures have been built on the site. The coal dust pile was clearly present on the site from 2007 to 2016. The majority of the coal dust has now been removed. Currently, the site is undeveloped and unused.

Three RECs were identified as being of concern during the Phase I ESA. These include the remnant coal dust and byproducts from a coal dust fire, a transformer that showed evidence of leaking, and piles of railroad ties which may have contained creosote. The utility authority that owned the transformer pulled the unit and examined the attached information plate, which showed that the unit had very low or no PCBs.

3 PHASE II ESA OBJECTIVES

In accordance with ASTM E 1903-II, this section was developed to provide clarity in communicating the Phase II ESA objectives.

3.1 Statement of Objectives

This Phase II ESA was conducted for the following objectives:

- To assess the Site for the presence of contaminants within the potential source areas identified as RECs at concentrations above applicable regulatory standards.

3.2 Schedule, Cost, and Budget Limitations

No significant schedule, cost, or budget limitations were observed during the completion of this Phase II ESA. As such, these factors have not compromised Cypress's ability to conduct this Phase II ESA in accordance with this practice.

3.3 Information and Explanation

Information regarding the explanation of the Phase II ESA process was provided to the Hancock County Port and Harbor Commission in the June 19, 2019 proposal.

3.4 Scope of Work

Scope of work is included in Section 4.0.

3.5 Comments Regarding Compensation

Cypress's compensation for conducting this Phase II ESA was in no way associated with the results obtained or conclusions drawn from the collected data.

3.6 Issues Beyond the Scope of the ASTM Practice

No issues were identified beyond the scope of the ASTM E1903-II or the developed scope of work.

4 PHASE II SCOPE OF WORK

Cypress conducted this Phase II ESA to assess RECs identified during the Phase I ESA, in accordance with our June 19, 2019, proposal. To execute the Phase II ESA, the following tasks were completed:

Sampling for this Phase II included:

- groundwater wells from two deep borings with soil samples collected at two-foot depth intervals to a depth of approximately 25 feet below ground surface (ft bgs) or until the first permeable water-bearing zone is encountered, with the borings converted to temporary monitor wells;
- soil samples at three additional boring locations to an estimated depth of 10 ft bgs on two-foot depth intervals (e.g. 0-2, 2-4, 4-6, 6-8, and 8-10 ft bgs);
- surface soil samples at five additional locations; and
- groundwater sampling at the two temporary monitoring wells.

5 PHASE II FIELD ACTIVITIES

Analytical results were compared to Mississippi Department of Environmental Quality (MDEQ) Target Remediation Goals (TRG) Levels (2002 MDEQ Risk Evaluation Procedures for Voluntary Cleanup and Redevelopment of Brownfield Sites), Federal Safe Drinking Water Act Maximum Contaminant Levels (MCLs) or Secondary Maximum Contaminant Levels (SMCL). A total of two borings were completed to approximately 25 ft bgs and converted to temporary monitoring wells. Soil samples were obtained at an additional three boring locations and at four surface sample locations. The laboratory report is included in Appendix B.

5.1 Soil Samples

The following table summarizes the soil sample IDs and the compounds that exceeded their respective regulatory standards. Locations of samples are shown in Figure 2 in Appendix A. The complete report of the laboratory analytical report are included in Appendix B. Elevated PID field readings were not observed for any depth interval screened.

Surface soils were located at 0 to 1-ft bgs. While there were detections of other semivolatile and metal constituents within the coal storage area in surface soils, they did not exceed the MDEQ Tier I TRGs at the Unrestricted Level. The benzo[a]pyrene and dibenz(a,h)anthracene were detected above the Unrestricted Level but below the Restricted Level. Arsenic was present above MDEQ TRG Levels for the Restricted Level, however it was still present within the range of naturally occurring arsenic for coastal Mississippi. Other metals were detected but were not present above the MDEQ Tier I TRG for Unrestricted Level.

Table 1: Surface Soil Samples Exceeding MDEQ TRG Levels for Semivolatile and Metal Constituents

Analyte	MDEQ Tier 1 TRGs for Soil at Unrestricted Level (mg/kg)	MDEQ Tier 1 TRGs For Soil at Restricted Level (mg/kg)	SS-1 (0-1)	SS-2 (0-1)	SS-3 (0-1)	SS-4 (0-1)
Benzo[a]pyrene	0.0875	0.784	0.12J	0.35J	0.57J	0.46J
Dibenz(a,h)anthracene	0.0875	0.784	0	0	0.30J	0.38J
Arsenic	0.426	3.82	0.93	5.0	6.4	3.6

J = Result is less than the reporting limit (RL) but greater than or equal to the method detection limit (MDL) and the concentration is an approximate value

*Highlighted cells show values above both Restricted and Unrestricted Levels

For subsurface samples, arsenic was the only constituent exceeding the Unrestricted Level. Other metals were detected but were not present above the MDEQ Tier I TRG for Unrestricted Level.

Table 2: Subsurface Soil Samples Exceeding MDEQ TRG Levels for Metal Constituents

Analyte	MDEQ Tier 1 TRGs for Soil at Unrestricted Level (mg/kg)	MDEQ Tier 1 TRGs For Soil at Restricted Level (mg/kg)	SB-1 (0-2)	SB-1 (2-4)	SB-1 (8-10)	SB-2 (0-1)	SB-2 (2-4)	SB-2 (8-10)	SB-3 (0-2)	SB-3 (2-4)	SB-3 (8-10)
Arsenic	0.426	3.82	0.93	2.3	5.0*	1.2	3.8	16	3.3	6.6	10

*Highlighted cells show values above both Restricted and Unrestricted Levels

For the subsurface soil samples obtained from the temporary monitoring well bores, the samples below exceeded the MDEQ TRG Unrestricted Level but not the Restricted Level. Other metals were detected but were not present above the MDEQ Tier I TRG for Unrestricted Level.

Table 3: Subsurface Soil Samples from Monitoring Well Locations Exceeding MDEQ TRG Levels for Metal Constituents

Analyte	MDEQ Tier 1 TRGs for Soil at Unrestricted Level (mg/kg)	MDEQ Tier 1 TRGs For Soil at Restricted Level (mg/kg)	TMW-1 (0-2)	TMW-1 (12-14)	TMW-1 (18-20)	TMW-2 (0-2)	TMW-2 (2-4)	TMW-2 (14-16)
Arsenic	0.426	3.82	0.91	0.93	0.49	2.7	3.4	2.2

*Highlighted cells show values above both Restricted and Unrestricted Levels

Arsenic is a naturally-occurring metal and background levels for arsenic for the Mississippi Lower Coastal Plain can range from 0.26 mg/kg to 22.0 mg/kg (MAFES, 2002). All samples were within the range of potential background levels for this area.

5.2 Groundwater Sample Results

Two temporary monitoring wells were installed to obtain groundwater samples. One was located outside of the area where coal dust was stored (TMW-1) and one was located within the area coal dust was stored (TMW-2). Groundwater samples showed no volatile or semivolatile constituents above MDEQ TRG Levels, although some semivolatile compounds were detected. The following metals were detected above the MDEQ TRG Levels. Arsenic was detected above the MDEQ TRG Level and the MCL in both groundwater wells. Lead was detected above MDEQ TRG levels in both groundwater wells. Beryllium was only detected above the MDEQ TRG Level at the well within the area where coal dust was stored. Other metals were detected in both wells but were present at concentrations below the MDEQ TRG Level or the MCL.

Table 4: Groundwater Samples Exceeding MDEQ TRG Levels for Metal Constituents

Analyte	MDEQ Tier 1 TRGs for Groundwater (ug/L)	TMW-1	TMW-2
Arsenic	10**	65	120
Beryllium	4	2.2	6.2
Lead	15	70	150

J = Result is less than the reporting limit (RL) but greater than or equal to the method detection limit (MDL) and the concentration is an approximate value

*Highlighted cells show values above both Restricted and Unrestricted Levels

** Federal Safe Drinking Water Act Maximum Contaminant Levels (MCL)

6 CONCEPTUAL SITE MODEL

This Phase II ESA was designed to provide information about contaminants at the Site and to aid in understanding potential exposure hazards that may be present at the Site. The following conceptual site model (CSM) incorporates information from the Phase I ESA and Phase II ESA. This CSM was developed with the information available and is subject to change in response to MDEQ review or if more information becomes available.

6.1 Topography and Drainage

The most recent topographic map of the site is dated 2012. This map shows that site elevation is approximately 5-10 feet above sea level.

6.2 Geological Characteristics

Four geologic groups are exposed in various areas of Hancock County. These include the Pascagoula Hattiesburg, Citronelle, and Alluvium Coastal Deposits. Given the site location near the south western extent of Hancock County, the Alluvium Coastal Deposits Formation is likely exposed on this site. This formation is composed of loam, sand, gravel, and clay (Moore, 1973).

Surface soils on the site are Beauregard silt loam (Class C) and Guyton silt loam (Class D). The United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) describes Beauregard soils as moderately well-drained and slowly permeable soils with medium to slow runoff. Guyton soils are poorly or very poorly drainer with high surface runoff and slow permeability.

Site specific geological information was observed during the fieldwork for this effort and can be observed in the boring logs included in Appendix B. The sample locations included area in the Guyton and Beauregard series. The boring logs showed a progression with silt with remnants of coal dust at the surface, silty clay to approximately 5 ft bgs, clay to 10 ft bgs, and stiff clays at 12 ft bgs.

6.3 Site Groundwater and Hydrogeology

Based on the EDR Report, the general direction of topographic gradient is to the northwest. The area has very little topographic relief and actual groundwater flow would require a site-specific analysis. No site-specific analysis for groundwater has been conducted.

During the Phase II ESA, the permeable water-bearing zone was at approximately 12 to 18 ft bgs.

6.4 Contaminants of Concern

The contaminants of concern (COCs) discussed in the CSM are those compounds that are associated with the RECs at the site and were detected above applicable regulatory standards. Based on this definition and the laboratory analysis, the COCs onsite include:

Table 5: COCs Onsite

Media	COCs	Potential Source
Soil	Semivolatiles	Coal dust onsite
Soil	Metals	Coal dust onsite
Groundwater	Metals	Coal dust onsite

6.5 Summary of Exposure Scenarios and Human Receptors

To aid in a thorough understanding of the environmental concerns present at the site, a graphical presentation of the identified contaminants of concern and the migration pathways to potential receptors is included in Appendix A as Figure 3 and 4.

Exposure routes describe how a human or an environmental receptor encounters contaminants which may be present at the site. Exposure routes presented in the CSM include the following:

Table 6: Exposure Routes

Exposure Route	Description
Inhalation	Exposure via inhalation occurs when receptors are exposed to dust or volatile emissions in the form of a vapor are present in soil or groundwater
Dermal contact	Exposure via dermal contact occurs when receptors are exposed to chemical concentrations present in soil, groundwater, or surface water through direct contact with the skin.
Ingestion	The ingestion pathway represents exposure which may occur through the active ingestion of contaminant concentrations via a drinking water supply well or through agricultural products.

Potential Receptors are categorized by duration of exposure and intensity of use at the site. The receptor categories described in the CSM include the following:

Table 7: Potential Receptors

Potential Receptor	Description
Resident	The residential receptor is defined by high duration exposure and high intensity usage which may occur through gardening, digging, or recreational sports. This group includes the occupants of a residential property or a residential neighborhood.
Outdoor Worker	Outdoor workers are those which are present at the site for long durations but with low intensity exposure such as maintenance staff mowing grass.
Construction Worker	Construction workers are present at the site for short durations though intensity of use is high, such as during construction or utility work.
Biota	These receptors include and animals or plants which may be exposed to contaminants in their respective land-based or aquatic environments.

6.6 Summary of COC Properties, Migration, and Exposure Pathways

Based on the chemical and physical properties of semivolatile and metal constituents, they may leach into deeper soils or groundwater at high concentrations.

The pathway analysis for semivolatile constituents is shown in Appendix A on Figure 3 and metal constituents are shown in Appendix A on Figure 4. Potential receptors include both human (residents, outdoor worker, and construction worker) and ecological (biota) receptors that may come in contact with contaminants in the source medium or other potentially contaminated media from the site. Pathways are shown for each exposure medium and are discussed below.

Surface Water/Sediment: Semivolatile and metal constituents may migrate from surface soil to surface water/sediment through surface water runoff ditches onsite that lead to offsite waterbodies. Potential receptors include outdoor workers, construction workers, or biota. The receptors could come into contact with surface water or sediments while exploring the area and aquatic and terrestrial biota that forage in the sediment and/or ingest surface water. Potentially complete exposure pathways exist for these receptors via incidental ingestion and/or dermal contact. Inhalation is not a pathway as these areas would be not be expected to have fugitive dust due to the moisture content. This is not considered a complete pathway for residents as there are no residents on the site.

Surface Soil (0-1 feet): Semivolatile and metal constituents are present in surface soils on the site. Potential receptors include outdoor workers conducting maintenance activities, construction workers working on the site, and biota that construct burrows or forage on the site. Potentially complete exposure pathways exist for receptors via ingestion, dermal contact, and inhalation. This is not considered a complete pathway for residents as there are no residents on the site.

Subsurface Soil (>1 feet): No volatile or semivolatile constituents were noted above Unrestricted levels. Arsenic was present in multiple samples above the Unrestricted Level but below the Restricted Level. Pending coordination with MDEQ, these pathways are considered complete for this constituent and arsenic as both are present above the Unrestricted Level.

Potential receptors include outdoor workers conducting maintenance activities, construction workers working on the site, and biota that construct burrows or forage on the site. Potentially complete exposure pathways exist for receptors via ingestion, dermal contact, and inhalation. This is not considered a complete pathway for residents as there are no residents on the site.

Groundwater: The potable water source onsite is municipally supplied. However, the site is located less than 200 feet from a bayou which could receive groundwater from the site. Arsenic, lead, and beryllium are present about MDEQ TRG levels.

Potential receptors include outdoor workers conducting maintenance activities, construction workers working on the site, and biota that construct burrows or forage on the site including within the ditches and wetlands. Potentially complete exposure pathways exist for receptors via ingestion and dermal contact. Inhalation is not considered a complete pathway for metals in groundwater. This is not considered a complete pathway for residents as there are no residents on the site.

Food Chain: Semivolatile and metal constituents in the soil may be bioaccumulated by plants or consumed by animals foraging on the site. Predation of prey and/or consumption of vegetation on the site may result in bioaccumulation of these constituents. Potentially complete exposure pathways are identified for biota that may be exposed to semivolatile or metal constituents through the food chain, and for residents in the area who may fish in the bayou or Pearl River.

7 DEVIATIONS

Due to field conditions, the following adjustments to sampling were made:

- A 0.45 micron filter was used to filter groundwater due to sample turbidity.
- Purging groundwater samples directly to a flow-through cell to measure geochemical parameters (i.e. dissolved oxygen, pH, etc.) was unsuccessful because the wells purged dry at the lowest flow settings.

8 DATA GAPS

Based on the proposed scope of work and the results on this investigation, no data gaps were identified.

9 CONCLUSIONS

A summary of conclusions pertaining to the identified RECs at the site as determined through the performance of this Phase II ESA are presented below:

Groundwater:

- Concentrations of arsenic are present above the MCL and MDEQ TRG while concentrations of lead, and beryllium are present above MDEQ TRG Levels

Surface Soils (0-1 foot):

- Concentrations of benzo[a]pyrene exceeded MDEQ TRG limits for the Unrestricted Level in one location but did not exceed Restricted Levels.
- Concentrations of dibenz(a,h)anthracene exceeded MDEQ TRG limits for the Unrestricted Level but did not exceed Restricted Levels.
- Concentrations of arsenic exceeded MDEQ TRG limits for the Unrestricted Level and Restricted Levels for 2 samples and exceeded Unrestricted Levels for 2 samples; however, all samples are within the range of potential background values for coastal Mississippi.

Subsurface Soil (0-20 foot)

Concentrations of arsenic exceeded MDEQ TRG limits for the Unrestricted Level and Restricted Levels for 4 samples and exceeded Unrestricted Levels for 11 samples; however, all samples were within the range of potential background values for coastal Mississippi.

10 RECOMMENDATIONS

Based on the findings and conclusions of this Phase II ESA, Cypress recommends:

- Coordination with MDEQ to determine the applicable regulatory requirements and any additional testing or removal requirements.

11 SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

The following environmental professional performed this Phase II ESA in conformance with the ASTM E1903-II Standard Practice for Phase II ESAs. The following individual meets the qualifications for individuals completing or overseeing all appropriate inquiries, and possess sufficient specific education, training, experience necessary to exercise professional judgement to develop opinions and conclusions regarding the existence of environmental conditions on the property. Any work completed on this Phase II ESA by an individual who is not considered an environmental professional was completed under the supervision or responsible charge of the environmental professional.



Cynthia J Henderson, PE

Project Manager



12 LIMITATIONS

This report was prepared per the contract agreement between Cypress Environment & Infrastructure on behalf of the Hancock County Port and Harbor Commission.

This report does not reflect:

- Conditions of soil in untested areas
- Condition of groundwater and/or surface water in untested areas
- Variations in chemical concentrations that can occur between sample locations
- Potential presence of analytes not included in the laboratory analysis or that may be present below minimum Practical Quantification Limits for the methods tested
- Variation in site conditions that occurred since the site inspection was completed

Reliance on this document by any other party may occur only with express permission of Cypress Environment & Infrastructure in execution of a written agreement with the third party. Use of this report beyond the those reasonably intended by the Hancock County Port and Harbor Commission will be at the sole risk of the user.

13 REFERENCES

American Society for Testing and Materials, Designation E 1903-11 *Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process*, 2011.

Mississippi Agricultural and Forestry Extension Service (MAFES), MAFES Bulletin 1104: Arsenic Concentrations in Selected Soils and Parent Materials in Mississippi. 2001.

Mississippi Department of Environmental Quality, Risk Evaluation Procedures for Voluntary Cleanup and Redevelopment of Brownfield Sites. 2002

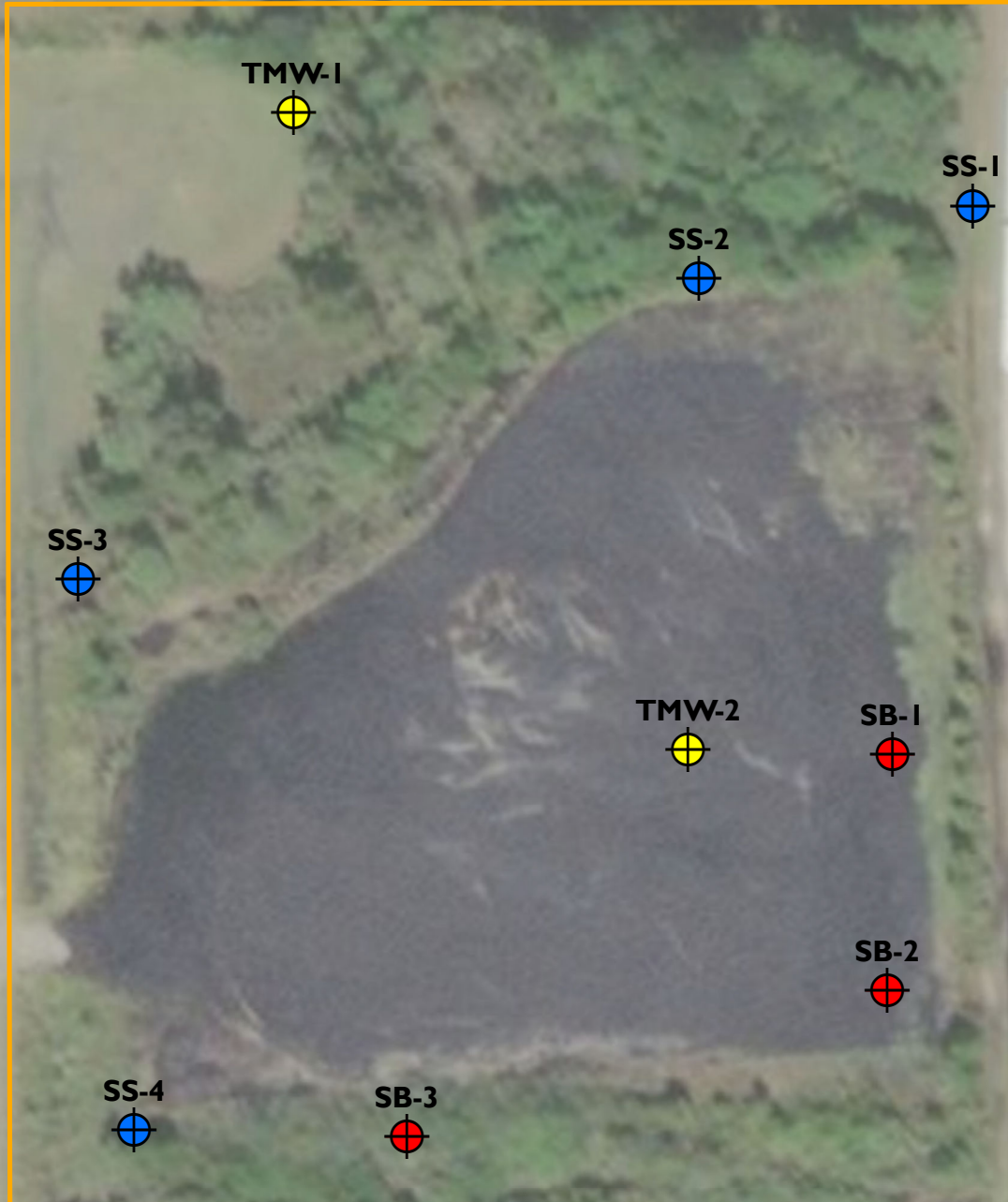
Moore, William. Mississippi Geological, Economic and Topographic Survey, Bulletin 118, 1973.

United States Department of Agriculture, Natural Resource Conservation Services (NRCS). Soil Survey for Hancock County Mississippi. 1981.

Appendix A

Figures



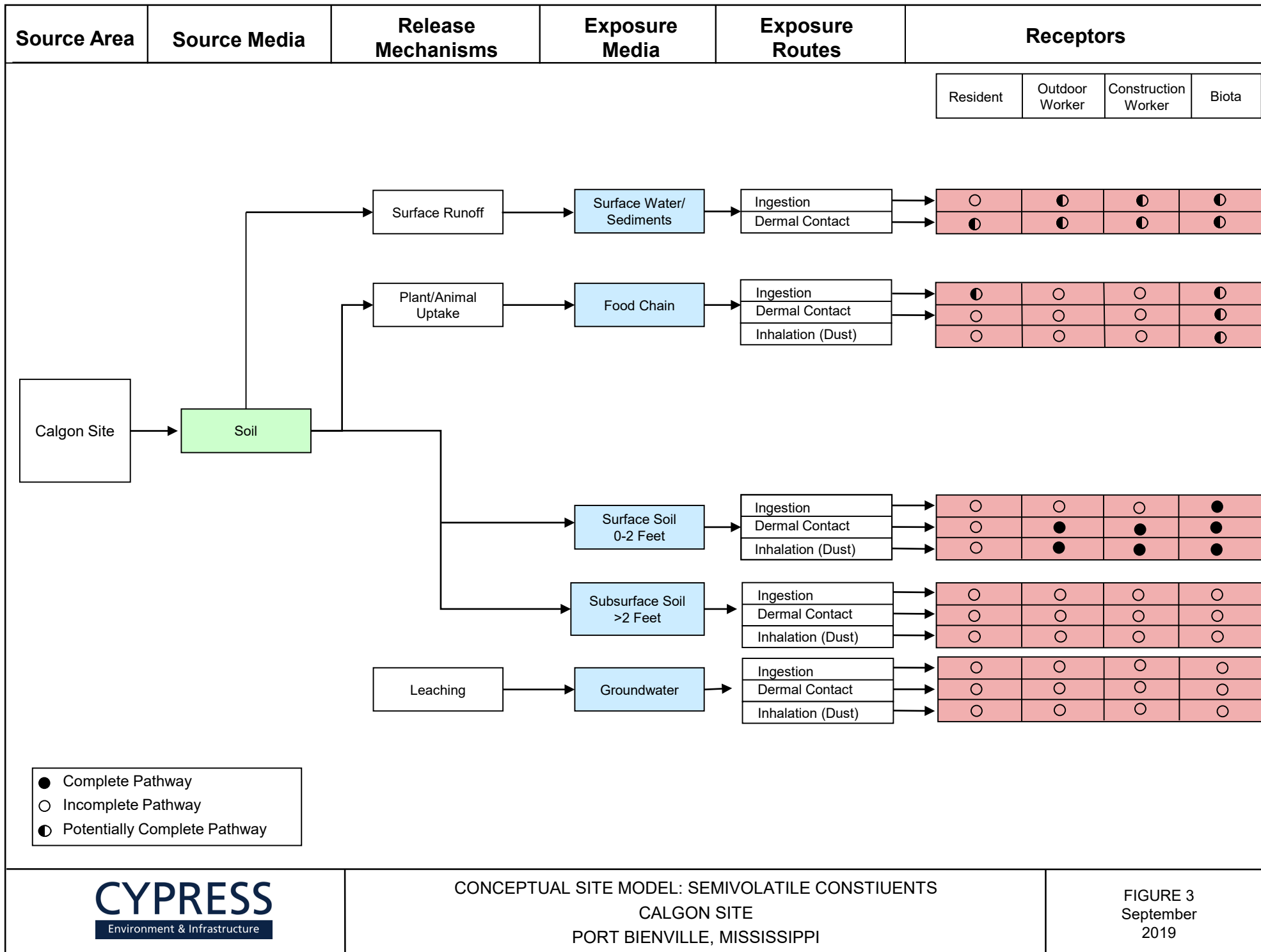


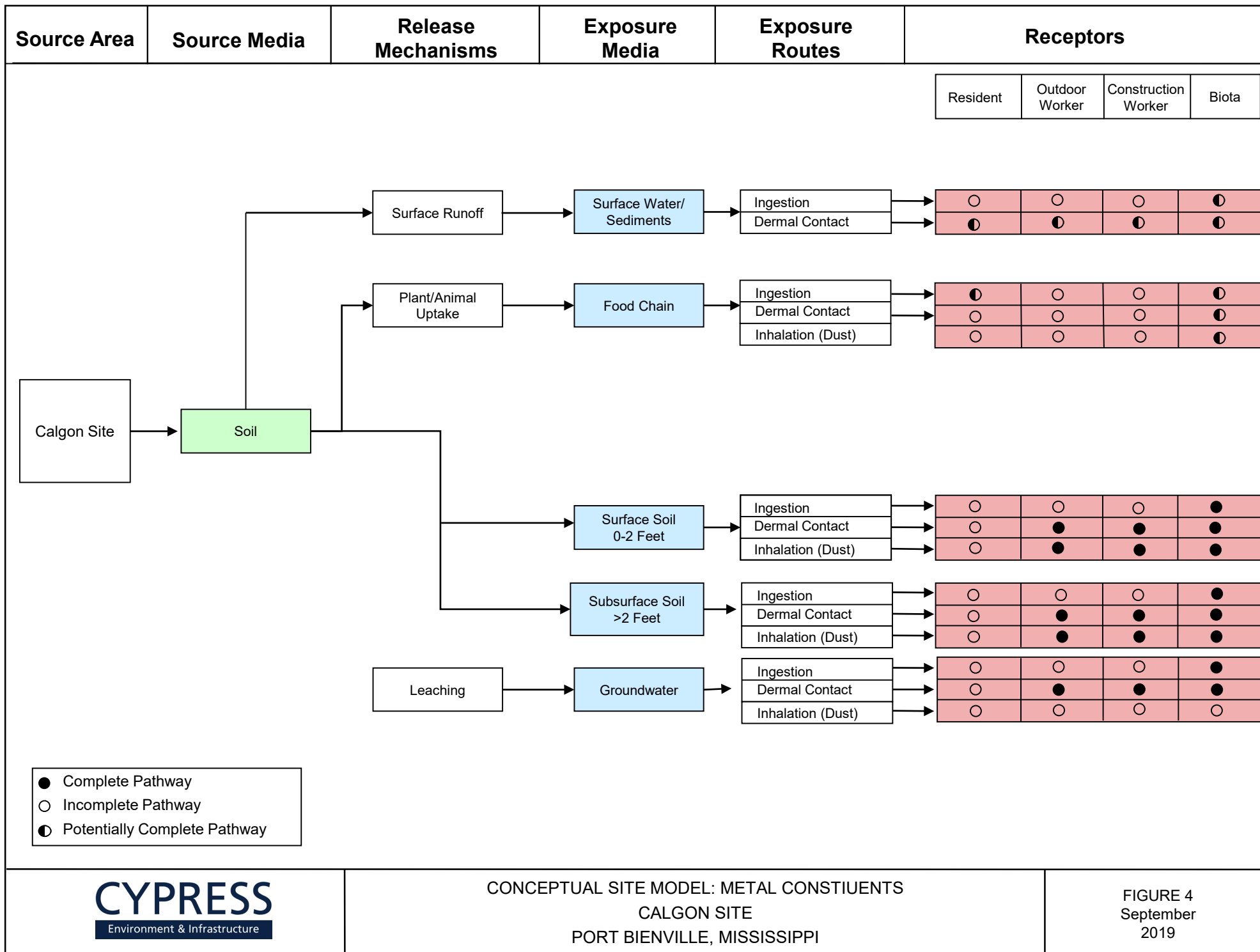
Legend

-  Temporary Monitoring Well
-  Surface Soil
-  Boring
-  Site Boundary

0 0.01 0.02 0.04 Miles







Appendix B
Laboratory Report

20 August 2019

Ms. Cindy Henderson, PE, PWS
President
Cypress Environmental Science & Engineering
906 DeSoto St.
Ocean Springs, Mississippi 39564

Delivered via e-mail

**Subject: Phase II Environmental Site Assessment Sampling
Former Calgon Site
Port Bienville, Hancock County, Mississippi**

Dear Ms. Henderson:

Geosyntec Consultants, Inc. (Geosyntec) is pleased to submit the results of Phase II Environmental Site Assessment (ESA) soil and groundwater sampling activities performed at the Former Calgon Site (the Site), located near Port Bienville, Hancock County, Mississippi.

BACKGROUND AND OBJECTIVES

Cypress Environmental Science & Engineering (Cypress) completed a Phase I Environmental Site Assessment (ESA) for the subject property on 22 May 2019. The 5.74-acre Site is located adjacent to Road CI within the Bienville Industrial Park in Hancock County, Mississippi. The Site is primarily cleared. According to the Phase I ESA, a coal dust pile was previously present and remnants of coal dust remain at the Site. A wetland area is present in the northern portion of the Site and ditches are present to the north, west, and south. The Phase I ESA identified recognized environmental conditions (RECs) and recommended that a Phase II ESA investigation to evaluate the following RECs:

- Coal dust and byproducts of the coal dust fire;
- Pole transformer potentially leaking polychlorinated biphenyls (PCBs); and
- Railroad ties that may contain creosote.

Cypress subsequently concluded that the pole transformer did not contain PCBs in excess of 1 part per million, and testing for this REC was removed from the Phase II ESA scope of work.

The purpose of this Phase II ESA was to perform soil sampling and temporary monitoring well installation and sampling activities to investigate the remaining RECs.

SUMMARY OF FIELD ACTIVITIES

Soil and groundwater sampling activities took place on 18 and 19 July 2019. A direct push technology (DPT) drilling rig was utilized by Professional Technical Support Services (Pro-Tech), a driller licensed in the State of Mississippi, to advance boreholes for soil sampling and temporary monitoring well installation at the locations depicted on **Figure 1**. Geosyntec personnel were present to oversee the drilling activities, perform lithologic logging of soil samples, and collect soil and groundwater samples. Because coal dust and byproducts of a coal dust fire were suspected, a soil and groundwater assessment program pursuant to the Federal Coal Combustion Residual (CCR) Rule (40 CFR 257.90-95) was conducted. Based on the RECs identified for the Site, soil and groundwater samples were submitted for laboratory analyses of the following constituents of concern:

- Polycyclic aromatic hydrocarbons (PAHs; SW 846 Method 8270; Locations SS-1, SS-2, SS-3, SS-4; SB-1, SB-2, SB-3; TMW-2);
- Volatile organic compounds (VOCs; SW 846 Method 8260; Locations TMW-1 and SB-3 only); and
- Appendix III and Appendix IV (40 CFR 257) Constituents (Locations SS-1, SS-2, SS-3, SS-4; SB-1, SB-2, SB-3; TMW-1, TMW-2):
 - Boron, calcium, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, selenium, thallium (SW 846 Method 6020)
 - Chloride (SM 4500 CL-E; groundwater only)
 - Fluoride (EPA 300.0; groundwater only)
 - pH (EPA 150.1; groundwater only)
 - Sulfate (ASTM D516-90,02; groundwater only)
 - Total dissolved solids (TDS; SM2540C; groundwater only).

These constituents and analytical test methods are also consistent with the recommendations of the 2002 Mississippi Department of Environmental Quality (MDEQ) Risk Evaluation Procedures for Voluntary Cleanup and Redevelopment of Brownfield Sites.

Soil Sampling

Two borings were completed to a depth of approximately 25 feet below ground surface (ft bgs) and converted to temporary monitoring wells (TMWs). The first permeable water-bearing zone was encountered at approximately 12 ft bgs. In addition, soil sampling was conducted at three additional boring locations (SB-1 through SB-3) to depths of 10 ft bgs and surface soil samples (SS-1 through SS-4) were collected with a hand auger. **Figure 1** shows the location of the soil borings and temporary monitoring wells.

At all five boring locations, the soil cores were advanced in five-foot intervals and logged by a geologist. Boring logs are provided in **Attachment A**. An aliquot from each 2.5-foot depth was placed in a clear jar with aluminum foil attached to the lid for field screening. The soil samples were field screened with a photoionization detector (PID; with a 10.6 electron volt bulb) a minimum of 15 minutes after placement in the jar to allow for volatilization. The nozzle of the calibrated PID was placed through the aluminum foil into the jar without contacting the soil and PID readings were recorded on each soil boring log (**Attachment A**).

At all five boring locations, three soil samples were collected starting at the ground surface. Elevated PID readings were not encountered for any of the depth intervals screened. Soil samples for VOC analysis (SW-846 Method 8260B) were collected using a Terra Core™ sampler in accordance with SW-846 Method 5035. Quality assurance/quality control (QA/QC) samples were collected and included a soil duplicate and matrix spike/matrix spike duplicate pair.

Soil boreholes were plugged and abandoned by backfilling with bentonite pellets upon completion of the sampling activities by the licensed driller.

Groundwater Sampling

At each TMW location shown on **Figure 1**, a temporary ¾-inch PVC monitoring well was installed. A 5-foot pre-packed screen interval was used for the temporary wells. A fine gravel bentonite (e.g., HolePlug™) was installed on top of the filter pack to isolate the well screen.

Prior to well development and sampling, the water level was measured and recorded in each temporary monitoring well. The monitoring wells were developed utilizing a battery-operated peristaltic pump, until a minimum of three well volumes were purged. The purged groundwater remained turbid during development. Following development, groundwater was sampled from the temporary monitoring wells using a peristaltic pump under low-flow conditions. Dedicated peristaltic pump tubing was lowered to the approximate middle of the well screen. A 0.45-micron

filter was used to filter groundwater samples because of turbid conditions. An attempt was made to purge groundwater directly to a flow-through cell for the measurement of geochemical parameters including: dissolved oxygen (DO), oxidation-reduction potential (ORP), specific conductivity, pH, temperature, and turbidity. Both wells were purged dry at the lowest flow setting and these measurements could not be collected. Groundwater samples were collected, stored on ice, and transferred to TestAmerica in Pensacola, Florida under chain of custody. Groundwater sampling logs are provided in **Attachment B**.

Temporary monitoring wells were plugged and abandoned by backfilling with Portland cement and bentonite pellets upon completion of the sampling activities by the licensed driller.

INVESTIGATION RESULTS

Results from borings and visual observations indicate that residual coal is present at a depth of up to 1.5 feet bgs at the site. **Figure 2** shows the approximate extent of coal observed at the surface.

An analytical data summary of constituents in the soil and groundwater samples from each location (**Figure 1**) and depth is provided in **Tables 1 and 2**. Laboratory analytical reports are provided in **Attachment C**. Concentrations of constituents detected in soil and groundwater were compared to MDEQ Tier 1 target remediation goals (TRGs; 2002 MDEQ Risk Evaluation Procedures for Voluntary Cleanup and Redevelopment of Brownfield Sites) for unrestricted use, Federal Safe Drinking Water Act Maximum Contaminant Levels (MCLs) or Secondary Maximum Contaminant Levels (SMCLs). Results from the QA/QC samples are provided in **Attachment C** and issues that would affect data usability were not observed.

Benzo(a)pyrene was reported as estimated or “J” qualified in soil samples at concentrations of 0.12 mg/kg at SS-1 (0-1), 0.35 mg/kg at SS-2 (0-1), 0.57 mg/kg at SS-3 (0-1), and 0.46 mg/kg at SS-4 (0-1) above the MDEQ unrestricted soil Tier 1 TRG of 0.0875 mg/kg. These benzo(a)pyrene concentrations are all below the MDEQ restricted value of 0.784 mg/kg. Dibenzo(a,h)anthracene was reported in soil at concentrations of 0.30 J mg/kg at SS-3 (0-1), and 0.38 J mg/kg at SS-4 (0-1), above the MDEQ unrestricted soil Tier 1 TRG of 0.0875 mg/kg, but were below the MDEQ restricted value of 0.784 mg/kg.

Arsenic soil concentrations ranged from 0.49 mg/kg to 16 mg/kg with an average concentration of 3.96 mg/kg. All 20 soil samples exceeded the arsenic MDEQ unrestricted Tier 1 TRG of 0.426

mg/kg but were within the background range of 0.26 to 26 mg/kg, and below the average concentration of 5.79 mg/kg reported for Lower Coastal Plain soils (MAFES, 2001)¹.

In shallow groundwater, dissolved concentrations of arsenic, beryllium, and lead were above the MDEQ Tier 1 TRGs at temporary well location TMW-2. Arsenic and lead were also above the Tier 1 TRGs in well TMW-1 (**Table 2**), which is approximately 200 feet from previous operations. Total dissolved solids (TDS) were also elevated above the SMCL in both TMW-2 and TMW-1.

CONCLUSIONS

The soil results indicate that PAHs benzo(a)pyrene and dibenz(a,h)anthracene were above the MDEQ Unrestricted Tier 1 TRGs in the uppermost (1 ft) interval. The reported PAH concentrations are less than the MDEQ Restricted Tier 1 TRGs. Arsenic concentrations were above the MDEQ Unrestricted Tier 1 TRGs in all analyzed samples but are within the background range and lower than the average concentrations reported for this area of Mississippi (MAFES, 2001). The presence of the coal remnants (e.g., waste) at the surface and within surface soil appear to be the primary environmental issue for soil at the site.

Shallow groundwater results at TMW-2 (located within the former coal storage area) indicate that dissolved concentrations of arsenic, beryllium, and lead exceeded the Tier 1 TRGs and arsenic and lead results from well TMW-1, which is located outside of major operations, also exceeded the Tier 1 TRGs for these constituents.

The presence of coal remnants on and within surface soils may be considered a waste. Geosyntec recommends that a legal opinion be obtained to evaluate the necessity for management of these materials. The presence of PAHs in surface soil above the MDEQ Unrestricted Tier 1 TRGs limits the potential use of this property. If unrestricted use (e.g., residential development) for the property is desired additional site-specific testing and risk assessment beyond Tier 1 is recommended.

The high TDS and slow recharge during well development associated with the groundwater samples suggest that the shallow groundwater underlying the Site has a limited potential to be used in the future. In the absence of groundwater flow information and regional background concentrations for this unit, there is insufficient data to evaluate whether the reported inorganic constituents are reflective of previous operations or consistent with ambient water quality.

¹ Mississippi Agricultural and Forestry Extension Service (MAFES), 2001, Bulletin 1104. *Arsenic concentrations in selected soils and parent materials in Mississippi.*

Ms. Cindy Henderson
Cypress Environmental
20 August 2019
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CLOSING

If you have any questions regarding this information, please do not hesitate to contact me at (225) 325-3215 (office) or (225) 266-1741 (mobile).

Sincerely,

A handwritten signature in black ink that reads "Lance Fontenot".

Lance Fontenot, Ph.D.
Principal Toxicologist

A handwritten signature in blue ink that reads "Jill W. Johnson".

Jill Johnson, RPG (MS 0910)
Principal Hydrogeologist

Attachments:

Table 1 – Summary of Soil Analytical Results
Table 2 – Summary of Groundwater Analytical Results
Figure 1 – Phase II ESA Boring Locations
Attachment A – Soil Boring Logs
Attachment B – Groundwater Sampling Logs
Attachment C – Laboratory Analytical Reports

TABLES

Table 1
Summary of Soil Analytical Results
Calgon Site, Port Bienville, Hancock County, Mississippi, July 2019

Sample ID		SB-1 (0-2)	SB-1 (2-4)	SB-1 (8-10)	SB-2 (0-2)	SB-2 (2-4)	SB-2 (8-10)	SB-3 (0-2)	SB-3 (2-4)	SB-3 (8-10)	SS-1 (0-1)	SS-2 (0-1)
Sampling Date		7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019
Units	MDEQ Tier 1 TRG Unrestricted mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Volatiles - 8260B												
1,1,1-Trichloroethane	1,190	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
1,1,2,2-Tetrachloroethane	0.656	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane	613,000	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
1,1,2-Trichloroethane	1.09	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
1,1-Dichloroethane	116	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
1,1-Dichloroethene	0.0772	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
1,2,3-Trichlorobenzene	NAV	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
1,2,4-Trichlorobenzene	782	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
1,2-Dibromo-3-Chloropropane	0.0999	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
1,2-Dichlorobenzene	279	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
1,2-Dichloroethane	0.406	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
1,2-Dichloropropane	0.445	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
1,3-Dichlorobenzene	70.4	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
1,4-Dichlorobenzene	26.6	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
2-Butanone (MEK)	84.5	NA	NA	NA	NA	NA	NA	<0.021 U	<0.028 U	<0.029 U	NA	NA
2-Hexanone	3,130	NA	NA	NA	NA	NA	NA	<0.021 U	<0.028 U	<0.029 U	NA	NA
4-Methyl-2-pentanone (MIBK)	6,260	NA	NA	NA	NA	NA	NA	<0.021 U	<0.028 U	<0.029 U	NA	NA
Acetone	7,820	NA	NA	NA	NA	NA	NA	0.018 J	0.016 J	<0.029 U	NA	NA
Benzene	0.887	NA	NA	NA	NA	NA	NA	<0.0042 U	0.0017 J	<0.0058 U	NA	NA
Bromoform	58.8	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Bromomethane	2.97	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Carbon disulfide	7.97	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Carbon tetrachloride	0.371	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Chlorobenzene	1.19	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Chlorobromomethane	NAV	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Chloroethane	220	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Chloroform	0.312	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Chloromethane	49.1	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
cis-1,2-Dichloroethene	782	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
cis-1,3-Dichloropropene	0.352	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Cyclohexane	NAV	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Dibromochloromethane	7.60	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Dichlorobromomethane	1.24	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Dichlorodifluoromethane	15,600	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Ethylbenzene	395	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Ethylene Dibromide	0.00751	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Isopropylbenzene	9.43	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Methyl acetate	78,200	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Methyl tert-butyl ether	3,910	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Methylcyclohexane	NAV	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Methylene Chloride	14.3	NA	NA	NA	NA	NA	NA	<0.013 U	<0.017 U	<0.017 U	NA	NA
Styrene	384	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Tetrachloroethene	11.9	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Toluene	38	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
trans-1,2-Dichloroethene	1,560	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
trans-1,3-Dichloropropene	0.352	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Trichloroethene	5.17	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Trichlorofluoromethane	23,500	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Vinyl chloride	0.426	NA	NA	NA	NA	NA	NA	<0.0042 U	<0.0055 U	<0.0058 U	NA	NA
Xylenes, Total	318	NA	NA	NA	NA	NA	NA	<0.0084 U	<0.011 U	<0.012 U	NA	NA

Table 1
Summary of Soil Analytical Results
Calgon Site, Port Bienville, Hancock County, Mississippi, July 2019

Sample ID		SB-1 (0-2)	SB-1 (2-4)	SB-1 (8-10)	SB-2 (0-2)	SB-2 (2-4)	SB-2 (8-10)	SB-3 (0-2)	SB-3 (2-4)	SB-3 (8-10)	SS-1 (0-1)	SS-2 (0-1)
Sampling Date		7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019
Units	MDEQ Tier 1 TRG Unrestricted mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Semivolatiles - 8270D												
1-Methylnaphthalene	NAV	<0.36 U	<0.39 U	<0.40 U	<0.42 U	<0.46 U	<0.43 U	0.52	<0.37 U	<0.48 U	<0.37 U	2.5
2-Methylnaphthalene	1,560	<0.36 U	<0.39 U	<0.40 U	<0.42 U	<0.46 U	<0.43 U	0.78	<0.37 U	<0.48 U	0.041 J	2.7
Acenaphthene	4,690	<0.36 U	<0.39 U	<0.40 U	<0.42 U	<0.46 U	<0.43 U	<0.38 U	<0.37 U	<0.48 U	<0.37 U	<2.3 U
Acenaphthylene	4,690	<0.36 U	<0.39 U	<0.40 U	<0.42 U	<0.46 U	<0.43 U	0.046 J	<0.37 U	<0.48 U	<0.37 U	<2.3 U
Anthracene	23,500	<0.36 U	<0.39 U	<0.40 U	<0.42 U	<0.46 U	<0.43 U	<0.38 U	<0.37 U	<0.48 U	<0.37 U	<2.3 U
Benzo[a]anthracene	0.875	<0.36 U	<0.39 U	<0.40 U	<0.42 U	<0.46 U	<0.43 U	<0.38 U	<0.37 U	<0.48 U	<0.37 U	<2.3 U
Benzo[a]pyrene	0.0875	0.048 J	<0.39 U	<0.40 U	<0.42 U	<0.46 U	<0.43 U	0.056 J	<0.37 U	<0.48 U	0.12 J	0.35 J
Benzo[b]fluoranthene	0.875	0.049 J	<0.39 U	<0.40 U	<0.42 U	<0.46 U	<0.43 U	0.087 J	<0.37 U	<0.48 U	0.098 J	0.36 J
Benzo[g,h,i]perylene	2,350	<0.36 U	<0.39 U	<0.40 U	<0.42 U	<0.46 U	<0.43 U	<0.38 U	<0.37 U	<0.48 U	0.084 J	<2.3 U
Benzo[k]fluoranthene	8.75	<0.36 U	<0.39 U	<0.40 U	<0.42 U	<0.46 U	<0.43 U	<0.38 U	<0.37 U	<0.48 U	<0.37 U	<2.3 U
Chrysene	87.5	<0.36 U	<0.39 U	<0.40 U	<0.42 U	<0.46 U	<0.43 U	0.15 J	<0.37 U	<0.48 U	<0.37 U	0.42 J
Dibenz(a,h)anthracene	0.0875	<0.36 U	<0.39 U	<0.40 U	<0.42 U	<0.46 U	<0.43 U	<0.38 U	<0.37 U	<0.48 U	<0.37 U	<2.3 U
Fluoranthene	3,130	<0.36 U	<0.39 U	<0.40 U	<0.42 U	<0.46 U	<0.43 U	0.039 J	<0.37 U	<0.48 U	0.05 J	0.34 J
Fluorene	3,130	<0.36 U	<0.39 U	<0.40 U	<0.42 U	<0.46 U	<0.43 U	<0.38 U	<0.37 U	<0.48 U	<0.37 U	0.23 J
Indeno[1,2,3-cd]pyrene	0.875	<0.36 U	<0.39 U	<0.40 U	<0.42 U	<0.46 U	<0.43 U	<0.38 U	<0.37 U	<0.48 U	0.077 J	<2.3 U
Naphthalene	194	<0.36 U	<0.39 U	<0.40 U	<0.42 U	<0.46 U	<0.43 U	0.81	<0.37 U	<0.48 U	<0.37 U	1.2 J
Phenanthrene	2,350	<0.36 U	<0.39 U	<0.40 U	<0.42 U	<0.46 U	<0.43 U	1.0	<0.37 U	<0.48 U	0.07 J	1.9 J
Pyrene	2,350	<0.36 U	<0.39 U	<0.40 U	<0.42 U	<0.46 U	<0.43 U	0.091 J	<0.37 U	<0.48 U	0.084 J	0.37 J
Metals												
Antimony	31.3	<0.22 U	0.094 J	0.16 J	0.093 J	0.14 J	0.24 J	0.14 J	0.14 J	0.40	0.083 J	0.33
Arsenic	0.426	0.93	2.3	5.0	1.2	3.8	16	3.3	6.6	10	0.93	5.0
Barium	5,480	28	51	180	26	92	130	48	130	280	30	45
Beryllium	156	0.12 B	0.24 B	0.90 B	0.12 J B	0.34 B	1.0 B	0.57 B	0.29 B	3.4 B	0.19 B	0.74 B
Boron	4,080	<9.0 U	<10 U	2.3 J	<10 U	<11 U	1.8 J	<9.2 U	<8.9 U	4.3 J	<9.0 U	<11 U
Cadmium	39.1	<0.11 U	<0.13 U	0.063 J	0.035 J	<0.14 U	0.055 J	0.045 J	<0.11 U	0.052 J	0.046 J	0.059 J
Calcium	NAV	290	380	1900	340	1400	1600	540	520	3100	670	200
Chromium	117,000	4.3	6.6	10	5.5	8.8	8.6	6.8	8.9	17	2.7	6.0
Cobalt	4,690	0.69	1.1	11	0.87	4.0	8.9	1.8	2.2	26	0.67	1.8
Lead	400	4.5	6.7	16	5.4	7.6	18	7.0	7.0	24	5.4	10
Lithium	1,560	3.7	6.0	5.4	4.2	3.7	3.8	4.0	7.2	9.1	1.9	3.3
Mercury	10	<0.015 U	<0.015 U	<0.015 U	0.010 J	<0.018 U	<0.018 U	<0.015 U	<0.015 U	<0.018 U	0.013 J	0.043
Molybdenum	391	<0.56 U	0.43 J	0.71	<0.65 U	0.28 J	0.49 J	0.35 J	0.31 J	0.67 J	0.18 J	0.71
Selenium	391	0.36 J	0.43 J	0.64	0.52 J	0.50 J	0.85	0.59	0.50 J	1.3	0.33 J	0.92
Thallium	5.48	0.086 J	0.13	0.23	0.12 J	0.18	0.16	0.11	0.15	0.34	0.12	0.29

Table 1
Summary of Soil Analytical Results
Calgon Site, Port Bienville, Hancock County, Mississippi, July 2019

Sample ID		SS-3 (0-1)	SS-4 (0-1)	TMW-1 (0-2)	TMW-1 (12-14)	TMW-1 (18-20)	TMW-2 (0-2)	TMW-2 (2-4)	TMW-2 (14-16)	DUP-01
Sampling Date		7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019
Units	MDEQ Tier 1 TRG Unrestricted mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Volatiles - 8260B										
1,1,1-Trichloroethane	1,190	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.656	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane	613,000	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
1,1,2-Trichloroethane	1.09	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
1,1-Dichloroethane	116	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
1,1-Dichloroethene	0.0772	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NAV	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
1,2,4-Trichlorobenzene	782	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
1,2-Dibromo-3-Chloropropane	0.0999	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
1,2-Dichlorobenzene	279	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
1,2-Dichloroethane	0.406	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
1,2-Dichloropropane	0.445	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
1,3-Dichlorobenzene	70.4	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
1,4-Dichlorobenzene	26.6	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
2-Butanone (MEK)	84.5	NA	NA	<0.034 U	<0.032 U	<0.029 U	NA	NA	NA	NA
2-Hexanone	3,130	NA	NA	<0.034 U	<0.032 U	<0.029 U	NA	NA	NA	NA
4-Methyl-2-pentanone (MIBK)	6,260	NA	NA	<0.034 U	<0.032 U	<0.029 U	NA	NA	NA	NA
Acetone	7,820	NA	NA	<0.034 U	<0.032 U	<0.029 U	NA	NA	NA	NA
Benzene	0.887	NA	NA	0.0040 J	<0.0064 U	0.0043 J	NA	NA	NA	NA
Bromoform	58.8	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Bromomethane	2.97	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Carbon disulfide	7.97	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Carbon tetrachloride	0.371	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Chlorobenzene	1.19	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Chlorobromomethane	NAV	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Chloroethane	220	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Chloroform	0.312	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Chloromethane	49.1	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
cis-1,2-Dichloroethene	782	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.352	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Cyclohexane	NAV	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Dibromochloromethane	7.60	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Dichlorobromomethane	1.24	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Dichlorodifluoromethane	15,600	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Ethylbenzene	395	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Ethylene Dibromide	0.00751	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Isopropylbenzene	9.43	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Methyl acetate	78,200	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Methyl tert-butyl ether	3,910	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Methylcyclohexane	NAV	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Methylene Chloride	14.3	NA	NA	<0.020 U	<0.019 U	<0.018 U	NA	NA	NA	NA
Styrene	384	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Tetrachloroethene	11.9	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Toluene	38	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
trans-1,2-Dichloroethene	1,560	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.352	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Trichloroethene	5.17	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Trichlorofluoromethane	23,500	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Vinyl chloride	0.426	NA	NA	<0.0067 U	<0.0064 U	<0.0059 U	NA	NA	NA	NA
Xylenes, Total	318	NA	NA	<0.013 U	<0.013 U	<0.012 U	NA	NA	NA	NA

Table 1
Summary of Soil Analytical Results
Calgon Site, Port Bienville, Hancock County, Mississippi, July 2019

Sample ID		SS-3 (0-1)	SS-4 (0-1)	TMW-1 (0-2)	TMW-1 (12-14)	TMW-1 (18-20)	TMW-2 (0-2)	TMW-2 (2-4)	TMW-2 (14-16)	DUP-01
Sampling Date		7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019	7/18/2019
Units	MDEQ Tier 1 TRG Unrestricted mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Semivolatiles - 8270D										
1-Methylnaphthalene	NAV	2.2	3.1	NA	<0.41 U F2 F1	NA	0.07 J	<0.42 U	<0.42 U	<0.39 U
2-Methylnaphthalene	1,560	3.2	4.2	NA	<0.41 U F2 F1	NA	0.11 J	<0.42 U	<0.42 U	<0.39 U
Acenaphthene	4,690	<2.2 U	<2.1 U	NA	<0.41 U F2 F1	NA	<0.37 U	<0.42 U	<0.42 U	<0.39 U
Acenaphthylene	4,690	<2.2 U	<2.1 U	NA	<0.41 U F2 F1	NA	<0.37 U	<0.42 U	<0.42 U	<0.39 U
Anthracene	23,500	<2.2 U	<2.1 U	NA	<0.41 U F2 F1	NA	<0.37 U	<0.42 U	<0.42 U	<0.39 U
Benzo[a]anthracene	0.875	0.44 J	0.41 J	NA	<0.41 U F2 F1	NA	<0.37 U	<0.42 U	<0.42 U	<0.39 U
Benzo[a]pyrene	0.0875	0.57 J	0.46 J	NA	<0.41 U F2 F1	NA	<0.37 U	<0.42 U	<0.42 U	<0.39 U
Benzo[b]fluoranthene	0.875	0.45 J	0.41 J	NA	<0.41 U F2 F1	NA	0.044 J	<0.42 U	<0.42 U	<0.39 U
Benzo[g,h,i]perylene	2,350	0.28 J	0.25 J	NA	<0.41 U F2 F1	NA	<0.37 U	<0.42 U	<0.42 U	<0.39 U
Benzo[k]fluoranthene	8.75	<2.2 U	<2.1 U	NA	<0.41 U F2 F1	NA	<0.37 U	<0.42 U	<0.42 U	<0.39 U
Chrysene	87.5	0.75 J	1.1 J	NA	<0.41 U F2 F1	NA	<0.37 U	<0.42 U	<0.42 U	<0.39 U
Dibenz(a,h)anthracene	0.0875	0.30 J	0.38 J	NA	<0.41 U F2 F1	NA	<0.37 U	<0.42 U	<0.42 U	<0.39 U
Fluoranthene	3,130	0.48 J	0.36 J	NA	<0.41 U F2 F1	NA	0.038 J	<0.42 U	<0.42 U	<0.39 U
Fluorene	3,130	<2.2 U	<2.1 U	NA	<0.41 U F2	NA	<0.37 U	<0.42 U	<0.42 U	<0.39 U
Indeno[1,2,3-cd]pyrene	0.875	<2.2 U	<2.1 U	NA	<0.41 U F2 F1	NA	<0.37 U	<0.42 U	<0.42 U	<0.39 U
Naphthalene	194	3.3	2.3	NA	<0.41 U F2 F1	NA	0.049 J	<0.42 U	<0.42 U	<0.39 U
Phenanthrene	2,350	2.9	4.2	NA	<0.41 U F2 F1	NA	0.094 J	<0.42 U	<0.42 U	<0.39 U
Pyrene	2,350	0.54 J	0.52 J	NA	<0.41 U F2 F1	NA	0.047 J	<0.42 U	<0.42 U	<0.39 U
Metals										
Antimony	31.3	0.37	0.20 J	<0.24 U	<0.24 U F1	0.15 J	0.13 J	<0.27 U	0.084 J	<0.23 U
Arsenic	0.426	6.4	3.6	0.91	0.93	0.49	2.7	3.4	2.2	3.6
Barium	5,480	180	70	16	65	8.0	70	120	42	45
Beryllium	156	1.4 B	1.4 B	0.13 B	0.45 B	0.097 J B	0.18 B	0.46 B	0.25 B	0.28 B
Boron	4,080	6.5 J	2.3 J	<9.5 U	2.9 J	<9.8 U	3.3 J	1.8 J	<11 U	<9.0 U
Cadmium	39.1	0.057 J	0.041 J	<0.12 U	<0.12 U	<0.12 U	<0.12 U	<0.14 U	0.079 J	<0.11 U
Calcium	NAV	870	1200	580	890	160	410	1600	640	1200
Chromium	117,000	5.6	3.8	5.1	7.4	1.6	4.5	8.8	4.5	5.4
Cobalt	4,690	1.9	2.1	0.95	2.6	0.18	0.73	5.7	1.6	2.7
Lead	400	12	7.1	4.0	6.5	1.9	5.6	5.8	3.0	5.8
Lithium	1,560	2.5	1.5	4.5	2.7	0.68	2.8	3.2	1.9	2.2
Mercury	10	0.056	0.022	<0.015 U	<0.016 U	<0.017 U	0.011 J	0.014 J	<0.017 U	<0.015 U
Molybdenum	391	1.0	0.44 J	0.19 J	0.26 J	0.60 J	0.28 J	0.31 J	<0.68 U	0.20 J
Selenium	391	2.0	0.65	0.27 J	0.54 J	<0.61 U	0.57 J	0.50 J	<0.68 U	0.31 J
Thallium	5.48	0.26	0.12 J	0.089 J	0.090 J	0.29	0.33	0.23	0.057 J	0.12

mg/Kg : milligrams per kilogram
NA : Not Analyzed
U : Indicates the analyte was analyzed for but not detected.
NAV : Not Available
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.
F2 : MS/MSD RPD exceeds control limits.
F1 : MS and/or MSD Recovery is outside acceptance limits.
Bold indicates detected result.
Concentrations that are **highlighted in red** exceed MDEQ Tier 1 TRGs.

Table 2
Summary of Groundwater Analytical Results
Calgon Site, Port Bienville, Hancock County, Mississippi, July 2019

Sample ID	MDEQ Tier 1 TRGs	TMW-1	TMW-2
Sampling Date		7/19/2019	7/19/2019
Units		ug/L	ug/L
Volatiles - 8260B			
1,1,1-Trichloroethane	200	<1.0 U	<1.0 U
1,1,2,2-Tetrachloroethane	0.0527	<1.0 U	<1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	59,400	<1.0 U	<1.0 U
1,1,2-Trichloroethane	5	<5.0 U	<5.0 U
1,1-Dichloroethane	798	<1.0 U	<1.0 U
1,1-Dichloroethene	7	<1.0 U	<1.0 U
1,2,3-Trichlorobenzene	NAV	<1.0 U	<1.0 U
1,2,4-Trichlorobenzene	70	<1.0 U	<1.0 U
1,2-Dibromo-3-Chloropropane	0.2	<5.0 U	<5.0 U
1,2-Dichlorobenzene	600	<1.0 U	<1.0 U
1,2-Dichloroethane	5	<1.0 U	<1.0 U
1,2-Dichloropropane	5	<1.0 U	<1.0 U
1,3-Dichlorobenzene	5.48	<1.0 U	<1.0 U
1,4-Dichlorobenzene	75	<1.0 U	<1.0 U
2-Butanone (MEK)	1,910	<25 U	<25 U
2-Hexanone	1,460	<25 U *	<25 U *
4-Methyl-2-pentanone (MIBK)	139	<25 U	<25 U
Acetone	608	<25 U	13 J
Benzene	5	<1.0 U	<1.0 U
Bromoform	8.48	<5.0 U	<5.0 U
Bromomethane	8.52	<1.0 U	<1.0 U
Carbon disulfide	1,040	<1.0 U	<1.0 U
Carbon tetrachloride	5	<1.0 U	<1.0 U
Chlorobenzene	100	<1.0 U	<1.0 U
Chlorobromomethane	NAV	<1.0 U	<1.0 U
Chloroethane	3.64	<1.0 U	<1.0 U
Chloroform	0.155	<1.0 U	<1.0 U
Chloromethane	1.43	<1.0 U	<1.0 U
cis-1,2-Dichloroethene	70	<1.0 U	<1.0 U
cis-1,3-Dichloropropene	0.0842	<5.0 U	<5.0 U
Cyclohexane	NAV	<1.0 U	<1.0 U
Dibromochloromethane	0.126	<1.0 U	<1.0 U
Dichlorobromomethane	0.168	<1.0 U	<1.0 U
Dichlorodifluoromethane	348	<1.0 U	<1.0 U
Ethylbenzene	700	<1.0 U	<1.0 U
Ethylene Dibromide	0.05	<1.0 U	<1.0 U
Isopropylbenzene	679	<1.0 U	<1.0 U
Methyl acetate	6,080	<5.0 U	<5.0 U
Methyl tert-butyl ether	40	<1.0 U	<1.0 U
Methylcyclohexane	NAV	<1.0 U	<1.0 U
Methylene Chloride	5	<5.0 U	<5.0 U
Styrene	100	<1.0 U	<1.0 U
Tetrachloroethene	5	<1.0 U	<1.0 U
Toluene	1,000	<1.0 U	<1.0 U
trans-1,2-Dichloroethene	100	<1.0 U	<1.0 U
trans-1,3-Dichloropropene	0.0842	<5.0 U	<5.0 U
Trichloroethene	5	<1.0 U	<1.0 U
Trichlorofluoromethane	1,290	<1.0 U	<1.0 U
Vinyl chloride	2	<1.0 U	<1.0 U
Xylenes, Total	10,000	<10 U	<10 U

Table 2
Summary of Groundwater Analytical Results
Calgon Site, Port Bienville, Hancock County, Mississippi, July 2019

Sample ID	MDEQ Tier 1 TRGs	TMW-1	TMW-2
Sampling Date		7/19/2019	7/19/2019
Units	ug/L	ug/L	ug/L
Semivolatiles - 8270D LL			
Acenaphthene	365	NA	<0.23 U
Acenaphthylene	2190	NA	<0.23 U
Anthracene	43.4	NA	<0.23 U
Benzo[a]anthracene	0.0917	NA	<0.23 U
Benzo[a]pyrene	0.2	NA	<0.23 U
Benzo[b]fluoranthene	0.0917	NA	<0.23 U
Benzo[g,h,i]perylene	1100	NA	<0.23 U
Benzo[k]fluoranthene	0.917	NA	<0.23 U
Chrysene	9.17	NA	<0.23 U
Dibenz(a,h)anthracene	0.00917	NA	<0.23 U
Fluoranthene	1460	NA	<0.23 U
Fluorene	243	NA	<0.23 U
Indeno[1,2,3-cd]pyrene	0.0917	NA	<0.23 U
Naphthalene	6.2	NA	<0.23 U
Phenanthrene	1100	NA	0.098 J
Pyrene	183	NA	0.064 J
1-Methylnaphthalene	NAV	NA	0.15 J
2-Methylnaphthalene	122	NA	0.19 J
Metals			
Dissolved Antimony	6	0.63 J	0.41 J
Dissolved Arsenic	10	65	120
Dissolved Barium	2000	730 B	1300 B
Dissolved Beryllium	4	2.2	6.2
Dissolved Boron	3290	240	180
Dissolved Cadmium	5	0.24 J	0.23 J
Dissolved Calcium	NAV	26000	34000
Dissolved Chromium	54800	130	500
Dissolved Cobalt	2190	18	31
Dissolved Lead	15	70	150
Dissolved Lithium	730	46	91
Dissolved Mercury	2	0.15 J	0.43
Dissolved Molybdenum	183	40	64
Dissolved Selenium	50	8.5	20
Dissolved Thallium	2	1.4	1.6
Wet Chemistry			
Units	mg/L	mg/L	mg/L
Chloride, Dissolved	250 ⁽¹⁾	230	71
Fluoride, Dissolved	2 ⁽¹⁾	0.45	0.39
pH - measured in Standard Units (SU)	6.5 - 8.5 ⁽¹⁾	7.2 HF	6.9 HF
Sulfate, Dissolved	250 ⁽¹⁾	59	41
Total Dissolved Solids	500 ⁽¹⁾	560	2300

ug/L : micrograms per liter

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

NAV : Not Available

***** : 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.

NA : Not Analyzed.

B : Compound was found in the blank and sample.

mg/L : milligrams per liter

(1) : USEPA Secondary Maximum Contaminant Level (SMCL)

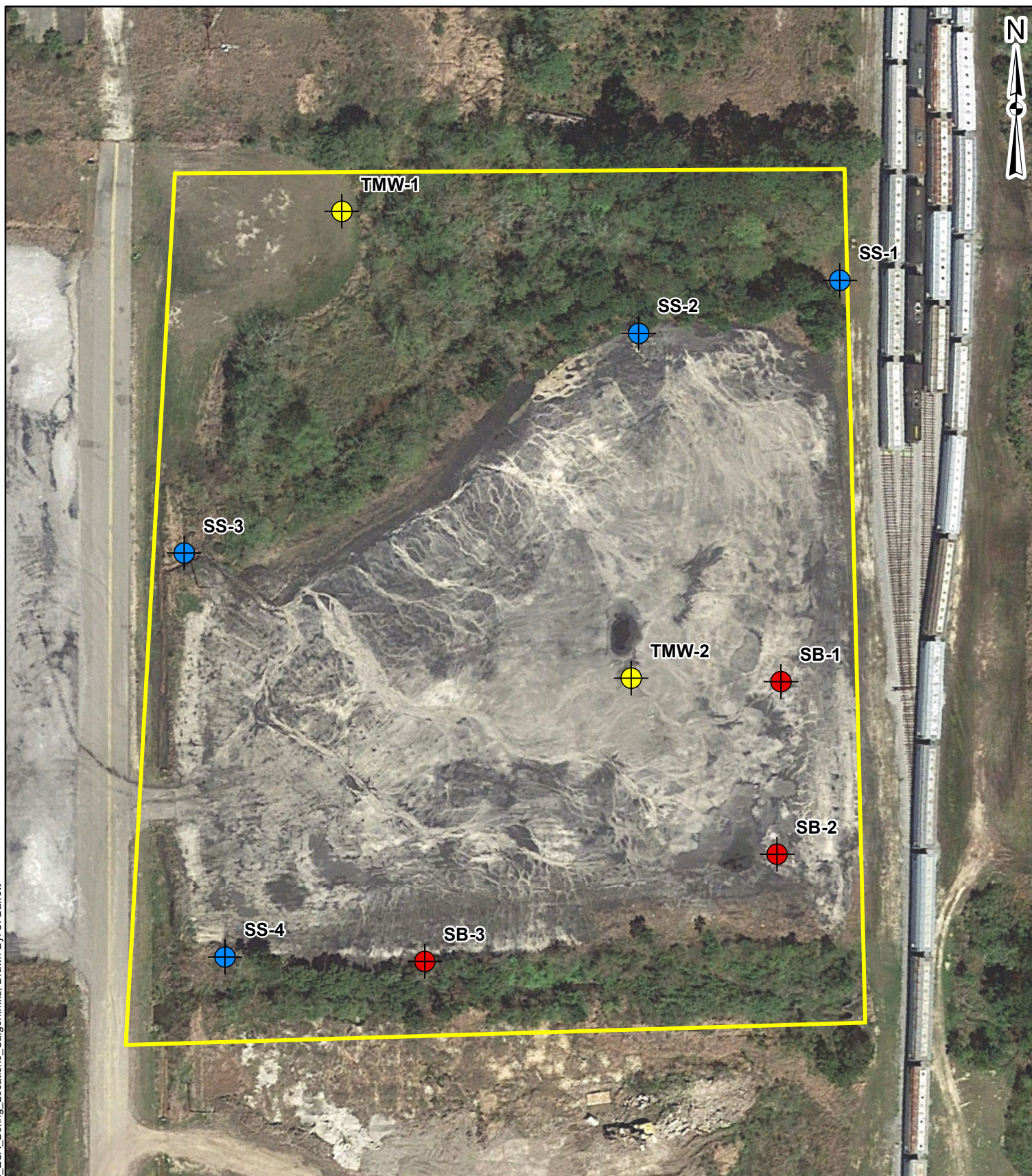
HF : Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Bold values are detected concentrations.

Concentrations that are **highlighted in red** exceed MDEQ Tier 1 TRGs or USEPA SMCL.

FIGURES

P:\BR\GIS\Cypress Env\MXDs\Phase II_ESA_Boring_Locations_Calgion.mxd; Drawn By: S. Barrett



Legend

-  Boring
-  Temporary Monitoring Well
-  Surface Soil
-  Property Boundary

Imagery Credit: Google Earth, dated 03/21/2019.

0 75 150 300
Feet

Phase II ESA Boring Locations

Former Calgon Site
Hancock County, MS

Geosyntec
consultants

Baton Rouge, Louisiana

August 2019

Figure

1

Approximate extent of observed coal at surface:
 3.41 acres
 148,581 square feet

Approximate volume of coal:
 - One-foot depth
 5,502 cubic yards

- Two-foot depth
 11,004 cubic yards



Legend

- Boring
- Temporary Monitoring Well
- Surface Soil
- Property Boundary
- Coal Surface Impacts

Imagery Credit: Google Earth, dated 03/21/2019.

0 95 190 380

Feet

Approximate Extent of Observed Coal at Surface
 Former Calgon Site
 Hancock County, MS

Geosyntec consultants

Baton Rouge, Louisiana August 2019

Figure 2

P:\BR\GIS\Cypress Env\MXDs\Phase II ESA Boring Locations Calgon_extent.mxd: Drawn By: S. Barrett

ATTACHMENT A

Soil Borings Logs

Soil Boring Log

Project: _____ Former Calgooh Site

Boring/Well Name: _____ TMW-1

Project Location: Bay St. Louis, MS

Boring Date: __ 7/18/2019

Depth Scale Feet	Water Table	Soil Profile	
		Description	PID*
0		0-0.4': Top soil, black silt, vegetation	0.0
		0.4-1.5': Light brown & grey clayey silt, little/no colusion	0.0
		1.5'-2.5': Light grey & red clayey silt, little colusion	0.0
		2.9'-5.0': Light grey silty clay, low plasticity, low stiffness	0.0
5		5.0'-5.9': Same as above, medium plasticity	0.0
		5.9'-10.0': Light grey & light brown clay, high plasticity, low stiffness	0.0
10		10.0'-10.4': Same as above	0.0
		10.4'-11.6': Light grey very stiff fine grained silty sand: well sorted trace clay	0.0
		11.6'-11.9': Light grey clay, high plasticity, low stiffness,	0.0
		11.9'-15.0': Wet, fine grained sand, moderate sorting, moist	0.0
15		15.0-16.8': Wet, fine grained sand, white/tan sand, well sorted	0.0
		16.8'-20.0': Wet, grey fine grained sand, well sorted	
20		20.0'-20.8': Wet, brown fine grained sand, well sorted	0.0
		20.8'-23.2': Moist, light grey fine grained sand, well sorted	0.0
		23.2'-25.0': Dark clay, high plasticity, low stiffness	0.0
25		TD @ 25.0'	
30			
35			
40			

* Photoionization detector calibrated with Hexane. Readings in mg/L

Drill Rig: _____
 Drilling Contractor: _____
 Driller: _____

Geosyntec Consultants

Soil Boring Log

Project: _____ Former CalgotSite

Boring/Well Name: _____ TMW-2

Project Location: Bay St. Louis, MS

Boring Date: 7/18/2019

Depth Scale Feet	Water Table	Soil Profile	
		Description	PID*
0		0-0.8': Grey & tan fine grained silt, dry; black fine grainec	0.0
		0.8'-3.8': Tan & grey silty clay, medium plasticity, low stiffness; trace coal until 1.2'	0.0
		3.8'-4.1': White & light grey very fined grained sand, trace clay	0.0
		4.1'-4.3': Grey silty clay, medium plasticity, low stiffness	0.0
5		4.3'-5.9':- No recovery	0.0
		5.9'-7.9': Light grey & tan silty clay, medium plasticity, low stiffness	0.0
		7.9'-10.0': no recovery	0.0
10		10.4'-11.6': Light grey & Tan silty clay, medium plasticity , low stiffness	0.0
		11.6'-11.9':Light grey fine grained sand, trace silt, well sorted	0.0
		11.9'-12.3': Light grey sandy, clay good colusion high plasticity, low stiffness	0.0
		12.3'-15.0': Light grey fine grained sand, well sorted, moist	0.0
15		15.0'-16.0': Tan & light grey clayey sand, moist, fine grained, well sorted, little colusion	0.0
		16.0'-20.0': Light grey very fine, grained sand, wet, well sorted	0.0
20		20.0'-23.5': Dark grey silty clay, little colusion, moist, wet @ 21.7'-22.1'	0.0
		23.5'-24.9': Dark grey clay, high plasticity, low stiffness	0.0
		24.9'-25.1': Black dark brown peat	0.0
25		TD @ 25'	
30			
35			
40			

* Photoionization detector calibrated with Hexane. Readings in mg/L

Drill Rig: _____
 Drilling Contractor: _____
 Driller: _____

Geosyntec Consultants

Soil Boring Log

Project: _____ Former Calgoak Site

Boring/Well Name: _____ SB-1

Project Location: Bay St. Louis, MS

Boring Date: 7/18/2019

Depth Scale Feet	Water Table	Soil Profile	
		Description	PID*
0		0'-0.6': No recovery	0.0
		0.6'-2.0': Grey & light brown fine grain silty sand, well sorted; trace coal unit 1.2'	0.0
		2.0'-2.6': light grey silt, dry	0.0
		2.6'-3.3': Light brown & greysilty clay, low plasticity, low stiffness	0.0
		3.3'-4.1': Light grey silt	0.0
5		4.1'-5.0': Light brown & grey silty clay, low stiffness, medium plasticity	0.0
		5.0'-5.5': No recovery	0.0
		5.5'-10.0': Light brown & grey clay, high plasticity, low stiffness: trace brown silt	0.0
10		TD @ 10 ft bgs	
15			
20			
25			
30			
35			
40			

* Photoionization detector calibrated with Hexane. Readings in mg/L

Drill Rig: _____
 Drilling Contractor: _____
 Driller: _____

Geosyntec Consultants

Soil Boring Log

Project: _____ Former Calgoit Site

Boring/Well Name: _____ SB-2

Project Location: Bay St. Louis, MS

Boring Date: 7/18/2019

Depth Scale Feet	Water Table	Soil Profile	
		Description	PID*
0		0'-0.5': No recovery	0.0
		0.5'-1.4': Light grey silt, trace coal/coalstaining throughout	0.0
		1.4'-3.8': Light grey & light brown silty clay, medium plasticity, low stiffness	0.0
		3.8'-5.0': Light grey silty clay, no plasticity, medium stiffness, 1/4' fine sand pocket @	0.0
5		5.0'-6.7': Same as above	0.0
		6.7'-10.0': Light brown & light grey clay, medium plasticity, low stiffness: trace silt	0.0
10		TD @ 10 ft bgs	
15			
20			
25			
30			
35			
40			

* Photoionization detector calibrated with Hexane. Readings in mg/L

Drill Rig: _____
 Drilling Contractor: _____
 Driller: _____

Geosyntec Consultants

Soil Boring Log

Project: _____ Former CalgotSite

Boring/Well Name: _____ SB-3

Project Location: Bay St. Louis, MS

Boring Date: 7/18/2019

Depth Scale Feet	Water Table	Soil Profile	
		Description	PID*
0		0'-1.1': Black coal, fined grained	0.0
		1.1'-1.4': Light brown/tan finefine grained silt	0.0
		1.4'-3.3': Fine grained light grey silt	0.0
		3.3'-4.2': Light brown & tan silty clay, medium plasticity, low stiffness	0.0
		4.2'-5.0': Light grey clay, medium plasticity, low stiffness, silty	0.0
5		5.0'-6.1': Same as above	0.0
		6.1'-10.0': Light grey & light brown clay, high plasticity, low stiffness; trace silt	0.0
10		TD @ 10 ft bgs	
15			
20			
25			
30			
35			
40			

* Photoionization detector calibrated with Hexane. Readings in mg/L

Drill Rig: _____
 Drilling Contractor: _____
 Driller: _____

Geosyntec Consultants

ATTACHMENT B

Groundwater Sampling Logs

Geosyntec
consultants

DUP OR MS/MSD:

FT

lowflow

samples were field filtered

Nat

Geosyntec
consultants

DUP OR MS/MSD: 1

Well Diameter:	3/4	IN.
Static Depth to Groundwater (DTW):	12.95	FT.
Total Depth of Monitoring Well (TD):	19	FT.
Screen Length (SL) from Boring Logs:	5	FT.
Depth to Top of Well Screen (TD-SL):	14	FT.
Height of Water Column in Monitoring Well (H=TD-DTW):		FT.
Pump Depth		FT.

low flow vapor: pump w/ dedicated

[illegible]

revised: Feb. 2007

Natar

ATTACHMENT C

Laboratory Analytical Reports

ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-173466-1

Client Project/Site: Port Bienville Hancock Cnty, Mississippi

For:

Geosyntec Consultants, Inc.
5420 Corporate Blvd
Suite 202
Baton Rouge, Louisiana 70808

Attn: Lance Fontenot



Authorized for release by:
8/7/2019 10:01:42 AM

Mark Swafford, Project Manager I
(850)471-6207
mark.swafford@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
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: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Job ID: 400-173466-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative 400-173466-1

Comments

No additional comments.

Receipt

The samples were received on 7/20/2019 8:17 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 0.0° C, 0.9° C and 3.9° C.

GC/MS VOA

Method 8260B: The laboratory control sample (LCS) for analytical batch 400-449267 recovered outside control limits for the following analytes: 2-Hexanone. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260B: The following field preserved samples were not suitable for analysis due to excessive sample weight: TMW-1 (0-2) (400-173466-14), TMW-1 (12-14) (400-173466-15) and TMW-1 (18-20) (400-173466-16). The samples were analyzed from the bulk jar.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-450037 and analytical batch 400-449972 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.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method 8270D: Physical properties (viscosity, color, odor) of the following sample(s) extract preclude concentrated analysis which would jeopardize instrumentation: SS-2 (0-1) (400-173466-18), SS-3 (0-1) (400-173466-19) and SS-4 (0-1) (400-173466-20). Minimal dilution with elevated RLs is reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-449429 recovered above the upper control limit for Fluoranthene, Indeno[1,2,3-cd]pyrene, Benzo[g,h,i]perylene and Dibenz(a,h)anthracene. The samples associated with this CCV were either non-detects or less than the reporting limit for the affected analytes; therefore, the data have been reported.

Method 8270D: Three 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-1 (12-14) (400-173466-15[MSD]). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-449568 recovered above the upper control limit for Benzo[g,h,i]perylene, Fluorene, Fluoranthene Indeno[1,2,3-cd]pyrene and Dibenz(a,h)anthracene. The samples associated with this CCV were either non-detects or less than the reporting limit for the affected analytes; therefore, the data have been reported.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-449107 and analytical batch 400-449568 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.

Method 8270D: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 400-449107 and analytical batch 400-449568 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8270D: Surrogate recovery for the following sample was outside control limits: TMW-1 (12-14) (400-173466-15). Re-extraction and/or re-analysis was performed with concurring results. The original analysis has been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Case Narrative

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Job ID: 400-173466-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

Method 7470A: The matrix spike duplicate (MSD) recoveries for preparation batch 400-449113 and analytical batch 400-449378 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 7470A: The matrix spike (MS) recoveries for preparation batch 400-449113 and analytical batch 400-449378 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for 286036 were outside control limits for Sntimony. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

Method SM 4500 SO4 E: Due to the concentration of chlorides in the parent sample the MS/MSD (400-173782-A-1 MS) and (400-173782-A-1 MSD) was diluted after the spike. The spike amount was adjusted by the dilution factor.

Method SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-449911 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.

Method SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: TMW-1 (400-173466-21), TMW-2 (400-173466-24), (400-173782-A-1), (400-173782-A-1 MS) and (400-173782-A-1 MSD). Elevated reporting limits (RLs) are provided.

Method SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: TMW-1 (400-173466-21) and TMW-2 (400-173466-24). 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.

Organic Prep

Method 3520C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 400-449142.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-2 (0-2)

Lab Sample ID: 400-173466-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	0.044	J	0.37	0.037	mg/Kg	1	☼	8270D	Total/NA
Fluoranthene	0.038	J	0.37	0.037	mg/Kg	1	☼	8270D	Total/NA
Naphthalene	0.049	J	0.37	0.037	mg/Kg	1	☼	8270D	Total/NA
Phenanthrene	0.094	J	0.37	0.037	mg/Kg	1	☼	8270D	Total/NA
Pyrene	0.047	J	0.37	0.037	mg/Kg	1	☼	8270D	Total/NA
1-Methylnaphthalene	0.070	J	0.37	0.037	mg/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	0.11	J	0.37	0.037	mg/Kg	1	☼	8270D	Total/NA
Mercury	0.011	J	0.015	0.0089	mg/Kg	1	☼	7471A	Total/NA
Arsenic	2.7		0.12	0.030	mg/Kg	1	☼	EPA 6020	Total/NA
Boron	3.3	J	9.4	1.6	mg/Kg	1	☼	EPA 6020	Total/NA
Barium	70		1.2	0.15	mg/Kg	1	☼	EPA 6020	Total/NA
Beryllium	0.18	B	0.12	0.0088	mg/Kg	1	☼	EPA 6020	Total/NA
Calcium	410		59	10	mg/Kg	1	☼	EPA 6020	Total/NA
Chromium	4.5		0.23	0.097	mg/Kg	1	☼	EPA 6020	Total/NA
Cobalt	0.73		0.059	0.0097	mg/Kg	1	☼	EPA 6020	Total/NA
Molybdenum	0.28	J	0.59	0.19	mg/Kg	1	☼	EPA 6020	Total/NA
Lead	5.6		0.12	0.041	mg/Kg	1	☼	EPA 6020	Total/NA
Antimony	0.13	J	0.23	0.073	mg/Kg	1	☼	EPA 6020	Total/NA
Thallium	0.33		0.12	0.029	mg/Kg	1	☼	EPA 6020	Total/NA
Selenium	0.57	J	0.59	0.14	mg/Kg	1	☼	EPA 6020	Total/NA
Lithium	2.8		0.59	0.32	mg/Kg	1	☼	EPA 6020	Total/NA

Client Sample ID: TMW-2 (2-4)

Lab Sample ID: 400-173466-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.014	J	0.017	0.010	mg/Kg	1	☼	7471A	Total/NA
Arsenic	3.4		0.14	0.035	mg/Kg	1	☼	EPA 6020	Total/NA
Boron	1.8	J	11	1.8	mg/Kg	1	☼	EPA 6020	Total/NA
Barium	120		1.4	0.17	mg/Kg	1	☼	EPA 6020	Total/NA
Beryllium	0.46	B	0.14	0.010	mg/Kg	1	☼	EPA 6020	Total/NA
Calcium	1600		68	12	mg/Kg	1	☼	EPA 6020	Total/NA
Chromium	8.8		0.27	0.11	mg/Kg	1	☼	EPA 6020	Total/NA
Cobalt	5.7		0.068	0.011	mg/Kg	1	☼	EPA 6020	Total/NA
Molybdenum	0.31	J	0.68	0.22	mg/Kg	1	☼	EPA 6020	Total/NA
Lead	5.8		0.14	0.048	mg/Kg	1	☼	EPA 6020	Total/NA
Thallium	0.23		0.14	0.034	mg/Kg	1	☼	EPA 6020	Total/NA
Selenium	0.50	J	0.68	0.17	mg/Kg	1	☼	EPA 6020	Total/NA
Lithium	3.2		0.68	0.38	mg/Kg	1	☼	EPA 6020	Total/NA

Client Sample ID: TMW-2 (14-16)

Lab Sample ID: 400-173466-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.2		0.14	0.035	mg/Kg	1	☼	EPA 6020	Total/NA
Barium	42		1.4	0.17	mg/Kg	1	☼	EPA 6020	Total/NA
Beryllium	0.25	B	0.14	0.010	mg/Kg	1	☼	EPA 6020	Total/NA
Calcium	640		68	12	mg/Kg	1	☼	EPA 6020	Total/NA
Cadmium	0.079	J	0.14	0.023	mg/Kg	1	☼	EPA 6020	Total/NA
Chromium	4.5		0.27	0.11	mg/Kg	1	☼	EPA 6020	Total/NA
Cobalt	1.6		0.068	0.011	mg/Kg	1	☼	EPA 6020	Total/NA
Lead	3.0		0.14	0.048	mg/Kg	1	☼	EPA 6020	Total/NA
Antimony	0.084	J	0.27	0.084	mg/Kg	1	☼	EPA 6020	Total/NA
Thallium	0.057	J	0.14	0.034	mg/Kg	1	☼	EPA 6020	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Detection Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-2 (14-16) (Continued)

Lab Sample ID: 400-173466-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	1.9		0.68	0.38	mg/Kg	1	✱	EPA 6020	Total/NA

Client Sample ID: DUP-01

Lab Sample ID: 400-173466-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.6		0.11	0.029	mg/Kg	1	✱	EPA 6020	Total/NA
Barium	45		1.1	0.14	mg/Kg	1	✱	EPA 6020	Total/NA
Beryllium	0.28	B	0.11	0.0084	mg/Kg	1	✱	EPA 6020	Total/NA
Calcium	1200		56	10	mg/Kg	1	✱	EPA 6020	Total/NA
Chromium	5.4		0.23	0.093	mg/Kg	1	✱	EPA 6020	Total/NA
Cobalt	2.7		0.056	0.0093	mg/Kg	1	✱	EPA 6020	Total/NA
Molybdenum	0.20	J	0.56	0.18	mg/Kg	1	✱	EPA 6020	Total/NA
Lead	5.8		0.11	0.039	mg/Kg	1	✱	EPA 6020	Total/NA
Thallium	0.12		0.11	0.028	mg/Kg	1	✱	EPA 6020	Total/NA
Selenium	0.31	J	0.56	0.14	mg/Kg	1	✱	EPA 6020	Total/NA
Lithium	2.2		0.56	0.31	mg/Kg	1	✱	EPA 6020	Total/NA

Client Sample ID: SB-1 (0-2)

Lab Sample ID: 400-173466-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.048	J	0.36	0.036	mg/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	0.049	J	0.36	0.036	mg/Kg	1	✱	8270D	Total/NA
Arsenic	0.93		0.11	0.029	mg/Kg	1	✱	EPA 6020	Total/NA
Barium	28		1.1	0.14	mg/Kg	1	✱	EPA 6020	Total/NA
Beryllium	0.12	B	0.11	0.0084	mg/Kg	1	✱	EPA 6020	Total/NA
Calcium	290		56	10	mg/Kg	1	✱	EPA 6020	Total/NA
Chromium	4.3		0.22	0.093	mg/Kg	1	✱	EPA 6020	Total/NA
Cobalt	0.69		0.056	0.0093	mg/Kg	1	✱	EPA 6020	Total/NA
Lead	4.5		0.11	0.039	mg/Kg	1	✱	EPA 6020	Total/NA
Thallium	0.086	J	0.11	0.028	mg/Kg	1	✱	EPA 6020	Total/NA
Selenium	0.36	J	0.56	0.14	mg/Kg	1	✱	EPA 6020	Total/NA
Lithium	3.7		0.56	0.31	mg/Kg	1	✱	EPA 6020	Total/NA

Client Sample ID: SB-1 (2-4)

Lab Sample ID: 400-173466-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.3		0.13	0.033	mg/Kg	1	✱	EPA 6020	Total/NA
Barium	51		1.3	0.16	mg/Kg	1	✱	EPA 6020	Total/NA
Beryllium	0.24	B	0.13	0.0095	mg/Kg	1	✱	EPA 6020	Total/NA
Calcium	380		64	11	mg/Kg	1	✱	EPA 6020	Total/NA
Chromium	6.6		0.25	0.11	mg/Kg	1	✱	EPA 6020	Total/NA
Cobalt	1.1		0.064	0.011	mg/Kg	1	✱	EPA 6020	Total/NA
Molybdenum	0.43	J	0.64	0.21	mg/Kg	1	✱	EPA 6020	Total/NA
Lead	6.7		0.13	0.045	mg/Kg	1	✱	EPA 6020	Total/NA
Antimony	0.094	J	0.25	0.079	mg/Kg	1	✱	EPA 6020	Total/NA
Thallium	0.13		0.13	0.032	mg/Kg	1	✱	EPA 6020	Total/NA
Selenium	0.43	J	0.64	0.16	mg/Kg	1	✱	EPA 6020	Total/NA
Lithium	6.0		0.64	0.35	mg/Kg	1	✱	EPA 6020	Total/NA

Client Sample ID: SB-1 (8-10)

Lab Sample ID: 400-173466-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.0		0.12	0.032	mg/Kg	1	✱	EPA 6020	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Detection Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-1 (8-10) (Continued)

Lab Sample ID: 400-173466-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2.3	J	9.9	1.7	mg/Kg	1	☼	EPA 6020	Total/NA
Barium	180		1.2	0.16	mg/Kg	1	☼	EPA 6020	Total/NA
Beryllium	0.90	B	0.12	0.0093	mg/Kg	1	☼	EPA 6020	Total/NA
Calcium	1900		62	11	mg/Kg	1	☼	EPA 6020	Total/NA
Cadmium	0.063	J	0.12	0.021	mg/Kg	1	☼	EPA 6020	Total/NA
Chromium	10		0.25	0.10	mg/Kg	1	☼	EPA 6020	Total/NA
Cobalt	11		0.062	0.010	mg/Kg	1	☼	EPA 6020	Total/NA
Molybdenum	0.71		0.62	0.20	mg/Kg	1	☼	EPA 6020	Total/NA
Lead	16		0.12	0.043	mg/Kg	1	☼	EPA 6020	Total/NA
Antimony	0.16	J	0.25	0.077	mg/Kg	1	☼	EPA 6020	Total/NA
Thallium	0.23		0.12	0.031	mg/Kg	1	☼	EPA 6020	Total/NA
Selenium	0.64		0.62	0.15	mg/Kg	1	☼	EPA 6020	Total/NA
Lithium	5.4		0.62	0.34	mg/Kg	1	☼	EPA 6020	Total/NA

Client Sample ID: SB-2 (0-2)

Lab Sample ID: 400-173466-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.010	J	0.017	0.010	mg/Kg	1	☼	7471A	Total/NA
Arsenic	1.2		0.13	0.034	mg/Kg	1	☼	EPA 6020	Total/NA
Barium	26		1.3	0.17	mg/Kg	1	☼	EPA 6020	Total/NA
Beryllium	0.12	J B	0.13	0.0097	mg/Kg	1	☼	EPA 6020	Total/NA
Calcium	340		65	12	mg/Kg	1	☼	EPA 6020	Total/NA
Cadmium	0.035	J	0.13	0.022	mg/Kg	1	☼	EPA 6020	Total/NA
Chromium	5.5		0.26	0.11	mg/Kg	1	☼	EPA 6020	Total/NA
Cobalt	0.87		0.065	0.011	mg/Kg	1	☼	EPA 6020	Total/NA
Lead	5.4		0.13	0.045	mg/Kg	1	☼	EPA 6020	Total/NA
Antimony	0.093	J	0.26	0.080	mg/Kg	1	☼	EPA 6020	Total/NA
Thallium	0.12	J	0.13	0.032	mg/Kg	1	☼	EPA 6020	Total/NA
Selenium	0.52	J	0.65	0.16	mg/Kg	1	☼	EPA 6020	Total/NA
Lithium	4.2		0.65	0.36	mg/Kg	1	☼	EPA 6020	Total/NA

Client Sample ID: SB-2 (2-4)

Lab Sample ID: 400-173466-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.8		0.14	0.035	mg/Kg	1	☼	EPA 6020	Total/NA
Barium	92		1.4	0.17	mg/Kg	1	☼	EPA 6020	Total/NA
Beryllium	0.34	B	0.14	0.010	mg/Kg	1	☼	EPA 6020	Total/NA
Calcium	1400		68	12	mg/Kg	1	☼	EPA 6020	Total/NA
Chromium	8.8		0.27	0.11	mg/Kg	1	☼	EPA 6020	Total/NA
Cobalt	4.0		0.068	0.011	mg/Kg	1	☼	EPA 6020	Total/NA
Molybdenum	0.28	J	0.68	0.22	mg/Kg	1	☼	EPA 6020	Total/NA
Lead	7.6		0.14	0.048	mg/Kg	1	☼	EPA 6020	Total/NA
Antimony	0.14	J	0.27	0.084	mg/Kg	1	☼	EPA 6020	Total/NA
Thallium	0.18		0.14	0.034	mg/Kg	1	☼	EPA 6020	Total/NA
Selenium	0.50	J	0.68	0.17	mg/Kg	1	☼	EPA 6020	Total/NA
Lithium	3.7		0.68	0.38	mg/Kg	1	☼	EPA 6020	Total/NA

Client Sample ID: SB-2 (8-10)

Lab Sample ID: 400-173466-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	16		0.13	0.033	mg/Kg	1	☼	EPA 6020	Total/NA
Boron	1.8	J	10	1.7	mg/Kg	1	☼	EPA 6020	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Detection Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-2 (8-10) (Continued)

Lab Sample ID: 400-173466-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	130		1.3	0.16	mg/Kg	1	✱	EPA 6020	Total/NA
Beryllium	1.0	B	0.13	0.0096	mg/Kg	1	✱	EPA 6020	Total/NA
Calcium	1600		64	11	mg/Kg	1	✱	EPA 6020	Total/NA
Cadmium	0.055	J	0.13	0.022	mg/Kg	1	✱	EPA 6020	Total/NA
Chromium	8.6		0.26	0.11	mg/Kg	1	✱	EPA 6020	Total/NA
Cobalt	8.9		0.064	0.011	mg/Kg	1	✱	EPA 6020	Total/NA
Molybdenum	0.49	J	0.64	0.21	mg/Kg	1	✱	EPA 6020	Total/NA
Lead	18		0.13	0.045	mg/Kg	1	✱	EPA 6020	Total/NA
Antimony	0.24	J	0.26	0.079	mg/Kg	1	✱	EPA 6020	Total/NA
Thallium	0.16		0.13	0.032	mg/Kg	1	✱	EPA 6020	Total/NA
Selenium	0.85		0.64	0.16	mg/Kg	1	✱	EPA 6020	Total/NA
Lithium	3.8		0.64	0.35	mg/Kg	1	✱	EPA 6020	Total/NA

Client Sample ID: SB-3 (0-2)

Lab Sample ID: 400-173466-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.018	J	0.021	0.011	mg/Kg	1	✱	8260B	Total/NA
Acenaphthylene	0.046	J	0.38	0.038	mg/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	0.056	J	0.38	0.038	mg/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	0.087	J	0.38	0.038	mg/Kg	1	✱	8270D	Total/NA
Chrysene	0.15	J	0.38	0.038	mg/Kg	1	✱	8270D	Total/NA
Fluoranthene	0.039	J	0.38	0.038	mg/Kg	1	✱	8270D	Total/NA
Naphthalene	0.81		0.38	0.038	mg/Kg	1	✱	8270D	Total/NA
Phenanthrene	1.0		0.38	0.038	mg/Kg	1	✱	8270D	Total/NA
Pyrene	0.091	J	0.38	0.038	mg/Kg	1	✱	8270D	Total/NA
1-Methylnaphthalene	0.52		0.38	0.038	mg/Kg	1	✱	8270D	Total/NA
2-Methylnaphthalene	0.78		0.38	0.038	mg/Kg	1	✱	8270D	Total/NA
Arsenic	3.3		0.11	0.030	mg/Kg	1	✱	EPA 6020	Total/NA
Barium	48		1.1	0.15	mg/Kg	1	✱	EPA 6020	Total/NA
Beryllium	0.57	B	0.11	0.0086	mg/Kg	1	✱	EPA 6020	Total/NA
Calcium	540		57	10	mg/Kg	1	✱	EPA 6020	Total/NA
Cadmium	0.045	J	0.11	0.020	mg/Kg	1	✱	EPA 6020	Total/NA
Chromium	6.8		0.23	0.095	mg/Kg	1	✱	EPA 6020	Total/NA
Cobalt	1.8		0.057	0.0095	mg/Kg	1	✱	EPA 6020	Total/NA
Molybdenum	0.35	J	0.57	0.19	mg/Kg	1	✱	EPA 6020	Total/NA
Lead	7.0		0.11	0.040	mg/Kg	1	✱	EPA 6020	Total/NA
Antimony	0.14	J	0.23	0.071	mg/Kg	1	✱	EPA 6020	Total/NA
Thallium	0.11		0.11	0.029	mg/Kg	1	✱	EPA 6020	Total/NA
Selenium	0.59		0.57	0.14	mg/Kg	1	✱	EPA 6020	Total/NA
Lithium	4.0		0.57	0.32	mg/Kg	1	✱	EPA 6020	Total/NA

Client Sample ID: SB-3 (2-4)

Lab Sample ID: 400-173466-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.016	J	0.028	0.014	mg/Kg	1	✱	8260B	Total/NA
Benzene	0.0017	J	0.0055	0.00074	mg/Kg	1	✱	8260B	Total/NA
Arsenic	6.6		0.11	0.029	mg/Kg	1	✱	EPA 6020	Total/NA
Barium	130		1.1	0.14	mg/Kg	1	✱	EPA 6020	Total/NA
Beryllium	0.29	B	0.11	0.0083	mg/Kg	1	✱	EPA 6020	Total/NA
Calcium	520		55	9.9	mg/Kg	1	✱	EPA 6020	Total/NA
Chromium	8.9		0.22	0.092	mg/Kg	1	✱	EPA 6020	Total/NA
Cobalt	2.2		0.055	0.0092	mg/Kg	1	✱	EPA 6020	Total/NA

This Detection Summary does not include radiochemical test results.

Euofins TestAmerica, Pensacola

Detection Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-3 (2-4) (Continued)

Lab Sample ID: 400-173466-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	0.31	J	0.55	0.18	mg/Kg	1	☼	EPA 6020	Total/NA
Lead	7.0		0.11	0.039	mg/Kg	1	☼	EPA 6020	Total/NA
Antimony	0.14	J	0.22	0.069	mg/Kg	1	☼	EPA 6020	Total/NA
Thallium	0.15		0.11	0.028	mg/Kg	1	☼	EPA 6020	Total/NA
Selenium	0.50	J	0.55	0.14	mg/Kg	1	☼	EPA 6020	Total/NA
Lithium	7.2		0.55	0.31	mg/Kg	1	☼	EPA 6020	Total/NA

Client Sample ID: SB-3 (8-10)

Lab Sample ID: 400-173466-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	10		0.15	0.038	mg/Kg	1	☼	EPA 6020	Total/NA
Boron	4.3	J	12	2.0	mg/Kg	1	☼	EPA 6020	Total/NA
Barium	280		1.5	0.19	mg/Kg	1	☼	EPA 6020	Total/NA
Beryllium	3.4	B	0.15	0.011	mg/Kg	1	☼	EPA 6020	Total/NA
Calcium	3100		74	13	mg/Kg	1	☼	EPA 6020	Total/NA
Cadmium	0.052	J	0.15	0.025	mg/Kg	1	☼	EPA 6020	Total/NA
Chromium	17		0.29	0.12	mg/Kg	1	☼	EPA 6020	Total/NA
Cobalt	26		0.074	0.012	mg/Kg	1	☼	EPA 6020	Total/NA
Molybdenum	0.67	J	0.74	0.24	mg/Kg	1	☼	EPA 6020	Total/NA
Lead	24		0.15	0.052	mg/Kg	1	☼	EPA 6020	Total/NA
Antimony	0.40		0.29	0.091	mg/Kg	1	☼	EPA 6020	Total/NA
Thallium	0.34		0.15	0.037	mg/Kg	1	☼	EPA 6020	Total/NA
Selenium	1.3		0.74	0.18	mg/Kg	1	☼	EPA 6020	Total/NA
Lithium	9.1		0.74	0.41	mg/Kg	1	☼	EPA 6020	Total/NA

Client Sample ID: TMW-1 (0-2)

Lab Sample ID: 400-173466-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.0040	J	0.0067	0.00090	mg/Kg	1	☼	8260B	Total/NA
Arsenic	0.91		0.12	0.031	mg/Kg	1	☼	EPA 6020	Total/NA
Barium	16		1.2	0.15	mg/Kg	1	☼	EPA 6020	Total/NA
Beryllium	0.13	B	0.12	0.0089	mg/Kg	1	☼	EPA 6020	Total/NA
Calcium	580		59	11	mg/Kg	1	☼	EPA 6020	Total/NA
Chromium	5.1		0.24	0.099	mg/Kg	1	☼	EPA 6020	Total/NA
Cobalt	0.95		0.059	0.0099	mg/Kg	1	☼	EPA 6020	Total/NA
Molybdenum	0.19	J	0.59	0.19	mg/Kg	1	☼	EPA 6020	Total/NA
Lead	4.0		0.12	0.042	mg/Kg	1	☼	EPA 6020	Total/NA
Thallium	0.089	J	0.12	0.030	mg/Kg	1	☼	EPA 6020	Total/NA
Selenium	0.27	J	0.59	0.14	mg/Kg	1	☼	EPA 6020	Total/NA
Lithium	4.5		0.59	0.33	mg/Kg	1	☼	EPA 6020	Total/NA

Client Sample ID: TMW-1 (12-14)

Lab Sample ID: 400-173466-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.93		0.12	0.031	mg/Kg	1	☼	EPA 6020	Total/NA
Boron	2.9	J	9.5	1.6	mg/Kg	1	☼	EPA 6020	Total/NA
Barium	65		1.2	0.15	mg/Kg	1	☼	EPA 6020	Total/NA
Beryllium	0.45	B	0.12	0.0089	mg/Kg	1	☼	EPA 6020	Total/NA
Calcium	890		60	11	mg/Kg	1	☼	EPA 6020	Total/NA
Chromium	7.4		0.24	0.099	mg/Kg	1	☼	EPA 6020	Total/NA
Cobalt	2.6		0.060	0.0099	mg/Kg	1	☼	EPA 6020	Total/NA
Molybdenum	0.26	J	0.60	0.19	mg/Kg	1	☼	EPA 6020	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Detection Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-1 (12-14) (Continued)

Lab Sample ID: 400-173466-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	6.5		0.12	0.042	mg/Kg	1	✱	EPA 6020	Total/NA
Thallium	0.090	J	0.12	0.030	mg/Kg	1	✱	EPA 6020	Total/NA
Selenium	0.54	J	0.60	0.15	mg/Kg	1	✱	EPA 6020	Total/NA
Lithium	2.7		0.60	0.33	mg/Kg	1	✱	EPA 6020	Total/NA

Client Sample ID: TMW-1 (18-20)

Lab Sample ID: 400-173466-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.0043	J	0.0059	0.00079	mg/Kg	1	✱	8260B	Total/NA
Arsenic	0.49		0.12	0.032	mg/Kg	1	✱	EPA 6020	Total/NA
Barium	8.0		1.2	0.16	mg/Kg	1	✱	EPA 6020	Total/NA
Beryllium	0.097	J B	0.12	0.0092	mg/Kg	1	✱	EPA 6020	Total/NA
Calcium	160		61	11	mg/Kg	1	✱	EPA 6020	Total/NA
Chromium	1.6		0.24	0.10	mg/Kg	1	✱	EPA 6020	Total/NA
Cobalt	0.18		0.061	0.010	mg/Kg	1	✱	EPA 6020	Total/NA
Molybdenum	0.60	J	0.61	0.20	mg/Kg	1	✱	EPA 6020	Total/NA
Lead	1.9		0.12	0.043	mg/Kg	1	✱	EPA 6020	Total/NA
Antimony	0.15	J	0.24	0.076	mg/Kg	1	✱	EPA 6020	Total/NA
Thallium	0.29		0.12	0.031	mg/Kg	1	✱	EPA 6020	Total/NA
Lithium	0.68		0.61	0.34	mg/Kg	1	✱	EPA 6020	Total/NA

Client Sample ID: SS-1 (0-1)

Lab Sample ID: 400-173466-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.12	J	0.37	0.037	mg/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	0.098	J	0.37	0.037	mg/Kg	1	✱	8270D	Total/NA
Benzo[g,h,i]perylene	0.084	J	0.37	0.037	mg/Kg	1	✱	8270D	Total/NA
Fluoranthene	0.050	J	0.37	0.037	mg/Kg	1	✱	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.077	J	0.37	0.037	mg/Kg	1	✱	8270D	Total/NA
Phenanthrene	0.070	J	0.37	0.037	mg/Kg	1	✱	8270D	Total/NA
Pyrene	0.084	J	0.37	0.037	mg/Kg	1	✱	8270D	Total/NA
2-Methylnaphthalene	0.041	J	0.37	0.037	mg/Kg	1	✱	8270D	Total/NA
Mercury	0.013	J	0.015	0.0087	mg/Kg	1	✱	7471A	Total/NA
Arsenic	0.93		0.11	0.029	mg/Kg	1	✱	EPA 6020	Total/NA
Barium	30		1.1	0.14	mg/Kg	1	✱	EPA 6020	Total/NA
Beryllium	0.19	B	0.11	0.0084	mg/Kg	1	✱	EPA 6020	Total/NA
Calcium	670		56	10	mg/Kg	1	✱	EPA 6020	Total/NA
Cadmium	0.046	J	0.11	0.019	mg/Kg	1	✱	EPA 6020	Total/NA
Chromium	2.7		0.22	0.093	mg/Kg	1	✱	EPA 6020	Total/NA
Cobalt	0.67		0.056	0.0093	mg/Kg	1	✱	EPA 6020	Total/NA
Molybdenum	0.18	J	0.56	0.18	mg/Kg	1	✱	EPA 6020	Total/NA
Lead	5.4		0.11	0.039	mg/Kg	1	✱	EPA 6020	Total/NA
Antimony	0.083	J	0.22	0.070	mg/Kg	1	✱	EPA 6020	Total/NA
Thallium	0.12		0.11	0.028	mg/Kg	1	✱	EPA 6020	Total/NA
Selenium	0.33	J	0.56	0.14	mg/Kg	1	✱	EPA 6020	Total/NA
Lithium	1.9		0.56	0.31	mg/Kg	1	✱	EPA 6020	Total/NA

Client Sample ID: SS-2 (0-1)

Lab Sample ID: 400-173466-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.35	J	2.3	0.23	mg/Kg	5	✱	8270D	Total/NA
Benzo[b]fluoranthene	0.36	J	2.3	0.23	mg/Kg	5	✱	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Detection Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SS-2 (0-1) (Continued)

Lab Sample ID: 400-173466-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chrysene	0.42	J	2.3	0.23	mg/Kg	5	✱	8270D	Total/NA
Fluoranthene	0.34	J	2.3	0.23	mg/Kg	5	✱	8270D	Total/NA
Fluorene	0.23	J	2.3	0.23	mg/Kg	5	✱	8270D	Total/NA
Naphthalene	1.2	J	2.3	0.23	mg/Kg	5	✱	8270D	Total/NA
Phenanthrene	1.9	J	2.3	0.23	mg/Kg	5	✱	8270D	Total/NA
Pyrene	0.37	J	2.3	0.23	mg/Kg	5	✱	8270D	Total/NA
1-Methylnaphthalene	2.5		2.3	0.23	mg/Kg	5	✱	8270D	Total/NA
2-Methylnaphthalene	2.7		2.3	0.23	mg/Kg	5	✱	8270D	Total/NA
Mercury	0.043		0.018	0.011	mg/Kg	1	✱	7471A	Total/NA
Arsenic	5.0		0.14	0.036	mg/Kg	1	✱	EPA 6020	Total/NA
Barium	45		1.4	0.18	mg/Kg	1	✱	EPA 6020	Total/NA
Beryllium	0.74	B	0.14	0.010	mg/Kg	1	✱	EPA 6020	Total/NA
Calcium	200		69	12	mg/Kg	1	✱	EPA 6020	Total/NA
Cadmium	0.059	J	0.14	0.023	mg/Kg	1	✱	EPA 6020	Total/NA
Chromium	6.0		0.28	0.11	mg/Kg	1	✱	EPA 6020	Total/NA
Cobalt	1.8		0.069	0.011	mg/Kg	1	✱	EPA 6020	Total/NA
Molybdenum	0.71		0.69	0.22	mg/Kg	1	✱	EPA 6020	Total/NA
Lead	10		0.14	0.048	mg/Kg	1	✱	EPA 6020	Total/NA
Antimony	0.33		0.28	0.086	mg/Kg	1	✱	EPA 6020	Total/NA
Thallium	0.29		0.14	0.035	mg/Kg	1	✱	EPA 6020	Total/NA
Selenium	0.92		0.69	0.17	mg/Kg	1	✱	EPA 6020	Total/NA
Lithium	3.3		0.69	0.38	mg/Kg	1	✱	EPA 6020	Total/NA

Client Sample ID: SS-3 (0-1)

Lab Sample ID: 400-173466-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.44	J	2.2	0.22	mg/Kg	5	✱	8270D	Total/NA
Benzo[a]pyrene	0.57	J	2.2	0.22	mg/Kg	5	✱	8270D	Total/NA
Benzo[b]fluoranthene	0.45	J	2.2	0.22	mg/Kg	5	✱	8270D	Total/NA
Benzo[g,h,i]perylene	0.28	J	2.2	0.22	mg/Kg	5	✱	8270D	Total/NA
Chrysene	0.75	J	2.2	0.22	mg/Kg	5	✱	8270D	Total/NA
Dibenz(a,h)anthracene	0.30	J	2.2	0.22	mg/Kg	5	✱	8270D	Total/NA
Fluoranthene	0.48	J	2.2	0.22	mg/Kg	5	✱	8270D	Total/NA
Naphthalene	3.3		2.2	0.22	mg/Kg	5	✱	8270D	Total/NA
Phenanthrene	2.9		2.2	0.22	mg/Kg	5	✱	8270D	Total/NA
Pyrene	0.54	J	2.2	0.22	mg/Kg	5	✱	8270D	Total/NA
1-Methylnaphthalene	2.2		2.2	0.22	mg/Kg	5	✱	8270D	Total/NA
2-Methylnaphthalene	3.2		2.2	0.22	mg/Kg	5	✱	8270D	Total/NA
Mercury	0.056		0.017	0.010	mg/Kg	1	✱	7471A	Total/NA
Arsenic	6.4		0.13	0.034	mg/Kg	1	✱	EPA 6020	Total/NA
Boron	6.5	J	10	1.7	mg/Kg	1	✱	EPA 6020	Total/NA
Barium	180		1.3	0.17	mg/Kg	1	✱	EPA 6020	Total/NA
Beryllium	1.4	B	0.13	0.0097	mg/Kg	1	✱	EPA 6020	Total/NA
Calcium	870		64	12	mg/Kg	1	✱	EPA 6020	Total/NA
Cadmium	0.057	J	0.13	0.022	mg/Kg	1	✱	EPA 6020	Total/NA
Chromium	5.6		0.26	0.11	mg/Kg	1	✱	EPA 6020	Total/NA
Cobalt	1.9		0.064	0.011	mg/Kg	1	✱	EPA 6020	Total/NA
Molybdenum	1.0		0.64	0.21	mg/Kg	1	✱	EPA 6020	Total/NA
Lead	12		0.13	0.045	mg/Kg	1	✱	EPA 6020	Total/NA
Antimony	0.37		0.26	0.080	mg/Kg	1	✱	EPA 6020	Total/NA
Thallium	0.26		0.13	0.032	mg/Kg	1	✱	EPA 6020	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Detection Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SS-3 (0-1) (Continued)

Lab Sample ID: 400-173466-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	2.0		0.64	0.16	mg/Kg	1	☼	EPA 6020	Total/NA
Lithium	2.5		0.64	0.36	mg/Kg	1	☼	EPA 6020	Total/NA

Client Sample ID: SS-4 (0-1)

Lab Sample ID: 400-173466-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.41	J	2.1	0.21	mg/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	0.46	J	2.1	0.21	mg/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	0.41	J	2.1	0.21	mg/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	0.25	J	2.1	0.21	mg/Kg	5	☼	8270D	Total/NA
Chrysene	1.1	J	2.1	0.21	mg/Kg	5	☼	8270D	Total/NA
Dibenz(a,h)anthracene	0.38	J	2.1	0.21	mg/Kg	5	☼	8270D	Total/NA
Fluoranthene	0.36	J	2.1	0.21	mg/Kg	5	☼	8270D	Total/NA
Naphthalene	2.3		2.1	0.21	mg/Kg	5	☼	8270D	Total/NA
Phenanthrene	4.2		2.1	0.21	mg/Kg	5	☼	8270D	Total/NA
Pyrene	0.52	J	2.1	0.21	mg/Kg	5	☼	8270D	Total/NA
1-Methylnaphthalene	3.1		2.1	0.21	mg/Kg	5	☼	8270D	Total/NA
2-Methylnaphthalene	4.2		2.1	0.21	mg/Kg	5	☼	8270D	Total/NA
Mercury	0.022		0.016	0.0098	mg/Kg	1	☼	7471A	Total/NA
Arsenic	3.6		0.13	0.033	mg/Kg	1	☼	EPA 6020	Total/NA
Boron	2.3	J	10	1.7	mg/Kg	1	☼	EPA 6020	Total/NA
Barium	70		1.3	0.16	mg/Kg	1	☼	EPA 6020	Total/NA
Beryllium	1.4	B	0.13	0.0095	mg/Kg	1	☼	EPA 6020	Total/NA
Calcium	1200		63	11	mg/Kg	1	☼	EPA 6020	Total/NA
Cadmium	0.041	J	0.13	0.022	mg/Kg	1	☼	EPA 6020	Total/NA
Chromium	3.8		0.25	0.11	mg/Kg	1	☼	EPA 6020	Total/NA
Cobalt	2.1		0.063	0.011	mg/Kg	1	☼	EPA 6020	Total/NA
Molybdenum	0.44	J	0.63	0.21	mg/Kg	1	☼	EPA 6020	Total/NA
Lead	7.1		0.13	0.044	mg/Kg	1	☼	EPA 6020	Total/NA
Antimony	0.20	J	0.25	0.079	mg/Kg	1	☼	EPA 6020	Total/NA
Thallium	0.12	J	0.13	0.032	mg/Kg	1	☼	EPA 6020	Total/NA
Selenium	0.65		0.63	0.15	mg/Kg	1	☼	EPA 6020	Total/NA
Lithium	1.5		0.63	0.35	mg/Kg	1	☼	EPA 6020	Total/NA

Client Sample ID: TMW-1

Lab Sample ID: 400-173466-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury, Dissolved	0.15	J	0.20	0.070	ug/L	1		7470A	Dissolved
Dissolved Antimony	0.00063	J	0.0020	0.00038	mg/L	1		EPA 6020	Dissolved
Dissolved Arsenic	0.065		0.0010	0.00032	mg/L	1		EPA 6020	Dissolved
Dissolved Barium	0.73	B	0.010	0.0016	mg/L	1		EPA 6020	Dissolved
Dissolved Beryllium	0.0022		0.0010	0.00018	mg/L	1		EPA 6020	Dissolved
Dissolved Boron	0.24		0.080	0.039	mg/L	1		EPA 6020	Dissolved
Dissolved Cadmium	0.00024	J	0.0010	0.00013	mg/L	1		EPA 6020	Dissolved
Dissolved Calcium	26		0.50	0.13	mg/L	1		EPA 6020	Dissolved
Dissolved Chromium	0.13		0.0020	0.0015	mg/L	1		EPA 6020	Dissolved
Dissolved Cobalt	0.018		0.00050	0.000075	mg/L	1		EPA 6020	Dissolved
Dissolved Lead	0.070		0.0010	0.00013	mg/L	1		EPA 6020	Dissolved
Dissolved Lithium	0.046		0.0050	0.0034	mg/L	1		EPA 6020	Dissolved
Dissolved Molybdenum	0.040		0.0050	0.00061	mg/L	1		EPA 6020	Dissolved
Dissolved Selenium	0.0085		0.0050	0.0015	mg/L	1		EPA 6020	Dissolved
Dissolved Thallium	0.0014		0.0010	0.00015	mg/L	1		EPA 6020	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Detection Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-1 (Continued)

Lab Sample ID: 400-173466-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
pH	7.2	HF			SU	1		SM 4500 H+ B	Total/NA
Temperature	25.9	HF			Degrees C	1		SM 4500 H+ B	Total/NA
Total Dissolved Solids	560		5.0	3.4	mg/L	1		SM 2540C	Dissolved
Chloride, Dissolved	230		20	14	mg/L	10		SM 4500 Cl- E	Dissolved
Fluoride, Dissolved	0.45		0.10	0.032	mg/L	1		SM 4500 F C	Dissolved
Sulfate, Dissolved	59		10	2.8	mg/L	2		SM 4500 SO4 E	Dissolved

Client Sample ID: TMW-2

Lab Sample ID: 400-173466-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	13	J	25	10	ug/L	1		8260B	Total/NA
1-Methylnaphthalene	0.15	J	0.23	0.085	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	0.19	J	0.23	0.069	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.098	J	0.23	0.041	ug/L	1		8270D LL	Total/NA
Pyrene	0.064	J	0.23	0.046	ug/L	1		8270D LL	Total/NA
Mercury, Dissolved	0.43		0.20	0.070	ug/L	1		7470A	Dissolved
Dissolved Antimony	0.00041	J	0.0020	0.00038	mg/L	1		EPA 6020	Dissolved
Dissolved Arsenic	0.12		0.0010	0.00032	mg/L	1		EPA 6020	Dissolved
Dissolved Barium	1.3	B	0.010	0.0016	mg/L	1		EPA 6020	Dissolved
Dissolved Beryllium	0.0062		0.0010	0.00018	mg/L	1		EPA 6020	Dissolved
Dissolved Boron	0.18		0.080	0.039	mg/L	1		EPA 6020	Dissolved
Dissolved Cadmium	0.00023	J	0.0010	0.00013	mg/L	1		EPA 6020	Dissolved
Dissolved Calcium	34		0.50	0.13	mg/L	1		EPA 6020	Dissolved
Dissolved Chromium	0.50		0.0020	0.0015	mg/L	1		EPA 6020	Dissolved
Dissolved Cobalt	0.031		0.00050	0.000075	mg/L	1		EPA 6020	Dissolved
Dissolved Lead	0.15		0.0010	0.00013	mg/L	1		EPA 6020	Dissolved
Dissolved Lithium	0.091		0.0050	0.0034	mg/L	1		EPA 6020	Dissolved
Dissolved Molybdenum	0.064		0.0050	0.00061	mg/L	1		EPA 6020	Dissolved
Dissolved Selenium	0.020		0.0050	0.0015	mg/L	1		EPA 6020	Dissolved
Dissolved Thallium	0.0016		0.0010	0.00015	mg/L	1		EPA 6020	Dissolved
pH	6.9	HF			SU	1		SM 4500 H+ B	Total/NA
Temperature	25.6	HF			Degrees C	1		SM 4500 H+ B	Total/NA
Total Dissolved Solids	2300		5.0	3.4	mg/L	1		SM 2540C	Dissolved
Chloride, Dissolved	71		4.0	2.8	mg/L	2		SM 4500 Cl- E	Dissolved
Fluoride, Dissolved	0.39		0.10	0.032	mg/L	1		SM 4500 F C	Dissolved
Sulfate, Dissolved	41		10	2.8	mg/L	2		SM 4500 SO4 E	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Sample Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-173466-1	TMW-2 (0-2)	Solid	07/18/19 11:00	07/20/19 08:17	
400-173466-2	TMW-2 (2-4)	Solid	07/18/19 11:05	07/20/19 08:17	
400-173466-3	TMW-2 (14-16)	Solid	07/18/19 11:10	07/20/19 08:17	
400-173466-4	DUP-01	Solid	07/18/19 00:00	07/20/19 08:17	
400-173466-5	SB-1 (0-2)	Solid	07/18/19 13:25	07/20/19 08:17	
400-173466-6	SB-1 (2-4)	Solid	07/18/19 13:30	07/20/19 08:17	
400-173466-7	SB-1 (8-10)	Solid	07/18/19 13:35	07/20/19 08:17	
400-173466-8	SB-2 (0-2)	Solid	07/18/19 17:45	07/20/19 08:17	
400-173466-9	SB-2 (2-4)	Solid	07/18/19 17:50	07/20/19 08:17	
400-173466-10	SB-2 (8-10)	Solid	07/18/19 17:55	07/20/19 08:17	
400-173466-11	SB-3 (0-2)	Solid	07/18/19 14:30	07/20/19 08:17	
400-173466-12	SB-3 (2-4)	Solid	07/18/19 14:35	07/20/19 08:17	
400-173466-13	SB-3 (8-10)	Solid	07/18/19 14:40	07/20/19 08:17	
400-173466-14	TMW-1 (0-2)	Solid	07/18/19 16:00	07/20/19 08:17	
400-173466-15	TMW-1 (12-14)	Solid	07/18/19 17:00	07/20/19 08:17	
400-173466-16	TMW-1 (18-20)	Solid	07/18/19 17:05	07/20/19 08:17	
400-173466-17	SS-1 (0-1)	Solid	07/18/19 16:48	07/20/19 08:17	
400-173466-18	SS-2 (0-1)	Solid	07/18/19 16:58	07/20/19 08:17	
400-173466-19	SS-3 (0-1)	Solid	07/18/19 17:11	07/20/19 08:17	
400-173466-20	SS-4 (0-1)	Solid	07/18/19 17:34	07/20/19 08:17	
400-173466-21	TMW-1	Water	07/19/19 08:30	07/20/19 08:17	
400-173466-24	TMW-2	Water	07/19/19 09:45	07/20/19 08:17	

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-2 (0-2)

Lab Sample ID: 400-173466-1

Date Collected: 07/18/19 11:00

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 89.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/24/19 23:39	1
Acenaphthylene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/24/19 23:39	1
Anthracene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/24/19 23:39	1
Benzo[a]anthracene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/24/19 23:39	1
Benzo[a]pyrene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/26/19 05:27	1
Benzo[b]fluoranthene	0.044	J	0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/26/19 05:27	1
Benzo[g,h,i]perylene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/26/19 05:27	1
Benzo[k]fluoranthene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/26/19 05:27	1
Chrysene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/24/19 23:39	1
Dibenz(a,h)anthracene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/26/19 05:27	1
Fluoranthene	0.038	J	0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/24/19 23:39	1
Fluorene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/24/19 23:39	1
Indeno[1,2,3-cd]pyrene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/26/19 05:27	1
Naphthalene	0.049	J	0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/24/19 23:39	1
Phenanthrene	0.094	J	0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/24/19 23:39	1
Pyrene	0.047	J	0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/24/19 23:39	1
1-Methylnaphthalene	0.070	J	0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/24/19 23:39	1
2-Methylnaphthalene	0.11	J	0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/24/19 23:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	51		27 - 127				07/23/19 08:34	07/26/19 05:27	1
Nitrobenzene-d5 (Surr)	38		15 - 136				07/23/19 08:34	07/26/19 05:27	1
Terphenyl-d14 (Surr)	58		24 - 146				07/23/19 08:34	07/26/19 05:27	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	J	0.015	0.0089	mg/Kg	☼	07/23/19 12:52	07/25/19 12:45	1

Method: EPA 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.7		0.12	0.030	mg/Kg	☼	07/25/19 15:37	07/27/19 00:11	1
Boron	3.3	J	9.4	1.6	mg/Kg	☼	07/25/19 15:37	07/27/19 00:11	1
Barium	70		1.2	0.15	mg/Kg	☼	07/25/19 15:37	07/27/19 00:11	1
Beryllium	0.18	B	0.12	0.0088	mg/Kg	☼	07/25/19 15:37	07/27/19 00:11	1
Calcium	410		59	10	mg/Kg	☼	07/25/19 15:37	07/27/19 00:11	1
Cadmium	ND		0.12	0.020	mg/Kg	☼	07/25/19 15:37	07/27/19 00:11	1
Chromium	4.5		0.23	0.097	mg/Kg	☼	07/25/19 15:37	07/27/19 00:11	1
Cobalt	0.73		0.059	0.0097	mg/Kg	☼	07/25/19 15:37	07/27/19 00:11	1
Molybdenum	0.28	J	0.59	0.19	mg/Kg	☼	07/25/19 15:37	07/27/19 00:11	1
Lead	5.6		0.12	0.041	mg/Kg	☼	07/25/19 15:37	07/27/19 00:11	1
Antimony	0.13	J	0.23	0.073	mg/Kg	☼	07/25/19 15:37	07/27/19 00:11	1
Thallium	0.33		0.12	0.029	mg/Kg	☼	07/25/19 15:37	07/27/19 00:11	1
Selenium	0.57	J	0.59	0.14	mg/Kg	☼	07/25/19 15:37	07/27/19 00:11	1
Lithium	2.8		0.59	0.32	mg/Kg	☼	07/25/19 15:37	07/27/19 00:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.0		0.01	0.01	%	-		07/22/19 10:48	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-2 (2-4)

Lab Sample ID: 400-173466-2

Date Collected: 07/18/19 11:05

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 76.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:00	1
Acenaphthylene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:00	1
Anthracene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:00	1
Benzo[a]anthracene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:00	1
Benzo[a]pyrene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/26/19 05:48	1
Benzo[b]fluoranthene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/26/19 05:48	1
Benzo[g,h,i]perylene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/26/19 05:48	1
Benzo[k]fluoranthene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/26/19 05:48	1
Chrysene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:00	1
Dibenz(a,h)anthracene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/26/19 05:48	1
Fluoranthene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:00	1
Fluorene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:00	1
Indeno[1,2,3-cd]pyrene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/26/19 05:48	1
Naphthalene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:00	1
Phenanthrene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:00	1
Pyrene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:00	1
1-Methylnaphthalene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:00	1
2-Methylnaphthalene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	44		27 - 127				07/23/19 08:34	07/26/19 05:48	1
Nitrobenzene-d5 (Surr)	34		15 - 136				07/23/19 08:34	07/26/19 05:48	1
Terphenyl-d14 (Surr)	61		24 - 146				07/23/19 08:34	07/26/19 05:48	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.017	0.010	mg/Kg	☼	07/23/19 12:52	07/25/19 12:47	1

Method: EPA 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.4		0.14	0.035	mg/Kg	☼	07/25/19 15:37	07/27/19 00:16	1
Boron	1.8	J	11	1.8	mg/Kg	☼	07/25/19 15:37	07/27/19 00:16	1
Barium	120		1.4	0.17	mg/Kg	☼	07/25/19 15:37	07/27/19 00:16	1
Beryllium	0.46	B	0.14	0.010	mg/Kg	☼	07/25/19 15:37	07/27/19 00:16	1
Calcium	1600		68	12	mg/Kg	☼	07/25/19 15:37	07/27/19 00:16	1
Cadmium	ND		0.14	0.023	mg/Kg	☼	07/25/19 15:37	07/27/19 00:16	1
Chromium	8.8		0.27	0.11	mg/Kg	☼	07/25/19 15:37	07/27/19 00:16	1
Cobalt	5.7		0.068	0.011	mg/Kg	☼	07/25/19 15:37	07/27/19 00:16	1
Molybdenum	0.31	J	0.68	0.22	mg/Kg	☼	07/25/19 15:37	07/27/19 00:16	1
Lead	5.8		0.14	0.048	mg/Kg	☼	07/25/19 15:37	07/27/19 00:16	1
Antimony	ND		0.27	0.085	mg/Kg	☼	07/25/19 15:37	07/27/19 00:16	1
Thallium	0.23		0.14	0.034	mg/Kg	☼	07/25/19 15:37	07/27/19 00:16	1
Selenium	0.50	J	0.68	0.17	mg/Kg	☼	07/25/19 15:37	07/27/19 00:16	1
Lithium	3.2		0.68	0.38	mg/Kg	☼	07/25/19 15:37	07/27/19 00:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23.7		0.01	0.01	%	-		07/22/19 10:48	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-2 (14-16)

Lab Sample ID: 400-173466-3

Date Collected: 07/18/19 11:10

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 77.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:21	1
Acenaphthylene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:21	1
Anthracene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:21	1
Benzo[a]anthracene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:21	1
Benzo[a]pyrene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/26/19 06:10	1
Benzo[b]fluoranthene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/26/19 06:10	1
Benzo[g,h,i]perylene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/26/19 06:10	1
Benzo[k]fluoranthene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/26/19 06:10	1
Chrysene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:21	1
Dibenz(a,h)anthracene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/26/19 06:10	1
Fluoranthene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:21	1
Fluorene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:21	1
Indeno[1,2,3-cd]pyrene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/26/19 06:10	1
Naphthalene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:21	1
Phenanthrene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:21	1
Pyrene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:21	1
1-Methylnaphthalene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:21	1
2-Methylnaphthalene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 00:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	60		27 - 127				07/23/19 08:34	07/26/19 06:10	1
Nitrobenzene-d5 (Surr)	44		15 - 136				07/23/19 08:34	07/26/19 06:10	1
Terphenyl-d14 (Surr)	72		24 - 146				07/23/19 08:34	07/26/19 06:10	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.017	0.010	mg/Kg	☼	07/23/19 12:52	07/25/19 12:48	1

Method: EPA 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.2		0.14	0.035	mg/Kg	☼	07/25/19 15:37	07/27/19 00:34	1
Boron	ND		11	1.8	mg/Kg	☼	07/25/19 15:37	07/27/19 00:34	1
Barium	42		1.4	0.17	mg/Kg	☼	07/25/19 15:37	07/27/19 00:34	1
Beryllium	0.25	B	0.14	0.010	mg/Kg	☼	07/25/19 15:37	07/27/19 00:34	1
Calcium	640		68	12	mg/Kg	☼	07/25/19 15:37	07/27/19 00:34	1
Cadmium	0.079	J	0.14	0.023	mg/Kg	☼	07/25/19 15:37	07/27/19 00:34	1
Chromium	4.5		0.27	0.11	mg/Kg	☼	07/25/19 15:37	07/27/19 00:34	1
Cobalt	1.6		0.068	0.011	mg/Kg	☼	07/25/19 15:37	07/27/19 00:34	1
Molybdenum	ND		0.68	0.22	mg/Kg	☼	07/25/19 15:37	07/27/19 00:34	1
Lead	3.0		0.14	0.048	mg/Kg	☼	07/25/19 15:37	07/27/19 00:34	1
Antimony	0.084	J	0.27	0.084	mg/Kg	☼	07/25/19 15:37	07/27/19 00:34	1
Thallium	0.057	J	0.14	0.034	mg/Kg	☼	07/25/19 15:37	07/27/19 00:34	1
Selenium	ND		0.68	0.17	mg/Kg	☼	07/25/19 15:37	07/27/19 00:34	1
Lithium	1.9		0.68	0.38	mg/Kg	☼	07/25/19 15:37	07/27/19 00:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22.8		0.01	0.01	%	-		07/22/19 10:48	1

Euofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: DUP-01

Date Collected: 07/18/19 00:00

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-4

Matrix: Solid

Percent Solids: 84.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/25/19 00:42	1
Acenaphthylene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/25/19 00:42	1
Anthracene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/25/19 00:42	1
Benzo[a]anthracene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/26/19 06:31	1
Benzo[a]pyrene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/26/19 06:31	1
Benzo[b]fluoranthene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/26/19 06:31	1
Benzo[g,h,i]perylene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/26/19 06:31	1
Benzo[k]fluoranthene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/26/19 06:31	1
Chrysene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/26/19 06:31	1
Dibenz(a,h)anthracene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/26/19 06:31	1
Fluoranthene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/25/19 00:42	1
Fluorene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/25/19 00:42	1
Indeno[1,2,3-cd]pyrene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/26/19 06:31	1
Naphthalene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/25/19 00:42	1
Phenanthrene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/25/19 00:42	1
Pyrene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/26/19 06:31	1
1-Methylnaphthalene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/25/19 00:42	1
2-Methylnaphthalene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/25/19 00:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	38		27 - 127	07/23/19 08:34	07/26/19 06:31	1
Nitrobenzene-d5 (Surr)	29		15 - 136	07/23/19 08:34	07/26/19 06:31	1
Terphenyl-d14 (Surr)	46		24 - 146	07/23/19 08:34	07/26/19 06:31	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.015	0.0091	mg/Kg	☼	07/23/19 12:52	07/25/19 12:50	1

Method: EPA 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.6		0.11	0.029	mg/Kg	☼	07/25/19 15:37	07/27/19 02:41	1
Boron	ND		9.0	1.5	mg/Kg	☼	07/25/19 15:37	07/27/19 02:41	1
Barium	45		1.1	0.14	mg/Kg	☼	07/25/19 15:37	07/27/19 02:41	1
Beryllium	0.28	B	0.11	0.0084	mg/Kg	☼	07/25/19 15:37	07/27/19 02:41	1
Calcium	1200		56	10	mg/Kg	☼	07/25/19 15:37	07/27/19 02:41	1
Cadmium	ND		0.11	0.019	mg/Kg	☼	07/25/19 15:37	07/27/19 02:41	1
Chromium	5.4		0.23	0.093	mg/Kg	☼	07/25/19 15:37	07/27/19 02:41	1
Cobalt	2.7		0.056	0.0093	mg/Kg	☼	07/25/19 15:37	07/27/19 02:41	1
Molybdenum	0.20	J	0.56	0.18	mg/Kg	☼	07/25/19 15:37	07/27/19 02:41	1
Lead	5.8		0.11	0.039	mg/Kg	☼	07/25/19 15:37	07/27/19 02:41	1
Antimony	ND		0.23	0.070	mg/Kg	☼	07/25/19 15:37	07/27/19 02:41	1
Thallium	0.12		0.11	0.028	mg/Kg	☼	07/25/19 15:37	07/27/19 02:41	1
Selenium	0.31	J	0.56	0.14	mg/Kg	☼	07/25/19 15:37	07/27/19 02:41	1
Lithium	2.2		0.56	0.31	mg/Kg	☼	07/25/19 15:37	07/27/19 02:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.4		0.01	0.01	%	-		07/22/19 10:48	1

Euofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-1 (0-2)

Lab Sample ID: 400-173466-5

Date Collected: 07/18/19 13:25

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 88.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.36	0.036	mg/Kg	☼	07/23/19 08:34	07/25/19 01:03	1
Acenaphthylene	ND		0.36	0.036	mg/Kg	☼	07/23/19 08:34	07/25/19 01:03	1
Anthracene	ND		0.36	0.036	mg/Kg	☼	07/23/19 08:34	07/25/19 01:03	1
Benzo[a]anthracene	ND		0.36	0.036	mg/Kg	☼	07/23/19 08:34	07/25/19 01:03	1
Benzo[a]pyrene	0.048	J	0.36	0.036	mg/Kg	☼	07/23/19 08:34	07/26/19 06:52	1
Benzo[b]fluoranthene	0.049	J	0.36	0.036	mg/Kg	☼	07/23/19 08:34	07/26/19 06:52	1
Benzo[g,h,i]perylene	ND		0.36	0.036	mg/Kg	☼	07/23/19 08:34	07/26/19 06:52	1
Benzo[k]fluoranthene	ND		0.36	0.036	mg/Kg	☼	07/23/19 08:34	07/26/19 06:52	1
Chrysene	ND		0.36	0.036	mg/Kg	☼	07/23/19 08:34	07/25/19 01:03	1
Dibenz(a,h)anthracene	ND		0.36	0.036	mg/Kg	☼	07/23/19 08:34	07/26/19 06:52	1
Fluoranthene	ND		0.36	0.036	mg/Kg	☼	07/23/19 08:34	07/25/19 01:03	1
Fluorene	ND		0.36	0.036	mg/Kg	☼	07/23/19 08:34	07/25/19 01:03	1
Indeno[1,2,3-cd]pyrene	ND		0.36	0.036	mg/Kg	☼	07/23/19 08:34	07/26/19 06:52	1
Naphthalene	ND		0.36	0.036	mg/Kg	☼	07/23/19 08:34	07/25/19 01:03	1
Phenanthrene	ND		0.36	0.036	mg/Kg	☼	07/23/19 08:34	07/25/19 01:03	1
Pyrene	ND		0.36	0.036	mg/Kg	☼	07/23/19 08:34	07/25/19 01:03	1
1-Methylnaphthalene	ND		0.36	0.036	mg/Kg	☼	07/23/19 08:34	07/25/19 01:03	1
2-Methylnaphthalene	ND		0.36	0.036	mg/Kg	☼	07/23/19 08:34	07/25/19 01:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	70		27 - 127	07/23/19 08:34	07/26/19 06:52	1
Nitrobenzene-d5 (Surr)	51		15 - 136	07/23/19 08:34	07/26/19 06:52	1
Terphenyl-d14 (Surr)	82		24 - 146	07/23/19 08:34	07/26/19 06:52	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.015	0.0088	mg/Kg	☼	07/23/19 12:52	07/25/19 12:52	1

Method: EPA 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.93		0.11	0.029	mg/Kg	☼	07/25/19 15:37	07/27/19 00:39	1
Boron	ND		9.0	1.5	mg/Kg	☼	07/25/19 15:37	07/27/19 00:39	1
Barium	28		1.1	0.14	mg/Kg	☼	07/25/19 15:37	07/27/19 00:39	1
Beryllium	0.12	B	0.11	0.0084	mg/Kg	☼	07/25/19 15:37	07/27/19 00:39	1
Calcium	290		56	10	mg/Kg	☼	07/25/19 15:37	07/27/19 00:39	1
Cadmium	ND		0.11	0.019	mg/Kg	☼	07/25/19 15:37	07/27/19 00:39	1
Chromium	4.3		0.22	0.093	mg/Kg	☼	07/25/19 15:37	07/27/19 00:39	1
Cobalt	0.69		0.056	0.0093	mg/Kg	☼	07/25/19 15:37	07/27/19 00:39	1
Molybdenum	ND		0.56	0.18	mg/Kg	☼	07/25/19 15:37	07/27/19 00:39	1
Lead	4.5		0.11	0.039	mg/Kg	☼	07/25/19 15:37	07/27/19 00:39	1
Antimony	ND		0.22	0.070	mg/Kg	☼	07/25/19 15:37	07/27/19 00:39	1
Thallium	0.086	J	0.11	0.028	mg/Kg	☼	07/25/19 15:37	07/27/19 00:39	1
Selenium	0.36	J	0.56	0.14	mg/Kg	☼	07/25/19 15:37	07/27/19 00:39	1
Lithium	3.7		0.56	0.31	mg/Kg	☼	07/25/19 15:37	07/27/19 00:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.1		0.01	0.01	%	-		07/22/19 10:48	1

Euofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-1 (2-4)

Lab Sample ID: 400-173466-6

Date Collected: 07/18/19 13:30

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 81.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/25/19 01:24	1
Acenaphthylene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/25/19 01:24	1
Anthracene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/25/19 01:24	1
Benzo[a]anthracene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/25/19 01:24	1
Benzo[a]pyrene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/26/19 07:14	1
Benzo[b]fluoranthene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/26/19 07:14	1
Benzo[g,h,i]perylene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/26/19 07:14	1
Benzo[k]fluoranthene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/26/19 07:14	1
Chrysene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/25/19 01:24	1
Dibenz(a,h)anthracene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/26/19 07:14	1
Fluoranthene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/25/19 01:24	1
Fluorene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/25/19 01:24	1
Indeno[1,2,3-cd]pyrene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/26/19 07:14	1
Naphthalene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/25/19 01:24	1
Phenanthrene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/25/19 01:24	1
Pyrene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/25/19 01:24	1
1-Methylnaphthalene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/25/19 01:24	1
2-Methylnaphthalene	ND		0.39	0.039	mg/Kg	☼	07/23/19 08:34	07/25/19 01:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	66		27 - 127				07/23/19 08:34	07/26/19 07:14	1
Nitrobenzene-d5 (Surr)	50		15 - 136				07/23/19 08:34	07/26/19 07:14	1
Terphenyl-d14 (Surr)	77		24 - 146				07/23/19 08:34	07/26/19 07:14	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.015	0.0091	mg/Kg	☼	07/23/19 12:52	07/25/19 12:54	1

Method: EPA 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.3		0.13	0.033	mg/Kg	☼	07/25/19 15:37	07/27/19 00:44	1
Boron	ND		10	1.7	mg/Kg	☼	07/25/19 15:37	07/27/19 00:44	1
Barium	51		1.3	0.16	mg/Kg	☼	07/25/19 15:37	07/27/19 00:44	1
Beryllium	0.24	B	0.13	0.0095	mg/Kg	☼	07/25/19 15:37	07/27/19 00:44	1
Calcium	380		64	11	mg/Kg	☼	07/25/19 15:37	07/27/19 00:44	1
Cadmium	ND		0.13	0.022	mg/Kg	☼	07/25/19 15:37	07/27/19 00:44	1
Chromium	6.6		0.25	0.11	mg/Kg	☼	07/25/19 15:37	07/27/19 00:44	1
Cobalt	1.1		0.064	0.011	mg/Kg	☼	07/25/19 15:37	07/27/19 00:44	1
Molybdenum	0.43	J	0.64	0.21	mg/Kg	☼	07/25/19 15:37	07/27/19 00:44	1
Lead	6.7		0.13	0.045	mg/Kg	☼	07/25/19 15:37	07/27/19 00:44	1
Antimony	0.094	J	0.25	0.079	mg/Kg	☼	07/25/19 15:37	07/27/19 00:44	1
Thallium	0.13		0.13	0.032	mg/Kg	☼	07/25/19 15:37	07/27/19 00:44	1
Selenium	0.43	J	0.64	0.16	mg/Kg	☼	07/25/19 15:37	07/27/19 00:44	1
Lithium	6.0		0.64	0.35	mg/Kg	☼	07/25/19 15:37	07/27/19 00:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.2		0.01	0.01	%	-		07/22/19 10:48	1

Euofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-1 (8-10)

Lab Sample ID: 400-173466-7

Date Collected: 07/18/19 13:35

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 81.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.40	0.040	mg/Kg	☼	07/23/19 08:34	07/25/19 01:45	1
Acenaphthylene	ND		0.40	0.040	mg/Kg	☼	07/23/19 08:34	07/25/19 01:45	1
Anthracene	ND		0.40	0.040	mg/Kg	☼	07/23/19 08:34	07/25/19 01:45	1
Benzo[a]anthracene	ND		0.40	0.040	mg/Kg	☼	07/23/19 08:34	07/25/19 01:45	1
Benzo[a]pyrene	ND		0.40	0.040	mg/Kg	☼	07/23/19 08:34	07/26/19 07:35	1
Benzo[b]fluoranthene	ND		0.40	0.040	mg/Kg	☼	07/23/19 08:34	07/26/19 07:35	1
Benzo[g,h,i]perylene	ND		0.40	0.040	mg/Kg	☼	07/23/19 08:34	07/26/19 07:35	1
Benzo[k]fluoranthene	ND		0.40	0.040	mg/Kg	☼	07/23/19 08:34	07/26/19 07:35	1
Chrysene	ND		0.40	0.040	mg/Kg	☼	07/23/19 08:34	07/25/19 01:45	1
Dibenz(a,h)anthracene	ND		0.40	0.040	mg/Kg	☼	07/23/19 08:34	07/26/19 07:35	1
Fluoranthene	ND		0.40	0.040	mg/Kg	☼	07/23/19 08:34	07/25/19 01:45	1
Fluorene	ND		0.40	0.040	mg/Kg	☼	07/23/19 08:34	07/25/19 01:45	1
Indeno[1,2,3-cd]pyrene	ND		0.40	0.040	mg/Kg	☼	07/23/19 08:34	07/26/19 07:35	1
Naphthalene	ND		0.40	0.040	mg/Kg	☼	07/23/19 08:34	07/25/19 01:45	1
Phenanthrene	ND		0.40	0.040	mg/Kg	☼	07/23/19 08:34	07/25/19 01:45	1
Pyrene	ND		0.40	0.040	mg/Kg	☼	07/23/19 08:34	07/25/19 01:45	1
1-Methylnaphthalene	ND		0.40	0.040	mg/Kg	☼	07/23/19 08:34	07/25/19 01:45	1
2-Methylnaphthalene	ND		0.40	0.040	mg/Kg	☼	07/23/19 08:34	07/25/19 01:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	59		27 - 127	07/23/19 08:34	07/26/19 07:35	1
Nitrobenzene-d5 (Surr)	45		15 - 136	07/23/19 08:34	07/26/19 07:35	1
Terphenyl-d14 (Surr)	70		24 - 146	07/23/19 08:34	07/26/19 07:35	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.015	0.0093	mg/Kg	☼	07/23/19 12:52	07/25/19 12:56	1

Method: EPA 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0		0.12	0.032	mg/Kg	☼	07/25/19 15:37	07/27/19 00:48	1
Boron	2.3	J	9.9	1.7	mg/Kg	☼	07/25/19 15:37	07/27/19 00:48	1
Barium	180		1.2	0.16	mg/Kg	☼	07/25/19 15:37	07/27/19 00:48	1
Beryllium	0.90	B	0.12	0.0093	mg/Kg	☼	07/25/19 15:37	07/27/19 00:48	1
Calcium	1900		62	11	mg/Kg	☼	07/25/19 15:37	07/27/19 00:48	1
Cadmium	0.063	J	0.12	0.021	mg/Kg	☼	07/25/19 15:37	07/27/19 00:48	1
Chromium	10		0.25	0.10	mg/Kg	☼	07/25/19 15:37	07/27/19 00:48	1
Cobalt	11		0.062	0.010	mg/Kg	☼	07/25/19 15:37	07/27/19 00:48	1
Molybdenum	0.71		0.62	0.20	mg/Kg	☼	07/25/19 15:37	07/27/19 00:48	1
Lead	16		0.12	0.043	mg/Kg	☼	07/25/19 15:37	07/27/19 00:48	1
Antimony	0.16	J	0.25	0.077	mg/Kg	☼	07/25/19 15:37	07/27/19 00:48	1
Thallium	0.23		0.12	0.031	mg/Kg	☼	07/25/19 15:37	07/27/19 00:48	1
Selenium	0.64		0.62	0.15	mg/Kg	☼	07/25/19 15:37	07/27/19 00:48	1
Lithium	5.4		0.62	0.34	mg/Kg	☼	07/25/19 15:37	07/27/19 00:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.0		0.01	0.01	%	-		07/22/19 10:48	1

Euofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-2 (0-2)

Lab Sample ID: 400-173466-8

Date Collected: 07/18/19 17:45

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 75.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 02:06	1
Acenaphthylene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 02:06	1
Anthracene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 02:06	1
Benzo[a]anthracene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/26/19 07:57	1
Benzo[a]pyrene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/26/19 07:57	1
Benzo[b]fluoranthene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/26/19 07:57	1
Benzo[g,h,i]perylene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/26/19 07:57	1
Benzo[k]fluoranthene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/26/19 07:57	1
Chrysene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/26/19 07:57	1
Dibenz(a,h)anthracene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/26/19 07:57	1
Fluoranthene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 02:06	1
Fluorene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 02:06	1
Indeno[1,2,3-cd]pyrene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/26/19 07:57	1
Naphthalene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 02:06	1
Phenanthrene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 02:06	1
Pyrene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/26/19 07:57	1
1-Methylnaphthalene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 02:06	1
2-Methylnaphthalene	ND		0.42	0.042	mg/Kg	☼	07/23/19 08:34	07/25/19 02:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	53		27 - 127				07/23/19 08:34	07/26/19 07:57	1
Nitrobenzene-d5 (Surr)	41		15 - 136				07/23/19 08:34	07/26/19 07:57	1
Terphenyl-d14 (Surr)	55		24 - 146				07/23/19 08:34	07/26/19 07:57	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.010	J	0.017	0.010	mg/Kg	☼	07/23/19 12:52	07/25/19 12:58	1

Method: EPA 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2		0.13	0.034	mg/Kg	☼	07/25/19 15:37	07/27/19 00:53	1
Boron	ND		10	1.7	mg/Kg	☼	07/25/19 15:37	07/27/19 00:53	1
Barium	26		1.3	0.17	mg/Kg	☼	07/25/19 15:37	07/27/19 00:53	1
Beryllium	0.12	J B	0.13	0.0097	mg/Kg	☼	07/25/19 15:37	07/27/19 00:53	1
Calcium	340		65	12	mg/Kg	☼	07/25/19 15:37	07/27/19 00:53	1
Cadmium	0.035	J	0.13	0.022	mg/Kg	☼	07/25/19 15:37	07/27/19 00:53	1
Chromium	5.5		0.26	0.11	mg/Kg	☼	07/25/19 15:37	07/27/19 00:53	1
Cobalt	0.87		0.065	0.011	mg/Kg	☼	07/25/19 15:37	07/27/19 00:53	1
Molybdenum	ND		0.65	0.21	mg/Kg	☼	07/25/19 15:37	07/27/19 00:53	1
Lead	5.4		0.13	0.045	mg/Kg	☼	07/25/19 15:37	07/27/19 00:53	1
Antimony	0.093	J	0.26	0.080	mg/Kg	☼	07/25/19 15:37	07/27/19 00:53	1
Thallium	0.12	J	0.13	0.032	mg/Kg	☼	07/25/19 15:37	07/27/19 00:53	1
Selenium	0.52	J	0.65	0.16	mg/Kg	☼	07/25/19 15:37	07/27/19 00:53	1
Lithium	4.2		0.65	0.36	mg/Kg	☼	07/25/19 15:37	07/27/19 00:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.3		0.01	0.01	%	-		07/22/19 10:48	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-2 (2-4)

Lab Sample ID: 400-173466-9

Date Collected: 07/18/19 17:50

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 70.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.46	0.046	mg/Kg	☼	07/23/19 08:34	07/25/19 02:27	1
Acenaphthylene	ND		0.46	0.046	mg/Kg	☼	07/23/19 08:34	07/25/19 02:27	1
Anthracene	ND		0.46	0.046	mg/Kg	☼	07/23/19 08:34	07/25/19 02:27	1
Benzo[a]anthracene	ND		0.46	0.046	mg/Kg	☼	07/23/19 08:34	07/26/19 08:18	1
Benzo[a]pyrene	ND		0.46	0.046	mg/Kg	☼	07/23/19 08:34	07/26/19 08:18	1
Benzo[b]fluoranthene	ND		0.46	0.046	mg/Kg	☼	07/23/19 08:34	07/26/19 08:18	1
Benzo[g,h,i]perylene	ND		0.46	0.046	mg/Kg	☼	07/23/19 08:34	07/26/19 08:18	1
Benzo[k]fluoranthene	ND		0.46	0.046	mg/Kg	☼	07/23/19 08:34	07/26/19 08:18	1
Chrysene	ND		0.46	0.046	mg/Kg	☼	07/23/19 08:34	07/26/19 08:18	1
Dibenz(a,h)anthracene	ND		0.46	0.046	mg/Kg	☼	07/23/19 08:34	07/26/19 08:18	1
Fluoranthene	ND		0.46	0.046	mg/Kg	☼	07/23/19 08:34	07/25/19 02:27	1
Fluorene	ND		0.46	0.046	mg/Kg	☼	07/23/19 08:34	07/25/19 02:27	1
Indeno[1,2,3-cd]pyrene	ND		0.46	0.046	mg/Kg	☼	07/23/19 08:34	07/26/19 08:18	1
Naphthalene	ND		0.46	0.046	mg/Kg	☼	07/23/19 08:34	07/25/19 02:27	1
Phenanthrene	ND		0.46	0.046	mg/Kg	☼	07/23/19 08:34	07/25/19 02:27	1
Pyrene	ND		0.46	0.046	mg/Kg	☼	07/23/19 08:34	07/26/19 08:18	1
1-Methylnaphthalene	ND		0.46	0.046	mg/Kg	☼	07/23/19 08:34	07/25/19 02:27	1
2-Methylnaphthalene	ND		0.46	0.046	mg/Kg	☼	07/23/19 08:34	07/25/19 02:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	49		27 - 127	07/23/19 08:34	07/26/19 08:18	1
Nitrobenzene-d5 (Surr)	39		15 - 136	07/23/19 08:34	07/26/19 08:18	1
Terphenyl-d14 (Surr)	62		24 - 146	07/23/19 08:34	07/26/19 08:18	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.018	0.011	mg/Kg	☼	07/23/19 12:52	07/25/19 13:15	1

Method: EPA 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.8		0.14	0.035	mg/Kg	☼	07/25/19 15:37	07/27/19 00:58	1
Boron	ND		11	1.8	mg/Kg	☼	07/25/19 15:37	07/27/19 00:58	1
Barium	92		1.4	0.17	mg/Kg	☼	07/25/19 15:37	07/27/19 00:58	1
Beryllium	0.34	B	0.14	0.010	mg/Kg	☼	07/25/19 15:37	07/27/19 00:58	1
Calcium	1400		68	12	mg/Kg	☼	07/25/19 15:37	07/27/19 00:58	1
Cadmium	ND		0.14	0.023	mg/Kg	☼	07/25/19 15:37	07/27/19 00:58	1
Chromium	8.8		0.27	0.11	mg/Kg	☼	07/25/19 15:37	07/27/19 00:58	1
Cobalt	4.0		0.068	0.011	mg/Kg	☼	07/25/19 15:37	07/27/19 00:58	1
Molybdenum	0.28	J	0.68	0.22	mg/Kg	☼	07/25/19 15:37	07/27/19 00:58	1
Lead	7.6		0.14	0.048	mg/Kg	☼	07/25/19 15:37	07/27/19 00:58	1
Antimony	0.14	J	0.27	0.084	mg/Kg	☼	07/25/19 15:37	07/27/19 00:58	1
Thallium	0.18		0.14	0.034	mg/Kg	☼	07/25/19 15:37	07/27/19 00:58	1
Selenium	0.50	J	0.68	0.17	mg/Kg	☼	07/25/19 15:37	07/27/19 00:58	1
Lithium	3.7		0.68	0.38	mg/Kg	☼	07/25/19 15:37	07/27/19 00:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	29.9		0.01	0.01	%	-		07/22/19 10:48	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-2 (8-10)

Lab Sample ID: 400-173466-10

Date Collected: 07/18/19 17:55

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 75.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.43	0.043	mg/Kg	☼	07/23/19 08:34	07/25/19 02:48	1
Acenaphthylene	ND		0.43	0.043	mg/Kg	☼	07/23/19 08:34	07/25/19 02:48	1
Anthracene	ND		0.43	0.043	mg/Kg	☼	07/23/19 08:34	07/25/19 02:48	1
Benzo[a]anthracene	ND		0.43	0.043	mg/Kg	☼	07/23/19 08:34	07/26/19 08:40	1
Benzo[a]pyrene	ND		0.43	0.043	mg/Kg	☼	07/23/19 08:34	07/26/19 08:40	1
Benzo[b]fluoranthene	ND		0.43	0.043	mg/Kg	☼	07/23/19 08:34	07/26/19 08:40	1
Benzo[g,h,i]perylene	ND		0.43	0.043	mg/Kg	☼	07/23/19 08:34	07/26/19 08:40	1
Benzo[k]fluoranthene	ND		0.43	0.043	mg/Kg	☼	07/23/19 08:34	07/26/19 08:40	1
Chrysene	ND		0.43	0.043	mg/Kg	☼	07/23/19 08:34	07/26/19 08:40	1
Dibenz(a,h)anthracene	ND		0.43	0.043	mg/Kg	☼	07/23/19 08:34	07/26/19 08:40	1
Fluoranthene	ND		0.43	0.043	mg/Kg	☼	07/23/19 08:34	07/25/19 02:48	1
Fluorene	ND		0.43	0.043	mg/Kg	☼	07/23/19 08:34	07/25/19 02:48	1
Indeno[1,2,3-cd]pyrene	ND		0.43	0.043	mg/Kg	☼	07/23/19 08:34	07/26/19 08:40	1
Naphthalene	ND		0.43	0.043	mg/Kg	☼	07/23/19 08:34	07/25/19 02:48	1
Phenanthrene	ND		0.43	0.043	mg/Kg	☼	07/23/19 08:34	07/25/19 02:48	1
Pyrene	ND		0.43	0.043	mg/Kg	☼	07/23/19 08:34	07/26/19 08:40	1
1-Methylnaphthalene	ND		0.43	0.043	mg/Kg	☼	07/23/19 08:34	07/25/19 02:48	1
2-Methylnaphthalene	ND		0.43	0.043	mg/Kg	☼	07/23/19 08:34	07/25/19 02:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	61		27 - 127				07/23/19 08:34	07/26/19 08:40	1
Nitrobenzene-d5 (Surr)	50		15 - 136				07/23/19 08:34	07/26/19 08:40	1
Terphenyl-d14 (Surr)	72		24 - 146				07/23/19 08:34	07/26/19 08:40	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.018	0.011	mg/Kg	☼	07/23/19 12:52	07/25/19 13:17	1

Method: EPA 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	16		0.13	0.033	mg/Kg	☼	07/25/19 15:37	07/27/19 01:03	1
Boron	1.8	J	10	1.7	mg/Kg	☼	07/25/19 15:37	07/27/19 01:03	1
Barium	130		1.3	0.16	mg/Kg	☼	07/25/19 15:37	07/27/19 01:03	1
Beryllium	1.0	B	0.13	0.0096	mg/Kg	☼	07/25/19 15:37	07/27/19 01:03	1
Calcium	1600		64	11	mg/Kg	☼	07/25/19 15:37	07/27/19 01:03	1
Cadmium	0.055	J	0.13	0.022	mg/Kg	☼	07/25/19 15:37	07/27/19 01:03	1
Chromium	8.6		0.26	0.11	mg/Kg	☼	07/25/19 15:37	07/27/19 01:03	1
Cobalt	8.9		0.064	0.011	mg/Kg	☼	07/25/19 15:37	07/27/19 01:03	1
Molybdenum	0.49	J	0.64	0.21	mg/Kg	☼	07/25/19 15:37	07/27/19 01:03	1
Lead	18		0.13	0.045	mg/Kg	☼	07/25/19 15:37	07/27/19 01:03	1
Antimony	0.24	J	0.26	0.079	mg/Kg	☼	07/25/19 15:37	07/27/19 01:03	1
Thallium	0.16		0.13	0.032	mg/Kg	☼	07/25/19 15:37	07/27/19 01:03	1
Selenium	0.85		0.64	0.16	mg/Kg	☼	07/25/19 15:37	07/27/19 01:03	1
Lithium	3.8		0.64	0.35	mg/Kg	☼	07/25/19 15:37	07/27/19 01:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.9		0.01	0.01	%			07/22/19 10:48	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-3 (0-2)

Lab Sample ID: 400-173466-11

Date Collected: 07/18/19 14:30

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 86.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0042	0.00093	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
1,1,2,2-Tetrachloroethane	ND		0.0042	0.0021	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0042	0.0017	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
1,1,2-Trichloroethane	ND		0.0042	0.0021	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
1,1-Dichloroethane	ND		0.0042	0.00070	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
1,1-Dichloroethene	ND		0.0042	0.0021	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
1,2,3-Trichlorobenzene	ND		0.0042	0.0021	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
1,2,4-Trichlorobenzene	ND		0.0042	0.0017	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
1,2-Dibromo-3-Chloropropane	ND		0.0042	0.0028	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
1,2-Dichlorobenzene	ND		0.0042	0.00060	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
1,2-Dichloroethane	ND		0.0042	0.00069	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
1,2-Dichloropropane	ND		0.0042	0.0021	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
1,3-Dichlorobenzene	ND		0.0042	0.00080	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
1,4-Dichlorobenzene	ND		0.0042	0.0021	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
2-Butanone (MEK)	ND		0.021	0.0051	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
2-Hexanone	ND		0.021	0.0042	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
4-Methyl-2-pentanone (MIBK)	ND		0.021	0.0042	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Acetone	0.018	J	0.021	0.011	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Benzene	ND		0.0042	0.00057	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Bromoform	ND		0.0042	0.0021	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Bromomethane	ND		0.0042	0.0021	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Carbon disulfide	ND		0.0042	0.0021	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Carbon tetrachloride	ND		0.0042	0.0014	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Chlorobenzene	ND		0.0042	0.00044	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Chlorobromomethane	ND		0.0042	0.0021	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Chloroethane	ND		0.0042	0.0021	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Chloroform	ND		0.0042	0.0021	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Chloromethane	ND		0.0042	0.00084	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
cis-1,2-Dichloroethene	ND		0.0042	0.00064	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
cis-1,3-Dichloropropene	ND		0.0042	0.0010	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Cyclohexane	ND		0.0042	0.00079	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Dibromochloromethane	ND		0.0042	0.0021	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Dichlorobromomethane	ND		0.0042	0.0021	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Dichlorodifluoromethane	ND		0.0042	0.0011	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Ethylbenzene	ND		0.0042	0.00052	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Ethylene Dibromide	ND		0.0042	0.00084	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Isopropylbenzene	ND		0.0042	0.00057	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Methyl acetate	ND		0.0042	0.0039	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Methyl tert-butyl ether	ND		0.0042	0.00084	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Methylcyclohexane	ND		0.0042	0.0013	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Methylene Chloride	ND		0.013	0.0084	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Styrene	ND		0.0042	0.00084	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Tetrachloroethene	ND		0.0042	0.0021	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Toluene	ND		0.0042	0.00084	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
trans-1,2-Dichloroethene	ND		0.0042	0.0021	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
trans-1,3-Dichloropropene	ND		0.0042	0.0021	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Trichloroethene	ND		0.0042	0.00084	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Trichlorofluoromethane	ND		0.0042	0.0021	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1
Vinyl chloride	ND		0.0042	0.0021	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-3 (0-2)

Lab Sample ID: 400-173466-11

Date Collected: 07/18/19 14:30

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 86.2

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.0084	0.0016	mg/Kg	☼	07/30/19 07:17	07/30/19 10:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		72 - 122	07/30/19 07:17	07/30/19 10:00	1
Dibromofluoromethane	102		79 - 123	07/30/19 07:17	07/30/19 10:00	1
Toluene-d8 (Surr)	100		80 - 120	07/30/19 07:17	07/30/19 10:00	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.38	0.038	mg/Kg	☼	07/23/19 08:34	07/25/19 03:09	1
Acenaphthylene	0.046	J	0.38	0.038	mg/Kg	☼	07/23/19 08:34	07/25/19 03:09	1
Anthracene	ND		0.38	0.038	mg/Kg	☼	07/23/19 08:34	07/25/19 03:09	1
Benzo[a]anthracene	ND		0.38	0.038	mg/Kg	☼	07/23/19 08:34	07/25/19 03:09	1
Benzo[a]pyrene	0.056	J	0.38	0.038	mg/Kg	☼	07/23/19 08:34	07/26/19 09:01	1
Benzo[b]fluoranthene	0.087	J	0.38	0.038	mg/Kg	☼	07/23/19 08:34	07/26/19 09:01	1
Benzo[g,h,i]perylene	ND		0.38	0.038	mg/Kg	☼	07/23/19 08:34	07/26/19 09:01	1
Benzo[k]fluoranthene	ND		0.38	0.038	mg/Kg	☼	07/23/19 08:34	07/26/19 09:01	1
Chrysene	0.15	J	0.38	0.038	mg/Kg	☼	07/23/19 08:34	07/25/19 03:09	1
Dibenz(a,h)anthracene	ND		0.38	0.038	mg/Kg	☼	07/23/19 08:34	07/26/19 09:01	1
Fluoranthene	0.039	J	0.38	0.038	mg/Kg	☼	07/23/19 08:34	07/25/19 03:09	1
Fluorene	ND		0.38	0.038	mg/Kg	☼	07/23/19 08:34	07/25/19 03:09	1
Indeno[1,2,3-cd]pyrene	ND		0.38	0.038	mg/Kg	☼	07/23/19 08:34	07/26/19 09:01	1
Naphthalene	0.81		0.38	0.038	mg/Kg	☼	07/23/19 08:34	07/25/19 03:09	1
Phenanthrene	1.0		0.38	0.038	mg/Kg	☼	07/23/19 08:34	07/25/19 03:09	1
Pyrene	0.091	J	0.38	0.038	mg/Kg	☼	07/23/19 08:34	07/25/19 03:09	1
1-Methylnaphthalene	0.52		0.38	0.038	mg/Kg	☼	07/23/19 08:34	07/25/19 03:09	1
2-Methylnaphthalene	0.78		0.38	0.038	mg/Kg	☼	07/23/19 08:34	07/25/19 03:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	51		27 - 127	07/23/19 08:34	07/26/19 09:01	1
Nitrobenzene-d5 (Surr)	41		15 - 136	07/23/19 08:34	07/26/19 09:01	1
Terphenyl-d14 (Surr)	76		24 - 146	07/23/19 08:34	07/26/19 09:01	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.015	0.0087	mg/Kg	☼	07/23/19 12:52	07/25/19 13:19	1

Method: EPA 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.3		0.11	0.030	mg/Kg	☼	07/25/19 15:37	07/27/19 01:07	1
Boron	ND		9.2	1.6	mg/Kg	☼	07/25/19 15:37	07/27/19 01:07	1
Barium	48		1.1	0.15	mg/Kg	☼	07/25/19 15:37	07/27/19 01:07	1
Beryllium	0.57	B	0.11	0.0086	mg/Kg	☼	07/25/19 15:37	07/27/19 01:07	1
Calcium	540		57	10	mg/Kg	☼	07/25/19 15:37	07/27/19 01:07	1
Cadmium	0.045	J	0.11	0.020	mg/Kg	☼	07/25/19 15:37	07/27/19 01:07	1
Chromium	6.8		0.23	0.095	mg/Kg	☼	07/25/19 15:37	07/27/19 01:07	1
Cobalt	1.8		0.057	0.0095	mg/Kg	☼	07/25/19 15:37	07/27/19 01:07	1
Molybdenum	0.35	J	0.57	0.19	mg/Kg	☼	07/25/19 15:37	07/27/19 01:07	1
Lead	7.0		0.11	0.040	mg/Kg	☼	07/25/19 15:37	07/27/19 01:07	1
Antimony	0.14	J	0.23	0.071	mg/Kg	☼	07/25/19 15:37	07/27/19 01:07	1
Thallium	0.11		0.11	0.029	mg/Kg	☼	07/25/19 15:37	07/27/19 01:07	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-3 (0-2)

Lab Sample ID: 400-173466-11

Date Collected: 07/18/19 14:30

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 86.2

Method: EPA 6020 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.59		0.57	0.14	mg/Kg	☼	07/25/19 15:37	07/27/19 01:07	1
Lithium	4.0		0.57	0.32	mg/Kg	☼	07/25/19 15:37	07/27/19 01:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	13.8		0.01	0.01	%	—		07/23/19 09:34	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-3 (2-4)

Lab Sample ID: 400-173466-12

Date Collected: 07/18/19 14:35

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 88.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0055	0.0012	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
1,1,2,2-Tetrachloroethane	ND		0.0055	0.0028	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0055	0.0022	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
1,1,2-Trichloroethane	ND		0.0055	0.0028	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
1,1-Dichloroethane	ND		0.0055	0.00092	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
1,1-Dichloroethene	ND		0.0055	0.0028	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
1,2,3-Trichlorobenzene	ND		0.0055	0.0028	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
1,2,4-Trichlorobenzene	ND		0.0055	0.0022	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
1,2-Dibromo-3-Chloropropane	ND		0.0055	0.0037	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
1,2-Dichlorobenzene	ND		0.0055	0.00079	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
1,2-Dichloroethane	ND		0.0055	0.00091	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
1,2-Dichloropropane	ND		0.0055	0.0028	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
1,3-Dichlorobenzene	ND		0.0055	0.0011	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
1,4-Dichlorobenzene	ND		0.0055	0.0028	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
2-Butanone (MEK)	ND		0.028	0.0067	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
2-Hexanone	ND		0.028	0.0055	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
4-Methyl-2-pentanone (MIBK)	ND		0.028	0.0055	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Acetone	0.016	J	0.028	0.014	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Benzene	0.0017	J	0.0055	0.00074	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Bromoform	ND		0.0055	0.0028	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Bromomethane	ND		0.0055	0.0028	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Carbon disulfide	ND		0.0055	0.0028	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Carbon tetrachloride	ND		0.0055	0.0019	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Chlorobenzene	ND		0.0055	0.00058	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Chlorobromomethane	ND		0.0055	0.0028	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Chloroethane	ND		0.0055	0.0028	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Chloroform	ND		0.0055	0.0028	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Chloromethane	ND		0.0055	0.0011	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
cis-1,2-Dichloroethene	ND		0.0055	0.00084	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
cis-1,3-Dichloropropene	ND		0.0055	0.0013	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Cyclohexane	ND		0.0055	0.0010	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Dibromochloromethane	ND		0.0055	0.0028	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Dichlorobromomethane	ND		0.0055	0.0028	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Dichlorodifluoromethane	ND		0.0055	0.0014	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Ethylbenzene	ND		0.0055	0.00068	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Ethylene Dibromide	ND		0.0055	0.0011	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Isopropylbenzene	ND		0.0055	0.00075	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Methyl acetate	ND		0.0055	0.0051	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Methyl tert-butyl ether	ND		0.0055	0.0011	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Methylcyclohexane	ND		0.0055	0.0017	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Methylene Chloride	ND		0.017	0.011	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Styrene	ND		0.0055	0.0011	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Tetrachloroethene	ND		0.0055	0.0028	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Toluene	ND		0.0055	0.0011	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
trans-1,2-Dichloroethene	ND		0.0055	0.0028	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
trans-1,3-Dichloropropene	ND		0.0055	0.0028	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Trichloroethene	ND		0.0055	0.0011	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Trichlorofluoromethane	ND		0.0055	0.0028	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Vinyl chloride	ND		0.0055	0.0028	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1

Euofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-3 (2-4)

Lab Sample ID: 400-173466-12

Date Collected: 07/18/19 14:35

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 88.3

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.011	0.0021	mg/Kg	☼	07/30/19 07:17	07/30/19 10:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		72 - 122				07/30/19 07:17	07/30/19 10:26	1
Dibromofluoromethane	98		79 - 123				07/30/19 07:17	07/30/19 10:26	1
Toluene-d8 (Surr)	98		80 - 120				07/30/19 07:17	07/30/19 10:26	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 03:30	1
Acenaphthylene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 03:30	1
Anthracene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 03:30	1
Benzo[a]anthracene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 03:30	1
Benzo[a]pyrene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/26/19 09:23	1
Benzo[b]fluoranthene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/26/19 09:23	1
Benzo[g,h,i]perylene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/26/19 09:23	1
Benzo[k]fluoranthene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/26/19 09:23	1
Chrysene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 03:30	1
Dibenz(a,h)anthracene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/26/19 09:23	1
Fluoranthene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 03:30	1
Fluorene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 03:30	1
Indeno[1,2,3-cd]pyrene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/26/19 09:23	1
Naphthalene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 03:30	1
Phenanthrene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 03:30	1
Pyrene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 03:30	1
1-Methylnaphthalene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 03:30	1
2-Methylnaphthalene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 03:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	54		27 - 127				07/23/19 08:34	07/26/19 09:23	1
Nitrobenzene-d5 (Surr)	42		15 - 136				07/23/19 08:34	07/26/19 09:23	1
Terphenyl-d14 (Surr)	65		24 - 146				07/23/19 08:34	07/26/19 09:23	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.015	0.0089	mg/Kg	☼	07/23/19 12:52	07/25/19 13:21	1

Method: EPA 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.6		0.11	0.029	mg/Kg	☼	07/25/19 15:37	07/27/19 01:12	1
Boron	ND		8.9	1.5	mg/Kg	☼	07/25/19 15:37	07/27/19 01:12	1
Barium	130		1.1	0.14	mg/Kg	☼	07/25/19 15:37	07/27/19 01:12	1
Beryllium	0.29	B	0.11	0.0083	mg/Kg	☼	07/25/19 15:37	07/27/19 01:12	1
Calcium	520		55	9.9	mg/Kg	☼	07/25/19 15:37	07/27/19 01:12	1
Cadmium	ND		0.11	0.019	mg/Kg	☼	07/25/19 15:37	07/27/19 01:12	1
Chromium	8.9		0.22	0.092	mg/Kg	☼	07/25/19 15:37	07/27/19 01:12	1
Cobalt	2.2		0.055	0.0092	mg/Kg	☼	07/25/19 15:37	07/27/19 01:12	1
Molybdenum	0.31	J	0.55	0.18	mg/Kg	☼	07/25/19 15:37	07/27/19 01:12	1
Lead	7.0		0.11	0.039	mg/Kg	☼	07/25/19 15:37	07/27/19 01:12	1
Antimony	0.14	J	0.22	0.069	mg/Kg	☼	07/25/19 15:37	07/27/19 01:12	1
Thallium	0.15		0.11	0.028	mg/Kg	☼	07/25/19 15:37	07/27/19 01:12	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-3 (2-4)

Lab Sample ID: 400-173466-12

Date Collected: 07/18/19 14:35

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 88.3

Method: EPA 6020 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.50	J	0.55	0.14	mg/Kg	☼	07/25/19 15:37	07/27/19 01:12	1
Lithium	7.2		0.55	0.31	mg/Kg	☼	07/25/19 15:37	07/27/19 01:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.7		0.01	0.01	%			07/23/19 09:34	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-3 (8-10)

Lab Sample ID: 400-173466-13

Date Collected: 07/18/19 14:40

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 68.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0058	0.0013	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
1,1,2,2-Tetrachloroethane	ND		0.0058	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0058	0.0023	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
1,1,2-Trichloroethane	ND		0.0058	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
1,1-Dichloroethane	ND		0.0058	0.00096	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
1,1-Dichloroethene	ND		0.0058	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
1,2,3-Trichlorobenzene	ND		0.0058	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
1,2,4-Trichlorobenzene	ND		0.0058	0.0023	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
1,2-Dibromo-3-Chloropropane	ND		0.0058	0.0038	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
1,2-Dichlorobenzene	ND		0.0058	0.00082	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
1,2-Dichloroethane	ND		0.0058	0.00095	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
1,2-Dichloropropane	ND		0.0058	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
1,3-Dichlorobenzene	ND		0.0058	0.0011	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
1,4-Dichlorobenzene	ND		0.0058	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
2-Butanone (MEK)	ND		0.029	0.0069	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
2-Hexanone	ND		0.029	0.0058	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
4-Methyl-2-pentanone (MIBK)	ND		0.029	0.0058	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Acetone	ND		0.029	0.015	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Benzene	ND		0.0058	0.00077	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Bromoform	ND		0.0058	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Bromomethane	ND		0.0058	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Carbon disulfide	ND		0.0058	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Carbon tetrachloride	ND		0.0058	0.0020	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Chlorobenzene	ND		0.0058	0.00060	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Chlorobromomethane	ND		0.0058	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Chloroethane	ND		0.0058	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Chloroform	ND		0.0058	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Chloromethane	ND		0.0058	0.0012	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
cis-1,2-Dichloroethene	ND		0.0058	0.00088	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
cis-1,3-Dichloropropene	ND		0.0058	0.0014	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Cyclohexane	ND		0.0058	0.0011	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Dibromochloromethane	ND		0.0058	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Dichlorobromomethane	ND		0.0058	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Dichlorodifluoromethane	ND		0.0058	0.0015	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Ethylbenzene	ND		0.0058	0.00070	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Ethylene Dibromide	ND		0.0058	0.0012	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Isopropylbenzene	ND		0.0058	0.00079	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Methyl acetate	ND		0.0058	0.0053	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Methyl tert-butyl ether	ND		0.0058	0.0012	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Methylcyclohexane	ND		0.0058	0.0017	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Methylene Chloride	ND		0.017	0.012	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Styrene	ND		0.0058	0.0012	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Tetrachloroethene	ND		0.0058	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Toluene	ND		0.0058	0.0012	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
trans-1,2-Dichloroethene	ND		0.0058	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
trans-1,3-Dichloropropene	ND		0.0058	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Trichloroethene	ND		0.0058	0.0012	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Trichlorofluoromethane	ND		0.0058	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Vinyl chloride	ND		0.0058	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1

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Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-3 (8-10)

Lab Sample ID: 400-173466-13

Date Collected: 07/18/19 14:40

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 68.0

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.012	0.0022	mg/Kg	☼	07/26/19 08:31	07/26/19 14:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		72 - 122				07/26/19 08:31	07/26/19 14:27	1
Dibromofluoromethane	102		79 - 123				07/26/19 08:31	07/26/19 14:27	1
Toluene-d8 (Surr)	98		80 - 120				07/26/19 08:31	07/26/19 14:27	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.48	0.048	mg/Kg	☼	07/23/19 08:34	07/25/19 03:51	1
Acenaphthylene	ND		0.48	0.048	mg/Kg	☼	07/23/19 08:34	07/25/19 03:51	1
Anthracene	ND		0.48	0.048	mg/Kg	☼	07/23/19 08:34	07/25/19 03:51	1
Benzo[a]anthracene	ND		0.48	0.048	mg/Kg	☼	07/23/19 08:34	07/25/19 03:51	1
Benzo[a]pyrene	ND		0.48	0.048	mg/Kg	☼	07/23/19 08:34	07/26/19 09:44	1
Benzo[b]fluoranthene	ND		0.48	0.048	mg/Kg	☼	07/23/19 08:34	07/26/19 09:44	1
Benzo[g,h,i]perylene	ND		0.48	0.048	mg/Kg	☼	07/23/19 08:34	07/26/19 09:44	1
Benzo[k]fluoranthene	ND		0.48	0.048	mg/Kg	☼	07/23/19 08:34	07/26/19 09:44	1
Chrysene	ND		0.48	0.048	mg/Kg	☼	07/23/19 08:34	07/25/19 03:51	1
Dibenz(a,h)anthracene	ND		0.48	0.048	mg/Kg	☼	07/23/19 08:34	07/26/19 09:44	1
Fluoranthene	ND		0.48	0.048	mg/Kg	☼	07/23/19 08:34	07/25/19 03:51	1
Fluorene	ND		0.48	0.048	mg/Kg	☼	07/23/19 08:34	07/25/19 03:51	1
Indeno[1,2,3-cd]pyrene	ND		0.48	0.048	mg/Kg	☼	07/23/19 08:34	07/26/19 09:44	1
Naphthalene	ND		0.48	0.048	mg/Kg	☼	07/23/19 08:34	07/25/19 03:51	1
Phenanthrene	ND		0.48	0.048	mg/Kg	☼	07/23/19 08:34	07/25/19 03:51	1
Pyrene	ND		0.48	0.048	mg/Kg	☼	07/23/19 08:34	07/25/19 03:51	1
1-Methylnaphthalene	ND		0.48	0.048	mg/Kg	☼	07/23/19 08:34	07/25/19 03:51	1
2-Methylnaphthalene	ND		0.48	0.048	mg/Kg	☼	07/23/19 08:34	07/25/19 03:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	40		27 - 127				07/23/19 08:34	07/26/19 09:44	1
Nitrobenzene-d5 (Surr)	31		15 - 136				07/23/19 08:34	07/26/19 09:44	1
Terphenyl-d14 (Surr)	57		24 - 146				07/23/19 08:34	07/26/19 09:44	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.018	0.011	mg/Kg	☼	07/23/19 12:52	07/25/19 13:23	1

Method: EPA 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10		0.15	0.038	mg/Kg	☼	07/25/19 15:37	07/27/19 01:17	1
Boron	4.3	J	12	2.0	mg/Kg	☼	07/25/19 15:37	07/27/19 01:17	1
Barium	280		1.5	0.19	mg/Kg	☼	07/25/19 15:37	07/27/19 01:17	1
Beryllium	3.4	B	0.15	0.011	mg/Kg	☼	07/25/19 15:37	07/27/19 01:17	1
Calcium	3100		74	13	mg/Kg	☼	07/25/19 15:37	07/27/19 01:17	1
Cadmium	0.052	J	0.15	0.025	mg/Kg	☼	07/25/19 15:37	07/27/19 01:17	1
Chromium	17		0.29	0.12	mg/Kg	☼	07/25/19 15:37	07/27/19 01:17	1
Cobalt	26		0.074	0.012	mg/Kg	☼	07/25/19 15:37	07/27/19 01:17	1
Molybdenum	0.67	J	0.74	0.24	mg/Kg	☼	07/25/19 15:37	07/27/19 01:17	1
Lead	24		0.15	0.052	mg/Kg	☼	07/25/19 15:37	07/27/19 01:17	1
Antimony	0.40		0.29	0.091	mg/Kg	☼	07/25/19 15:37	07/27/19 01:17	1
Thallium	0.34		0.15	0.037	mg/Kg	☼	07/25/19 15:37	07/27/19 01:17	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-3 (8-10)

Lab Sample ID: 400-173466-13

Date Collected: 07/18/19 14:40

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 68.0

Method: EPA 6020 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	1.3		0.74	0.18	mg/Kg	☼	07/25/19 15:37	07/27/19 01:17	1
Lithium	9.1		0.74	0.41	mg/Kg	☼	07/25/19 15:37	07/27/19 01:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	32.0		0.01	0.01	%	—		07/23/19 09:34	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-1 (0-2)

Lab Sample ID: 400-173466-14

Date Collected: 07/18/19 16:00

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 85.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0067	0.0015	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
1,1,2,2-Tetrachloroethane	ND		0.0067	0.0034	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0067	0.0027	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
1,1,2-Trichloroethane	ND		0.0067	0.0034	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
1,1-Dichloroethane	ND		0.0067	0.0011	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
1,1-Dichloroethene	ND		0.0067	0.0034	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
1,2,3-Trichlorobenzene	ND		0.0067	0.0034	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
1,2,4-Trichlorobenzene	ND		0.0067	0.0027	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
1,2-Dibromo-3-Chloropropane	ND		0.0067	0.0044	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
1,2-Dichlorobenzene	ND		0.0067	0.00096	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
1,2-Dichloroethane	ND		0.0067	0.0011	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
1,2-Dichloropropane	ND		0.0067	0.0034	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
1,3-Dichlorobenzene	ND		0.0067	0.0013	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
1,4-Dichlorobenzene	ND		0.0067	0.0034	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
2-Butanone (MEK)	ND		0.034	0.0081	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
2-Hexanone	ND		0.034	0.0067	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
4-Methyl-2-pentanone (MIBK)	ND		0.034	0.0067	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Acetone	ND		0.034	0.018	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Benzene	0.0040	J	0.0067	0.00090	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Bromoform	ND		0.0067	0.0034	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Bromomethane	ND		0.0067	0.0034	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Carbon disulfide	ND		0.0067	0.0034	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Carbon tetrachloride	ND		0.0067	0.0023	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Chlorobenzene	ND		0.0067	0.00070	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Chlorobromomethane	ND		0.0067	0.0034	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Chloroethane	ND		0.0067	0.0034	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Chloroform	ND		0.0067	0.0034	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Chloromethane	ND		0.0067	0.0013	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
cis-1,2-Dichloroethene	ND		0.0067	0.0010	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
cis-1,3-Dichloropropene	ND		0.0067	0.0016	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Cyclohexane	ND		0.0067	0.0013	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Dibromochloromethane	ND		0.0067	0.0034	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Dichlorobromomethane	ND		0.0067	0.0034	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Dichlorodifluoromethane	ND		0.0067	0.0018	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Ethylbenzene	ND		0.0067	0.00082	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Ethylene Dibromide	ND		0.0067	0.0013	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Isopropylbenzene	ND		0.0067	0.00092	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Methyl acetate	ND		0.0067	0.0062	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Methyl tert-butyl ether	ND		0.0067	0.0013	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Methylcyclohexane	ND		0.0067	0.0020	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Methylene Chloride	ND		0.020	0.013	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Styrene	ND		0.0067	0.0013	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Tetrachloroethene	ND		0.0067	0.0034	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Toluene	ND		0.0067	0.0013	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
trans-1,2-Dichloroethene	ND		0.0067	0.0034	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
trans-1,3-Dichloropropene	ND		0.0067	0.0034	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Trichloroethene	ND		0.0067	0.0013	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Trichlorofluoromethane	ND		0.0067	0.0034	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1
Vinyl chloride	ND		0.0067	0.0034	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1

Euofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-1 (0-2)

Lab Sample ID: 400-173466-14

Date Collected: 07/18/19 16:00

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 85.1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.013	0.0026	mg/Kg	☼	07/26/19 08:31	07/26/19 14:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		72 - 122	07/26/19 08:31	07/26/19 14:53	1
Dibromofluoromethane	102		79 - 123	07/26/19 08:31	07/26/19 14:53	1
Toluene-d8 (Surr)	99		80 - 120	07/26/19 08:31	07/26/19 14:53	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.015	0.0089	mg/Kg	☼	07/23/19 12:52	07/25/19 13:25	1

Method: EPA 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.91		0.12	0.031	mg/Kg	☼	07/25/19 15:37	07/27/19 01:35	1
Boron	ND		9.5	1.6	mg/Kg	☼	07/25/19 15:37	07/27/19 01:35	1
Barium	16		1.2	0.15	mg/Kg	☼	07/25/19 15:37	07/27/19 01:35	1
Beryllium	0.13	B	0.12	0.0089	mg/Kg	☼	07/25/19 15:37	07/27/19 01:35	1
Calcium	580		59	11	mg/Kg	☼	07/25/19 15:37	07/27/19 01:35	1
Cadmium	ND		0.12	0.020	mg/Kg	☼	07/25/19 15:37	07/27/19 01:35	1
Chromium	5.1		0.24	0.099	mg/Kg	☼	07/25/19 15:37	07/27/19 01:35	1
Cobalt	0.95		0.059	0.0099	mg/Kg	☼	07/25/19 15:37	07/27/19 01:35	1
Molybdenum	0.19	J	0.59	0.19	mg/Kg	☼	07/25/19 15:37	07/27/19 01:35	1
Lead	4.0		0.12	0.042	mg/Kg	☼	07/25/19 15:37	07/27/19 01:35	1
Antimony	ND		0.24	0.074	mg/Kg	☼	07/25/19 15:37	07/27/19 01:35	1
Thallium	0.089	J	0.12	0.030	mg/Kg	☼	07/25/19 15:37	07/27/19 01:35	1
Selenium	0.27	J	0.59	0.14	mg/Kg	☼	07/25/19 15:37	07/27/19 01:35	1
Lithium	4.5		0.59	0.33	mg/Kg	☼	07/25/19 15:37	07/27/19 01:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.9		0.01	0.01	%	—		07/23/19 09:34	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-1 (12-14)

Lab Sample ID: 400-173466-15

Date Collected: 07/18/19 17:00

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 80.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0064	0.0014	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
1,1,2,2-Tetrachloroethane	ND		0.0064	0.0032	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0064	0.0026	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
1,1,2-Trichloroethane	ND		0.0064	0.0032	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
1,1-Dichloroethane	ND		0.0064	0.0011	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
1,1-Dichloroethene	ND		0.0064	0.0032	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
1,2,3-Trichlorobenzene	ND		0.0064	0.0032	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
1,2,4-Trichlorobenzene	ND		0.0064	0.0026	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
1,2-Dibromo-3-Chloropropane	ND		0.0064	0.0042	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
1,2-Dichlorobenzene	ND		0.0064	0.00091	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
1,2-Dichloroethane	ND		0.0064	0.0011	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
1,2-Dichloropropane	ND		0.0064	0.0032	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
1,3-Dichlorobenzene	ND		0.0064	0.0012	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
1,4-Dichlorobenzene	ND		0.0064	0.0032	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
2-Butanone (MEK)	ND		0.032	0.0077	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
2-Hexanone	ND		0.032	0.0064	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
4-Methyl-2-pentanone (MIBK)	ND		0.032	0.0064	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Acetone	ND		0.032	0.017	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Benzene	ND		0.0064	0.00086	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Bromoform	ND		0.0064	0.0032	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Bromomethane	ND		0.0064	0.0032	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Carbon disulfide	ND		0.0064	0.0032	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Carbon tetrachloride	ND		0.0064	0.0022	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Chlorobenzene	ND		0.0064	0.00067	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Chlorobromomethane	ND		0.0064	0.0032	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Chloroethane	ND		0.0064	0.0032	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Chloroform	ND		0.0064	0.0032	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Chloromethane	ND		0.0064	0.0013	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
cis-1,2-Dichloroethene	ND		0.0064	0.00098	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
cis-1,3-Dichloropropene	ND		0.0064	0.0015	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Cyclohexane	ND		0.0064	0.0012	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Dibromochloromethane	ND		0.0064	0.0032	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Dichlorobromomethane	ND		0.0064	0.0032	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Dichlorodifluoromethane	ND		0.0064	0.0017	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Ethylbenzene	ND		0.0064	0.00078	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Ethylene Dibromide	ND		0.0064	0.0013	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Isopropylbenzene	ND		0.0064	0.00087	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Methyl acetate	ND		0.0064	0.0059	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Methyl tert-butyl ether	ND		0.0064	0.0013	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Methylcyclohexane	ND		0.0064	0.0019	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Methylene Chloride	ND		0.019	0.013	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Styrene	ND		0.0064	0.0013	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Tetrachloroethene	ND		0.0064	0.0032	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Toluene	ND		0.0064	0.0013	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
trans-1,2-Dichloroethene	ND		0.0064	0.0032	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
trans-1,3-Dichloropropene	ND		0.0064	0.0032	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Trichloroethene	ND		0.0064	0.0013	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Trichlorofluoromethane	ND		0.0064	0.0032	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1
Vinyl chloride	ND		0.0064	0.0032	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1

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Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-1 (12-14)

Lab Sample ID: 400-173466-15

Date Collected: 07/18/19 17:00

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 80.0

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.013	0.0024	mg/Kg	☼	07/26/19 08:31	07/26/19 12:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		72 - 122	07/26/19 08:31	07/26/19 12:18	1
Dibromofluoromethane	101		79 - 123	07/26/19 08:31	07/26/19 12:18	1
Toluene-d8 (Surr)	100		80 - 120	07/26/19 08:31	07/26/19 12:18	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	F2 F1	0.41	0.041	mg/Kg	☼	07/23/19 08:34	07/26/19 05:05	1
Acenaphthylene	ND	F2 F1	0.41	0.041	mg/Kg	☼	07/23/19 08:34	07/26/19 05:05	1
Anthracene	ND	F2 F1	0.41	0.041	mg/Kg	☼	07/23/19 08:34	07/26/19 05:05	1
Benzo[a]anthracene	ND	F2 F1	0.41	0.041	mg/Kg	☼	07/23/19 08:34	07/26/19 05:05	1
Benzo[a]pyrene	ND	F2 F1	0.41	0.041	mg/Kg	☼	07/23/19 08:34	07/26/19 05:05	1
Benzo[b]fluoranthene	ND	F2 F1	0.41	0.041	mg/Kg	☼	07/23/19 08:34	07/26/19 05:05	1
Benzo[g,h,i]perylene	ND	F2 F1	0.41	0.041	mg/Kg	☼	07/23/19 08:34	07/26/19 05:05	1
Benzo[k]fluoranthene	ND	F2 F1	0.41	0.041	mg/Kg	☼	07/23/19 08:34	07/26/19 05:05	1
Chrysene	ND	F2 F1	0.41	0.041	mg/Kg	☼	07/23/19 08:34	07/26/19 05:05	1
Dibenz(a,h)anthracene	ND	F2 F1	0.41	0.041	mg/Kg	☼	07/23/19 08:34	07/26/19 05:05	1
Fluoranthene	ND	F2 F1	0.41	0.041	mg/Kg	☼	07/23/19 08:34	07/26/19 05:05	1
Fluorene	ND	F2	0.41	0.041	mg/Kg	☼	07/23/19 08:34	07/26/19 05:05	1
Indeno[1,2,3-cd]pyrene	ND	F2 F1	0.41	0.041	mg/Kg	☼	07/23/19 08:34	07/26/19 05:05	1
Naphthalene	ND	F2 F1	0.41	0.041	mg/Kg	☼	07/23/19 08:34	07/26/19 05:05	1
Phenanthrene	ND	F2 F1	0.41	0.041	mg/Kg	☼	07/23/19 08:34	07/26/19 05:05	1
Pyrene	ND	F2 F1	0.41	0.041	mg/Kg	☼	07/23/19 08:34	07/26/19 05:05	1
1-Methylnaphthalene	ND	F2 F1	0.41	0.041	mg/Kg	☼	07/23/19 08:34	07/26/19 05:05	1
2-Methylnaphthalene	ND	F2 F1	0.41	0.041	mg/Kg	☼	07/23/19 08:34	07/26/19 05:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	26	X	27 - 127	07/23/19 08:34	07/26/19 05:05	1
Nitrobenzene-d5 (Surr)	36		15 - 136	07/23/19 08:34	07/26/19 05:05	1
Terphenyl-d14 (Surr)	15	X	24 - 146	07/23/19 08:34	07/26/19 05:05	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.016	0.0096	mg/Kg	☼	07/23/19 12:52	07/25/19 13:27	1

Method: EPA 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.93		0.12	0.031	mg/Kg	☼	07/25/19 15:37	07/27/19 01:40	1
Boron	2.9	J	9.5	1.6	mg/Kg	☼	07/25/19 15:37	07/27/19 01:40	1
Barium	65		1.2	0.15	mg/Kg	☼	07/25/19 15:37	07/27/19 01:40	1
Beryllium	0.45	B	0.12	0.0089	mg/Kg	☼	07/25/19 15:37	07/27/19 01:40	1
Calcium	890		60	11	mg/Kg	☼	07/25/19 15:37	07/27/19 01:40	1
Cadmium	ND		0.12	0.020	mg/Kg	☼	07/25/19 15:37	07/27/19 01:40	1
Chromium	7.4		0.24	0.099	mg/Kg	☼	07/25/19 15:37	07/27/19 01:40	1
Cobalt	2.6		0.060	0.0099	mg/Kg	☼	07/25/19 15:37	07/27/19 01:40	1
Molybdenum	0.26	J	0.60	0.19	mg/Kg	☼	07/25/19 15:37	07/27/19 01:40	1
Lead	6.5		0.12	0.042	mg/Kg	☼	07/25/19 15:37	07/27/19 01:40	1
Antimony	ND	F1	0.24	0.074	mg/Kg	☼	07/25/19 15:37	07/27/19 01:40	1
Thallium	0.090	J	0.12	0.030	mg/Kg	☼	07/25/19 15:37	07/27/19 01:40	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-1 (12-14)

Lab Sample ID: 400-173466-15

Date Collected: 07/18/19 17:00

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 80.0

Method: EPA 6020 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.54	J	0.60	0.15	mg/Kg	☼	07/25/19 15:37	07/27/19 01:40	1
Lithium	2.7		0.60	0.33	mg/Kg	☼	07/25/19 15:37	07/27/19 01:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.0		0.01	0.01	%	—		07/23/19 09:34	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-1 (18-20)

Lab Sample ID: 400-173466-16

Date Collected: 07/18/19 17:05

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 78.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0059	0.0013	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
1,1,2,2-Tetrachloroethane	ND		0.0059	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0059	0.0024	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
1,1,2-Trichloroethane	ND		0.0059	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
1,1-Dichloroethane	ND		0.0059	0.00098	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
1,1-Dichloroethene	ND		0.0059	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
1,2,3-Trichlorobenzene	ND		0.0059	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
1,2,4-Trichlorobenzene	ND		0.0059	0.0024	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
1,2-Dibromo-3-Chloropropane	ND		0.0059	0.0039	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
1,2-Dichlorobenzene	ND		0.0059	0.00084	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
1,2-Dichloroethane	ND		0.0059	0.00097	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
1,2-Dichloropropane	ND		0.0059	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
1,3-Dichlorobenzene	ND		0.0059	0.0011	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
1,4-Dichlorobenzene	ND		0.0059	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
2-Butanone (MEK)	ND		0.029	0.0071	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
2-Hexanone	ND		0.029	0.0059	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
4-Methyl-2-pentanone (MIBK)	ND		0.029	0.0059	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Acetone	ND		0.029	0.015	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Benzene	0.0043	J	0.0059	0.00079	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Bromoform	ND		0.0059	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Bromomethane	ND		0.0059	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Carbon disulfide	ND		0.0059	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Carbon tetrachloride	ND		0.0059	0.0020	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Chlorobenzene	ND		0.0059	0.00061	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Chlorobromomethane	ND		0.0059	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Chloroethane	ND		0.0059	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Chloroform	ND		0.0059	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Chloromethane	ND		0.0059	0.0012	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
cis-1,2-Dichloroethene	ND		0.0059	0.00090	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
cis-1,3-Dichloropropene	ND		0.0059	0.0014	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Cyclohexane	ND		0.0059	0.0011	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Dibromochloromethane	ND		0.0059	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Dichlorobromomethane	ND		0.0059	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Dichlorodifluoromethane	ND		0.0059	0.0015	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Ethylbenzene	ND		0.0059	0.00072	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Ethylene Dibromide	ND		0.0059	0.0012	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Isopropylbenzene	ND		0.0059	0.00080	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Methyl acetate	ND		0.0059	0.0054	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Methyl tert-butyl ether	ND		0.0059	0.0012	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Methylcyclohexane	ND		0.0059	0.0018	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Methylene Chloride	ND		0.018	0.012	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Styrene	ND		0.0059	0.0012	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Tetrachloroethene	ND		0.0059	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Toluene	ND		0.0059	0.0012	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
trans-1,2-Dichloroethene	ND		0.0059	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
trans-1,3-Dichloropropene	ND		0.0059	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Trichloroethene	ND		0.0059	0.0012	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Trichlorofluoromethane	ND		0.0059	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1
Vinyl chloride	ND		0.0059	0.0029	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1

Euofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-1 (18-20)

Lab Sample ID: 400-173466-16

Date Collected: 07/18/19 17:05

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 78.1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.012	0.0022	mg/Kg	☼	07/26/19 08:31	07/26/19 15:19	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		72 - 122				07/26/19 08:31	07/26/19 15:19	1
Dibromofluoromethane	100		79 - 123				07/26/19 08:31	07/26/19 15:19	1
Toluene-d8 (Surr)	99		80 - 120				07/26/19 08:31	07/26/19 15:19	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.017	0.010	mg/Kg	☼	07/23/19 12:52	07/25/19 13:38	1

Method: EPA 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.49		0.12	0.032	mg/Kg	☼	07/25/19 15:37	07/27/19 02:03	1
Boron	ND		9.8	1.6	mg/Kg	☼	07/25/19 15:37	07/27/19 02:03	1
Barium	8.0		1.2	0.16	mg/Kg	☼	07/25/19 15:37	07/27/19 02:03	1
Beryllium	0.097	J B	0.12	0.0092	mg/Kg	☼	07/25/19 15:37	07/27/19 02:03	1
Calcium	160		61	11	mg/Kg	☼	07/25/19 15:37	07/27/19 02:03	1
Cadmium	ND		0.12	0.021	mg/Kg	☼	07/25/19 15:37	07/27/19 02:03	1
Chromium	1.6		0.24	0.10	mg/Kg	☼	07/25/19 15:37	07/27/19 02:03	1
Cobalt	0.18		0.061	0.010	mg/Kg	☼	07/25/19 15:37	07/27/19 02:03	1
Molybdenum	0.60	J	0.61	0.20	mg/Kg	☼	07/25/19 15:37	07/27/19 02:03	1
Lead	1.9		0.12	0.043	mg/Kg	☼	07/25/19 15:37	07/27/19 02:03	1
Antimony	0.15	J	0.24	0.076	mg/Kg	☼	07/25/19 15:37	07/27/19 02:03	1
Thallium	0.29		0.12	0.031	mg/Kg	☼	07/25/19 15:37	07/27/19 02:03	1
Selenium	ND		0.61	0.15	mg/Kg	☼	07/25/19 15:37	07/27/19 02:03	1
Lithium	0.68		0.61	0.34	mg/Kg	☼	07/25/19 15:37	07/27/19 02:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.9		0.01	0.01	%	—		07/23/19 09:34	1

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SS-1 (0-1)

Lab Sample ID: 400-173466-17

Date Collected: 07/18/19 16:48

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 88.2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 04:12	1
Acenaphthylene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 04:12	1
Anthracene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 04:12	1
Benzo[a]anthracene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 04:12	1
Benzo[a]pyrene	0.12	J	0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/26/19 10:05	1
Benzo[b]fluoranthene	0.098	J	0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/26/19 10:05	1
Benzo[g,h,i]perylene	0.084	J	0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/26/19 10:05	1
Benzo[k]fluoranthene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/26/19 10:05	1
Chrysene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 04:12	1
Dibenz(a,h)anthracene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/26/19 10:05	1
Fluoranthene	0.050	J	0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 04:12	1
Fluorene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 04:12	1
Indeno[1,2,3-cd]pyrene	0.077	J	0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/26/19 10:05	1
Naphthalene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 04:12	1
Phenanthrene	0.070	J	0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 04:12	1
Pyrene	0.084	J	0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 04:12	1
1-Methylnaphthalene	ND		0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 04:12	1
2-Methylnaphthalene	0.041	J	0.37	0.037	mg/Kg	☼	07/23/19 08:34	07/25/19 04:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	55		27 - 127				07/23/19 08:34	07/26/19 10:05	1
Nitrobenzene-d5 (Surr)	44		15 - 136				07/23/19 08:34	07/26/19 10:05	1
Terphenyl-d14 (Surr)	70		24 - 146				07/23/19 08:34	07/26/19 10:05	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.013	J	0.015	0.0087	mg/Kg	☼	07/23/19 12:52	07/25/19 13:40	1

Method: EPA 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.93		0.11	0.029	mg/Kg	☼	07/25/19 15:37	07/27/19 02:08	1
Boron	ND		9.0	1.5	mg/Kg	☼	07/25/19 15:37	07/27/19 02:08	1
Barium	30		1.1	0.14	mg/Kg	☼	07/25/19 15:37	07/27/19 02:08	1
Beryllium	0.19	B	0.11	0.0084	mg/Kg	☼	07/25/19 15:37	07/27/19 02:08	1
Calcium	670		56	10	mg/Kg	☼	07/25/19 15:37	07/27/19 02:08	1
Cadmium	0.046	J	0.11	0.019	mg/Kg	☼	07/25/19 15:37	07/27/19 02:08	1
Chromium	2.7		0.22	0.093	mg/Kg	☼	07/25/19 15:37	07/27/19 02:08	1
Cobalt	0.67		0.056	0.0093	mg/Kg	☼	07/25/19 15:37	07/27/19 02:08	1
Molybdenum	0.18	J	0.56	0.18	mg/Kg	☼	07/25/19 15:37	07/27/19 02:08	1
Lead	5.4		0.11	0.039	mg/Kg	☼	07/25/19 15:37	07/27/19 02:08	1
Antimony	0.083	J	0.22	0.070	mg/Kg	☼	07/25/19 15:37	07/27/19 02:08	1
Thallium	0.12		0.11	0.028	mg/Kg	☼	07/25/19 15:37	07/27/19 02:08	1
Selenium	0.33	J	0.56	0.14	mg/Kg	☼	07/25/19 15:37	07/27/19 02:08	1
Lithium	1.9		0.56	0.31	mg/Kg	☼	07/25/19 15:37	07/27/19 02:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.8		0.01	0.01	%	-		07/23/19 09:34	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SS-2 (0-1)

Lab Sample ID: 400-173466-18

Date Collected: 07/18/19 16:58

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 71.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		2.3	0.23	mg/Kg	☼	07/23/19 08:34	07/25/19 03:41	5
Acenaphthylene	ND		2.3	0.23	mg/Kg	☼	07/23/19 08:34	07/25/19 03:41	5
Anthracene	ND		2.3	0.23	mg/Kg	☼	07/23/19 08:34	07/25/19 03:41	5
Benzo[a]anthracene	ND		2.3	0.23	mg/Kg	☼	07/23/19 08:34	07/25/19 03:41	5
Benzo[a]pyrene	0.35	J	2.3	0.23	mg/Kg	☼	07/23/19 08:34	07/25/19 03:41	5
Benzo[b]fluoranthene	0.36	J	2.3	0.23	mg/Kg	☼	07/23/19 08:34	07/25/19 03:41	5
Benzo[g,h,i]perylene	ND		2.3	0.23	mg/Kg	☼	07/23/19 08:34	07/25/19 03:41	5
Benzo[k]fluoranthene	ND		2.3	0.23	mg/Kg	☼	07/23/19 08:34	07/25/19 03:41	5
Chrysene	0.42	J	2.3	0.23	mg/Kg	☼	07/23/19 08:34	07/25/19 03:41	5
Dibenz(a,h)anthracene	ND		2.3	0.23	mg/Kg	☼	07/23/19 08:34	07/25/19 03:41	5
Fluoranthene	0.34	J	2.3	0.23	mg/Kg	☼	07/23/19 08:34	07/25/19 03:41	5
Fluorene	0.23	J	2.3	0.23	mg/Kg	☼	07/23/19 08:34	07/25/19 03:41	5
Indeno[1,2,3-cd]pyrene	ND		2.3	0.23	mg/Kg	☼	07/23/19 08:34	07/25/19 03:41	5
Naphthalene	1.2	J	2.3	0.23	mg/Kg	☼	07/23/19 08:34	07/25/19 03:41	5
Phenanthrene	1.9	J	2.3	0.23	mg/Kg	☼	07/23/19 08:34	07/25/19 03:41	5
Pyrene	0.37	J	2.3	0.23	mg/Kg	☼	07/23/19 08:34	07/25/19 03:41	5
1-Methylnaphthalene	2.5		2.3	0.23	mg/Kg	☼	07/23/19 08:34	07/25/19 03:41	5
2-Methylnaphthalene	2.7		2.3	0.23	mg/Kg	☼	07/23/19 08:34	07/25/19 03:41	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	41		27 - 127				07/23/19 08:34	07/25/19 03:41	5
Nitrobenzene-d5 (Surr)	32		15 - 136				07/23/19 08:34	07/25/19 03:41	5
Terphenyl-d14 (Surr)	49		24 - 146				07/23/19 08:34	07/25/19 03:41	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.043		0.018	0.011	mg/Kg	☼	07/23/19 12:52	07/25/19 13:42	1

Method: EPA 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0		0.14	0.036	mg/Kg	☼	07/25/19 15:37	07/27/19 02:13	1
Boron	ND		11	1.9	mg/Kg	☼	07/25/19 15:37	07/27/19 02:13	1
Barium	45		1.4	0.18	mg/Kg	☼	07/25/19 15:37	07/27/19 02:13	1
Beryllium	0.74	B	0.14	0.010	mg/Kg	☼	07/25/19 15:37	07/27/19 02:13	1
Calcium	200		69	12	mg/Kg	☼	07/25/19 15:37	07/27/19 02:13	1
Cadmium	0.059	J	0.14	0.023	mg/Kg	☼	07/25/19 15:37	07/27/19 02:13	1
Chromium	6.0		0.28	0.11	mg/Kg	☼	07/25/19 15:37	07/27/19 02:13	1
Cobalt	1.8		0.069	0.011	mg/Kg	☼	07/25/19 15:37	07/27/19 02:13	1
Molybdenum	0.71		0.69	0.22	mg/Kg	☼	07/25/19 15:37	07/27/19 02:13	1
Lead	10		0.14	0.048	mg/Kg	☼	07/25/19 15:37	07/27/19 02:13	1
Antimony	0.33		0.28	0.086	mg/Kg	☼	07/25/19 15:37	07/27/19 02:13	1
Thallium	0.29		0.14	0.035	mg/Kg	☼	07/25/19 15:37	07/27/19 02:13	1
Selenium	0.92		0.69	0.17	mg/Kg	☼	07/25/19 15:37	07/27/19 02:13	1
Lithium	3.3		0.69	0.38	mg/Kg	☼	07/25/19 15:37	07/27/19 02:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	29.0		0.01	0.01	%	-		07/23/19 09:34	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SS-3 (0-1)

Lab Sample ID: 400-173466-19

Date Collected: 07/18/19 17:11

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 75.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		2.2	0.22	mg/Kg	☼	07/23/19 08:34	07/25/19 04:02	5
Acenaphthylene	ND		2.2	0.22	mg/Kg	☼	07/23/19 08:34	07/25/19 04:02	5
Anthracene	ND		2.2	0.22	mg/Kg	☼	07/23/19 08:34	07/25/19 04:02	5
Benzo[a]anthracene	0.44	J	2.2	0.22	mg/Kg	☼	07/23/19 08:34	07/25/19 04:02	5
Benzo[a]pyrene	0.57	J	2.2	0.22	mg/Kg	☼	07/23/19 08:34	07/25/19 04:02	5
Benzo[b]fluoranthene	0.45	J	2.2	0.22	mg/Kg	☼	07/23/19 08:34	07/25/19 04:02	5
Benzo[g,h,i]perylene	0.28	J	2.2	0.22	mg/Kg	☼	07/23/19 08:34	07/25/19 04:02	5
Benzo[k]fluoranthene	ND		2.2	0.22	mg/Kg	☼	07/23/19 08:34	07/25/19 04:02	5
Chrysene	0.75	J	2.2	0.22	mg/Kg	☼	07/23/19 08:34	07/25/19 04:02	5
Dibenz(a,h)anthracene	0.30	J	2.2	0.22	mg/Kg	☼	07/23/19 08:34	07/25/19 04:02	5
Fluoranthene	0.48	J	2.2	0.22	mg/Kg	☼	07/23/19 08:34	07/25/19 04:02	5
Fluorene	ND		2.2	0.22	mg/Kg	☼	07/23/19 08:34	07/25/19 04:02	5
Indeno[1,2,3-cd]pyrene	ND		2.2	0.22	mg/Kg	☼	07/23/19 08:34	07/25/19 04:02	5
Naphthalene	3.3		2.2	0.22	mg/Kg	☼	07/23/19 08:34	07/25/19 04:02	5
Phenanthrene	2.9		2.2	0.22	mg/Kg	☼	07/23/19 08:34	07/25/19 04:02	5
Pyrene	0.54	J	2.2	0.22	mg/Kg	☼	07/23/19 08:34	07/25/19 04:02	5
1-Methylnaphthalene	2.2		2.2	0.22	mg/Kg	☼	07/23/19 08:34	07/25/19 04:02	5
2-Methylnaphthalene	3.2		2.2	0.22	mg/Kg	☼	07/23/19 08:34	07/25/19 04:02	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	50		27 - 127				07/23/19 08:34	07/25/19 04:02	5
Nitrobenzene-d5 (Surr)	43		15 - 136				07/23/19 08:34	07/25/19 04:02	5
Terphenyl-d14 (Surr)	31		24 - 146				07/23/19 08:34	07/25/19 04:02	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.056		0.017	0.010	mg/Kg	☼	07/23/19 12:52	07/25/19 13:43	1

Method: EPA 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.4		0.13	0.034	mg/Kg	☼	07/25/19 15:37	07/27/19 02:18	1
Boron	6.5	J	10	1.7	mg/Kg	☼	07/25/19 15:37	07/27/19 02:18	1
Barium	180		1.3	0.17	mg/Kg	☼	07/25/19 15:37	07/27/19 02:18	1
Beryllium	1.4	B	0.13	0.0097	mg/Kg	☼	07/25/19 15:37	07/27/19 02:18	1
Calcium	870		64	12	mg/Kg	☼	07/25/19 15:37	07/27/19 02:18	1
Cadmium	0.057	J	0.13	0.022	mg/Kg	☼	07/25/19 15:37	07/27/19 02:18	1
Chromium	5.6		0.26	0.11	mg/Kg	☼	07/25/19 15:37	07/27/19 02:18	1
Cobalt	1.9		0.064	0.011	mg/Kg	☼	07/25/19 15:37	07/27/19 02:18	1
Molybdenum	1.0		0.64	0.21	mg/Kg	☼	07/25/19 15:37	07/27/19 02:18	1
Lead	12		0.13	0.045	mg/Kg	☼	07/25/19 15:37	07/27/19 02:18	1
Antimony	0.37		0.26	0.080	mg/Kg	☼	07/25/19 15:37	07/27/19 02:18	1
Thallium	0.26		0.13	0.032	mg/Kg	☼	07/25/19 15:37	07/27/19 02:18	1
Selenium	2.0		0.64	0.16	mg/Kg	☼	07/25/19 15:37	07/27/19 02:18	1
Lithium	2.5		0.64	0.36	mg/Kg	☼	07/25/19 15:37	07/27/19 02:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.7		0.01	0.01	%	-		07/23/19 09:34	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SS-4 (0-1)

Lab Sample ID: 400-173466-20

Date Collected: 07/18/19 17:34

Matrix: Solid

Date Received: 07/20/19 08:17

Percent Solids: 78.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		2.1	0.21	mg/Kg	☼	07/23/19 08:34	07/25/19 04:24	5
Acenaphthylene	ND		2.1	0.21	mg/Kg	☼	07/23/19 08:34	07/25/19 04:24	5
Anthracene	ND		2.1	0.21	mg/Kg	☼	07/23/19 08:34	07/25/19 04:24	5
Benzo[a]anthracene	0.41	J	2.1	0.21	mg/Kg	☼	07/23/19 08:34	07/25/19 04:24	5
Benzo[a]pyrene	0.46	J	2.1	0.21	mg/Kg	☼	07/23/19 08:34	07/25/19 04:24	5
Benzo[b]fluoranthene	0.41	J	2.1	0.21	mg/Kg	☼	07/23/19 08:34	07/25/19 04:24	5
Benzo[g,h,i]perylene	0.25	J	2.1	0.21	mg/Kg	☼	07/23/19 08:34	07/25/19 04:24	5
Benzo[k]fluoranthene	ND		2.1	0.21	mg/Kg	☼	07/23/19 08:34	07/25/19 04:24	5
Chrysene	1.1	J	2.1	0.21	mg/Kg	☼	07/23/19 08:34	07/25/19 04:24	5
Dibenz(a,h)anthracene	0.38	J	2.1	0.21	mg/Kg	☼	07/23/19 08:34	07/25/19 04:24	5
Fluoranthene	0.36	J	2.1	0.21	mg/Kg	☼	07/23/19 08:34	07/25/19 04:24	5
Fluorene	ND		2.1	0.21	mg/Kg	☼	07/23/19 08:34	07/25/19 04:24	5
Indeno[1,2,3-cd]pyrene	ND		2.1	0.21	mg/Kg	☼	07/23/19 08:34	07/25/19 04:24	5
Naphthalene	2.3		2.1	0.21	mg/Kg	☼	07/23/19 08:34	07/25/19 04:24	5
Phenanthrene	4.2		2.1	0.21	mg/Kg	☼	07/23/19 08:34	07/25/19 04:24	5
Pyrene	0.52	J	2.1	0.21	mg/Kg	☼	07/23/19 08:34	07/25/19 04:24	5
1-Methylnaphthalene	3.1		2.1	0.21	mg/Kg	☼	07/23/19 08:34	07/25/19 04:24	5
2-Methylnaphthalene	4.2		2.1	0.21	mg/Kg	☼	07/23/19 08:34	07/25/19 04:24	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	57		27 - 127				07/23/19 08:34	07/25/19 04:24	5
Nitrobenzene-d5 (Surr)	47		15 - 136				07/23/19 08:34	07/25/19 04:24	5
Terphenyl-d14 (Surr)	61		24 - 146				07/23/19 08:34	07/25/19 04:24	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.022		0.016	0.0098	mg/Kg	☼	07/23/19 12:52	07/25/19 13:45	1

Method: EPA 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.6		0.13	0.033	mg/Kg	☼	07/25/19 15:37	07/27/19 02:36	1
Boron	2.3	J	10	1.7	mg/Kg	☼	07/25/19 15:37	07/27/19 02:36	1
Barium	70		1.3	0.16	mg/Kg	☼	07/25/19 15:37	07/27/19 02:36	1
Beryllium	1.4	B	0.13	0.0095	mg/Kg	☼	07/25/19 15:37	07/27/19 02:36	1
Calcium	1200		63	11	mg/Kg	☼	07/25/19 15:37	07/27/19 02:36	1
Cadmium	0.041	J	0.13	0.022	mg/Kg	☼	07/25/19 15:37	07/27/19 02:36	1
Chromium	3.8		0.25	0.11	mg/Kg	☼	07/25/19 15:37	07/27/19 02:36	1
Cobalt	2.1		0.063	0.011	mg/Kg	☼	07/25/19 15:37	07/27/19 02:36	1
Molybdenum	0.44	J	0.63	0.21	mg/Kg	☼	07/25/19 15:37	07/27/19 02:36	1
Lead	7.1		0.13	0.044	mg/Kg	☼	07/25/19 15:37	07/27/19 02:36	1
Antimony	0.20	J	0.25	0.079	mg/Kg	☼	07/25/19 15:37	07/27/19 02:36	1
Thallium	0.12	J	0.13	0.032	mg/Kg	☼	07/25/19 15:37	07/27/19 02:36	1
Selenium	0.65		0.63	0.15	mg/Kg	☼	07/25/19 15:37	07/27/19 02:36	1
Lithium	1.5		0.63	0.35	mg/Kg	☼	07/25/19 15:37	07/27/19 02:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.9		0.01	0.01	%	-		07/23/19 09:34	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-1

Lab Sample ID: 400-173466-21

Date Collected: 07/19/19 08:30

Matrix: Water

Date Received: 07/20/19 08:17

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			07/24/19 16:28	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/24/19 16:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.50	ug/L			07/24/19 16:28	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			07/24/19 16:28	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/24/19 16:28	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/24/19 16:28	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			07/24/19 16:28	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/24/19 16:28	1
1,2-Dibromo-3-Chloropropane	ND		5.0	1.5	ug/L			07/24/19 16:28	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/24/19 16:28	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			07/24/19 16:28	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/24/19 16:28	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/24/19 16:28	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/24/19 16:28	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/24/19 16:28	1
2-Hexanone	ND	*	25	3.1	ug/L			07/24/19 16:28	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/24/19 16:28	1
Acetone	ND		25	10	ug/L			07/24/19 16:28	1
Benzene	ND		1.0	0.38	ug/L			07/24/19 16:28	1
Bromoform	ND		5.0	0.71	ug/L			07/24/19 16:28	1
Bromomethane	ND		1.0	0.98	ug/L			07/24/19 16:28	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/24/19 16:28	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			07/24/19 16:28	1
Chlorobenzene	ND		1.0	0.50	ug/L			07/24/19 16:28	1
Chlorobromomethane	ND		1.0	0.52	ug/L			07/24/19 16:28	1
Chloroethane	ND		1.0	0.76	ug/L			07/24/19 16:28	1
Chloroform	ND		1.0	0.60	ug/L			07/24/19 16:28	1
Chloromethane	ND		1.0	0.83	ug/L			07/24/19 16:28	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/24/19 16:28	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/24/19 16:28	1
Cyclohexane	ND		1.0	0.50	ug/L			07/24/19 16:28	1
Dibromochloromethane	ND		1.0	0.50	ug/L			07/24/19 16:28	1
Dichlorobromomethane	ND		1.0	0.50	ug/L			07/24/19 16:28	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/24/19 16:28	1
Ethylbenzene	ND		1.0	0.50	ug/L			07/24/19 16:28	1
Ethylene Dibromide	ND		1.0	0.50	ug/L			07/24/19 16:28	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/24/19 16:28	1
Methyl acetate	ND		5.0	2.5	ug/L			07/24/19 16:28	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			07/24/19 16:28	1
Methylcyclohexane	ND		1.0	0.50	ug/L			07/24/19 16:28	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/24/19 16:28	1
Styrene	ND		1.0	1.0	ug/L			07/24/19 16:28	1
Tetrachloroethene	ND		1.0	0.58	ug/L			07/24/19 16:28	1
Toluene	ND		1.0	0.41	ug/L			07/24/19 16:28	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/24/19 16:28	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/24/19 16:28	1
Trichloroethene	ND		1.0	0.50	ug/L			07/24/19 16:28	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/24/19 16:28	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/24/19 16:28	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-1

Date Collected: 07/19/19 08:30

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-21

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		10	1.6	ug/L			07/24/19 16:28	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		78 - 118					07/24/19 16:28	1
Dibromofluoromethane	98		81 - 121					07/24/19 16:28	1
Toluene-d8 (Surr)	102		80 - 120					07/24/19 16:28	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	0.15	J	0.20	0.070	ug/L		07/23/19 09:56	07/24/19 14:30	1

Method: EPA 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Antimony	0.00063	J	0.0020	0.00038	mg/L		07/24/19 12:26	07/25/19 12:07	1
Dissolved Arsenic	0.065		0.0010	0.00032	mg/L		07/24/19 12:26	07/25/19 12:07	1
Dissolved Barium	0.73	B	0.010	0.0016	mg/L		07/24/19 12:26	07/25/19 12:07	1
Dissolved Beryllium	0.0022		0.0010	0.00018	mg/L		07/24/19 12:26	07/25/19 12:07	1
Dissolved Boron	0.24		0.080	0.039	mg/L		07/24/19 12:26	07/25/19 12:07	1
Dissolved Cadmium	0.00024	J	0.0010	0.00013	mg/L		07/24/19 12:26	07/25/19 12:07	1
Dissolved Calcium	26		0.50	0.13	mg/L		07/24/19 12:26	07/25/19 12:07	1
Dissolved Chromium	0.13		0.0020	0.0015	mg/L		07/24/19 12:26	07/25/19 12:07	1
Dissolved Cobalt	0.018		0.00050	0.000075	mg/L		07/24/19 12:26	07/25/19 12:07	1
Dissolved Lead	0.070		0.0010	0.00013	mg/L		07/24/19 12:26	07/25/19 12:07	1
Dissolved Lithium	0.046		0.0050	0.0034	mg/L		07/24/19 12:26	07/25/19 12:07	1
Dissolved Molybdenum	0.040		0.0050	0.00061	mg/L		07/24/19 12:26	07/25/19 12:07	1
Dissolved Selenium	0.0085		0.0050	0.0015	mg/L		07/24/19 12:26	07/25/19 12:07	1
Dissolved Thallium	0.0014		0.0010	0.00015	mg/L		07/24/19 12:26	07/25/19 12:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.2	HF			SU			07/23/19 13:46	1
Temperature	25.9	HF			Degrees C			07/23/19 13:46	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	560		5.0	3.4	mg/L			07/24/19 16:42	1
Chloride, Dissolved	230		20	14	mg/L			07/29/19 15:00	10
Fluoride, Dissolved	0.45		0.10	0.032	mg/L			07/31/19 13:19	1
Sulfate, Dissolved	59		10	2.8	mg/L			07/29/19 13:40	2

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-2

Lab Sample ID: 400-173466-24

Date Collected: 07/19/19 09:45

Matrix: Water

Date Received: 07/20/19 08:17

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			07/24/19 16:54	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/24/19 16:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.50	ug/L			07/24/19 16:54	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			07/24/19 16:54	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/24/19 16:54	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/24/19 16:54	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			07/24/19 16:54	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/24/19 16:54	1
1,2-Dibromo-3-Chloropropane	ND		5.0	1.5	ug/L			07/24/19 16:54	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/24/19 16:54	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			07/24/19 16:54	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/24/19 16:54	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/24/19 16:54	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/24/19 16:54	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/24/19 16:54	1
2-Hexanone	ND	*	25	3.1	ug/L			07/24/19 16:54	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/24/19 16:54	1
Acetone	13	J	25	10	ug/L			07/24/19 16:54	1
Benzene	ND		1.0	0.38	ug/L			07/24/19 16:54	1
Bromoform	ND		5.0	0.71	ug/L			07/24/19 16:54	1
Bromomethane	ND		1.0	0.98	ug/L			07/24/19 16:54	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/24/19 16:54	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			07/24/19 16:54	1
Chlorobenzene	ND		1.0	0.50	ug/L			07/24/19 16:54	1
Chlorobromomethane	ND		1.0	0.52	ug/L			07/24/19 16:54	1
Chloroethane	ND		1.0	0.76	ug/L			07/24/19 16:54	1
Chloroform	ND		1.0	0.60	ug/L			07/24/19 16:54	1
Chloromethane	ND		1.0	0.83	ug/L			07/24/19 16:54	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/24/19 16:54	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/24/19 16:54	1
Cyclohexane	ND		1.0	0.50	ug/L			07/24/19 16:54	1
Dibromochloromethane	ND		1.0	0.50	ug/L			07/24/19 16:54	1
Dichlorobromomethane	ND		1.0	0.50	ug/L			07/24/19 16:54	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/24/19 16:54	1
Ethylbenzene	ND		1.0	0.50	ug/L			07/24/19 16:54	1
Ethylene Dibromide	ND		1.0	0.50	ug/L			07/24/19 16:54	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/24/19 16:54	1
Methyl acetate	ND		5.0	2.5	ug/L			07/24/19 16:54	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			07/24/19 16:54	1
Methylcyclohexane	ND		1.0	0.50	ug/L			07/24/19 16:54	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/24/19 16:54	1
Styrene	ND		1.0	1.0	ug/L			07/24/19 16:54	1
Tetrachloroethene	ND		1.0	0.58	ug/L			07/24/19 16:54	1
Toluene	ND		1.0	0.41	ug/L			07/24/19 16:54	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/24/19 16:54	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/24/19 16:54	1
Trichloroethene	ND		1.0	0.50	ug/L			07/24/19 16:54	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/24/19 16:54	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/24/19 16:54	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-2

Lab Sample ID: 400-173466-24

Date Collected: 07/19/19 09:45

Matrix: Water

Date Received: 07/20/19 08:17

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		10	1.6	ug/L			07/24/19 16:54	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		78 - 118					07/24/19 16:54	1
Dibromofluoromethane	98		81 - 121					07/24/19 16:54	1
Toluene-d8 (Surr)	101		80 - 120					07/24/19 16:54	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.23	0.037	ug/L		07/23/19 11:11	07/28/19 23:31	1
Acenaphthylene	ND		0.23	0.052	ug/L		07/23/19 11:11	07/28/19 23:31	1
Anthracene	ND		0.23	0.037	ug/L		07/23/19 11:11	07/28/19 23:31	1
Benzo[a]pyrene	ND		0.23	0.048	ug/L		07/23/19 11:11	08/03/19 15:41	1
Benzo[b]fluoranthene	ND		0.23	0.039	ug/L		07/23/19 11:11	08/03/19 15:41	1
Benzo[g,h,i]perylene	ND		0.23	0.15	ug/L		07/23/19 11:11	08/03/19 15:41	1
Benzo[k]fluoranthene	ND		0.23	0.11	ug/L		07/23/19 11:11	08/03/19 15:41	1
Chrysene	ND		0.23	0.085	ug/L		07/23/19 11:11	07/28/19 23:31	1
Dibenz(a,h)anthracene	ND		0.23	0.057	ug/L		07/23/19 11:11	08/03/19 15:41	1
Fluoranthene	ND		0.23	0.078	ug/L		07/23/19 11:11	07/28/19 23:31	1
Fluorene	ND		0.23	0.13	ug/L		07/23/19 11:11	07/28/19 23:31	1
Indeno[1,2,3-cd]pyrene	ND		0.23	0.049	ug/L		07/23/19 11:11	08/03/19 15:41	1
1-Methylnaphthalene	0.15	J	0.23	0.085	ug/L		07/23/19 11:11	07/28/19 23:31	1
2-Methylnaphthalene	0.19	J	0.23	0.069	ug/L		07/23/19 11:11	07/28/19 23:31	1
Naphthalene	ND		0.23	0.11	ug/L		07/23/19 11:11	07/28/19 23:31	1
Phenanthrene	0.098	J	0.23	0.041	ug/L		07/23/19 11:11	07/28/19 23:31	1
Pyrene	0.064	J	0.23	0.046	ug/L		07/23/19 11:11	07/28/19 23:31	1
Benzo[a]anthracene	ND		0.23	0.053	ug/L		07/23/19 11:11	07/28/19 23:31	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	76		15 - 122				07/23/19 11:11	07/28/19 23:31	1
Nitrobenzene-d5 (Surr)	70		19 - 130				07/23/19 11:11	07/28/19 23:31	1
Terphenyl-d14 (Surr)	78		33 - 138				07/23/19 11:11	07/28/19 23:31	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	0.43		0.20	0.070	ug/L		07/23/19 09:56	07/24/19 14:32	1

Method: EPA 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Antimony	0.00041	J	0.0020	0.00038	mg/L		07/24/19 12:26	07/25/19 12:10	1
Dissolved Arsenic	0.12		0.0010	0.00032	mg/L		07/24/19 12:26	07/25/19 12:10	1
Dissolved Barium	1.3	B	0.010	0.0016	mg/L		07/24/19 12:26	07/25/19 12:10	1
Dissolved Beryllium	0.0062		0.0010	0.00018	mg/L		07/24/19 12:26	07/25/19 12:10	1
Dissolved Boron	0.18		0.080	0.039	mg/L		07/24/19 12:26	07/25/19 12:10	1
Dissolved Cadmium	0.00023	J	0.0010	0.00013	mg/L		07/24/19 12:26	07/25/19 12:10	1
Dissolved Calcium	34		0.50	0.13	mg/L		07/24/19 12:26	07/25/19 12:10	1
Dissolved Chromium	0.50		0.0020	0.0015	mg/L		07/24/19 12:26	07/25/19 12:10	1
Dissolved Cobalt	0.031		0.00050	0.000075	mg/L		07/24/19 12:26	07/25/19 12:10	1
Dissolved Lead	0.15		0.0010	0.00013	mg/L		07/24/19 12:26	07/25/19 12:10	1
Dissolved Lithium	0.091		0.0050	0.0034	mg/L		07/24/19 12:26	07/25/19 12:10	1
Dissolved Molybdenum	0.064		0.0050	0.00061	mg/L		07/24/19 12:26	07/25/19 12:10	1

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Client Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-2

Lab Sample ID: 400-173466-24

Date Collected: 07/19/19 09:45

Matrix: Water

Date Received: 07/20/19 08:17

Method: EPA 6020 - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Selenium	0.020		0.0050	0.0015	mg/L		07/24/19 12:26	07/25/19 12:10	1
Dissolved Thallium	0.0016		0.0010	0.00015	mg/L		07/24/19 12:26	07/25/19 12:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.9	HF			SU			07/23/19 13:46	1
Temperature	25.6	HF			Degrees C			07/23/19 13:46	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	2300		5.0	3.4	mg/L			07/24/19 16:42	1
Chloride, Dissolved	71		4.0	2.8	mg/L			07/29/19 15:00	2
Fluoride, Dissolved	0.39		0.10	0.032	mg/L			07/31/19 13:25	1
Sulfate, Dissolved	41		10	2.8	mg/L			07/29/19 13:40	2

Definitions/Glossary

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	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
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.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
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.
□	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)

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

GC/MS VOA

Analysis Batch: 449267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-21	TMW-1	Total/NA	Water	8260B	
400-173466-24	TMW-2	Total/NA	Water	8260B	
MB 400-449267/4	Method Blank	Total/NA	Water	8260B	
LCS 400-449267/1002	Lab Control Sample	Total/NA	Water	8260B	
400-173269-A-6 MS	Matrix Spike	Total/NA	Water	8260B	
400-173269-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 449623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-13	SB-3 (8-10)	Total/NA	Solid	8260B	449653
400-173466-14	TMW-1 (0-2)	Total/NA	Solid	8260B	449653
400-173466-15	TMW-1 (12-14)	Total/NA	Solid	8260B	449653
400-173466-16	TMW-1 (18-20)	Total/NA	Solid	8260B	449653
MB 400-449653/1-A	Method Blank	Total/NA	Solid	8260B	449653
LCS 400-449653/2-A	Lab Control Sample	Total/NA	Solid	8260B	449653
400-173466-15 MS	TMW-1 (12-14)	Total/NA	Solid	8260B	449653
400-173466-15 MSD	TMW-1 (12-14)	Total/NA	Solid	8260B	449653

Prep Batch: 449653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-13	SB-3 (8-10)	Total/NA	Solid	5035	
400-173466-14	TMW-1 (0-2)	Total/NA	Solid	5035	
400-173466-15	TMW-1 (12-14)	Total/NA	Solid	5035	
400-173466-16	TMW-1 (18-20)	Total/NA	Solid	5035	
MB 400-449653/1-A	Method Blank	Total/NA	Solid	5035	
LCS 400-449653/2-A	Lab Control Sample	Total/NA	Solid	5035	
400-173466-15 MS	TMW-1 (12-14)	Total/NA	Solid	5035	
400-173466-15 MSD	TMW-1 (12-14)	Total/NA	Solid	5035	

Analysis Batch: 449972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-11	SB-3 (0-2)	Total/NA	Solid	8260B	450037
400-173466-12	SB-3 (2-4)	Total/NA	Solid	8260B	450037

Prep Batch: 450037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-11	SB-3 (0-2)	Total/NA	Solid	5035	
400-173466-12	SB-3 (2-4)	Total/NA	Solid	5035	

GC/MS Semi VOA

Prep Batch: 449107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-1	TMW-2 (0-2)	Total/NA	Solid	3546	
400-173466-2	TMW-2 (2-4)	Total/NA	Solid	3546	
400-173466-3	TMW-2 (14-16)	Total/NA	Solid	3546	
400-173466-4	DUP-01	Total/NA	Solid	3546	
400-173466-5	SB-1 (0-2)	Total/NA	Solid	3546	
400-173466-6	SB-1 (2-4)	Total/NA	Solid	3546	
400-173466-7	SB-1 (8-10)	Total/NA	Solid	3546	
400-173466-8	SB-2 (0-2)	Total/NA	Solid	3546	

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QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

GC/MS Semi VOA (Continued)

Prep Batch: 449107 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-9	SB-2 (2-4)	Total/NA	Solid	3546	
400-173466-10	SB-2 (8-10)	Total/NA	Solid	3546	
400-173466-11	SB-3 (0-2)	Total/NA	Solid	3546	
400-173466-12	SB-3 (2-4)	Total/NA	Solid	3546	
400-173466-13	SB-3 (8-10)	Total/NA	Solid	3546	
400-173466-15	TMW-1 (12-14)	Total/NA	Solid	3546	
400-173466-17	SS-1 (0-1)	Total/NA	Solid	3546	
400-173466-18	SS-2 (0-1)	Total/NA	Solid	3546	
400-173466-19	SS-3 (0-1)	Total/NA	Solid	3546	
400-173466-20	SS-4 (0-1)	Total/NA	Solid	3546	
MB 400-449107/1-A	Method Blank	Total/NA	Solid	3546	
LCS 400-449107/2-A	Lab Control Sample	Total/NA	Solid	3546	
400-173466-15 MS	TMW-1 (12-14)	Total/NA	Solid	3546	
400-173466-15 MSD	TMW-1 (12-14)	Total/NA	Solid	3546	

Prep Batch: 449142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-24	TMW-2	Total/NA	Water	3520C	
MB 400-449142/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-449142/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-449142/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 449422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-1	TMW-2 (0-2)	Total/NA	Solid	8270D	449107
400-173466-2	TMW-2 (2-4)	Total/NA	Solid	8270D	449107
400-173466-3	TMW-2 (14-16)	Total/NA	Solid	8270D	449107
400-173466-4	DUP-01	Total/NA	Solid	8270D	449107
400-173466-5	SB-1 (0-2)	Total/NA	Solid	8270D	449107
400-173466-6	SB-1 (2-4)	Total/NA	Solid	8270D	449107
400-173466-7	SB-1 (8-10)	Total/NA	Solid	8270D	449107
400-173466-8	SB-2 (0-2)	Total/NA	Solid	8270D	449107
400-173466-9	SB-2 (2-4)	Total/NA	Solid	8270D	449107
400-173466-10	SB-2 (8-10)	Total/NA	Solid	8270D	449107
400-173466-11	SB-3 (0-2)	Total/NA	Solid	8270D	449107
400-173466-12	SB-3 (2-4)	Total/NA	Solid	8270D	449107
400-173466-13	SB-3 (8-10)	Total/NA	Solid	8270D	449107
400-173466-17	SS-1 (0-1)	Total/NA	Solid	8270D	449107
LCS 400-449107/2-A	Lab Control Sample	Total/NA	Solid	8270D	449107

Analysis Batch: 449429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-18	SS-2 (0-1)	Total/NA	Solid	8270D	449107
400-173466-19	SS-3 (0-1)	Total/NA	Solid	8270D	449107
400-173466-20	SS-4 (0-1)	Total/NA	Solid	8270D	449107

Analysis Batch: 449568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-1	TMW-2 (0-2)	Total/NA	Solid	8270D	449107
400-173466-2	TMW-2 (2-4)	Total/NA	Solid	8270D	449107
400-173466-3	TMW-2 (14-16)	Total/NA	Solid	8270D	449107

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QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

GC/MS Semi VOA (Continued)

Analysis Batch: 449568 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-4	DUP-01	Total/NA	Solid	8270D	449107
400-173466-5	SB-1 (0-2)	Total/NA	Solid	8270D	449107
400-173466-6	SB-1 (2-4)	Total/NA	Solid	8270D	449107
400-173466-7	SB-1 (8-10)	Total/NA	Solid	8270D	449107
400-173466-8	SB-2 (0-2)	Total/NA	Solid	8270D	449107
400-173466-9	SB-2 (2-4)	Total/NA	Solid	8270D	449107
400-173466-10	SB-2 (8-10)	Total/NA	Solid	8270D	449107
400-173466-11	SB-3 (0-2)	Total/NA	Solid	8270D	449107
400-173466-12	SB-3 (2-4)	Total/NA	Solid	8270D	449107
400-173466-13	SB-3 (8-10)	Total/NA	Solid	8270D	449107
400-173466-15	TMW-1 (12-14)	Total/NA	Solid	8270D	449107
400-173466-17	SS-1 (0-1)	Total/NA	Solid	8270D	449107
MB 400-449107/1-A	Method Blank	Total/NA	Solid	8270D	449107
LCS 400-449107/2-A	Lab Control Sample	Total/NA	Solid	8270D	449107
400-173466-15 MS	TMW-1 (12-14)	Total/NA	Solid	8270D	449107
400-173466-15 MSD	TMW-1 (12-14)	Total/NA	Solid	8270D	449107

Analysis Batch: 449815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-24	TMW-2	Total/NA	Water	8270D LL	449142
MB 400-449142/1-A	Method Blank	Total/NA	Water	8270D LL	449142
LCS 400-449142/2-A	Lab Control Sample	Total/NA	Water	8270D LL	449142
LCSD 400-449142/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	449142

Analysis Batch: 450726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-24	TMW-2	Total/NA	Water	8270D LL	449142

Metals

Prep Batch: 285836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-21	TMW-1	Dissolved	Water	3005A	
400-173466-24	TMW-2	Dissolved	Water	3005A	
MB 180-285836/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-285836/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-92797-I-6-B MS	Matrix Spike	Total Recoverable	Water	3005A	
180-92797-I-6-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 286036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-1	TMW-2 (0-2)	Total/NA	Solid	3050B	
400-173466-2	TMW-2 (2-4)	Total/NA	Solid	3050B	
400-173466-3	TMW-2 (14-16)	Total/NA	Solid	3050B	
400-173466-4	DUP-01	Total/NA	Solid	3050B	
400-173466-5	SB-1 (0-2)	Total/NA	Solid	3050B	
400-173466-6	SB-1 (2-4)	Total/NA	Solid	3050B	
400-173466-7	SB-1 (8-10)	Total/NA	Solid	3050B	
400-173466-8	SB-2 (0-2)	Total/NA	Solid	3050B	
400-173466-9	SB-2 (2-4)	Total/NA	Solid	3050B	
400-173466-10	SB-2 (8-10)	Total/NA	Solid	3050B	

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QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Metals (Continued)

Prep Batch: 286036 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-11	SB-3 (0-2)	Total/NA	Solid	3050B	
400-173466-12	SB-3 (2-4)	Total/NA	Solid	3050B	
400-173466-13	SB-3 (8-10)	Total/NA	Solid	3050B	
400-173466-14	TMW-1 (0-2)	Total/NA	Solid	3050B	
400-173466-15	TMW-1 (12-14)	Total/NA	Solid	3050B	
400-173466-16	TMW-1 (18-20)	Total/NA	Solid	3050B	
400-173466-17	SS-1 (0-1)	Total/NA	Solid	3050B	
400-173466-18	SS-2 (0-1)	Total/NA	Solid	3050B	
400-173466-19	SS-3 (0-1)	Total/NA	Solid	3050B	
400-173466-20	SS-4 (0-1)	Total/NA	Solid	3050B	
MB 180-286036/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 180-286036/2-A	Lab Control Sample	Total/NA	Solid	3050B	
400-173466-15 MS	TMW-1 (12-14)	Total/NA	Solid	3050B	
400-173466-15 MSD	TMW-1 (12-14)	Total/NA	Solid	3050B	

Analysis Batch: 286068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-21	TMW-1	Dissolved	Water	EPA 6020	285836
400-173466-24	TMW-2	Dissolved	Water	EPA 6020	285836
MB 180-285836/1-A	Method Blank	Total Recoverable	Water	EPA 6020	285836
LCS 180-285836/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020	285836
180-92797-I-6-B MS	Matrix Spike	Total Recoverable	Water	EPA 6020	285836
180-92797-I-6-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	EPA 6020	285836

Analysis Batch: 286236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-1	TMW-2 (0-2)	Total/NA	Solid	EPA 6020	286036
400-173466-2	TMW-2 (2-4)	Total/NA	Solid	EPA 6020	286036
400-173466-3	TMW-2 (14-16)	Total/NA	Solid	EPA 6020	286036
400-173466-4	DUP-01	Total/NA	Solid	EPA 6020	286036
400-173466-5	SB-1 (0-2)	Total/NA	Solid	EPA 6020	286036
400-173466-6	SB-1 (2-4)	Total/NA	Solid	EPA 6020	286036
400-173466-7	SB-1 (8-10)	Total/NA	Solid	EPA 6020	286036
400-173466-8	SB-2 (0-2)	Total/NA	Solid	EPA 6020	286036
400-173466-9	SB-2 (2-4)	Total/NA	Solid	EPA 6020	286036
400-173466-10	SB-2 (8-10)	Total/NA	Solid	EPA 6020	286036
400-173466-11	SB-3 (0-2)	Total/NA	Solid	EPA 6020	286036
400-173466-12	SB-3 (2-4)	Total/NA	Solid	EPA 6020	286036
400-173466-13	SB-3 (8-10)	Total/NA	Solid	EPA 6020	286036
400-173466-14	TMW-1 (0-2)	Total/NA	Solid	EPA 6020	286036
400-173466-15	TMW-1 (12-14)	Total/NA	Solid	EPA 6020	286036
400-173466-16	TMW-1 (18-20)	Total/NA	Solid	EPA 6020	286036
400-173466-17	SS-1 (0-1)	Total/NA	Solid	EPA 6020	286036
400-173466-18	SS-2 (0-1)	Total/NA	Solid	EPA 6020	286036
400-173466-19	SS-3 (0-1)	Total/NA	Solid	EPA 6020	286036
400-173466-20	SS-4 (0-1)	Total/NA	Solid	EPA 6020	286036
MB 180-286036/1-A	Method Blank	Total/NA	Solid	EPA 6020	286036
LCS 180-286036/2-A	Lab Control Sample	Total/NA	Solid	EPA 6020	286036
400-173466-15 MS	TMW-1 (12-14)	Total/NA	Solid	EPA 6020	286036
400-173466-15 MSD	TMW-1 (12-14)	Total/NA	Solid	EPA 6020	286036

Eurofins TestAmerica, Pensacola

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Metals

Prep Batch: 449113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-21	TMW-1	Dissolved	Water	7470A	
400-173466-24	TMW-2	Dissolved	Water	7470A	
MB 400-449113/14-A	Method Blank	Total/NA	Water	7470A	
LCS 400-449113/15-A	Lab Control Sample	Total/NA	Water	7470A	
400-173367-A-3-B MS	Matrix Spike	Total/NA	Water	7470A	
400-173367-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Prep Batch: 449163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-1	TMW-2 (0-2)	Total/NA	Solid	7471A	
400-173466-2	TMW-2 (2-4)	Total/NA	Solid	7471A	
400-173466-3	TMW-2 (14-16)	Total/NA	Solid	7471A	
400-173466-4	DUP-01	Total/NA	Solid	7471A	
400-173466-5	SB-1 (0-2)	Total/NA	Solid	7471A	
400-173466-6	SB-1 (2-4)	Total/NA	Solid	7471A	
400-173466-7	SB-1 (8-10)	Total/NA	Solid	7471A	
400-173466-8	SB-2 (0-2)	Total/NA	Solid	7471A	
400-173466-9	SB-2 (2-4)	Total/NA	Solid	7471A	
400-173466-10	SB-2 (8-10)	Total/NA	Solid	7471A	
400-173466-11	SB-3 (0-2)	Total/NA	Solid	7471A	
400-173466-12	SB-3 (2-4)	Total/NA	Solid	7471A	
400-173466-13	SB-3 (8-10)	Total/NA	Solid	7471A	
400-173466-14	TMW-1 (0-2)	Total/NA	Solid	7471A	
400-173466-15	TMW-1 (12-14)	Total/NA	Solid	7471A	
400-173466-16	TMW-1 (18-20)	Total/NA	Solid	7471A	
400-173466-17	SS-1 (0-1)	Total/NA	Solid	7471A	
400-173466-18	SS-2 (0-1)	Total/NA	Solid	7471A	
400-173466-19	SS-3 (0-1)	Total/NA	Solid	7471A	
400-173466-20	SS-4 (0-1)	Total/NA	Solid	7471A	
MB 400-449163/14-A	Method Blank	Total/NA	Solid	7471A	
LCS 400-449163/15-A	Lab Control Sample	Total/NA	Solid	7471A	
400-173466-15 MS	TMW-1 (12-14)	Total/NA	Solid	7471A	
400-173466-15 MSD	TMW-1 (12-14)	Total/NA	Solid	7471A	

Analysis Batch: 449378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-21	TMW-1	Dissolved	Water	7470A	449113
400-173466-24	TMW-2	Dissolved	Water	7470A	449113
MB 400-449113/14-A	Method Blank	Total/NA	Water	7470A	449113
LCS 400-449113/15-A	Lab Control Sample	Total/NA	Water	7470A	449113
400-173367-A-3-B MS	Matrix Spike	Total/NA	Water	7470A	449113
400-173367-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	449113

Analysis Batch: 449512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-1	TMW-2 (0-2)	Total/NA	Solid	7471A	449163
400-173466-2	TMW-2 (2-4)	Total/NA	Solid	7471A	449163
400-173466-3	TMW-2 (14-16)	Total/NA	Solid	7471A	449163
400-173466-4	DUP-01	Total/NA	Solid	7471A	449163
400-173466-5	SB-1 (0-2)	Total/NA	Solid	7471A	449163
400-173466-6	SB-1 (2-4)	Total/NA	Solid	7471A	449163

Eurofins TestAmerica, Pensacola

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Metals (Continued)

Analysis Batch: 449512 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-7	SB-1 (8-10)	Total/NA	Solid	7471A	449163
400-173466-8	SB-2 (0-2)	Total/NA	Solid	7471A	449163
400-173466-9	SB-2 (2-4)	Total/NA	Solid	7471A	449163
400-173466-10	SB-2 (8-10)	Total/NA	Solid	7471A	449163
400-173466-11	SB-3 (0-2)	Total/NA	Solid	7471A	449163
400-173466-12	SB-3 (2-4)	Total/NA	Solid	7471A	449163
400-173466-13	SB-3 (8-10)	Total/NA	Solid	7471A	449163
400-173466-14	TMW-1 (0-2)	Total/NA	Solid	7471A	449163
400-173466-15	TMW-1 (12-14)	Total/NA	Solid	7471A	449163
400-173466-16	TMW-1 (18-20)	Total/NA	Solid	7471A	449163
400-173466-17	SS-1 (0-1)	Total/NA	Solid	7471A	449163
400-173466-18	SS-2 (0-1)	Total/NA	Solid	7471A	449163
400-173466-19	SS-3 (0-1)	Total/NA	Solid	7471A	449163
400-173466-20	SS-4 (0-1)	Total/NA	Solid	7471A	449163
MB 400-449163/14-A	Method Blank	Total/NA	Solid	7471A	449163
LCS 400-449163/15-A	Lab Control Sample	Total/NA	Solid	7471A	449163
400-173466-15 MS	TMW-1 (12-14)	Total/NA	Solid	7471A	449163
400-173466-15 MSD	TMW-1 (12-14)	Total/NA	Solid	7471A	449163

General Chemistry

Analysis Batch: 448944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-1	TMW-2 (0-2)	Total/NA	Solid	Moisture	
400-173466-2	TMW-2 (2-4)	Total/NA	Solid	Moisture	
400-173466-3	TMW-2 (14-16)	Total/NA	Solid	Moisture	
400-173466-4	DUP-01	Total/NA	Solid	Moisture	
400-173466-5	SB-1 (0-2)	Total/NA	Solid	Moisture	
400-173466-6	SB-1 (2-4)	Total/NA	Solid	Moisture	
400-173466-7	SB-1 (8-10)	Total/NA	Solid	Moisture	
400-173466-8	SB-2 (0-2)	Total/NA	Solid	Moisture	
400-173466-9	SB-2 (2-4)	Total/NA	Solid	Moisture	
400-173466-10	SB-2 (8-10)	Total/NA	Solid	Moisture	
400-173466-1 DU	TMW-2 (0-2)	Total/NA	Solid	Moisture	

Analysis Batch: 449123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-11	SB-3 (0-2)	Total/NA	Solid	Moisture	
400-173466-12	SB-3 (2-4)	Total/NA	Solid	Moisture	
400-173466-13	SB-3 (8-10)	Total/NA	Solid	Moisture	
400-173466-14	TMW-1 (0-2)	Total/NA	Solid	Moisture	
400-173466-15	TMW-1 (12-14)	Total/NA	Solid	Moisture	
400-173466-16	TMW-1 (18-20)	Total/NA	Solid	Moisture	
400-173466-17	SS-1 (0-1)	Total/NA	Solid	Moisture	
400-173466-18	SS-2 (0-1)	Total/NA	Solid	Moisture	
400-173466-19	SS-3 (0-1)	Total/NA	Solid	Moisture	
400-173466-20	SS-4 (0-1)	Total/NA	Solid	Moisture	
400-173466-15 MS	TMW-1 (12-14)	Total/NA	Solid	Moisture	
400-173466-15 MSD	TMW-1 (12-14)	Total/NA	Solid	Moisture	
400-173466-16 DU	TMW-1 (18-20)	Total/NA	Solid	Moisture	

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

General Chemistry

Analysis Batch: 449161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-21	TMW-1	Total/NA	Water	SM 4500 H+ B	
400-173466-24	TMW-2	Total/NA	Water	SM 4500 H+ B	
LCS 400-449161/4	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
400-173412-H-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 449414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-21	TMW-1	Dissolved	Water	SM 2540C	
400-173466-24	TMW-2	Dissolved	Water	SM 2540C	
MB 400-449414/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-449414/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-173547-A-12 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 449911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-21	TMW-1	Dissolved	Water	SM 4500 SO4 E	
400-173466-24	TMW-2	Dissolved	Water	SM 4500 SO4 E	
MB 400-449911/26	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-449911/27	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-449911/23	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-173782-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-173782-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 449969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-21	TMW-1	Dissolved	Water	SM 4500 Cl- E	
400-173466-24	TMW-2	Dissolved	Water	SM 4500 Cl- E	
MB 400-449969/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-449969/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-449969/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-173696-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-173696-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 450259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-173466-21	TMW-1	Dissolved	Water	SM 4500 F C	
400-173466-24	TMW-2	Dissolved	Water	SM 4500 F C	
MB 400-450259/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-450259/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-173466-21 MS	TMW-1	Dissolved	Water	SM 4500 F C	
400-173466-21 MSD	TMW-1	Dissolved	Water	SM 4500 F C	

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-449267/4

Matrix: Water

Analysis Batch: 449267

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			07/24/19 08:41	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/24/19 08:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.50	ug/L			07/24/19 08:41	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			07/24/19 08:41	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/24/19 08:41	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/24/19 08:41	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			07/24/19 08:41	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/24/19 08:41	1
1,2-Dibromo-3-Chloropropane	ND		5.0	1.5	ug/L			07/24/19 08:41	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/24/19 08:41	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			07/24/19 08:41	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/24/19 08:41	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/24/19 08:41	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/24/19 08:41	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/24/19 08:41	1
2-Hexanone	ND		25	3.1	ug/L			07/24/19 08:41	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/24/19 08:41	1
Acetone	ND		25	10	ug/L			07/24/19 08:41	1
Benzene	ND		1.0	0.38	ug/L			07/24/19 08:41	1
Bromoform	ND		5.0	0.71	ug/L			07/24/19 08:41	1
Bromomethane	ND		1.0	0.98	ug/L			07/24/19 08:41	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/24/19 08:41	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			07/24/19 08:41	1
Chlorobenzene	ND		1.0	0.50	ug/L			07/24/19 08:41	1
Chlorobromomethane	ND		1.0	0.52	ug/L			07/24/19 08:41	1
Chloroethane	ND		1.0	0.76	ug/L			07/24/19 08:41	1
Chloroform	ND		1.0	0.60	ug/L			07/24/19 08:41	1
Chloromethane	ND		1.0	0.83	ug/L			07/24/19 08:41	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/24/19 08:41	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/24/19 08:41	1
Cyclohexane	ND		1.0	0.50	ug/L			07/24/19 08:41	1
Dibromochloromethane	ND		1.0	0.50	ug/L			07/24/19 08:41	1
Dichlorobromomethane	ND		1.0	0.50	ug/L			07/24/19 08:41	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/24/19 08:41	1
Ethylbenzene	ND		1.0	0.50	ug/L			07/24/19 08:41	1
Ethylene Dibromide	ND		1.0	0.50	ug/L			07/24/19 08:41	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/24/19 08:41	1
Methyl acetate	ND		5.0	2.5	ug/L			07/24/19 08:41	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			07/24/19 08:41	1
Methylcyclohexane	ND		1.0	0.50	ug/L			07/24/19 08:41	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/24/19 08:41	1
Styrene	ND		1.0	1.0	ug/L			07/24/19 08:41	1
Tetrachloroethene	ND		1.0	0.58	ug/L			07/24/19 08:41	1
Toluene	ND		1.0	0.41	ug/L			07/24/19 08:41	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/24/19 08:41	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/24/19 08:41	1
Trichloroethene	ND		1.0	0.50	ug/L			07/24/19 08:41	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/24/19 08:41	1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-449267/4

Matrix: Water

Analysis Batch: 449267

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		1.0	0.50	ug/L			07/24/19 08:41	1
Xylenes, Total	ND		10	1.6	ug/L			07/24/19 08:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		78 - 118		07/24/19 08:41	1
Dibromofluoromethane	97		81 - 121		07/24/19 08:41	1
Toluene-d8 (Surr)	101		80 - 120		07/24/19 08:41	1

Lab Sample ID: LCS 400-449267/1002

Matrix: Water

Analysis Batch: 449267

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	50.0	54.6		ug/L		109	68 - 130
1,1,2,2-Tetrachloroethane	50.0	58.1		ug/L		116	70 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	52.7		ug/L		105	60 - 139
1,1,2-Trichloroethane	50.0	58.1		ug/L		116	70 - 130
1,1-Dichloroethane	50.0	59.7		ug/L		119	70 - 130
1,1-Dichloroethene	50.0	51.3		ug/L		103	63 - 134
1,2,3-Trichlorobenzene	50.0	53.9		ug/L		108	60 - 138
1,2,4-Trichlorobenzene	50.0	52.4		ug/L		105	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	58.1		ug/L		116	54 - 135
1,2-Dichlorobenzene	50.0	56.8		ug/L		114	67 - 130
1,2-Dichloroethane	50.0	54.6		ug/L		109	69 - 130
1,2-Dichloropropane	50.0	59.7		ug/L		119	70 - 130
1,3-Dichlorobenzene	50.0	56.6		ug/L		113	70 - 130
1,4-Dichlorobenzene	50.0	55.8		ug/L		112	70 - 130
2-Butanone (MEK)	200	254		ug/L		127	61 - 145
2-Hexanone	200	288	*	ug/L		144	65 - 137
4-Methyl-2-pentanone (MIBK)	200	255		ug/L		128	69 - 138
Acetone	200	274		ug/L		137	43 - 160
Benzene	50.0	55.5		ug/L		111	70 - 130
Bromoform	50.0	62.8		ug/L		126	57 - 140
Bromomethane	50.0	39.6		ug/L		79	10 - 160
Carbon disulfide	50.0	54.5		ug/L		109	61 - 137
Carbon tetrachloride	50.0	59.8		ug/L		120	61 - 137
Chlorobenzene	50.0	56.1		ug/L		112	70 - 130
Chlorobromomethane	50.0	56.6		ug/L		113	70 - 130
Chloroethane	50.0	48.7		ug/L		97	55 - 141
Chloroform	50.0	55.0		ug/L		110	69 - 130
Chloromethane	50.0	48.3		ug/L		97	58 - 137
cis-1,2-Dichloroethene	50.0	59.2		ug/L		118	68 - 130
cis-1,3-Dichloropropene	50.0	60.3		ug/L		121	69 - 132
Cyclohexane	50.0	52.4		ug/L		105	70 - 130
Dibromochloromethane	50.0	61.4		ug/L		123	67 - 135
Dichlorobromomethane	50.0	55.3		ug/L		111	67 - 133
Dichlorodifluoromethane	50.0	29.9		ug/L		60	41 - 146
Ethylbenzene	50.0	57.3		ug/L		115	70 - 130

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-449267/1002

Matrix: Water

Analysis Batch: 449267

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylene Dibromide	50.0	56.3		ug/L		113	70 - 130
Isopropylbenzene	50.0	54.2		ug/L		108	70 - 130
Methyl acetate	100	132		ug/L		132	45 - 159
Methyl tert-butyl ether	50.0	52.4		ug/L		105	66 - 130
Methylcyclohexane	50.0	54.0		ug/L		108	70 - 130
Methylene Chloride	50.0	55.4		ug/L		111	66 - 135
Styrene	50.0	53.7		ug/L		107	70 - 130
Tetrachloroethene	50.0	56.6		ug/L		113	65 - 130
Toluene	50.0	56.9		ug/L		114	70 - 130
trans-1,2-Dichloroethene	50.0	56.3		ug/L		113	70 - 130
trans-1,3-Dichloropropene	50.0	63.9		ug/L		128	63 - 130
Trichloroethene	50.0	54.9		ug/L		110	70 - 130
Trichlorofluoromethane	50.0	41.1		ug/L		82	65 - 138
Vinyl chloride	50.0	48.1		ug/L		96	59 - 136
Xylenes, Total	100	112		ug/L		112	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	99		78 - 118
Dibromofluoromethane	95		81 - 121
Toluene-d8 (Surr)	100		80 - 120

Lab Sample ID: 400-173269-A-6 MS

Matrix: Water

Analysis Batch: 449267

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		50.0	47.8		ug/L		96	57 - 142
1,1,2,2-Tetrachloroethane	ND		50.0	50.3		ug/L		101	66 - 135
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50.0	46.1		ug/L		92	55 - 150
1,1,2-Trichloroethane	ND		50.0	50.8		ug/L		102	66 - 131
1,1-Dichloroethane	ND		50.0	52.5		ug/L		105	61 - 144
1,1-Dichloroethene	ND		50.0	45.6		ug/L		91	54 - 147
1,2,3-Trichlorobenzene	ND		50.0	48.9		ug/L		98	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	48.1		ug/L		96	39 - 148
1,2-Dibromo-3-Chloropropane	ND		50.0	49.8		ug/L		100	45 - 135
1,2-Dichlorobenzene	ND		50.0	52.0		ug/L		104	52 - 137
1,2-Dichloroethane	ND		50.0	49.1		ug/L		98	60 - 141
1,2-Dichloropropane	ND		50.0	53.1		ug/L		106	66 - 137
1,3-Dichlorobenzene	ND		50.0	51.3		ug/L		103	54 - 135
1,4-Dichlorobenzene	ND		50.0	51.3		ug/L		103	53 - 135
2-Butanone (MEK)	ND		200	132		ug/L		66	55 - 150
2-Hexanone	ND *		200	159		ug/L		79	65 - 140
4-Methyl-2-pentanone (MIBK)	ND		200	201		ug/L		101	63 - 146
Acetone	ND		200	101		ug/L		50	43 - 150
Benzene	3.6		50.0	57.9		ug/L		108	56 - 142
Bromoform	ND		50.0	53.9		ug/L		108	50 - 140
Bromomethane	ND		50.0	40.8		ug/L		82	10 - 150
Carbon disulfide	ND		50.0	48.0		ug/L		96	48 - 150

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-173269-A-6 MS

Matrix: Water

Analysis Batch: 449267

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon tetrachloride	ND		50.0	52.6		ug/L		105	55 - 145
Chlorobenzene	ND		50.0	50.1		ug/L		100	64 - 130
Chlorobromomethane	ND		50.0	49.8		ug/L		100	64 - 140
Chloroethane	ND		50.0	50.2		ug/L		100	50 - 150
Chloroform	ND		50.0	48.4		ug/L		97	60 - 141
Chloromethane	ND		50.0	50.1		ug/L		100	49 - 148
cis-1,2-Dichloroethene	ND		50.0	52.2		ug/L		104	59 - 143
cis-1,3-Dichloropropene	ND		50.0	52.5		ug/L		105	57 - 140
Cyclohexane	0.67	J	50.0	47.1		ug/L		93	58 - 141
Dibromochloromethane	ND		50.0	52.5		ug/L		105	56 - 143
Dichlorobromomethane	ND		50.0	48.5		ug/L		97	59 - 143
Dichlorodifluoromethane	ND		50.0	29.8		ug/L		60	16 - 150
Ethylbenzene	0.53	J	50.0	51.9		ug/L		103	58 - 131
Ethylene Dibromide	ND		50.0	48.9		ug/L		98	64 - 132
Isopropylbenzene	ND		50.0	48.8		ug/L		98	56 - 133
Methyl acetate	ND		100	114		ug/L		114	21 - 150
Methyl tert-butyl ether	ND		50.0	45.5		ug/L		91	59 - 137
Methylcyclohexane	0.57	J	50.0	48.1		ug/L		95	62 - 141
Methylene Chloride	ND		50.0	49.7		ug/L		99	60 - 146
Styrene	ND		50.0	47.0		ug/L		94	58 - 131
Tetrachloroethene	ND		50.0	49.3		ug/L		99	52 - 133
Toluene	ND		50.0	50.8		ug/L		102	65 - 130
trans-1,2-Dichloroethene	ND		50.0	49.2		ug/L		98	61 - 143
trans-1,3-Dichloropropene	ND		50.0	55.6		ug/L		111	53 - 133
Trichloroethene	ND		50.0	48.7		ug/L		97	64 - 136
Trichlorofluoromethane	ND		50.0	42.0		ug/L		84	54 - 150
Vinyl chloride	ND		50.0	49.2		ug/L		98	46 - 150
Xylenes, Total	ND		100	101		ug/L		101	59 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	100		78 - 118
Dibromofluoromethane	97		81 - 121
Toluene-d8 (Surr)	101		80 - 120

Lab Sample ID: 400-173269-A-6 MSD

Matrix: Water

Analysis Batch: 449267

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		50.0	50.9		ug/L		102	57 - 142	6	30
1,1,2,2-Tetrachloroethane	ND		50.0	52.1		ug/L		104	66 - 135	3	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50.0	50.1		ug/L		100	55 - 150	8	30
1,1,2-Trichloroethane	ND		50.0	52.4		ug/L		105	66 - 131	3	30
1,1-Dichloroethane	ND		50.0	55.6		ug/L		111	61 - 144	6	30
1,1-Dichloroethene	ND		50.0	48.1		ug/L		96	54 - 147	5	30
1,2,3-Trichlorobenzene	ND		50.0	42.0		ug/L		84	43 - 145	15	30
1,2,4-Trichlorobenzene	ND		50.0	39.9		ug/L		80	39 - 148	19	30
1,2-Dibromo-3-Chloropropane	ND		50.0	50.8		ug/L		102	45 - 135	2	30

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-173269-A-6 MSD

Matrix: Water

Analysis Batch: 449267

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichlorobenzene	ND		50.0	47.3		ug/L		95	52 - 137	9	30
1,2-Dichloroethane	ND		50.0	51.0		ug/L		102	60 - 141	4	30
1,2-Dichloropropane	ND		50.0	55.0		ug/L		110	66 - 137	3	30
1,3-Dichlorobenzene	ND		50.0	46.4		ug/L		93	54 - 135	10	30
1,4-Dichlorobenzene	ND		50.0	45.6		ug/L		91	53 - 135	12	30
2-Butanone (MEK)	ND		200	135		ug/L		67	55 - 150	2	30
2-Hexanone	ND	*	200	164		ug/L		82	65 - 140	4	30
4-Methyl-2-pentanone (MIBK)	ND		200	210		ug/L		105	63 - 146	4	30
Acetone	ND		200	102		ug/L		51	43 - 150	1	30
Benzene	3.6		50.0	55.6		ug/L		104	56 - 142	4	30
Bromoform	ND		50.0	53.7		ug/L		107	50 - 140	0	30
Bromomethane	ND		50.0	37.9		ug/L		76	10 - 150	7	50
Carbon disulfide	ND		50.0	50.7		ug/L		101	48 - 150	6	30
Carbon tetrachloride	ND		50.0	55.2		ug/L		110	55 - 145	5	30
Chlorobenzene	ND		50.0	48.5		ug/L		97	64 - 130	3	30
Chlorobromomethane	ND		50.0	53.4		ug/L		107	64 - 140	7	30
Chloroethane	ND		50.0	46.7		ug/L		93	50 - 150	7	30
Chloroform	ND		50.0	51.3		ug/L		103	60 - 141	6	30
Chloromethane	ND		50.0	45.8		ug/L		92	49 - 148	9	31
cis-1,2-Dichloroethene	ND		50.0	54.6		ug/L		109	59 - 143	5	30
cis-1,3-Dichloropropene	ND		50.0	52.8		ug/L		106	57 - 140	1	30
Cyclohexane	0.67	J	50.0	51.3		ug/L		101	58 - 141	9	30
Dibromochloromethane	ND		50.0	53.5		ug/L		107	56 - 143	2	30
Dichlorobromomethane	ND		50.0	50.6		ug/L		101	59 - 143	4	30
Dichlorodifluoromethane	ND		50.0	28.5		ug/L		57	16 - 150	5	31
Ethylbenzene	0.53	J	50.0	49.5		ug/L		98	58 - 131	5	30
Ethylene Dibromide	ND		50.0	49.2		ug/L		98	64 - 132	1	30
Isopropylbenzene	ND		50.0	45.4		ug/L		91	56 - 133	7	30
Methyl acetate	ND		100	118		ug/L		118	21 - 150	3	30
Methyl tert-butyl ether	ND		50.0	48.2		ug/L		96	59 - 137	6	30
Methylcyclohexane	0.57	J	50.0	50.0		ug/L		99	62 - 141	4	30
Methylene Chloride	ND		50.0	51.8		ug/L		104	60 - 146	4	32
Styrene	ND		50.0	44.6		ug/L		89	58 - 131	5	30
Tetrachloroethene	ND		50.0	48.0		ug/L		96	52 - 133	3	30
Toluene	ND		50.0	51.3		ug/L		103	65 - 130	1	30
trans-1,2-Dichloroethene	ND		50.0	52.5		ug/L		105	61 - 143	7	30
trans-1,3-Dichloropropene	ND		50.0	54.7		ug/L		109	53 - 133	2	30
Trichloroethene	ND		50.0	50.7		ug/L		101	64 - 136	4	30
Trichlorofluoromethane	ND		50.0	38.7		ug/L		77	54 - 150	8	30
Vinyl chloride	ND		50.0	45.5		ug/L		91	46 - 150	8	30
Xylenes, Total	ND		100	95.7		ug/L		96	59 - 130	5	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene	99		78 - 118
Dibromofluoromethane	97		81 - 121
Toluene-d8 (Surr)	100		80 - 120

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-449653/1-A

Matrix: Solid

Analysis Batch: 449623

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 449653

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.0050	0.0011	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
1,1,2,2-Tetrachloroethane	ND		0.0050	0.0025	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0050	0.0020	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
1,1,2-Trichloroethane	ND		0.0050	0.0025	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
1,1-Dichloroethane	ND		0.0050	0.00083	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
1,1-Dichloroethene	ND		0.0050	0.0025	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
1,2,3-Trichlorobenzene	ND		0.0050	0.0025	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
1,2,4-Trichlorobenzene	ND		0.0050	0.0020	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
1,2-Dibromo-3-Chloropropane	ND		0.0050	0.0033	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
1,2-Dichlorobenzene	ND		0.0050	0.00071	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
1,2-Dichloroethane	ND		0.0050	0.00082	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
1,2-Dichloropropane	ND		0.0050	0.0025	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
1,3-Dichlorobenzene	ND		0.0050	0.00095	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
1,4-Dichlorobenzene	ND		0.0050	0.0025	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
2-Butanone (MEK)	ND		0.025	0.0060	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
2-Hexanone	ND		0.025	0.0050	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
4-Methyl-2-pentanone (MIBK)	ND		0.025	0.0050	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Acetone	ND		0.025	0.013	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Benzene	ND		0.0050	0.00067	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Bromoform	ND		0.0050	0.0025	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Bromomethane	ND		0.0050	0.0025	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Carbon disulfide	ND		0.0050	0.0025	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Carbon tetrachloride	ND		0.0050	0.0017	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Chlorobenzene	ND		0.0050	0.00052	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Chlorobromomethane	ND		0.0050	0.0025	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Chloroethane	ND		0.0050	0.0025	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Chloroform	ND		0.0050	0.0025	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Chloromethane	ND		0.0050	0.0010	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
cis-1,2-Dichloroethene	ND		0.0050	0.00076	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
cis-1,3-Dichloropropene	ND		0.0050	0.0012	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Cyclohexane	ND		0.0050	0.00094	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Dibromochloromethane	ND		0.0050	0.0025	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Dichlorobromomethane	ND		0.0050	0.0025	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Dichlorodifluoromethane	ND		0.0050	0.0013	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Ethylbenzene	ND		0.0050	0.00061	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Ethylene Dibromide	ND		0.0050	0.0010	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Isopropylbenzene	ND		0.0050	0.00068	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Methyl acetate	ND		0.0050	0.0046	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Methyl tert-butyl ether	ND		0.0050	0.0010	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Methylcyclohexane	ND		0.0050	0.0015	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Methylene Chloride	ND		0.015	0.010	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Styrene	ND		0.0050	0.0010	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Tetrachloroethene	ND		0.0050	0.0025	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Toluene	ND		0.0050	0.0010	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
trans-1,2-Dichloroethene	ND		0.0050	0.0025	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
trans-1,3-Dichloropropene	ND		0.0050	0.0025	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Trichloroethene	ND		0.0050	0.0010	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Trichlorofluoromethane	ND		0.0050	0.0025	mg/Kg		07/26/19 08:31	07/26/19 11:41	1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-449653/1-A

Matrix: Solid

Analysis Batch: 449623

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 449653

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.0050	0.0025	mg/Kg		07/26/19 08:31	07/26/19 11:41	1
Xylenes, Total	ND		0.010	0.0019	mg/Kg		07/26/19 08:31	07/26/19 11:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		72 - 122	07/26/19 08:31	07/26/19 11:41	1
Dibromofluoromethane	102		79 - 123	07/26/19 08:31	07/26/19 11:41	1
Toluene-d8 (Surr)	97		80 - 120	07/26/19 08:31	07/26/19 11:41	1

Lab Sample ID: LCS 400-449653/2-A

Matrix: Solid

Analysis Batch: 449623

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 449653

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,1,1-Trichloroethane	0.0500	0.0451		mg/Kg		90	63 - 130
1,1,2,2-Tetrachloroethane	0.0500	0.0460		mg/Kg		92	60 - 131
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0500	0.0458		mg/Kg		92	47 - 143
1,1,2-Trichloroethane	0.0500	0.0427		mg/Kg		85	65 - 130
1,1-Dichloroethane	0.0500	0.0447		mg/Kg		89	59 - 130
1,1-Dichloroethene	0.0500	0.0443		mg/Kg		89	55 - 137
1,2,3-Trichlorobenzene	0.0500	0.0459		mg/Kg		92	58 - 135
1,2,4-Trichlorobenzene	0.0500	0.0452		mg/Kg		90	56 - 138
1,2-Dibromo-3-Chloropropane	0.0500	0.0517		mg/Kg		103	49 - 130
1,2-Dichlorobenzene	0.0500	0.0437		mg/Kg		87	64 - 130
1,2-Dichloroethane	0.0500	0.0446		mg/Kg		89	62 - 130
1,2-Dichloropropane	0.0500	0.0440		mg/Kg		88	64 - 130
1,3-Dichlorobenzene	0.0500	0.0436		mg/Kg		87	66 - 130
1,4-Dichlorobenzene	0.0500	0.0435		mg/Kg		87	65 - 130
2-Butanone (MEK)	0.200	0.235		mg/Kg		118	55 - 130
2-Hexanone	0.200	0.215		mg/Kg		107	57 - 131
4-Methyl-2-pentanone (MIBK)	0.200	0.210		mg/Kg		105	58 - 130
Acetone	0.200	0.210		mg/Kg		105	48 - 160
Benzene	0.0500	0.0444		mg/Kg		89	65 - 130
Bromoform	0.0500	0.0453		mg/Kg		91	52 - 136
Bromomethane	0.0500	0.0451		mg/Kg		90	12 - 160
Carbon disulfide	0.0500	0.0439		mg/Kg		88	46 - 141
Carbon tetrachloride	0.0500	0.0453		mg/Kg		91	60 - 130
Chlorobenzene	0.0500	0.0437		mg/Kg		87	70 - 130
Chlorobromomethane	0.0500	0.0458		mg/Kg		92	65 - 130
Chloroethane	0.0500	0.0400		mg/Kg		80	55 - 134
Chloroform	0.0500	0.0445		mg/Kg		89	62 - 130
Chloromethane	0.0500	0.0446		mg/Kg		89	49 - 136
cis-1,2-Dichloroethene	0.0500	0.0460		mg/Kg		92	53 - 135
cis-1,3-Dichloropropene	0.0500	0.0448		mg/Kg		90	61 - 130
Cyclohexane	0.0500	0.0446		mg/Kg		89	61 - 130
Dibromochloromethane	0.0500	0.0432		mg/Kg		86	58 - 132
Dichlorobromomethane	0.0500	0.0434		mg/Kg		87	61 - 130
Dichlorodifluoromethane	0.0500	0.0434		mg/Kg		87	34 - 143
Ethylbenzene	0.0500	0.0434		mg/Kg		87	70 - 130

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-449653/2-A

Matrix: Solid

Analysis Batch: 449623

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 449653

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylene Dibromide	0.0500	0.0451		mg/Kg		90	67 - 130
Isopropylbenzene	0.0500	0.0443		mg/Kg		89	70 - 130
Methyl acetate	0.100	0.103		mg/Kg		103	49 - 139
Methyl tert-butyl ether	0.0500	0.0454		mg/Kg		91	63 - 130
Methylcyclohexane	0.0500	0.0445		mg/Kg		89	64 - 130
Methylene Chloride	0.0500	0.0443		mg/Kg		89	57 - 132
Styrene	0.0500	0.0431		mg/Kg		86	68 - 130
Tetrachloroethene	0.0500	0.0442		mg/Kg		88	67 - 130
Toluene	0.0500	0.0426		mg/Kg		85	70 - 130
trans-1,2-Dichloroethene	0.0500	0.0443		mg/Kg		89	58 - 134
trans-1,3-Dichloropropene	0.0500	0.0435		mg/Kg		87	60 - 130
Trichloroethene	0.0500	0.0456		mg/Kg		91	65 - 130
Trichlorofluoromethane	0.0500	0.0464		mg/Kg		93	61 - 136
Vinyl chloride	0.0500	0.0430		mg/Kg		86	52 - 132
Xylenes, Total	0.100	0.0853		mg/Kg		85	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	98		72 - 122
Dibromofluoromethane	103		79 - 123
Toluene-d8 (Surr)	97		80 - 120

Lab Sample ID: 400-173466-15 MS

Matrix: Solid

Analysis Batch: 449623

Client Sample ID: TMW-1 (12-14)

Prep Type: Total/NA

Prep Batch: 449653

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		0.0699	0.0612		mg/Kg	☼	87	41 - 130
1,1,2,2-Tetrachloroethane	ND		0.0699	0.0533		mg/Kg	☼	76	10 - 149
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0699	0.0624		mg/Kg	☼	89	32 - 146
1,1,2-Trichloroethane	ND		0.0699	0.0516		mg/Kg	☼	74	37 - 130
1,1-Dichloroethane	ND		0.0699	0.0601		mg/Kg	☼	86	41 - 130
1,1-Dichloroethene	ND		0.0699	0.0610		mg/Kg	☼	87	39 - 138
1,2,3-Trichlorobenzene	ND		0.0699	0.0507		mg/Kg	☼	72	10 - 146
1,2,4-Trichlorobenzene	ND		0.0699	0.0519		mg/Kg	☼	74	10 - 141
1,2-Dibromo-3-Chloropropane	ND		0.0699	0.0503		mg/Kg	☼	72	14 - 132
1,2-Dichlorobenzene	ND		0.0699	0.0547		mg/Kg	☼	78	20 - 130
1,2-Dichloroethane	ND		0.0699	0.0552		mg/Kg	☼	79	37 - 130
1,2-Dichloropropane	ND		0.0699	0.0563		mg/Kg	☼	80	39 - 130
1,3-Dichlorobenzene	ND		0.0699	0.0562		mg/Kg	☼	80	22 - 130
1,4-Dichlorobenzene	ND		0.0699	0.0549		mg/Kg	☼	79	21 - 130
2-Butanone (MEK)	ND		0.280	0.160		mg/Kg	☼	57	19 - 139
2-Hexanone	ND		0.280	0.165		mg/Kg	☼	59	20 - 142
4-Methyl-2-pentanone (MIBK)	ND		0.280	0.210		mg/Kg	☼	75	21 - 144
Acetone	ND		0.280	0.106		mg/Kg	☼	38	10 - 150
Benzene	ND		0.0699	0.0598		mg/Kg	☼	86	38 - 131
Bromoform	ND		0.0699	0.0509		mg/Kg	☼	73	24 - 136
Bromomethane	ND		0.0699	0.0797		mg/Kg	☼	114	10 - 150
Carbon disulfide	ND		0.0699	0.0600		mg/Kg	☼	86	29 - 141

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-173466-15 MS

Matrix: Solid

Analysis Batch: 449623

Client Sample ID: TMW-1 (12-14)

Prep Type: Total/NA

Prep Batch: 449653

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon tetrachloride	ND		0.0699	0.0613		mg/Kg	☼	88	36 - 134
Chlorobenzene	ND		0.0699	0.0571		mg/Kg	☼	82	37 - 130
Chlorobromomethane	ND		0.0699	0.0592		mg/Kg	☼	85	37 - 134
Chloroethane	ND		0.0699	0.0705		mg/Kg	☼	101	36 - 139
Chloroform	ND		0.0699	0.0586		mg/Kg	☼	84	39 - 130
Chloromethane	ND		0.0699	0.0770		mg/Kg	☼	110	35 - 136
cis-1,2-Dichloroethene	ND		0.0699	0.0594		mg/Kg	☼	85	32 - 135
cis-1,3-Dichloropropene	ND		0.0699	0.0564		mg/Kg	☼	81	34 - 130
Cyclohexane	ND		0.0699	0.0592		mg/Kg	☼	85	33 - 136
Dibromochloromethane	ND		0.0699	0.0533		mg/Kg	☼	76	32 - 132
Dichlorobromomethane	ND		0.0699	0.0553		mg/Kg	☼	79	37 - 130
Dichlorodifluoromethane	ND		0.0699	0.0763		mg/Kg	☼	109	21 - 146
Ethylbenzene	ND		0.0699	0.0583		mg/Kg	☼	83	35 - 130
Ethylene Dibromide	ND		0.0699	0.0543		mg/Kg	☼	78	35 - 130
Isopropylbenzene	ND		0.0699	0.0588		mg/Kg	☼	84	31 - 132
Methyl acetate	ND		0.140	0.111		mg/Kg	☼	79	10 - 150
Methyl tert-butyl ether	ND		0.0699	0.0557		mg/Kg	☼	80	34 - 132
Methylcyclohexane	ND		0.0699	0.0606		mg/Kg	☼	87	29 - 138
Methylene Chloride	ND		0.0699	0.0617		mg/Kg	☼	88	36 - 132
Styrene	ND		0.0699	0.0562		mg/Kg	☼	80	31 - 130
Tetrachloroethene	ND		0.0699	0.0580		mg/Kg	☼	83	27 - 147
Toluene	ND		0.0699	0.0569		mg/Kg	☼	81	42 - 130
trans-1,2-Dichloroethene	ND		0.0699	0.0605		mg/Kg	☼	86	40 - 134
trans-1,3-Dichloropropene	ND		0.0699	0.0531		mg/Kg	☼	76	31 - 130
Trichloroethene	ND		0.0699	0.0610		mg/Kg	☼	87	34 - 144
Trichlorofluoromethane	ND		0.0699	0.0806		mg/Kg	☼	115	41 - 143
Vinyl chloride	ND		0.0699	0.0734		mg/Kg	☼	105	35 - 136
Xylenes, Total	ND		0.140	0.115		mg/Kg	☼	82	35 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	100		72 - 122
Dibromofluoromethane	100		79 - 123
Toluene-d8 (Surr)	98		80 - 120

Lab Sample ID: 400-173466-15 MSD

Matrix: Solid

Analysis Batch: 449623

Client Sample ID: TMW-1 (12-14)

Prep Type: Total/NA

Prep Batch: 449653

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		0.0642	0.0541		mg/Kg	☼	84	41 - 130	12	40
1,1,2,2-Tetrachloroethane	ND		0.0642	0.0514		mg/Kg	☼	80	10 - 149	4	44
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.0642	0.0568		mg/Kg	☼	88	32 - 146	9	58
1,1,2-Trichloroethane	ND		0.0642	0.0476		mg/Kg	☼	74	37 - 130	8	33
1,1-Dichloroethane	ND		0.0642	0.0540		mg/Kg	☼	84	41 - 130	11	35
1,1-Dichloroethene	ND		0.0642	0.0536		mg/Kg	☼	84	39 - 138	13	37
1,2,3-Trichlorobenzene	ND		0.0642	0.0490		mg/Kg	☼	76	10 - 146	3	47
1,2,4-Trichlorobenzene	ND		0.0642	0.0473		mg/Kg	☼	74	10 - 141	9	53
1,2-Dibromo-3-Chloropropane	ND		0.0642	0.0523		mg/Kg	☼	81	14 - 132	4	38

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-173466-15 MSD

Matrix: Solid

Analysis Batch: 449623

Client Sample ID: TMW-1 (12-14)

Prep Type: Total/NA

Prep Batch: 449653

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichlorobenzene	ND		0.0642	0.0477		mg/Kg	☼	74	20 - 130	14	40
1,2-Dichloroethane	ND		0.0642	0.0511		mg/Kg	☼	80	37 - 130	8	32
1,2-Dichloropropane	ND		0.0642	0.0516		mg/Kg	☼	80	39 - 130	9	35
1,3-Dichlorobenzene	ND		0.0642	0.0479		mg/Kg	☼	75	22 - 130	16	41
1,4-Dichlorobenzene	ND		0.0642	0.0477		mg/Kg	☼	74	21 - 130	14	40
2-Butanone (MEK)	ND		0.257	0.161		mg/Kg	☼	63	19 - 139	1	41
2-Hexanone	ND		0.257	0.169		mg/Kg	☼	66	20 - 142	2	37
4-Methyl-2-pentanone (MIBK)	ND		0.257	0.215		mg/Kg	☼	84	21 - 144	2	39
Acetone	ND		0.257	0.106		mg/Kg	☼	41	10 - 150	0	38
Benzene	ND		0.0642	0.0532		mg/Kg	☼	83	38 - 131	12	36
Bromoform	ND		0.0642	0.0479		mg/Kg	☼	75	24 - 136	6	34
Bromomethane	ND		0.0642	0.0571		mg/Kg	☼	89	10 - 150	33	47
Carbon disulfide	ND		0.0642	0.0529		mg/Kg	☼	82	29 - 141	13	39
Carbon tetrachloride	ND		0.0642	0.0541		mg/Kg	☼	84	36 - 134	12	44
Chlorobenzene	ND		0.0642	0.0499		mg/Kg	☼	78	37 - 130	13	37
Chlorobromomethane	ND		0.0642	0.0532		mg/Kg	☼	83	37 - 134	11	38
Chloroethane	ND		0.0642	0.0486		mg/Kg	☼	76	36 - 139	37	42
Chloroform	ND		0.0642	0.0528		mg/Kg	☼	82	39 - 130	10	35
Chloromethane	ND		0.0642	0.0534		mg/Kg	☼	83	35 - 136	36	41
cis-1,2-Dichloroethene	ND		0.0642	0.0537		mg/Kg	☼	84	32 - 135	10	35
cis-1,3-Dichloropropene	ND		0.0642	0.0508		mg/Kg	☼	79	34 - 130	10	35
Cyclohexane	ND		0.0642	0.0527		mg/Kg	☼	82	33 - 136	12	49
Dibromochloromethane	ND		0.0642	0.0485		mg/Kg	☼	76	32 - 132	9	34
Dichlorobromomethane	ND		0.0642	0.0502		mg/Kg	☼	78	37 - 130	10	34
Dichlorodifluoromethane	ND		0.0642	0.0533		mg/Kg	☼	83	21 - 146	36	46
Ethylbenzene	ND		0.0642	0.0495		mg/Kg	☼	77	35 - 130	16	46
Ethylene Dibromide	ND		0.0642	0.0507		mg/Kg	☼	79	35 - 130	7	31
Isopropylbenzene	ND		0.0642	0.0503		mg/Kg	☼	78	31 - 132	16	51
Methyl acetate	ND		0.128	0.109		mg/Kg	☼	85	10 - 150	2	34
Methyl tert-butyl ether	ND		0.0642	0.0519		mg/Kg	☼	81	34 - 132	7	31
Methylcyclohexane	ND		0.0642	0.0538		mg/Kg	☼	84	29 - 138	12	46
Methylene Chloride	ND		0.0642	0.0547		mg/Kg	☼	85	36 - 132	12	38
Styrene	ND		0.0642	0.0483		mg/Kg	☼	75	31 - 130	15	39
Tetrachloroethene	ND		0.0642	0.0500		mg/Kg	☼	78	27 - 147	15	44
Toluene	ND		0.0642	0.0496		mg/Kg	☼	77	42 - 130	14	37
trans-1,2-Dichloroethene	ND		0.0642	0.0533		mg/Kg	☼	83	40 - 134	13	38
trans-1,3-Dichloropropene	ND		0.0642	0.0483		mg/Kg	☼	75	31 - 130	9	34
Trichloroethene	ND		0.0642	0.0536		mg/Kg	☼	83	34 - 144	13	42
Trichlorofluoromethane	ND		0.0642	0.0570		mg/Kg	☼	89	41 - 143	34	42
Vinyl chloride	ND		0.0642	0.0511		mg/Kg	☼	80	35 - 136	36	43
Xylenes, Total	ND		0.128	0.0977		mg/Kg	☼	76	35 - 130	16	39

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene	98		72 - 122
Dibromofluoromethane	102		79 - 123
Toluene-d8 (Surr)	98		80 - 120

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-449107/1-A

Matrix: Solid

Analysis Batch: 449568

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 449107

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.33	0.033	mg/Kg		07/23/19 08:34	07/26/19 03:39	1
Acenaphthylene	ND		0.33	0.033	mg/Kg		07/23/19 08:34	07/26/19 03:39	1
Anthracene	ND		0.33	0.033	mg/Kg		07/23/19 08:34	07/26/19 03:39	1
Benzo[a]anthracene	ND		0.33	0.033	mg/Kg		07/23/19 08:34	07/26/19 03:39	1
Benzo[a]pyrene	ND		0.33	0.033	mg/Kg		07/23/19 08:34	07/26/19 03:39	1
Benzo[b]fluoranthene	ND		0.33	0.033	mg/Kg		07/23/19 08:34	07/26/19 03:39	1
Benzo[g,h,i]perylene	ND		0.33	0.033	mg/Kg		07/23/19 08:34	07/26/19 03:39	1
Benzo[k]fluoranthene	ND		0.33	0.033	mg/Kg		07/23/19 08:34	07/26/19 03:39	1
Chrysene	ND		0.33	0.033	mg/Kg		07/23/19 08:34	07/26/19 03:39	1
Dibenz(a,h)anthracene	ND		0.33	0.033	mg/Kg		07/23/19 08:34	07/26/19 03:39	1
Fluoranthene	ND		0.33	0.033	mg/Kg		07/23/19 08:34	07/26/19 03:39	1
Fluorene	ND		0.33	0.033	mg/Kg		07/23/19 08:34	07/26/19 03:39	1
Indeno[1,2,3-cd]pyrene	ND		0.33	0.033	mg/Kg		07/23/19 08:34	07/26/19 03:39	1
Naphthalene	ND		0.33	0.033	mg/Kg		07/23/19 08:34	07/26/19 03:39	1
Phenanthrene	ND		0.33	0.033	mg/Kg		07/23/19 08:34	07/26/19 03:39	1
Pyrene	ND		0.33	0.033	mg/Kg		07/23/19 08:34	07/26/19 03:39	1
1-Methylnaphthalene	ND		0.33	0.033	mg/Kg		07/23/19 08:34	07/26/19 03:39	1
2-Methylnaphthalene	ND		0.33	0.033	mg/Kg		07/23/19 08:34	07/26/19 03:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	58		27 - 127	07/23/19 08:34	07/26/19 03:39	1
Nitrobenzene-d5 (Surr)	47		15 - 136	07/23/19 08:34	07/26/19 03:39	1
Terphenyl-d14 (Surr)	74		24 - 146	07/23/19 08:34	07/26/19 03:39	1

Lab Sample ID: LCS 400-449107/2-A

Matrix: Solid

Analysis Batch: 449422

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 449107

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	2.00	1.19		mg/Kg		60	57 - 120
Acenaphthylene	2.00	1.21		mg/Kg		61	59 - 120
Benzo[a]anthracene	2.00	1.26		mg/Kg		63	61 - 120
Naphthalene	2.00	1.18		mg/Kg		59	51 - 120

Lab Sample ID: LCS 400-449107/2-A

Matrix: Solid

Analysis Batch: 449568

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 449107

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Anthracene	2.00	1.30		mg/Kg		65	61 - 120
Benzo[a]pyrene	2.00	1.21		mg/Kg		60	54 - 127
Benzo[b]fluoranthene	2.00	1.36		mg/Kg		68	35 - 146
Benzo[g,h,i]perylene	2.00	1.81		mg/Kg		90	36 - 150
Benzo[k]fluoranthene	2.00	1.33		mg/Kg		67	53 - 139
Chrysene	2.00	1.25		mg/Kg		62	60 - 120
Dibenz(a,h)anthracene	2.00	1.55		mg/Kg		78	39 - 150
Fluoranthene	2.00	1.39		mg/Kg		70	61 - 121
Fluorene	2.00	1.35		mg/Kg		67	60 - 120

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-449107/2-A

Matrix: Solid

Analysis Batch: 449568

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 449107

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Indeno[1,2,3-cd]pyrene	2.00	1.51		mg/Kg		75	40 - 150
Phenanthrene	2.00	1.28		mg/Kg		64	59 - 120
Pyrene	2.00	1.09		mg/Kg		55	53 - 122
1-Methylnaphthalene	2.00	1.16		mg/Kg		58	46 - 120
2-Methylnaphthalene	2.00	1.15		mg/Kg		58	46 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	60		27 - 127
Nitrobenzene-d5 (Surr)	47		15 - 136
Terphenyl-d14 (Surr)	68		24 - 146

Lab Sample ID: 400-173466-15 MS

Matrix: Solid

Analysis Batch: 449568

Client Sample ID: TMW-1 (12-14)

Prep Type: Total/NA

Prep Batch: 449107

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	ND	F2 F1	2.47	1.59		mg/Kg	☼	65	40 - 140
Acenaphthylene	ND	F2 F1	2.47	1.63		mg/Kg	☼	66	40 - 140
Anthracene	ND	F2 F1	2.47	1.84		mg/Kg	☼	75	40 - 140
Benzo[a]anthracene	ND	F2 F1	2.47	1.63		mg/Kg	☼	66	40 - 140
Benzo[a]pyrene	ND	F2 F1	2.47	1.75		mg/Kg	☼	71	40 - 140
Benzo[b]fluoranthene	ND	F2 F1	2.47	1.72		mg/Kg	☼	70	40 - 140
Benzo[g,h,i]perylene	ND	F2 F1	2.47	1.98		mg/Kg	☼	80	40 - 140
Benzo[k]fluoranthene	ND	F2 F1	2.47	1.71		mg/Kg	☼	69	40 - 140
Chrysene	ND	F2 F1	2.47	1.72		mg/Kg	☼	70	40 - 140
Dibenz(a,h)anthracene	ND	F2 F1	2.47	1.85		mg/Kg	☼	75	40 - 140
Fluoranthene	ND	F2 F1	2.47	1.94		mg/Kg	☼	79	40 - 140
Fluorene	ND	F2	2.47	1.90		mg/Kg	☼	77	40 - 140
Indeno[1,2,3-cd]pyrene	ND	F2 F1	2.47	1.82		mg/Kg	☼	74	40 - 140
Naphthalene	ND	F2 F1	2.47	1.51		mg/Kg	☼	61	40 - 140
Phenanthrene	ND	F2 F1	2.47	1.81		mg/Kg	☼	73	40 - 140
Pyrene	ND	F2 F1	2.47	1.49		mg/Kg	☼	60	40 - 140
1-Methylnaphthalene	ND	F2 F1	2.47	1.70		mg/Kg	☼	69	40 - 140
2-Methylnaphthalene	ND	F2 F1	2.47	1.71		mg/Kg	☼	69	40 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl	63		27 - 127
2-Fluorobiphenyl	63		27 - 127
Nitrobenzene-d5 (Surr)	53		15 - 136
Nitrobenzene-d5 (Surr)	53		15 - 136
Terphenyl-d14 (Surr)	71		24 - 146
Terphenyl-d14 (Surr)	71		24 - 146

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-173466-15 MSD

Matrix: Solid

Analysis Batch: 449568

Client Sample ID: TMW-1 (12-14)

Prep Type: Total/NA

Prep Batch: 449107

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	ND	F2 F1	2.49	0.894	F1 F2	mg/Kg	☼	36	40 - 140	56	30
Acenaphthylene	ND	F2 F1	2.49	0.947	F1 F2	mg/Kg	☼	38	40 - 140	53	30
Anthracene	ND	F2 F1	2.49	0.666	F1 F2	mg/Kg	☼	27	40 - 140	94	30
Benzo[a]anthracene	ND	F2 F1	2.49	0.444	F1 F2	mg/Kg	☼	18	40 - 140	114	30
Benzo[a]pyrene	ND	F2 F1	2.49	0.427	F1 F2	mg/Kg	☼	17	40 - 140	122	30
Benzo[b]fluoranthene	ND	F2 F1	2.49	0.452	F1 F2	mg/Kg	☼	18	40 - 140	117	30
Benzo[g,h,i]perylene	ND	F2 F1	2.49	0.735	F1 F2	mg/Kg	☼	29	40 - 140	92	30
Benzo[k]fluoranthene	ND	F2 F1	2.49	0.412	F1 F2	mg/Kg	☼	17	40 - 140	122	30
Chrysene	ND	F2 F1	2.49	0.429	F1 F2	mg/Kg	☼	17	40 - 140	120	30
Dibenz(a,h)anthracene	ND	F2 F1	2.49	0.682	F1 F2	mg/Kg	☼	27	40 - 140	92	30
Fluoranthene	ND	F2 F1	2.49	0.650	F1 F2	mg/Kg	☼	26	40 - 140	100	30
Fluorene	ND	F2	2.49	1.10	F2	mg/Kg	☼	44	40 - 140	53	30
Indeno[1,2,3-cd]pyrene	ND	F2 F1	2.49	0.644	F1 F2	mg/Kg	☼	26	40 - 140	95	30
Naphthalene	ND	F2 F1	2.49	0.853	F1 F2	mg/Kg	☼	34	40 - 140	55	30
Phenanthrene	ND	F2 F1	2.49	0.921	F1 F2	mg/Kg	☼	37	40 - 140	65	30
Pyrene	ND	F2 F1	2.49	0.545	F1 F2	mg/Kg	☼	22	40 - 140	93	30
1-Methylnaphthalene	ND	F2 F1	2.49	0.906	F1 F2	mg/Kg	☼	36	40 - 140	61	30
2-Methylnaphthalene	ND	F2 F1	2.49	0.853	F1 F2	mg/Kg	☼	34	40 - 140	67	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl	29		27 - 127
2-Fluorobiphenyl	29		27 - 127
Nitrobenzene-d5 (Surr)	41		15 - 136
Nitrobenzene-d5 (Surr)	41		15 - 136
Terphenyl-d14 (Surr)	14	X	24 - 146
Terphenyl-d14 (Surr)	14	X	24 - 146

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-449142/1-A

Matrix: Water

Analysis Batch: 449815

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 449142

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		07/23/19 11:11	07/28/19 22:08	1
Acenaphthylene	ND		0.20	0.045	ug/L		07/23/19 11:11	07/28/19 22:08	1
Anthracene	ND		0.20	0.032	ug/L		07/23/19 11:11	07/28/19 22:08	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		07/23/19 11:11	07/28/19 22:08	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		07/23/19 11:11	07/28/19 22:08	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		07/23/19 11:11	07/28/19 22:08	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		07/23/19 11:11	07/28/19 22:08	1
Chrysene	ND		0.20	0.074	ug/L		07/23/19 11:11	07/28/19 22:08	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		07/23/19 11:11	07/28/19 22:08	1
Fluoranthene	ND		0.20	0.068	ug/L		07/23/19 11:11	07/28/19 22:08	1
Fluorene	ND		0.20	0.11	ug/L		07/23/19 11:11	07/28/19 22:08	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		07/23/19 11:11	07/28/19 22:08	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		07/23/19 11:11	07/28/19 22:08	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		07/23/19 11:11	07/28/19 22:08	1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 400-449142/1-A

Matrix: Water

Analysis Batch: 449815

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 449142

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.20	0.094	ug/L		07/23/19 11:11	07/28/19 22:08	1
Phenanthrene	ND		0.20	0.036	ug/L		07/23/19 11:11	07/28/19 22:08	1
Pyrene	ND		0.20	0.040	ug/L		07/23/19 11:11	07/28/19 22:08	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		07/23/19 11:11	07/28/19 22:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	95		15 - 122	07/23/19 11:11	07/28/19 22:08	1
Nitrobenzene-d5 (Surr)	91		19 - 130	07/23/19 11:11	07/28/19 22:08	1
Terphenyl-d14 (Surr)	131		33 - 138	07/23/19 11:11	07/28/19 22:08	1

Lab Sample ID: LCS 400-449142/2-A

Matrix: Water

Analysis Batch: 449815

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 449142

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	120	110		ug/L		92	41 - 120
Acenaphthylene	120	108		ug/L		90	44 - 120
Anthracene	120	111		ug/L		92	49 - 120
Benzo[a]pyrene	120	122		ug/L		102	52 - 120
Benzo[b]fluoranthene	120	117		ug/L		97	53 - 134
Benzo[g,h,i]perylene	120	97.4		ug/L		81	47 - 133
Benzo[k]fluoranthene	120	126		ug/L		105	57 - 134
Chrysene	120	110		ug/L		92	55 - 122
Dibenz(a,h)anthracene	120	113		ug/L		94	48 - 146
Fluoranthene	120	104		ug/L		86	54 - 128
Fluorene	120	124		ug/L		104	45 - 125
Indeno[1,2,3-cd]pyrene	120	103		ug/L		86	43 - 142
1-Methylnaphthalene	120	87.2		ug/L		73	41 - 120
2-Methylnaphthalene	120	87.7		ug/L		73	32 - 124
Naphthalene	120	85.9		ug/L		72	39 - 125
Phenanthrene	120	107		ug/L		90	48 - 120
Pyrene	120	119		ug/L		99	48 - 132
Benzo[a]anthracene	120	106		ug/L		88	61 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	77		15 - 122
Nitrobenzene-d5 (Surr)	70		19 - 130
Terphenyl-d14 (Surr)	101		33 - 138

Lab Sample ID: LCSD 400-449142/3-A

Matrix: Water

Analysis Batch: 449815

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 449142

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	120	122		ug/L		102	41 - 120	10	56
Acenaphthylene	120	120		ug/L		100	44 - 120	10	56
Anthracene	120	122		ug/L		102	49 - 120	10	51
Benzo[a]pyrene	120	137		ug/L		114	52 - 120	11	50

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 400-449142/3-A

Matrix: Water

Analysis Batch: 449815

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 449142

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[b]fluoranthene	120	123		ug/L		103	53 - 134	6	54
Benzo[g,h,i]perylene	120	98.7		ug/L		82	47 - 133	1	50
Benzo[k]fluoranthene	120	145		ug/L		121	57 - 134	14	52
Chrysene	120	123		ug/L		102	55 - 122	11	50
Dibenz(a,h)anthracene	120	119		ug/L		99	48 - 146	5	50
Fluoranthene	120	114		ug/L		95	54 - 128	9	52
Fluorene	120	138		ug/L		115	45 - 125	10	56
Indeno[1,2,3-cd]pyrene	120	115		ug/L		96	43 - 142	11	51
1-Methylnaphthalene	120	97.9		ug/L		82	41 - 120	12	55
2-Methylnaphthalene	120	99.4		ug/L		83	32 - 124	13	57
Naphthalene	120	93.0		ug/L		78	39 - 125	8	56
Phenanthrene	120	120		ug/L		100	48 - 120	11	56
Pyrene	120	133		ug/L		110	48 - 132	11	52
Benzo[a]anthracene	120	118		ug/L		98	61 - 135	11	49

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	85		15 - 122
Nitrobenzene-d5 (Surr)	71		19 - 130
Terphenyl-d14 (Surr)	108		33 - 138

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 400-449113/14-A

Matrix: Water

Analysis Batch: 449378

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 449113

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	ND		0.20	0.070	ug/L		07/23/19 09:11	07/24/19 14:08	1

Lab Sample ID: LCS 400-449113/15-A

Matrix: Water

Analysis Batch: 449378

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 449113

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury, Dissolved	1.01	0.995		ug/L		99	80 - 120

Lab Sample ID: 400-173367-A-3-B MS

Matrix: Water

Analysis Batch: 449378

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 449113

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury, Dissolved	ND	F1	2.01	1.43	F1	ug/L		71	80 - 120

Lab Sample ID: 400-173367-A-3-C MSD

Matrix: Water

Analysis Batch: 449378

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 449113

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury, Dissolved	ND	F1	2.01	1.38	F1	ug/L		69	80 - 120	4	20

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 400-449163/14-A
Matrix: Solid
Analysis Batch: 449512

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 449163

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.013	0.0075	mg/Kg		07/23/19 12:52	07/25/19 12:41	1

Lab Sample ID: LCS 400-449163/15-A
Matrix: Solid
Analysis Batch: 449512

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 449163

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.0660	0.0697		mg/Kg		106	80 - 120

Lab Sample ID: 400-173466-15 MS
Matrix: Solid
Analysis Batch: 449512

Client Sample ID: TMW-1 (12-14)
Prep Type: Total/NA
Prep Batch: 449163

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	ND		0.165	0.158		mg/Kg	☼	96	80 - 120

Lab Sample ID: 400-173466-15 MSD
Matrix: Solid
Analysis Batch: 449512

Client Sample ID: TMW-1 (12-14)
Prep Type: Total/NA
Prep Batch: 449163

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	ND		0.156	0.162		mg/Kg	☼	104	80 - 120	3	20

Method: EPA 6020 - Metals (ICP/MS)

Lab Sample ID: MB 180-286036/1-A
Matrix: Solid
Analysis Batch: 286236

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 286036

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.10	0.026	mg/Kg		07/25/19 15:37	07/26/19 23:52	1
Barium	ND		1.0	0.13	mg/Kg		07/25/19 15:37	07/26/19 23:52	1
Beryllium	0.0198	J	0.10	0.0075	mg/Kg		07/25/19 15:37	07/26/19 23:52	1
Boron	ND		8.0	1.4	mg/Kg		07/25/19 15:37	07/26/19 23:52	1
Cadmium	ND		0.10	0.017	mg/Kg		07/25/19 15:37	07/26/19 23:52	1
Calcium	ND		50	9.0	mg/Kg		07/25/19 15:37	07/26/19 23:52	1
Chromium	ND		0.20	0.083	mg/Kg		07/25/19 15:37	07/26/19 23:52	1
Cobalt	ND		0.050	0.0083	mg/Kg		07/25/19 15:37	07/26/19 23:52	1
Lead	ND		0.10	0.035	mg/Kg		07/25/19 15:37	07/26/19 23:52	1
Antimony	ND		0.20	0.062	mg/Kg		07/25/19 15:37	07/26/19 23:52	1
Molybdenum	ND		0.50	0.16	mg/Kg		07/25/19 15:37	07/26/19 23:52	1
Selenium	ND		0.50	0.12	mg/Kg		07/25/19 15:37	07/26/19 23:52	1
Lithium	ND		0.50	0.28	mg/Kg		07/25/19 15:37	07/26/19 23:52	1
Thallium	ND		0.10	0.025	mg/Kg		07/25/19 15:37	07/26/19 23:52	1

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: EPA 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 180-286036/2-A

Matrix: Solid

Analysis Batch: 286236

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 286036

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	100	103		mg/Kg		103	80 - 120
Barium	100	94.6		mg/Kg		95	80 - 120
Beryllium	50.0	48.4		mg/Kg		97	80 - 120
Boron	125	122		mg/Kg		97	80 - 120
Cadmium	50.0	51.7		mg/Kg		103	80 - 120
Calcium	2500	2510		mg/Kg		100	80 - 120
Chromium	50.0	52.4		mg/Kg		105	80 - 120
Cobalt	50.0	52.1		mg/Kg		104	80 - 120
Lead	50.0	55.4		mg/Kg		111	80 - 120
Antimony	25.0	23.6		mg/Kg		94	80 - 120
Molybdenum	50.0	53.3		mg/Kg		107	80 - 120
Selenium	100	100		mg/Kg		100	80 - 120
Lithium	50.0	46.4		mg/Kg		93	80 - 120
Thallium	100	107		mg/Kg		107	80 - 120

Lab Sample ID: 400-173466-15 MS

Matrix: Solid

Analysis Batch: 286236

Client Sample ID: TMW-1 (12-14)

Prep Type: Total/NA

Prep Batch: 286036

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.93		129	113		mg/Kg	☼	87	75 - 125
Boron	2.9	J	161	145		mg/Kg	☼	88	75 - 125
Barium	65		129	166		mg/Kg	☼	78	75 - 125
Beryllium	0.45	B	64.5	58.5		mg/Kg	☼	90	75 - 125
Calcium	890		3220	3640		mg/Kg	☼	85	75 - 125
Cadmium	ND		64.5	63.3		mg/Kg	☼	98	75 - 125
Chromium	7.4		64.5	64.3		mg/Kg	☼	88	75 - 125
Cobalt	2.6		64.5	59.0		mg/Kg	☼	87	75 - 125
Molybdenum	0.26	J	64.5	61.9		mg/Kg	☼	96	75 - 125
Lead	6.5		64.5	71.5		mg/Kg	☼	101	75 - 125
Antimony	ND	F1	32.2	23.1	F1	mg/Kg	☼	72	75 - 125
Thallium	0.090	J	129	128		mg/Kg	☼	99	75 - 125
Selenium	0.54	J	129	109		mg/Kg	☼	84	75 - 125
Lithium	2.7		64.5	61.1		mg/Kg	☼	91	75 - 125

Lab Sample ID: 400-173466-15 MSD

Matrix: Solid

Analysis Batch: 286236

Client Sample ID: TMW-1 (12-14)

Prep Type: Total/NA

Prep Batch: 286036

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	0.93		130	121		mg/Kg	☼	92	75 - 125	6	20
Boron	2.9	J	163	141		mg/Kg	☼	85	75 - 125	3	20
Barium	65		130	179		mg/Kg	☼	88	75 - 125	8	20
Beryllium	0.45	B	65.1	57.7		mg/Kg	☼	88	75 - 125	1	20
Calcium	890		3260	3760		mg/Kg	☼	88	75 - 125	3	20
Cadmium	ND		65.1	64.2		mg/Kg	☼	98	75 - 125	1	20
Chromium	7.4		65.1	65.4		mg/Kg	☼	89	75 - 125	2	20
Cobalt	2.6		65.1	60.5		mg/Kg	☼	89	75 - 125	3	20
Molybdenum	0.26	J	65.1	62.8		mg/Kg	☼	96	75 - 125	1	20

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: EPA 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-173466-15 MSD

Matrix: Solid

Analysis Batch: 286236

Client Sample ID: TMW-1 (12-14)

Prep Type: Total/NA

Prep Batch: 286036

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	6.5		65.1	75.1		mg/Kg	☼	105	75 - 125	5	20
Antimony	ND	F1	32.6	21.8	F1	mg/Kg	☼	67	75 - 125	6	20
Thallium	0.090	J	130	129		mg/Kg	☼	99	75 - 125	1	20
Selenium	0.54	J	130	118		mg/Kg	☼	90	75 - 125	8	20
Lithium	2.7		65.1	60.9		mg/Kg	☼	89	75 - 125	0	20

Lab Sample ID: MB 180-285836/1-A

Matrix: Water

Analysis Batch: 286068

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 285836

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Arsenic	ND		0.0010	0.00032	mg/L		07/24/19 12:26	07/25/19 11:50	1
Dissolved Barium	0.00200	J	0.010	0.0016	mg/L		07/24/19 12:26	07/25/19 11:50	1
Dissolved Beryllium	ND		0.0010	0.00018	mg/L		07/24/19 12:26	07/25/19 11:50	1
Dissolved Boron	ND		0.080	0.039	mg/L		07/24/19 12:26	07/25/19 11:50	1
Dissolved Cadmium	ND		0.0010	0.00013	mg/L		07/24/19 12:26	07/25/19 11:50	1
Dissolved Calcium	ND		0.50	0.13	mg/L		07/24/19 12:26	07/25/19 11:50	1
Dissolved Chromium	ND		0.0020	0.0015	mg/L		07/24/19 12:26	07/25/19 11:50	1
Dissolved Cobalt	ND		0.00050	0.000075	mg/L		07/24/19 12:26	07/25/19 11:50	1
Dissolved Lead	ND		0.0010	0.00013	mg/L		07/24/19 12:26	07/25/19 11:50	1
Dissolved Antimony	ND		0.0020	0.00038	mg/L		07/24/19 12:26	07/25/19 11:50	1
Dissolved Molybdenum	ND		0.0050	0.00061	mg/L		07/24/19 12:26	07/25/19 11:50	1
Dissolved Selenium	ND		0.0050	0.0015	mg/L		07/24/19 12:26	07/25/19 11:50	1
Dissolved Lithium	ND		0.0050	0.0034	mg/L		07/24/19 12:26	07/25/19 11:50	1
Dissolved Thallium	ND		0.0010	0.00015	mg/L		07/24/19 12:26	07/25/19 11:50	1

Lab Sample ID: LCS 180-285836/2-A

Matrix: Water

Analysis Batch: 286068

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 285836

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dissolved Arsenic	1.00	0.960		mg/L		96	80 - 120
Dissolved Barium	1.00	1.05		mg/L		105	80 - 120
Dissolved Beryllium	0.500	0.485		mg/L		97	80 - 120
Dissolved Boron	1.25	1.08		mg/L		86	80 - 120
Dissolved Cadmium	0.500	0.517		mg/L		103	80 - 120
Dissolved Calcium	25.0	27.2		mg/L		109	80 - 120
Dissolved Chromium	0.500	0.524		mg/L		105	80 - 120
Dissolved Cobalt	0.500	0.466		mg/L		93	80 - 120
Dissolved Lead	0.500	0.511		mg/L		102	80 - 120
Dissolved Antimony	0.250	0.273		mg/L		109	80 - 120
Dissolved Molybdenum	0.500	0.526		mg/L		105	80 - 120
Dissolved Selenium	1.00	1.02		mg/L		102	80 - 120
Dissolved Lithium	0.500	0.467		mg/L		93	80 - 120
Dissolved Thallium	1.00	0.977		mg/L		98	80 - 120

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: EPA 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 180-92797-I-6-B MS

Matrix: Water

Analysis Batch: 286068

Client Sample ID: Matrix Spike

Prep Type: Total Recoverable

Prep Batch: 285836

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dissolved Arsenic	ND		1.00	0.961		mg/L		96	75 - 125
Dissolved Barium	0.094	B	1.00	1.15		mg/L		105	75 - 125
Dissolved Beryllium	ND		0.500	0.518		mg/L		104	75 - 125
Dissolved Boron	0.064	J	1.25	1.14		mg/L		86	75 - 125
Dissolved Cadmium	ND		0.500	0.508		mg/L		102	75 - 125
Dissolved Calcium	95		25.0	123		mg/L		109	75 - 125
Dissolved Chromium	ND		0.500	0.514		mg/L		103	75 - 125
Dissolved Cobalt	0.00055		0.500	0.458		mg/L		91	75 - 125
Dissolved Lead	ND		0.500	0.500		mg/L		100	75 - 125
Dissolved Antimony	ND		0.250	0.272		mg/L		109	75 - 125
Dissolved Molybdenum	ND		0.500	0.522		mg/L		104	75 - 125
Dissolved Selenium	ND		1.00	1.00		mg/L		100	75 - 125
Dissolved Lithium	0.012		0.500	0.500		mg/L		98	75 - 125
Dissolved Thallium	ND		1.00	0.963		mg/L		96	75 - 125

Lab Sample ID: 180-92797-I-6-C MSD

Matrix: Water

Analysis Batch: 286068

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total Recoverable

Prep Batch: 285836

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Dissolved Arsenic	ND		1.00	0.981		mg/L		98	75 - 125	2	20
Dissolved Barium	0.094	B	1.00	1.17		mg/L		108	75 - 125	2	20
Dissolved Beryllium	ND		0.500	0.534		mg/L		107	75 - 125	3	20
Dissolved Boron	0.064	J	1.25	1.15		mg/L		87	75 - 125	1	20
Dissolved Cadmium	ND		0.500	0.517		mg/L		103	75 - 125	2	20
Dissolved Calcium	95		25.0	122		mg/L		108	75 - 125	0	20
Dissolved Chromium	ND		0.500	0.524		mg/L		105	75 - 125	2	20
Dissolved Cobalt	0.00055		0.500	0.472		mg/L		94	75 - 125	3	20
Dissolved Lead	ND		0.500	0.510		mg/L		102	75 - 125	2	20
Dissolved Antimony	ND		0.250	0.278		mg/L		111	75 - 125	2	20
Dissolved Molybdenum	ND		0.500	0.536		mg/L		107	75 - 125	3	20
Dissolved Selenium	ND		1.00	1.02		mg/L		102	75 - 125	2	20
Dissolved Lithium	0.012		0.500	0.519		mg/L		101	75 - 125	4	20
Dissolved Thallium	ND		1.00	0.986		mg/L		99	75 - 125	2	20

Method: Moisture - Percent Moisture

Lab Sample ID: 400-173466-1 DU

Matrix: Solid

Analysis Batch: 448944

Client Sample ID: TMW-2 (0-2)

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Moisture	11.0		12.2		%		10	10

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: Moisture - Percent Moisture (Continued)

Lab Sample ID: 400-173466-16 DU

Matrix: Solid

Analysis Batch: 449123

Client Sample ID: TMW-1 (18-20)

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Moisture	21.9		21.6		%		1	10

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-449414/1

Matrix: Water

Analysis Batch: 449414

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		5.0	3.4	mg/L			07/24/19 16:42	1

Lab Sample ID: LCS 400-449414/2

Matrix: Water

Analysis Batch: 449414

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	286		mg/L		98	78 - 122

Lab Sample ID: 400-173547-A-12 DU

Matrix: Water

Analysis Batch: 449414

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	550		546		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-449969/6

Matrix: Water

Analysis Batch: 449969

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride, Dissolved	ND		2.0	1.4	mg/L			07/29/19 14:35	1

Lab Sample ID: LCS 400-449969/7

Matrix: Water

Analysis Batch: 449969

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride, Dissolved	30.0	31.8		mg/L		106	90 - 110

Lab Sample ID: MRL 400-449969/3

Matrix: Water

Analysis Batch: 449969

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride, Dissolved	2.00	2.47		mg/L		124	50 - 150

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 400-173696-A-1 MS

Matrix: Water

Analysis Batch: 449969

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride, Dissolved	1.7	J	10.0	12.4		mg/L		106	73 - 120

Lab Sample ID: 400-173696-A-1 MSD

Matrix: Water

Analysis Batch: 449969

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride, Dissolved	1.7	J	10.0	11.9		mg/L		101	73 - 120	4	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-450259/3

Matrix: Water

Analysis Batch: 450259

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride, Dissolved	ND		0.10	0.032	mg/L			07/31/19 13:07	1

Lab Sample ID: LCS 400-450259/4

Matrix: Water

Analysis Batch: 450259

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride, Dissolved	4.00	3.88		mg/L		97	90 - 110

Lab Sample ID: 400-173466-21 MS

Matrix: Water

Analysis Batch: 450259

Client Sample ID: TMW-1

Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride, Dissolved	0.45		1.00	1.47		mg/L		102	75 - 125

Lab Sample ID: 400-173466-21 MSD

Matrix: Water

Analysis Batch: 450259

Client Sample ID: TMW-1

Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride, Dissolved	0.45		1.00	1.47		mg/L		102	75 - 125	0	4

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 400-449161/4

Matrix: Water

Analysis Batch: 449161

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	7.1		SU		101	95 - 105

QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method: SM 4500 H+ B - pH (Continued)

Lab Sample ID: 400-173412-H-1 DU

Matrix: Water

Analysis Batch: 449161

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	10.6		10.6		SU		0.2	5
Temperature	25.9		26.3		Degrees C		2	30

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-449911/26

Matrix: Water

Analysis Batch: 449911

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate, Dissolved	ND		5.0	1.4	mg/L			07/29/19 13:23	1

Lab Sample ID: LCS 400-449911/27

Matrix: Water

Analysis Batch: 449911

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate, Dissolved	15.0	13.8		mg/L		92	90 - 110

Lab Sample ID: MRL 400-449911/23

Matrix: Water

Analysis Batch: 449911

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate, Dissolved	5.00	5.68		mg/L		114	50 - 150

Lab Sample ID: 400-173782-A-1 MS

Matrix: Water

Analysis Batch: 449911

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate, Dissolved	310	F1	100	298	F1	mg/L		-10	77 - 128

Lab Sample ID: 400-173782-A-1 MSD

Matrix: Water

Analysis Batch: 449911

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate, Dissolved	310	F1	100	304	F1	mg/L		-4	77 - 128	2	5

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-2 (0-2)

Date Collected: 07/18/19 11:00

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-1

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			448944	07/22/19 10:48	BKG	TAL PEN

Client Sample ID: TMW-2 (0-2)

Date Collected: 07/18/19 11:00

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-1

Matrix: Solid

Percent Solids: 89.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.11 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1	0.4 mL	1.0 mL	449568	07/26/19 05:27	VC1	TAL PEN
Total/NA	Prep	3546			15.11 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449422	07/24/19 23:39	VC1	TAL PEN
Total/NA	Prep	7471A			0.6060 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 12:45	JAP	TAL PEN
Total/NA	Prep	3050B			0.96 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 00:11	WTR	TAL PIT

Client Sample ID: TMW-2 (2-4)

Date Collected: 07/18/19 11:05

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-2

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			448944	07/22/19 10:48	BKG	TAL PEN

Client Sample ID: TMW-2 (2-4)

Date Collected: 07/18/19 11:05

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-2

Matrix: Solid

Percent Solids: 76.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.27 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449568	07/26/19 05:48	VC1	TAL PEN
Total/NA	Prep	3546			15.27 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449422	07/25/19 00:00	VC1	TAL PEN
Total/NA	Prep	7471A			0.6142 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 12:47	JAP	TAL PEN
Total/NA	Prep	3050B			0.96 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 00:16	WTR	TAL PIT

Client Sample ID: TMW-2 (14-16)

Date Collected: 07/18/19 11:10

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-3

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			448944	07/22/19 10:48	BKG	TAL PEN

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-2 (14-16)

Date Collected: 07/18/19 11:10

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-3

Matrix: Solid

Percent Solids: 77.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.23 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449568	07/26/19 06:10	VC1	TAL PEN
Total/NA	Prep	3546			15.23 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449422	07/25/19 00:21	VC1	TAL PEN
Total/NA	Prep	7471A			0.6212 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 12:48	JAP	TAL PEN
Total/NA	Prep	3050B			0.95 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 00:34	WTR	TAL PIT

Client Sample ID: DUP-01

Date Collected: 07/18/19 00:00

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-4

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			448944	07/22/19 10:48	BKG	TAL PEN

Client Sample ID: DUP-01

Date Collected: 07/18/19 00:00

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-4

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			15.18 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449568	07/26/19 06:31	VC1	TAL PEN
Total/NA	Prep	3546			15.18 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449422	07/25/19 00:42	VC1	TAL PEN
Total/NA	Prep	7471A			0.6240 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 12:50	JAP	TAL PEN
Total/NA	Prep	3050B			1.05 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 02:41	WTR	TAL PIT

Client Sample ID: SB-1 (0-2)

Date Collected: 07/18/19 13:25

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-5

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			448944	07/22/19 10:48	BKG	TAL PEN

Client Sample ID: SB-1 (0-2)

Date Collected: 07/18/19 13:25

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-5

Matrix: Solid

Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.32 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449568	07/26/19 06:52	VC1	TAL PEN
Total/NA	Prep	3546			15.32 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449422	07/25/19 01:03	VC1	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-1 (0-2)

Date Collected: 07/18/19 13:25

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-5

Matrix: Solid

Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.6122 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 12:52	JAP	TAL PEN
Total/NA	Prep	3050B			1.00 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 00:39	WTR	TAL PIT

Client Sample ID: SB-1 (2-4)

Date Collected: 07/18/19 13:30

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-6

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			448944	07/22/19 10:48	BKG	TAL PEN

Client Sample ID: SB-1 (2-4)

Date Collected: 07/18/19 13:30

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-6

Matrix: Solid

Percent Solids: 81.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.44 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449568	07/26/19 07:14	VC1	TAL PEN
Total/NA	Prep	3546			15.44 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449422	07/25/19 01:24	VC1	TAL PEN
Total/NA	Prep	7471A			0.6436 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 12:54	JAP	TAL PEN
Total/NA	Prep	3050B			0.96 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 00:44	WTR	TAL PIT

Client Sample ID: SB-1 (8-10)

Date Collected: 07/18/19 13:35

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-7

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			448944	07/22/19 10:48	BKG	TAL PEN

Client Sample ID: SB-1 (8-10)

Date Collected: 07/18/19 13:35

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-7

Matrix: Solid

Percent Solids: 81.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.42 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449568	07/26/19 07:35	VC1	TAL PEN
Total/NA	Prep	3546			15.42 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449422	07/25/19 01:45	VC1	TAL PEN
Total/NA	Prep	7471A			0.6388 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 12:56	JAP	TAL PEN
Total/NA	Prep	3050B			1.00 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 00:48	WTR	TAL PIT

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-2 (0-2)

Date Collected: 07/18/19 17:45

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-8

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			448944	07/22/19 10:48	BKG	TAL PEN

Client Sample ID: SB-2 (0-2)

Date Collected: 07/18/19 17:45

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-8

Matrix: Solid

Percent Solids: 75.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.48 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449568	07/26/19 07:57	VC1	TAL PEN
Total/NA	Prep	3546			15.48 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449422	07/25/19 02:06	VC1	TAL PEN
Total/NA	Prep	7471A			0.6334 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 12:58	JAP	TAL PEN
Total/NA	Prep	3050B			1.02 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 00:53	WTR	TAL PIT

Client Sample ID: SB-2 (2-4)

Date Collected: 07/18/19 17:50

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-9

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			448944	07/22/19 10:48	BKG	TAL PEN

Client Sample ID: SB-2 (2-4)

Date Collected: 07/18/19 17:50

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-9

Matrix: Solid

Percent Solids: 70.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.27 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449568	07/26/19 08:18	VC1	TAL PEN
Total/NA	Prep	3546			15.27 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449422	07/25/19 02:27	VC1	TAL PEN
Total/NA	Prep	7471A			0.6226 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 13:15	JAP	TAL PEN
Total/NA	Prep	3050B			1.05 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 00:58	WTR	TAL PIT

Client Sample ID: SB-2 (8-10)

Date Collected: 07/18/19 17:55

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-10

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			448944	07/22/19 10:48	BKG	TAL PEN

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-2 (8-10)

Date Collected: 07/18/19 17:55

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-10

Matrix: Solid

Percent Solids: 75.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.40 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449568	07/26/19 08:40	VC1	TAL PEN
Total/NA	Prep	3546			15.40 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449422	07/25/19 02:48	VC1	TAL PEN
Total/NA	Prep	7471A			0.6060 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 13:17	JAP	TAL PEN
Total/NA	Prep	3050B			1.04 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 01:03	WTR	TAL PIT

Client Sample ID: SB-3 (0-2)

Date Collected: 07/18/19 14:30

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-11

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			449123	07/23/19 09:34	BKG	TAL PEN

Client Sample ID: SB-3 (0-2)

Date Collected: 07/18/19 14:30

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-11

Matrix: Solid

Percent Solids: 86.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.866 g	5.00 g	450037	07/30/19 07:17	RS	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	449972	07/30/19 10:00	RS	TAL PEN
Total/NA	Prep	3546			15.31 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449568	07/26/19 09:01	VC1	TAL PEN
Total/NA	Prep	3546			15.31 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449422	07/25/19 03:09	VC1	TAL PEN
Total/NA	Prep	7471A			0.6374 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 13:19	JAP	TAL PEN
Total/NA	Prep	3050B			1.01 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 01:07	WTR	TAL PIT

Client Sample ID: SB-3 (2-4)

Date Collected: 07/18/19 14:35

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-12

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			449123	07/23/19 09:34	BKG	TAL PEN

Client Sample ID: SB-3 (2-4)

Date Collected: 07/18/19 14:35

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-12

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	5035			5.10 g	5.00 g	450037	07/30/19 07:17	RS	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	449972	07/30/19 10:26	RS	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SB-3 (2-4)

Date Collected: 07/18/19 14:35

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-12

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			15.35 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449568	07/26/19 09:23	VC1	TAL PEN
Total/NA	Prep	3546			15.35 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449422	07/25/19 03:30	VC1	TAL PEN
Total/NA	Prep	7471A			0.6104 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 13:21	JAP	TAL PEN
Total/NA	Prep	3050B			1.02 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 01:12	WTR	TAL PIT

Client Sample ID: SB-3 (8-10)

Date Collected: 07/18/19 14:40

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-13

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			449123	07/23/19 09:34	BKG	TAL PEN

Client Sample ID: SB-3 (8-10)

Date Collected: 07/18/19 14:40

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-13

Matrix: Solid

Percent Solids: 68.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.368 g	5.00 g	449653	07/26/19 08:31	AMB	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	449623	07/26/19 14:27	CAR	TAL PEN
Total/NA	Prep	3546			15.06 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449568	07/26/19 09:44	VC1	TAL PEN
Total/NA	Prep	3546			15.06 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449422	07/25/19 03:51	VC1	TAL PEN
Total/NA	Prep	7471A			0.6434 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 13:23	JAP	TAL PEN
Total/NA	Prep	3050B			1.00 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 01:17	WTR	TAL PIT

Client Sample ID: TMW-1 (0-2)

Date Collected: 07/18/19 16:00

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-14

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			449123	07/23/19 09:34	BKG	TAL PEN

Client Sample ID: TMW-1 (0-2)

Date Collected: 07/18/19 16:00

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-14

Matrix: Solid

Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.36 g	5.00 g	449653	07/26/19 08:31	AMB	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	449623	07/26/19 14:53	CAR	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-1 (0-2)

Date Collected: 07/18/19 16:00

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-14

Matrix: Solid

Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.6346 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 13:25	JAP	TAL PEN
Total/NA	Prep	3050B			0.99 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 01:35	WTR	TAL PIT

Client Sample ID: TMW-1 (12-14)

Date Collected: 07/18/19 17:00

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-15

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			449123	07/23/19 09:34	BKG	TAL PEN

Client Sample ID: TMW-1 (12-14)

Date Collected: 07/18/19 17:00

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-15

Matrix: Solid

Percent Solids: 80.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.86 g	5.00 g	449653	07/26/19 08:31	AMB	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	449623	07/26/19 12:18	CAR	TAL PEN
Total/NA	Prep	3546			15.28 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449568	07/26/19 05:05	VC1	TAL PEN
Total/NA	Prep	7471A			0.6242 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 13:27	JAP	TAL PEN
Total/NA	Prep	3050B			1.05 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 01:40	WTR	TAL PIT

Client Sample ID: TMW-1 (18-20)

Date Collected: 07/18/19 17:05

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-16

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			449123	07/23/19 09:34	BKG	TAL PEN

Client Sample ID: TMW-1 (18-20)

Date Collected: 07/18/19 17:05

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-16

Matrix: Solid

Percent Solids: 78.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.43 g	5.00 g	449653	07/26/19 08:31	AMB	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	449623	07/26/19 15:19	CAR	TAL PEN
Total/NA	Prep	7471A			0.6062 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 13:38	JAP	TAL PEN
Total/NA	Prep	3050B			1.05 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 02:03	WTR	TAL PIT

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SS-1 (0-1)

Date Collected: 07/18/19 16:48

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-17

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			449123	07/23/19 09:34	BKG	TAL PEN

Client Sample ID: SS-1 (0-1)

Date Collected: 07/18/19 16:48

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-17

Matrix: Solid

Percent Solids: 88.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.07 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449568	07/26/19 10:05	VC1	TAL PEN
Total/NA	Prep	3546			15.07 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449422	07/25/19 04:12	VC1	TAL PEN
Total/NA	Prep	7471A			0.6222 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 13:40	JAP	TAL PEN
Total/NA	Prep	3050B			1.01 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 02:08	WTR	TAL PIT

Client Sample ID: SS-2 (0-1)

Date Collected: 07/18/19 16:58

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-18

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			449123	07/23/19 09:34	BKG	TAL PEN

Client Sample ID: SS-2 (0-1)

Date Collected: 07/18/19 16:58

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-18

Matrix: Solid

Percent Solids: 71.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.02 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		5			449429	07/25/19 03:41	VC1	TAL PEN
Total/NA	Prep	7471A			0.6256 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 13:42	JAP	TAL PEN
Total/NA	Prep	3050B			1.02 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 02:13	WTR	TAL PIT

Client Sample ID: SS-3 (0-1)

Date Collected: 07/18/19 17:11

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-19

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			449123	07/23/19 09:34	BKG	TAL PEN

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: SS-3 (0-1)

Date Collected: 07/18/19 17:11

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-19

Matrix: Solid

Percent Solids: 75.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.08 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		5			449429	07/25/19 04:02	VC1	TAL PEN
Total/NA	Prep	7471A			0.6156 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 13:43	JAP	TAL PEN
Total/NA	Prep	3050B			1.03 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 02:18	WTR	TAL PIT

Client Sample ID: SS-4 (0-1)

Date Collected: 07/18/19 17:34

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-20

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			449123	07/23/19 09:34	BKG	TAL PEN

Client Sample ID: SS-4 (0-1)

Date Collected: 07/18/19 17:34

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-20

Matrix: Solid

Percent Solids: 78.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.30 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		5			449429	07/25/19 04:24	VC1	TAL PEN
Total/NA	Prep	7471A			0.6276 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 13:45	JAP	TAL PEN
Total/NA	Prep	3050B			1.01 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 02:36	WTR	TAL PIT

Client Sample ID: TMW-1

Date Collected: 07/19/19 08:30

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-21

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	449267	07/24/19 16:28	WPD	TAL PEN
Dissolved	Prep	7470A			40 mL	40 mL	449113	07/23/19 09:56	JAP	TAL PEN
Dissolved	Analysis	7470A		1			449378	07/24/19 14:30	JAP	TAL PEN
Dissolved	Prep	3005A			50 mL	50 mL	285836	07/24/19 12:26	NAM	TAL PIT
Dissolved	Analysis	EPA 6020		1			286068	07/25/19 12:07	RSK	TAL PIT
Dissolved	Analysis	SM 2540C		1	50 mL	50 mL	449414	07/24/19 16:42	CLB	TAL PEN
Dissolved	Analysis	SM 4500 Cl- E		10	10 mL	10 mL	449969	07/29/19 15:00	RRC	TAL PEN
Dissolved	Analysis	SM 4500 F C		1			450259	07/31/19 13:19	BAB	TAL PEN
Total/NA	Analysis	SM 4500 H+ B		1			449161	07/23/19 13:46	DEK	TAL PEN
Dissolved	Analysis	SM 4500 SO4 E		2	10 mL	10 mL	449911	07/29/19 13:40	RRC	TAL PEN

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-2

Date Collected: 07/19/19 09:45

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-24

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	449267	07/24/19 16:54	WPD	TAL PEN
Total/NA	Prep	3520C			217.9 mL	1.0 mL	449142	07/23/19 11:11	NTH	TAL PEN
Total/NA	Analysis	8270D LL		1			450726	08/03/19 15:41	KJA	TAL PEN
Total/NA	Prep	3520C			217.9 mL	1.0 mL	449142	07/23/19 11:11	NTH	TAL PEN
Total/NA	Analysis	8270D LL		1			449815	07/28/19 23:31	KJA	TAL PEN
Dissolved	Prep	7470A			40 mL	40 mL	449113	07/23/19 09:56	JAP	TAL PEN
Dissolved	Analysis	7470A		1			449378	07/24/19 14:32	JAP	TAL PEN
Dissolved	Prep	3005A			50 mL	50 mL	285836	07/24/19 12:26	NAM	TAL PIT
Dissolved	Analysis	EPA 6020		1			286068	07/25/19 12:10	RSK	TAL PIT
Dissolved	Analysis	SM 2540C		1	50 mL	50 mL	449414	07/24/19 16:42	CLB	TAL PEN
Dissolved	Analysis	SM 4500 CI- E		2	10 mL	10 mL	449969	07/29/19 15:00	RRC	TAL PEN
Dissolved	Analysis	SM 4500 F C		1			450259	07/31/19 13:25	BAB	TAL PEN
Total/NA	Analysis	SM 4500 H+ B		1			449161	07/23/19 13:46	DEK	TAL PEN
Dissolved	Analysis	SM 4500 SO4 E		2	10 mL	10 mL	449911	07/29/19 13:40	RRC	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 180-285836/1-A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	285836	07/24/19 12:26	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			286068	07/25/19 11:50	RSK	TAL PIT

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 180-286036/1-A

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.0 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/26/19 23:52	WTR	TAL PIT

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-449107/1-A

Matrix: Solid

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 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449568	07/26/19 03:39	VC1	TAL PEN

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-449113/14-A

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	7470A			40 mL	40 mL	449113	07/23/19 09:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1			449378	07/24/19 14:08	JAP	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-449142/1-A

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			250 mL	1.0 mL	449142	07/23/19 11:11	NTH	TAL PEN
Total/NA	Analysis	8270D LL		1			449815	07/28/19 22:08	KJA	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-449163/14-A

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.6382 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 12:41	JAP	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-449267/4

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	449267	07/24/19 08:41	WPD	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-449414/1

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	SM 2540C		1	50 mL	50 mL	449414	07/24/19 16:42	CLB	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-449653/1-A

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5.00 g	449653	07/26/19 08:31	AMB	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	449623	07/26/19 11:41	CAR	TAL PEN

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-449911/26

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	SM 4500 SO4 E		1	10 mL	10 mL	449911	07/29/19 13:23	RRC	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-449969/6

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	SM 4500 Cl- E		1	10 mL	10 mL	449969	07/29/19 14:35	RRC	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-450259/3

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	SM 4500 F C		1			450259	07/31/19 13:07	BAB	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCS 180-285836/2-A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	285836	07/24/19 12:26	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			286068	07/25/19 12:03	RSK	TAL PIT

Client Sample ID: Lab Control Sample

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCS 180-286036/2-A

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.0 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 00:07	WTR	TAL PIT

Client Sample ID: Lab Control Sample

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCS 400-449107/2-A

Matrix: Solid

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 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449568	07/26/19 04:00	VC1	TAL PEN
Total/NA	Prep	3546			15 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449422	07/24/19 22:14	VC1	TAL PEN

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-449113/15-A

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			40 mL	40 mL	449113	07/23/19 09:11	JAP	TAL PEN
Total/NA	Analysis	7470A		1			449378	07/24/19 14:10	JAP	TAL PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-449142/2-A

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1.0 mL	449142	07/23/19 11:11	NTH	TAL PEN
Total/NA	Analysis	8270D LL		5			449815	07/28/19 22:25	KJA	TAL PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-449161/4

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 H+ B		1			449161	07/23/19 12:44	DEK	TAL PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-449163/15-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.6100 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 12:43	JAP	TAL PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-449267/1002

Date Collected: N/A

Matrix: Water

Date Received: N/A

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	449267	07/24/19 07:52	WPD	TAL PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-449414/2

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	50 mL	50 mL	449414	07/24/19 16:42	CLB	TAL PEN

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-449653/2-A

Date Collected: N/A

Matrix: Solid

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5.00 g	449653	07/26/19 08:31	AMB	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	449623	07/26/19 10:49	CAR	TAL PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-449911/27

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		1	10 mL	10 mL	449911	07/29/19 13:23	RRC	TAL PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-449969/7

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	10 mL	10 mL	449969	07/29/19 14:35	RRC	TAL PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-450259/4

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1			450259	07/31/19 13:10	BAB	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-449142/3-A

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1.0 mL	449142	07/23/19 11:11	NTH	TAL PEN
Total/NA	Analysis	8270D LL		5			449815	07/28/19 22:42	KJA	TAL PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: MRL 400-449911/23

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		1	10 mL	10 mL	449911	07/29/19 13:23	RRC	TAL PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: MRL 400-449969/3

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	10 mL	10 mL	449969	07/29/19 14:35	RRC	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: Matrix Spike

Date Collected: 07/16/19 13:05

Date Received: 07/17/19 09:00

Lab Sample ID: 180-92797-I-6-B MS

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	285836	07/24/19 12:26	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			286068	07/25/19 13:01	RSK	TAL PIT

Client Sample ID: Matrix Spike Duplicate

Date Collected: 07/16/19 13:05

Date Received: 07/17/19 09:00

Lab Sample ID: 180-92797-I-6-C MSD

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	285836	07/24/19 12:26	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			286068	07/25/19 13:04	RSK	TAL PIT

Client Sample ID: Matrix Spike

Date Collected: 07/16/19 14:30

Date Received: 07/17/19 08:58

Lab Sample ID: 400-173269-A-6 MS

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	449267	07/24/19 12:58	WPD	TAL PEN

Client Sample ID: Matrix Spike Duplicate

Date Collected: 07/16/19 14:30

Date Received: 07/17/19 08:58

Lab Sample ID: 400-173269-A-6 MSD

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	449267	07/24/19 12:29	WPD	TAL PEN

Client Sample ID: Matrix Spike

Date Collected: 07/16/19 17:00

Date Received: 07/18/19 14:20

Lab Sample ID: 400-173367-A-3-B MS

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	7470A			40 mL	40 mL	449113	07/23/19 09:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1			449378	07/24/19 14:19	JAP	TAL PEN

Client Sample ID: Matrix Spike Duplicate

Date Collected: 07/16/19 17:00

Date Received: 07/18/19 14:20

Lab Sample ID: 400-173367-A-3-C MSD

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	7470A			40 mL	40 mL	449113	07/23/19 09:12	JAP	TAL PEN
Total/NA	Analysis	7470A		1			449378	07/24/19 14:21	JAP	TAL PEN

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-1 (12-14)

Date Collected: 07/18/19 17:00

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-15 MS

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			449123	07/23/19 09:34	BKG	TAL PEN

Client Sample ID: TMW-1 (12-14)

Date Collected: 07/18/19 17:00

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-15 MS

Matrix: Solid

Percent Solids: 80.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.47 g	5.00 g	449653	07/26/19 08:31	AMB	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	449623	07/26/19 12:43	CAR	TAL PEN
Total/NA	Prep	3546			15.21 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449568	07/26/19 04:22	VC1	TAL PEN
Total/NA	Prep	7471A			0.6114 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 13:30	JAP	TAL PEN
Total/NA	Prep	3050B			0.97 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 01:49	WTR	TAL PIT

Client Sample ID: TMW-1 (12-14)

Date Collected: 07/18/19 17:00

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-15 MSD

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			449123	07/23/19 09:34	BKG	TAL PEN

Client Sample ID: TMW-1 (12-14)

Date Collected: 07/18/19 17:00

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-15 MSD

Matrix: Solid

Percent Solids: 80.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.87 g	5.00 g	449653	07/26/19 08:31	AMB	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	449623	07/26/19 13:09	CAR	TAL PEN
Total/NA	Prep	3546			15.06 g	1 mL	449107	07/23/19 08:34	KLR	TAL PEN
Total/NA	Analysis	8270D		1			449568	07/26/19 04:44	VC1	TAL PEN
Total/NA	Prep	7471A			0.6466 g	40 mL	449163	07/23/19 12:52	JAP	TAL PEN
Total/NA	Analysis	7471A		1			449512	07/25/19 13:32	JAP	TAL PEN
Total/NA	Prep	3050B			0.96 g	100 mL	286036	07/25/19 15:37	NAM	TAL PIT
Total/NA	Analysis	EPA 6020		1			286236	07/27/19 01:54	WTR	TAL PIT

Client Sample ID: TMW-1

Date Collected: 07/19/19 08:30

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-21 MS

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Analysis	SM 4500 F C		1			450259	07/31/19 13:21	BAB	TAL PEN

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-1

Date Collected: 07/19/19 08:30

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-21 MSD

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Analysis	SM 4500 F C		1			450259	07/31/19 13:23	BAB	TAL PEN

Client Sample ID: Matrix Spike

Date Collected: 07/24/19 08:45

Date Received: 07/25/19 09:22

Lab Sample ID: 400-173696-A-1 MS

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	SM 4500 Cl- E		1	10 mL	10 mL	449969	07/29/19 14:38	RRC	TAL PEN

Client Sample ID: Matrix Spike Duplicate

Date Collected: 07/24/19 08:45

Date Received: 07/25/19 09:22

Lab Sample ID: 400-173696-A-1 MSD

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	SM 4500 Cl- E		1	10 mL	10 mL	449969	07/29/19 14:38	RRC	TAL PEN

Client Sample ID: Matrix Spike

Date Collected: 07/26/19 10:45

Date Received: 07/26/19 13:15

Lab Sample ID: 400-173782-A-1 MS

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	SM 4500 SO4 E		20	10 mL	10 mL	449911	07/29/19 13:36	RRC	TAL PEN

Client Sample ID: Matrix Spike Duplicate

Date Collected: 07/26/19 10:45

Date Received: 07/26/19 13:15

Lab Sample ID: 400-173782-A-1 MSD

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	SM 4500 SO4 E		20	10 mL	10 mL	449911	07/29/19 13:36	RRC	TAL PEN

Client Sample ID: Duplicate

Date Collected: 07/18/19 09:55

Date Received: 07/19/19 09:15

Lab Sample ID: 400-173412-H-1 DU

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	SM 4500 H+ B		1			449161	07/23/19 13:46	DEK	TAL PEN

Client Sample ID: TMW-2 (0-2)

Date Collected: 07/18/19 11:00

Date Received: 07/20/19 08:17

Lab Sample ID: 400-173466-1 DU

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			448944	07/22/19 10:48	BKG	TAL PEN

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Client Sample ID: TMW-1 (18-20)

Lab Sample ID: 400-173466-16 DU

Date Collected: 07/18/19 17:05

Matrix: Solid

Date Received: 07/20/19 08:17

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			449123	07/23/19 09:34	BKG	TAL PEN

Client Sample ID: Duplicate

Lab Sample ID: 400-173547-A-12 DU

Date Collected: 07/23/19 07:31

Matrix: Water

Date Received: 07/23/19 15:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	50 mL	50 mL	449414	07/24/19 16:42	CLB	TAL PEN

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Method Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
7470A	Mercury (CVAA)	SW846	TAL PEN
7471A	Mercury (CVAA)	SW846	TAL PEN
EPA 6020	Metals (ICP/MS)	SW846	TAL PIT
Moisture	Percent Moisture	EPA	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 H+ B	pH	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
3050B	Preparation, Metals	SW846	TAL PIT
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
3546	Microwave Extraction	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
5035	Closed System Purge and Trap	SW846	TAL PEN
7470A	Preparation, Mercury	SW846	TAL PEN
7471A	Preparation, Mercury	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Accreditation/Certification Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Laboratory: Eurofins TestAmerica, Pensacola

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
Alabama	State		40150	07-01-20
Alabama	State Program	4	40150	06-30-20
ANAB	ISO/IEC 17025		L2471	02-22-20
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State		AZ0710	01-12-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-20
Florida	NELAP	4	E81010	06-30-20
Florida	NELAP		E81010	06-30-20
Georgia	State Program	4	E81010 (FL)	06-30-20
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-20
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-20
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-20
Massachusetts	State Program	1	M-FL094	06-30-20
Michigan	State		9912	05-06-20
Michigan	State Program	5	9912	05-06-20
New Jersey	NELAP	2	FL006	06-30-20
New Jersey	NELAP		FL006	07-30-20
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State		9810-186	08-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Pennsylvania	NELAP		68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19 *
Tennessee	State Program	4	TN02907	06-30-20
Texas	NELAP	6	T104704286-18-15	09-30-19
Texas	NELAP		T104704286	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-20
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-20
Washington	State Program	10	C915	05-15-20

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Pensacola

Accreditation/Certification Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Port Bienville Hancock Cnty, Mississippi

Job ID: 400-173466-1

Laboratory: Eurofins TestAmerica, Pittsburgh

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
Arkansas DEQ	State		19-033-0	06-27-20
Arkansas DEQ	State Program	6	88-0690	06-27-20
California	State		2891	04-30-20
California	State Program	9	2891	04-30-20
Connecticut	State		PH-0688	09-30-20
Connecticut	State Program	1	PH-0688	09-30-20
Florida	NELAP	4	E871008	06-30-20
Florida	NELAP		E871008	06-30-20
Illinois	NELAP	5	200005	06-30-20
Illinois	NELAP		004375	06-30-20
Kansas	NELAP	7	E-10350	01-31-20
Kansas	NELAP		E-10350	03-31-20
Kentucky (UST)	State Program	4	162013	04-30-20
Kentucky (WW)	State		KY98043	12-31-19
Kentucky (WW)	State Program	4	KY98043	12-31-19
Louisiana	NELAP	6	04041	06-30-20
Minnesota	NELAP	5	042-999-482	12-31-19
Minnesota	NELAP		042-999-482	12-31-19
Nevada	State		PA00164	07-31-19
Nevada	State Program	9	PA00164	08-31-19 *
New Hampshire	NELAP	1	2030	04-04-20
New Jersey	NELAP	2	PA005	06-30-20
New Jersey	NELAP		PA005	06-30-20
New York	NELAP	2	11182	03-31-20
New York	NELAP		11182	04-01-20
North Carolina (WW/SW)	State Program	4	434	12-31-19
North Dakota	State		R-227	04-30-20
North Dakota	State Program	8	R-227	04-30-20
Oregon	NELAP	10	PA-2151	02-06-20
Oregon	NELAP		PA-2151	02-06-20
Pennsylvania	NELAP	3	02-00416	04-30-20
Pennsylvania	NELAP		02-00416	04-30-20
Rhode Island	State		LAO00362	12-30-19
Rhode Island	State Program	1	LAO00362	12-30-19
South Carolina	State Program	4	89014	04-30-20
Texas	NELAP	6	T104704528-15-2	03-31-20
Texas	NELAP		T104704528	03-31-20
US Fish & Wildlife	Federal		LE94312A-1	07-31-19
US Fish & Wildlife	US Federal Programs		058448	07-31-20
USDA	Federal		P-Soil-01	06-26-22
USDA	US Federal Programs		P330-16-00211	06-26-22
Utah	NELAP	8	PA001462015-4	05-31-20
Utah	NELAP		PA001462019-8	05-31-20
Virginia	NELAP	3	460189	09-14-19
Virginia	NELAP		10043	09-14-19
West Virginia DEP	State		142	01-31-20
West Virginia DEP	State Program	3	142	01-31-20
Wisconsin	State		998027800	08-31-19
Wisconsin	State Program	5	998027800	08-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Pensacola

Eurofins TestAmerica, Pensacola

3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001 Fax: 850-476-2671

Chain of Custody Record



400-173466 COC

Client Information Client Contact: Lance Fontenot Company: Geosyntec Consultants, Inc. Address: 5420 Corporate Blvd Suite 202 City: Baton Rouge State, Zip: LA, 70808 Phone: Email: lfontenot@geosyntec.com Project Name: Port Blennville Hancock Cnty, Mississippi Site:		Lab PM: Swafford, Mark H E-Mail: mark.swafford@testamericainc.com Camer Tracking No(s): COC No: 400-85674-32057 Page: 1 of 5 Job #:	
Analysis Requested Due Date Requested: TAT Requested (days): 7 days per quote PO #: Purchase Order Requested WO #: Project #: 40011074 SSOW#:		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 - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)		Analysis Requested Field Filtered Sample (Yes or No) 8260B - TCL volatiles 8270D - PAHs 6020, 7471A 8270D_LL - Low Level PAHs 8260B - TCL volatiles SM4500_Cl_E, SM4500_H+, SM4500_SO4_E 6020, 7470A 2540C - Solids, Total Dissolved (TDS) 4500_F_C - Fluoride 6010C, 7470A 8260B - TCLP Volatiles 8270D - TCLP SemiVolatiles Total Number of containers	
Sample ID TAPW-2 (0-2) TAPW-2 (2-4) TAPW-2 (14-16) DUP-01 SB-1 (0-2) SB-1 (2-4) SB-1 (8-10) SB-2 (0-2) SB-2 (2-4) SB-2 (8-10) SB-3 (0-2)		Preservation Code: Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid Solid	
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: [Signature] Date/Time: 7/19/14 1405 Company: Geosyntec		Received by: [Signature] Date/Time: 7/19/14 1405 Company:	
Relinquished by: [Signature] Date/Time: 7-20-14 8:17 Company:		Received by: [Signature] Date/Time: 7-20-14 8:17 Company:	
Relinquished by: [Signature] Date/Time: 7-20-14 8:17 Company:		Received by: [Signature] Date/Time: 7-20-14 8:17 Company:	
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks: 3.9°C, 0.9°C, 0.0°C 18-8	

Ver: 01/16/2019

Eurofins TestAmerica, Pensacola

3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001 Fax: 850-478-2671



Environment Testing
TestAmerica

Chain of Custody Record

Client Information		Lab PM:		Carrier Tracking No(s):		COC No:													
Client Contact: Lance Fontenot		Swafford, Mark H				400-85674-32057.2													
Company: Geosyntec Consultants, Inc.		E-Mail: mark.swafford@testamericainc.com				Page: Page 2 of 5													
Address: 5420 Corporate Blvd Suite 202		Due Date Requested:		Analysis Requested		Job #:													
City: Baton Rouge		TAT Requested (days): 7 days per quote																	
State, Zip: LA, 70808		PO #:																	
Phone:		Purchase Order Requested																	
Email: lfontenot@geosyntec.com		WO #:																	
Project Name: Port Blenville Hancock Cnty, Mississippi		Project #: 40011074																	
Site:		SSOW#:																	
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=tissue A=air)	Field Filtered Sample (Yes or No)	8260B - TCL volatiles	8270D - PAHs	6020, 7471A	8270D - LL - Low Level PAHs	8260B - TCL volatiles	SM4500, Cl ₂ , E, SM4500, H ₂ , SM4500, SO ₄ , F	6020, 7470A	2540C - Solids, Total Dissolved (TDS)	4500, F ₂ , C - Fluoride	6010C, 7470A	8260B - TCLP Volatiles	8270D - TCLP Semivolatiles	Total Number of containers	Special Instructions/Note:
SB-3 (2-4)	7/18/19	1435	G	Solid	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
SB-3 (8-10)		1440	G	Solid	N	N	N	N	N	N	N	N	N	N	N	N	N		
TMW-1 (0-2)		1600	G	Solid	N	N	N	N	N	N	N	N	N	N	N	N	N		
TMW-1 (12-14)		1700	G	Solid	N	N	N	N	N	N	N	N	N	N	N	N	N		
TMW-1 (18-20)		1705	G	Solid	N	N	N	N	N	N	N	N	N	N	N	N	N		
FATW-1				Solid	N	N	N	N	N	N	N	N	N	N	N	N	N		
TMW-1				Solid	N	N	N	N	N	N	N	N	N	N	N	N	N		
SS-1 (0-1)		1648	G	Solid	N	N	N	N	N	N	N	N	N	N	N	N	N		
SS-2 (0-1)		1658	G	Solid	N	N	N	N	N	N	N	N	N	N	N	N	N		
SS-3 (0-1)		1711	G	Solid	N	N	N	N	N	N	N	N	N	N	N	N	N		
SS-4 (0-1)		1734	G	Solid	N	N	N	N	N	N	N	N	N	N	N	N	N		

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
☐ Non-Hazard	☐ Flammable	☐ Return To Client	☐ Disposal By Lab
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: <i>Fontenot</i>		Date/Time: 7/19/19 1405	
Relinquished by: <i>Fudeh</i>		Date/Time:	
Relinquished by:		Date/Time: 7-20-19 8:17	
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks:	

Custody Seal No.:	
Δ Yes	Δ No
Ver: 01/16/2019	

Eurofins TestAmerica, Pensacola

3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001 Fax: 850-478-2671

Chain of Custody Record



Environment Testing
TestAmerica

Client Information Client Contact: Lance Fontenot Company: Geosyntec Consultants, Inc. Address: 5420 Corporate Blvd Suite 202 City: Baton Rouge State, Zip: LA, 70808 Phone: [blank] Email: lfontenot@geosyntec.com Project Name: Port Blenville Hancock Cnty, Mississippi Site: [blank]		Lab P/N: Swafford, Mark H E-Mail: mark.swafford@testamericainc.com Carner Tracking No(s): [blank]		COC No: 400-85674-32057.5 Page: Page 5 of 5 Job #: [blank]	
Analysis Requested Due Date Requested: [blank] TAT Requested (days): 7 days, per quote PO #: [blank] Purchase Order Requested: [blank] WO #: [blank] Project #: 40011074 SSOW#: [blank]		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: [blank]			
Sample Identification Sample Date: [blank] Sample Time: [blank] Sample Type (C=Comp, G=Grab): [blank] Matrix (W=Water, S=Solid, O=Other): [blank]		Field Collected Sample (Yes or No) Perform MS/MSD (Yes or No): [blank] 8260B - TCL volatiles 8270B - PAHs 6020, 7471A 8270D - Low Level PAHs 8260B - TCL volatiles SM4500-CL-E, SM4500-H+, SM4500-SO4-E 6020, 7470A 2540C - Solids, Total Dissolved (TDS) 4500_F-C - Fluoride 6010C, 7470A 8260B - TCLP Volatiles 8270D - TCLP Semi-volatiles Total Number of containers: [blank]			
Special Instructions/Note: [blank]		Special Instructions/Note: [blank]			
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify) [blank]		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For [blank] Months			
Empty Kit Relinquished by: Relinquished by: [signature] Date/Time: 7/19/19 1405 Company: Geosyntec		Method of Shipment: Date/Time: 7/19/19 1405 Company: [blank]			
Relinquished by: Relinquished by: [signature] Date/Time: [blank] Company: [blank]		Relinquished by: Relinquished by: [signature] Date/Time: 7-20-19 8:17 Company: [blank]			
Custody Seal No.: Custody Seals Intact: ☐ Yes ☐ No		Cooler Temperature(s) °C and Other Remarks: [blank]			

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ORIGIN ID: PNSA (850) 474-1001
SAMPLE RECEIVING
TEST AMERICA PENSACOLA
3355 MCLEMORE DR

PENSACOLA, FL 32514
UNITED STATES US

ACTW:
CAD: 0335

BILL RECIPIENT

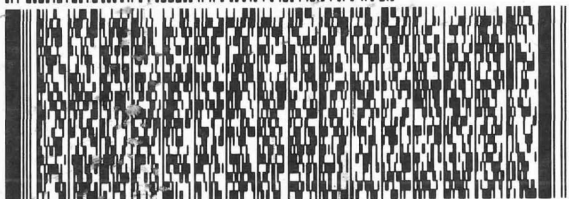


400-173466 Waybill

TO **SAMPLE CONTROL**
TESTAMERICA PITTSBURGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7058
THU1
PG1

REF:
DEPT:



FedEx
Express



TRK#
0201 4535 0242 9869

TUE - 23 JUL 10:30A
PRIORITY OVERNIGHT

XH AGCA

Uncorrected temp
Thermometer ID

1.3 °C
12

15238
PA-US PIT

CF -0.6 Initials B

PT-WI-SR-001 effective 11/8/18



3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001 Fax: 850-478-2671

Chain of Custody Record



urofins

Client Information (Sub Contract Lab)		No. 216126.1 400-173466 Chain of Custody		Lab PM: Swafford, Mark H E-Mail: mark.swafford@testamerica.com	
Company: TestAmerica Laboratories, Inc. Address: 301 Alpha Drive, RIDC Park, City: Pittsburgh State, Zip: PA, 15238 Phone: 412-963-7058(Tel) 412-963-2468(Fax) Email:		Due Date Requested: 7/26/2019 TAT Requested (days): PO #: WO #: Project #: 40011074 SSOW#:		Accreditations Required (See note): Page 1 of 3 Job #: 400-173466-1	
Sample:		Matrix (W=water, S=solid, O=oil, BT=Tissue, A=Air) Sample Type (C=Comp, G=grab) Sample Time Sample Date Preservation Code:		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) Sb,As,Ba,Be,B,Cd,Ca,Cr,Cu,Pb,LI,Mo,Se,Tl 6020/3050B Sb,As,Ba,Be,B,Cd,Ca,Cr,Cu,Pb,LI,Mo,Se,Tl 6020/FIELD_FLTRD	
Sample Identification - Client ID (Lab ID)		Analysis Requested		Special Instructions/Note:	
TMW-2 (0-2) (400-173466-1) TMW-2 (2-4) (400-173466-2) TMW-2 (14-16) (400-173466-3) DUP-01 (400-173466-4) SB-1 (0-2) (400-173466-5) SB-1 (2-4) (400-173466-6) SB-1 (8-10) (400-173466-7) SB-2 (0-2) (400-173466-8) SB-2 (2-4) (400-173466-9)		Total Number of containers 1 1 1 1 1 1 1 1		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - NaHSO4 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 L - EDA Z - other (specify) Other:	
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.					
Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify)					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months					
Special Instructions/QC Requirements:					
Primary Deliverable Rank: 2		Date:			
Empty Kit Relinquished by:		Date/Time: 7-22-19 1615 Company: TA-PES Received by:			
Relinquished by:		Date/Time: 7/23/19 920 Company:			
Relinquished by:		Date/Time: Company:			
Relinquished by:		Date/Time: Company:			
Custody Seal Intact:		Custody Seal No.:			

Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-173466-1

Login Number: 173466

List Source: Eurofins TestAmerica, Pensacola

List Number: 1

Creator: Conrady, Hank 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.	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	0.9°C 0.0°C 3.9°C IR-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?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 400-173466-1

Login Number: 173466

List Number: 2

Creator: Say, Thomas C

List Source: Eurofins TestAmerica, Pittsburgh

List Creation: 07/23/19 05:11 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.	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").	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: Geosyntec Consultants, Inc.

Job Number: 400-173466-1

Login Number: 173466

List Number: 3

Creator: Say, Thomas C

List Source: Eurofins TestAmerica, Pittsburgh

List Creation: 07/23/19 05:11 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.	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").	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: Geosyntec Consultants, Inc.

Job Number: 400-173466-1

Login Number: 173466

List Number: 4

Creator: Say, Thomas C

List Source: Eurofins TestAmerica, Pittsburgh

List Creation: 07/23/19 05:12 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.	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").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	