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Phase II Remedial Investigation Report

Former Gulf States Creosoting Site
Hattiesburg, Mississippi

December 30, 1998

December 30, 1998

Project No. 21-04

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Phase II Remedial Investigation Report

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Executive Summary

Overview

This report presents the findings of a Phase II Remedial Investigation (RI) of the former Gulf States Creosoting site in Hattiesburg, Mississippi (the site). Phase II RI field activities were conducted between April 19 and October 14, 1998. The investigation was performed in accordance with work plans approved by the Mississippi Department of Environmental Quality (MDEQ). Results of the Phase II RI compliment and expand results of the Phase I RI completed by Kerr-McGee Chemical Corporation in 1997

Project Background

Kerr-McGee Chemical Corporation (KMCC) entered into an agreement with the MDEQ and the Mississippi Commission on Environmental Quality (Commission) in 1996 pursuant to the Uncontrolled Site Voluntary Evaluation Program for the investigation of the site. The agreement calls for the investigation of the site under the direction and review of the MDEQ Office of Pollution Control, Uncontrolled Sites Section. MDEQ guidance for the program states that investigations will include all activities necessary to characterize the environmental setting and to define the degree and extent of affected site media. The MDEQ guidance refers to this investigative process as a Remedial Investigation (RI).

A chronology of the RI activities completed to date is provided in Table ES-1. KMCC commenced the RI process with the development of a site investigation (i.e., RI) work plan in the Fall of 1996. Initial RI field activities began in February 1997. A Phase I *Remedial Investigation Report* was submitted to MDEQ on June 30, 1997.

In commenting on the Phase I *Remedial Investigation Report*, MDEQ directed KMCC to submit a work plan sufficient to establish the vertical and horizontal extent of affected media at the site. KMCC submitted a *Revised Addendum to Site Investigation Work Plan* on April 8, 1998; the work plan addendum was approved by MDEQ on April 23, 1998. The tasks described in the *Revised Addendum to Site Investigation Work Plan* constitute a Phase II Remedial Investigation Work Plan. This report documents Phase II RI field activities and presents the results of field and laboratory testing conducted during the Phase II Remedial Investigation.

Table ES-1
Chronology of Remedial Investigation Activities

Former Gulf States Creosoting Site
Hattiesburg, Mississippi

Date	Activity
January 8, 1997	KMCC submitted the Site Investigation Work Plan to MDEQ
February 21, 1997	MDEQ approved the Site Investigation Work Plan for implementation
April 30, 1997	KMCC completed Phase I RI field activities
June 30, 1997	KMCC submitted the Remedial Investigation Report
January 13, 1998	MDEQ commented on the Remedial Investigation Report
February 25, 1998	KMCC submitted an Addendum to Site Investigation Work Plan
March 16, 1998	KMCC met with MDEQ to discuss proposed Phase II RI activities
April 8, 1998	KMCC submitted a Revised Addendum to Site Investigation Work Plan
April 23, 1998	MDEQ approved the Revised Addendum to Site Investigation Work Plan for implementation
June 11, 1998	KMCC completed the ground water screening portion of Phase II RI field activities
August 14, 1998	KMCC submitted an Interim Report - Phase II Remedial Investigation
August 26, 1998	MDEQ approved the monitoring well locations proposed in the Interim Report - Phase II Remedial Investigation
October 14, 1998	KMCC completed Phase II RI field activities

Phase II Remedial Investigation Field Activities

Phase II Remedial Investigation field activities were conducted between April 19 and October 14, 1998. These activities included the following:

- Collected 60 subsurface soil samples for laboratory chemical analysis to further delineate the vertical and horizontal extent of affected soil.
- Advanced eight cone penetrometer testing (CPT) pushes to depths up to 60 feet to further define site stratigraphy
- Advanced eight hollow-stem auger soil borings for the installation of monitoring wells and to correlate CPT findings
- Collected ground water samples at 13 temporary ground water sampling points to delineate the extent of affected ground water and to determine appropriate locations for additional ground water monitoring wells
- Installed eight new ground water monitoring wells and sampled a total of 12 wells to determine ground water quality, flow direction, and gradient
- Collected nine surface water and 11 sediment samples to determine the presence and extent of affected media within two offsite drainage patterns
- Performed surveying to establish elevation and lateral controls

Phase II Remedial Investigation Findings

Soil investigations were conducted to further delineate the vertical and lateral extent of affected soil. Soil analytical results indicate that:

- Affected soil within the former Process Area extends to a distance at least 40 feet to the east of the Courtesy Ford fence line. This area has likely been impacted by drainage from former Process Area operations and the periodic "mucking out" of the ditch between the railroad tracks and the Process Area.
- Target constituents within former treated wood storage areas are generally confined to soils within the first 2 feet below land surface. The ground surface within the majority of former treated wood storage areas is currently paved with asphalt.
- Outside of the Gordon's Creek Fill Area, target constituents in soils on the RSCO property are generally confined to soils within the first 2 feet below land surface. This area was regraded during site development in the early 1960s.

Additional CPT pushes and soil borings were advanced to characterize site stratigraphy in offsite areas east of the former Process Area and across Gordon's Creek from the Fill Area. The results of stratigraphic characterization activities indicate that:

- The three distinct units beneath the Process Area (i.e., upper clay, sand channel, and underlying clay aquitard) extend to the east of the site and dip gradually eastward toward the Leaf River. As the land surface elevation falls to the east, the upper clay thins significantly.
- The shallow geology on the opposite (northwest) bank of Gordon's Creek is identical to the geology of the Fill Area (i.e., a surficial clay, underlain by two sandy zones separated by a thin clay layer, in turn underlain by a deeper clay).

Ground water investigations were conducted to delineate the extent of affected water in the offsite Process Area and to evaluate ground water conditions and quality within the Fill Area. The results of ground water investigations indicate that:

- In October 1998, ground water elevations in wells screened within the Process Area sand channel were, on average, 3 to 4 feet lower than in April 1997. This is believed to be a seasonal effect.
- Ground water flow direction within the sand channel is eastward from the Process Area toward the floodplain of the Leaf River. Water level elevations in offsite Process Area wells indicate a much flatter gradient (0.0008 feet per foot) to the east of the site. Offsite ground water flow velocities calculated using this flatter gradient range from 0.003 to 0.02 feet per day. Assuming the higher end of this range, the maximum distance that site constituents could have migrated offsite in 60 years is approximately 450 feet.
- Process Area constituents have migrated offsite to the east via the ground water pathway. However, no free-phase product or carcinogenic PAHs were detected in offsite ground water, and constituent concentrations decrease dramatically with distance from the former Process Area. — ? check
- The presence of site constituents in ground water samples collected at locations immediately adjacent to the northeast drainage pathway does not appear to be the result of lateral migration via the ground water pathway, but probably occurred due to the vertical migration of constituents from the drainage ditch itself.
- The extent of affected ground water within the Fill Area has now been fully delineated. As anticipated, the area containing affected ground water is similar in size and shape to the overlying area of affected soil delineated during the Phase I RI.
- Ground water within the Fill Area sands flows toward Gordon's Creek and downstream along the creek. A comparison of ground water elevation data to the Gordon's Creek surface water elevation indicates that at the time of Phase II RI field activities, surrounding ground water was discharging to Gordon's Creek.

Surface water and sediment samples were collected from Gordon's Creek and the northeast drainage pathway. The results of surface water and sediment sampling indicate that:

- Neither surface water or near surface (zero to 6-inch) sediment samples from Gordon's Creek appear to have been significantly impacted with site constituents. However, a sheen has been observed sporadically on the surface water within Gordon's Creek.
- Except at its inception, surface water within the northeast drainage pathway was essentially free of site constituents. Sediments within the ditch appear to have been impacted by site runoff to a distance of approximately 1,000 feet offsite.
- Little or no partitioning of constituents from sediments to surface water has occurred, therefore minimal potential exists for the offsite migration of site constituents via the surface water pathway.

1.0 Introduction

1.1 Objectives of Investigation and Purpose of Report

In April 1998, KMCC submitted to MDEQ a work plan addendum for a Phase II Remedial Investigation (RI) at the former Gulf States Creosoting site in Hattiesburg, Mississippi (the site). The objectives of the investigation were to expand the findings of the Phase I RI by further characterization of site stratigraphy and ground water conditions and full delineation of the vertical and horizontal extent of affected media at the site. The work plan addendum was approved for implementation by the MDEQ Office of Pollution Control (OPC), Uncontrolled Sites Section, in a letter dated April 23, 1998.

Phase II RI field activities were conducted between April 19 and October 14, 1998. Work was performed according to procedures specified in the following MDEQ-approved documents:

- the original January 30, 1997 *Site Investigation Work Plan*;
- the April 8, 1998 *Revised Addendum to Site Investigation Work Plan*; and
- the August 14, 1998 *Interim Report, Phase II Remedial Investigation.*

This Phase II RI Report documents data collection activities and presents the results of the Phase II Remedial Investigation. The report was prepared in general conformance with the following documents:

- *Guidance for Remediation of Uncontrolled Hazardous Substance Sites in Mississippi*, Superfund Branch, Hazardous Waste Division, Office of Pollution Control, Department of Environmental Quality, State of Mississippi, September 1990; and
- *Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA*, U.S. EPA, October 1988.

1.2 Report Organization

The Phase II RI report is organized as follows:

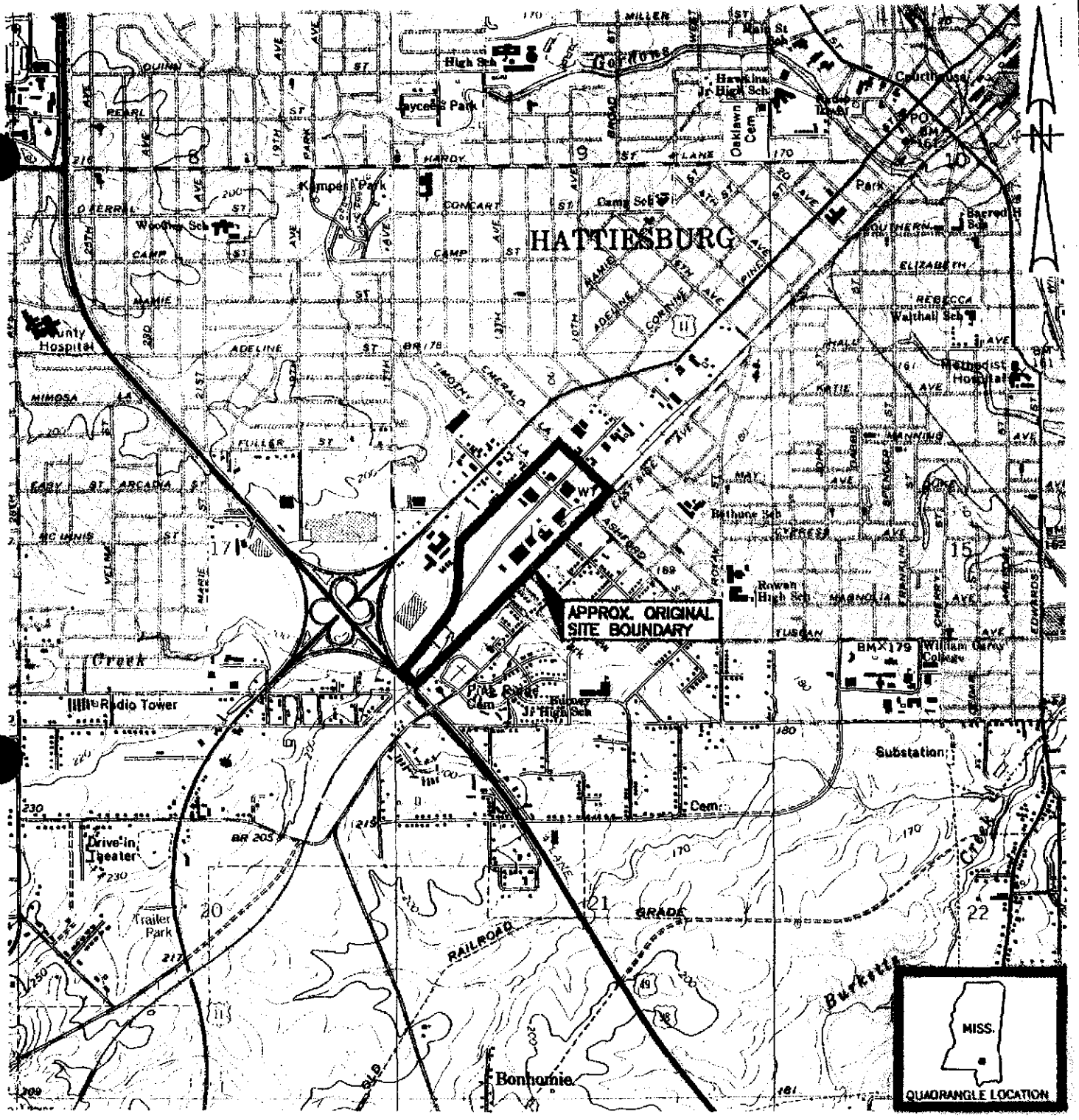
- Section 1 presents project background information.
- Section 2 presents details of study area investigation activities undertaken during the Phase II RI, including sampling procedures and the number and types of samples.
- Section 3 presents new information on the physical characteristics of the study area.
- Section 4 presents information on the nature and extent of chemical constituents in site media.
- Section 5 presents conclusions of Phase II RI activities.

1.3 Site Background

The former Gulf States Creosoting site is located in Hattiesburg, Mississippi near the intersection of U.S. Highways 49 and 11. The site is situated entirely within Section 16 of Township 4 North, Range 13 West, in Forrest County, Mississippi. The location and

approximate boundary of the original plant area are shown on Figure 1-1. The locations of current site features are illustrated on Figure 1-2.

Extensive background information, including a detailed site description, historical operational history, and a summary of data from previous investigations, was provided in Section 1.3 and Appendix A of the June 30, 1997 *Remedial Investigation Report.* To avoid unnecessary duplication, we have not provided the same information in this document.



SCALE 1:24 000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET

SOURCE: USGS MAP OF HATTIESBURG, MISSISSIPPI, 7.5' QUADRANGLE, 1964 PHOTOREVISED 1982

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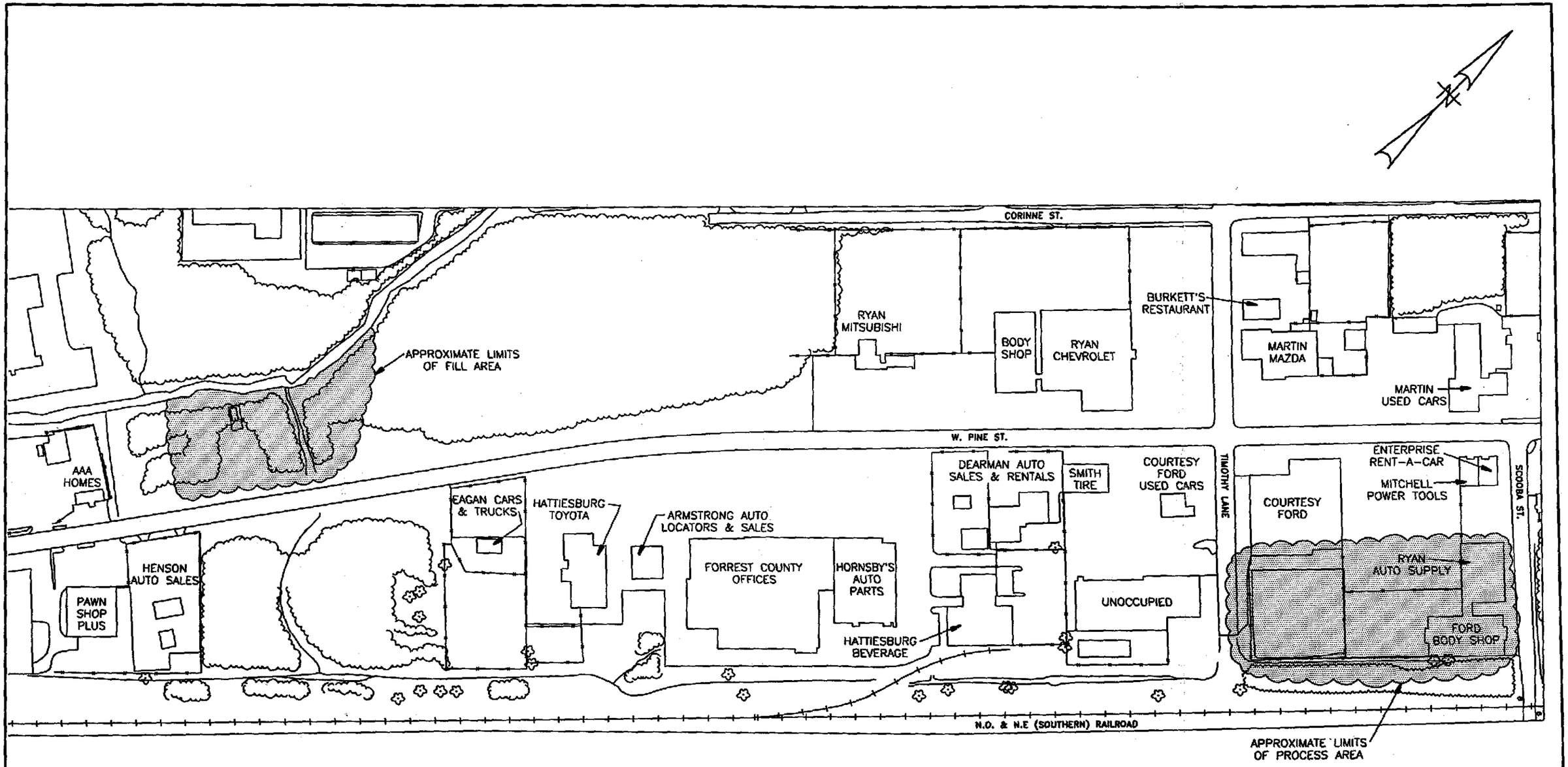
Environmental Management and Engineering Services
New Orleans, Louisiana Houston, Texas

SCALE:	DWG. NO.: 21-01/07A

FIGURE 1-1
SITE LOCATION

FORMER GULF STATES CREOSOTING SITE

HATTIESBURG, MISSISSIPPI



BASE MAP FROM ATLANTIC TECHNOLOGIES, LTD., HUNTSVILLE, ALABAMA, APRIL 1, 1996

MICHAEL PISANI & ASSOCIATES
Environmental Management and Engineering Services
New Orleans, Louisiana Houston, Texas

TITLE: FIGURE 1-2
CURRENT SITE FEATURES

PROJECT: FORMER GULF STATES CREOSOTING SITE

LOCATION: HATTIESBURG, MISSISSIPPI

SCALE: 1"=200' DWG. NO.: 21-02/318

2.0 Study Area Investigations

RI field activities were comprised of four specific tasks:

1. Soil Investigations
2. Stratigraphic Characterization
3. Ground Water Investigations
4. Surface Water and Sediment Sampling

Procedures used to complete each of the above specific tasks are summarized in the following sections of this report. Unless stated otherwise, field procedures were performed as specified in the MDEQ-approved documents.

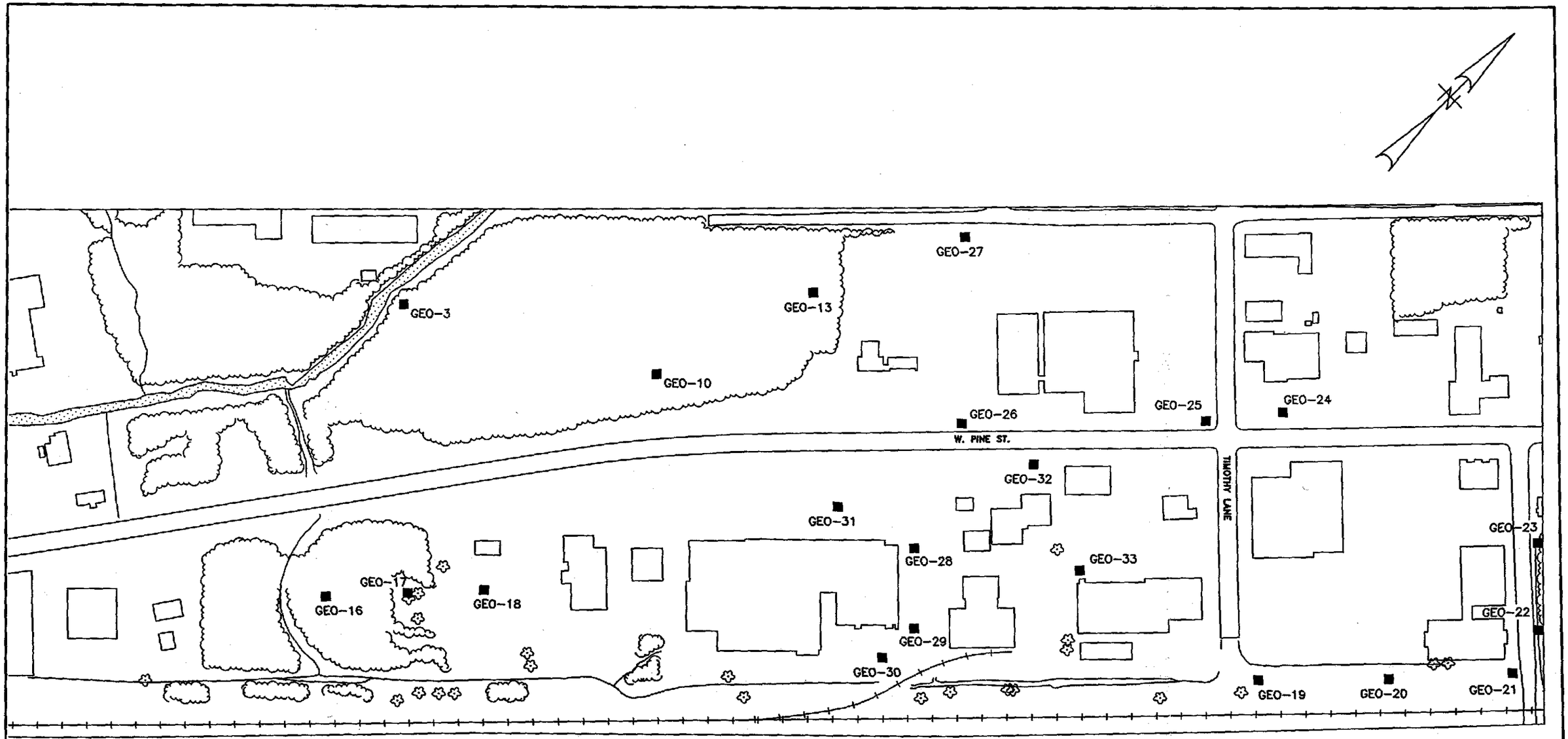
2.1 Soil Investigations

The primary objective of Phase II RI soil investigations was to determine the vertical and horizontal extent of affected soil in areas where such information was previously unavailable. A secondary objective of the soil investigations was the verification of results from previous studies. A total of 60 soil samples from 21 locations, plus associated quality control samples, were collected and analyzed during the Phase II RI in an attempt to achieve these objectives.

Phase II RI soil sampling locations are depicted on Figure 2-1. The rationale for selection of these locations was as follows:

- GEO-03, -10, -13, -16, -17, and -18 - Phase I RI results indicated the presence of low concentrations of creosote constituents in the zero to 1-foot interval at these locations. Samples were collected to determine constituent concentrations in the 2- to 3-foot and 5- to 6-foot intervals.
- GEO-19 through -23 - Samples were collected to determine the extent of affected soil to the southeast and northeast of the Process Area.
- GEO-24, -26, -32, and -33 - Samples were collected to provide coverage in areas not sampled previously.
- GEO-25 and -27 through -31 - Samples were collected to verify the results of previous studies.

All Phase II RI soil samples submitted for laboratory analysis were collected using a Geoprobe. Samples were collected in stainless steel sampling barrels equipped with dedicated acetate liners. Generally, samples were collected from the zero to 1-foot, 2- to 3-foot, and 5- to 6-foot intervals. Samples were transferred from the liners to aluminum foil, then into clean, laboratory-supplied sample containers using stainless steel sampling tools. Soil samples were analyzed for Target Compound List semivolatile organic compounds (TCL SVOCs) by SW-846 Method 8270.



LEGEND

GEO-18 ■ SOIL SAMPLING LOCATION

0 100 200 300 400

SCALE FEET

BASE MAP FROM ATLANTIC TECHNOLOGIES, LTD., HUNTSVILLE, ALABAMA, APRIL 1, 1996

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Environmental Management and Engineering Services
New Orleans, Louisiana Houston, Texas

TITLE: FIGURE 2-1
PHASE II RI
SOIL SAMPLING LOCATIONS

PROJECT: FORMER GULF STATES CREOSOTING SITE

LOCATION: HATTIESBURG, MISSISSIPPI

SCALE: DWG. NO.: 21-04/30B

2.2 Stratigraphic Characterization

The primary objective of this task was to obtain the stratigraphic information necessary to select appropriate locations and depths for ground water sampling. Phase II RI stratigraphic characterization activities focused mainly on the offsite Process Area (i.e., the area east of the N.O. & N.E. Railroad). In addition, a single boring was advanced northwest across Gordon's Creek from the Fill Area. A total of eight CPT pushes and two soil borings were advanced to obtain the additional stratigraphic data. CPT logs and soil borings logs are provided as Appendices A and B, respectively, of this report.

Phase II RI stratigraphic characterization locations are depicted on Figure 2-2. Locations CPT-08A through 13 were specified in the *Revised Addendum to Site Investigation Work Plan*; CPT-21 and CPT-22 were added in the field during ground water screening activities (see Section 2.3). Boring SB-09 was advanced for the purpose of installing ground water monitoring well MW-09.

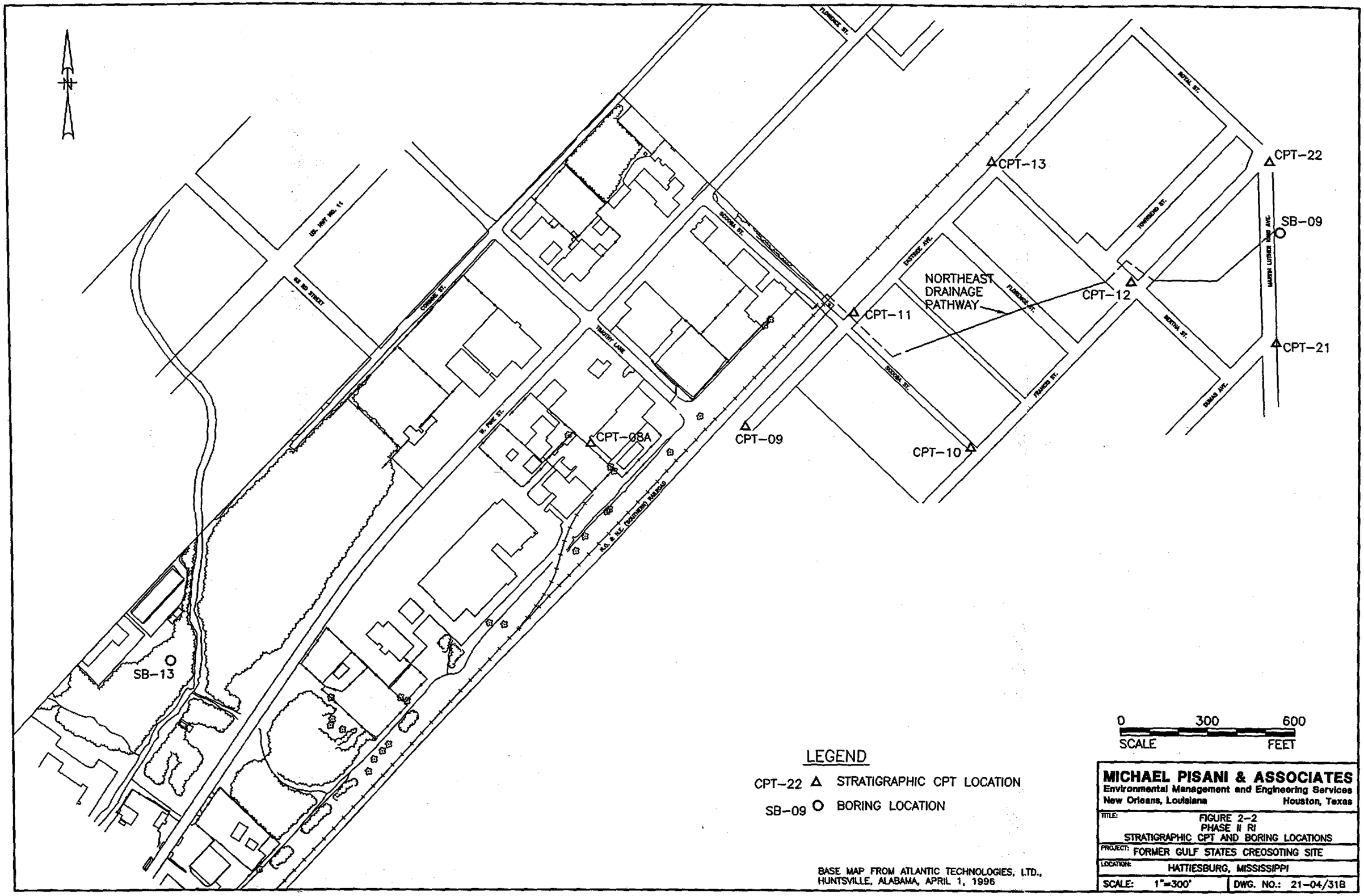
The work plan addendum included advancing two stratigraphic CPT pushes on the northwest bank of Gordon's Creek across from the Fill Area. Unfortunately, due to site access issues, KMCC could not complete this work when the CPT rig was on site. However, after obtaining access from the Ramada Inn, KMCC was able to complete a single boring (SB-13) and install a ground water monitoring well (MW-13) across Gordon's Creek from the Fill Area during subsequent Phase II RI activities.

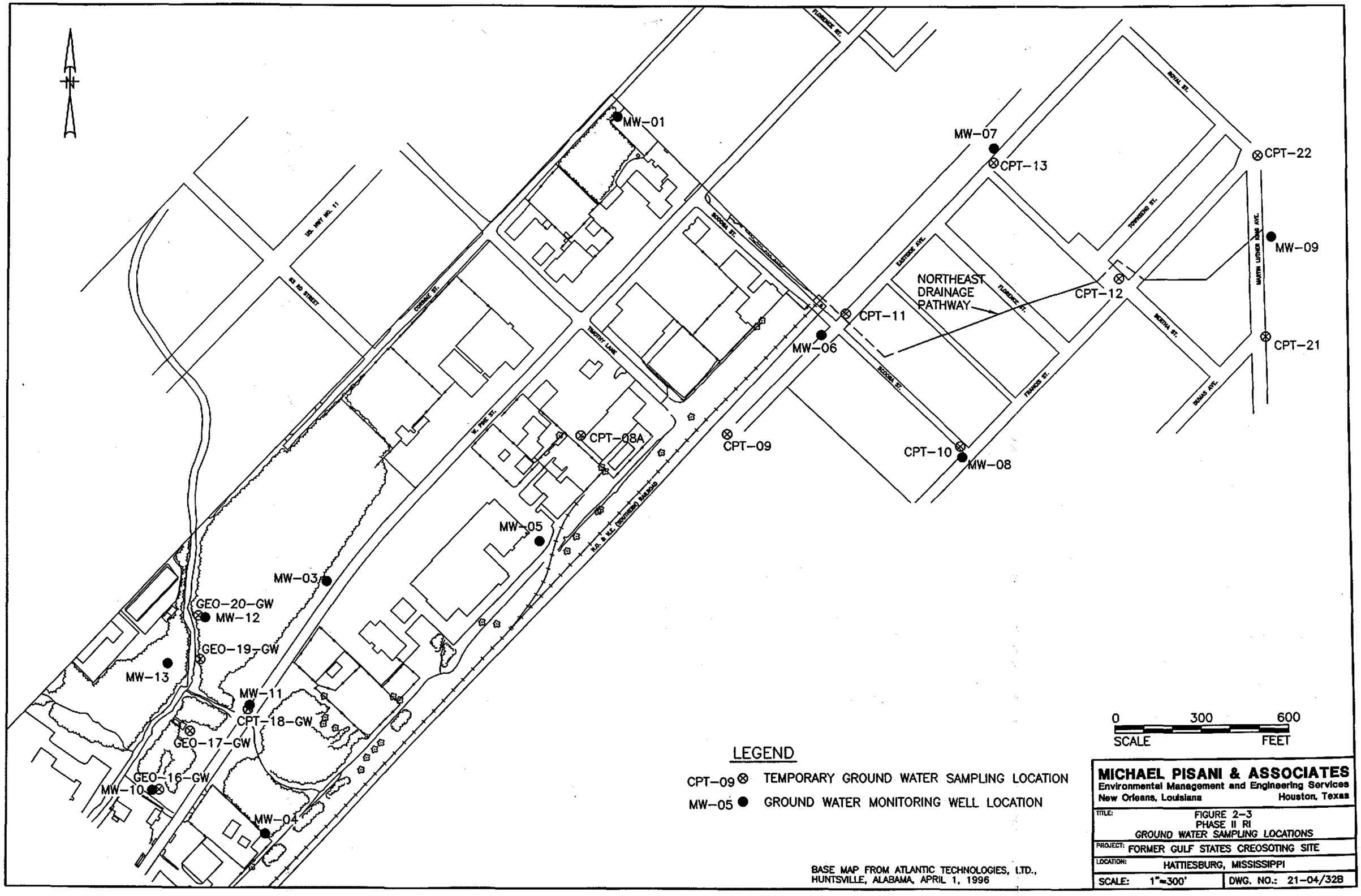
2.3 Ground Water Investigations

The objectives of Phase II RI ground water investigations were to determine ground water quality within the Fill Area and to evaluate the potential for offsite migration of affected ground water from the Process Area. KMCC utilized a phased approach to achieve these objectives. The ground water screening phase consisted of collecting and analyzing ground water samples at 13 temporary ground water sampling points to delineate the extent of affected ground water and to determine appropriate locations for additional ground water monitoring wells. The monitoring well installation and sampling phase consisted of installing eight new monitoring wells and sampling a total of 12 wells to determine ground water quality, flow direction, and gradient. Phase II RI ground water sampling locations are depicted on Figure 2-3.

2.3.1 Ground Water Screening

The data obtained from the stratigraphic CPT work, along with stratigraphic information from the Phase I RI, were used to determine appropriate locations and depths for ground water screening. KMCC utilized both a CPT push-in well screen sampler and temporary well points installed with a Geoprobe for the collection of ground water screening samples. Ground water samples were collected from the CPT push-in well screen by lowering a small-diameter bailer through the sampling rods into the sampling chamber. Samples were collected from Geoprobe temporary well points using a peristaltic pump and dedicated silicone tubing. All samples were analyzed for TCL SVOCs by SW-846 Method 8270. In


CPT-22
SB-09
CPT-13
CPT-12
CPT-11
CPT-21
CPT-09
CPT-10
CPT-08A
SB-13
NORTHEAST DRAINAGE PATHWAY
FLORENCE ST.
ROYAL ST.
TOWNSEND ST.
MARTIN LUTHER KING AVE.
EASTSIDE AVE.
SCOOBA ST.
FRANCES ST.
BERTHA ST.
EMMAS AVE.
TIMOTHY LANE
W. PINE ST.
CORINNE ST.
46 TH STREET
U.S. HWY NO. 11
N.O. & N.E. (SOUTHERN) RAILROAD
0
300
600
SCALE
FEET
LEGEND
CPT-22 △ STRATIGRAPHIC CPT LOCATION
SB-09 ○ BORING LOCATION
BASE MAP FROM ATLANTIC TECHNOLOGIES, LTD., HUNTSVILLE, ALABAMA, APRIL 1, 1996
MICHAEL PISANI & ASSOCIATES
Environmental Management and Engineering Services
New Orleans, Louisiana Houston, Texas
TITLE: FIGURE 2-2
PHASE II RI
STRATIGRAPHIC CPT AND BORING LOCATIONS
PROJECT: FORMER GULF STATES CREOSOTING SITE
LOCATION: HATTIESBURG, MISSISSIPPI
SCALE: 1"=300'
DWG. NO.: 21-04/318



LEGEND

CPT-09 ⊗ TEMPORARY GROUND WATER SAMPLING LOCATION

MW-05 ● GROUND WATER MONITORING WELL LOCATION

BASE MAP FROM ATLANTIC TECHNOLOGIES, LTD., HUNTSVILLE, ALABAMA, APRIL 1, 1996

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Environmental Management and Engineering Services
New Orleans, Louisiana Houston, Texas

TITLE: FIGURE 2-3
PHASE II RI
GROUND WATER SAMPLING LOCATIONS

PROJECT: FORMER GULF STATES CREOSOTING SITE

LOCATION: HATTIESBURG, MISSISSIPPI

SCALE: 1"=300' DWG. NO.: 21-04/32B

addition, Fill Area screening samples were analyzed for TCL volatile organic compounds (VOCs) by SW-846 Method 8260.

Per the MDEQ-approved work plan addendum, ground water investigations were suspended at the completion of ground water screening field activities pending the receipt of screening analytical data and the evaluation of stratigraphic data. Once all ground water screening data were received and evaluated, KMCC prepared and submitted to MDEQ an interim report depicting proposed monitoring well locations and rationale. The well installation phase did not commence until MDEQ approval of proposed well locations was received in a letter dated August 26, 1998.

2.3.2 Monitoring Well Installation and Sampling

Ground water monitoring wells were installed at the eight MDEQ-approved locations using a hollow-stem auger drilling rig. Well construction procedures were identical to those established in the January 30, 1997 *Site Investigation Work Plan*. Wells were constructed of two-inch, Schedule 40 PVC, with 0.01-inch machine-slotted screen spanning the entire thickness of the first saturated permeable zone. Wells were completed at grade with water-tight, flush-mount manhole covers. Well construction details are summarized in Table 2-1. Well construction diagrams are provided in Appendix C of this report.

Upon completion, wells were developed to remove sediment and to facilitate the collection of samples which were representative of ground water within the screened material. Wells were pumped until ground water was visually sediment-free. Approximately 55 gallons of water (one full drum) were removed from each of the eight new wells except for MW-11. Due to low yield, well MW-11 was pumped dry several times, with a total of approximately 30 gallons of water removed during development.

Prior to measuring water levels in monitoring wells, the water-tight caps were removed from all wells and water levels in wells were allowed to equilibrate to atmospheric pressure. The water level in each well was then measured from the top of well casing using an electronic water level indicator. The volume of water in each well was calculated using the well depth and water level. Prior to sampling, each well was purged with a dedicated disposable bailer. During purging, the volume of water removed was recorded and the temperature, pH, and specific conductance of the ground water were monitored. Well purging was considered complete when these parameters had stabilized and a minimum of three well volumes had been removed.

Ground water samples were collected from all eight new wells and the four wells installed during the Phase I RI. Samples were poured directly from bailers into clean, laboratory-supplied sample containers. All samples were analyzed for TCL SVOCs by SW-846 Method 8270 and for polycyclic aromatic hydrocarbons (PAHs) by SW-846 Method 8310. In addition, samples from the four Fill Area wells were analyzed for TCL VOCs by SW-846 Method 8260.

Table 2-1
Summary of Monitoring Well Completion Information

Former Gulf States Creosoting Site
Hattiesburg, Mississippi

Well	Date Installed	Borehole Diameter (inches)	Well Diameter (inches)	Construction Material	Well Depth (ft. bls)	Top of Casing Elevation (ft. msl)	Screened Interval (ft. bls)	Screened Interval Elevation (ft. msl)
MW-1	May 1994	10.25	4	PVC	30	188.98	20-30	158.98-168.98
MW-2	May 1994	10.25	4	PVC	30	189.71	20-30	159.71-169.71
MW-3	May 1994	10.25	4	PVC	30	188.19	20-30	158.19-168.19
MW-4	May 1994	10.25	4	PVC	34	191.42	24-34	157.42-167.42
MW-01	February 1997	8.25	2	PVC	35	186.14	17-32	154.14-169.14
MW-03	February 1997	8.25	2	PVC	37	189.24	29-34	155.24-160.24
MW-04	February 1997	8.25	2	PVC	40	191.28	27-37	154.28-164.28
MW-05	February 1997	8.25	2	PVC	42	191.59	19-39	152.59-172.59
MW-06	September 1998	8.25	2	PVC	38	185.44	18-38	147.44-167.44
MW-07	September 1998	8.25	2	PVC	38	186.45	18-38	148.45-168.45
MW-08	September 1998	8.25	2	PVC	40	188.73	20-40	148.73-168.73
MW-09	September 1998	8.25	2	PVC	28	174.99	13-28	146.99-161.99
MW-10	September 1998	8.25	2	PVC	13	186.73	8-13	173.73-178.73
MW-11	September 1998	8.25	2	PVC	14	187.76	9-14	173.76-178.76
MW-12	September 1998	8.25	2	PVC	22	183.84	17-22	161.84-166.84
MW-13	September 1998	8.25	2	PVC	19	183.98	9-19	164.98-174.98

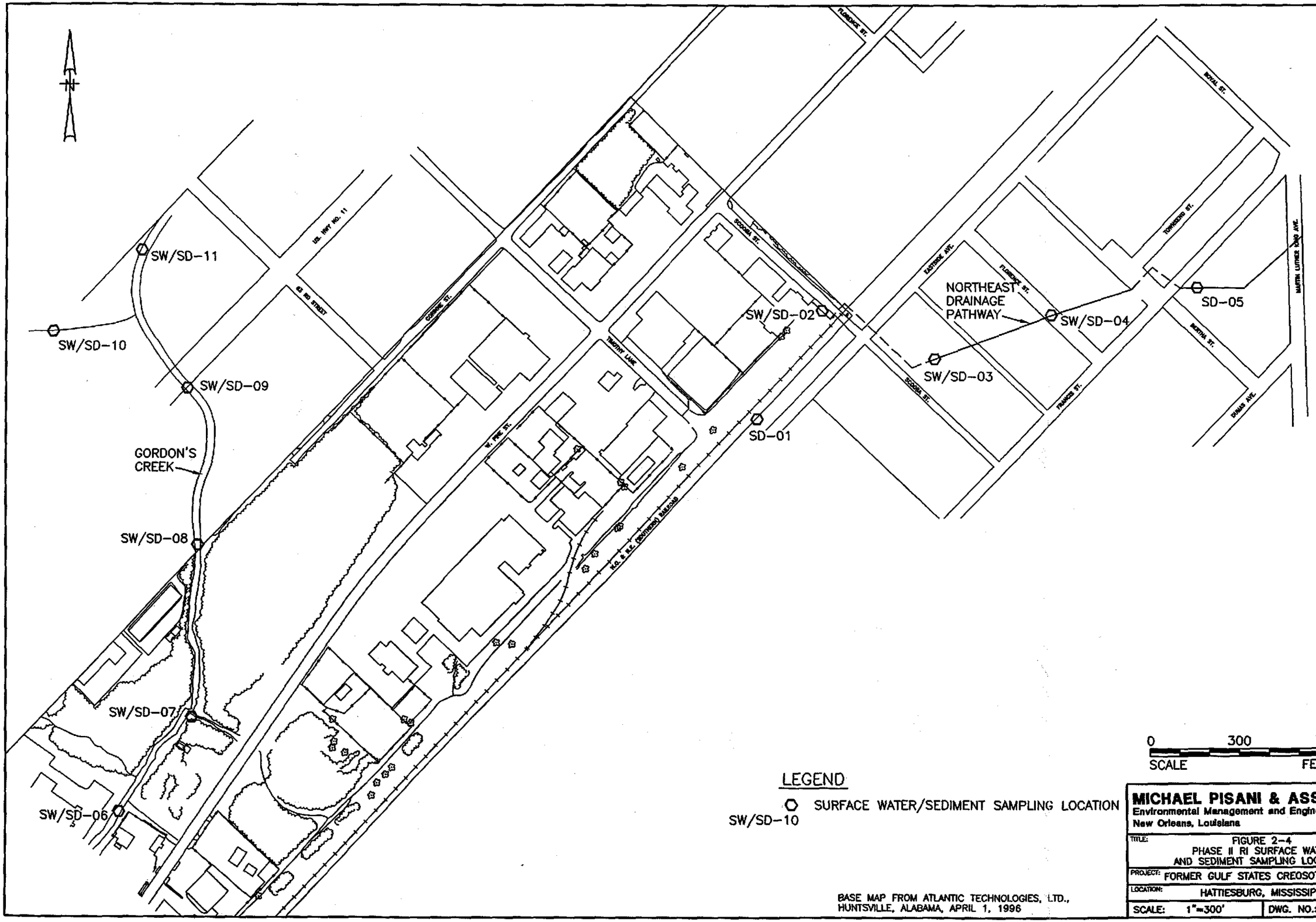
Note:
All elevations are referenced to the North American Vertical Datum of 1988 (NAVD 88) and are reported with respect to mean sea level.
bls - below land surface

2.4 Surface Water and Sediment Sampling

Because 1997 Phase I RI activities were focused on the former wood treating site, samples were not collected from offsite drainage pathways. During Phase II RI activities, surface water and sediment samples were collected from two separate and distinct drainage pathways: the ditch and culvert system to the east-northeast of the Process Area (northeast drainage pathway) and Gordon's Creek. The objective of this task was to determine the presence/absence, concentrations, and extent of creosote constituents in these two offsite drainage pathways. A total of nine surface water and 11 sediment samples were collected during the Phase II RI. Phase II RI surface water and sediment sampling locations are depicted on Figure 2-4.

Surface water and sediment sampling locations in the northeast drainage pathway were accessed from the bank; sampling locations in Gordon's Creek were accessed by wading. Samples from each drainage pathway were collected beginning at the furthest downstream sampling location and moving upstream. At each location, the sampler faced upstream and collected the surface water sample prior to the sediment sample, avoiding disturbance of the sediment during surface water sampling.

Surface water and sediment samples were collected in accordance with procedures set forth in the *Revised Addendum to Site Investigation Work Plan*. Due to dry weather conditions, no surface water samples could be collected at sample locations -01 and -05. All surface water and sediment samples were analyzed for TCL SVOCs by SW-846 Method 8270.



0 300 600
SCALE FEET

LEGEND

SW/SD-10 ○ SURFACE WATER/SEDIMENT SAMPLING LOCATION

BASE MAP FROM ATLANTIC TECHNOLOGIES, LTD., HUNTSVILLE, ALABAMA, APRIL 1, 1996

MICHAEL PISANI & ASSOCIATES
Environmental Management and Engineering Services
New Orleans, Louisiana Houston, Texas

TITLE: FIGURE 2-4
PHASE II RI SURFACE WATER
AND SEDIMENT SAMPLING LOCATIONS

PROJECT: FORMER GULF STATES CREOSOTING SITE

LOCATION: HATTIESBURG, MISSISSIPPI

SCALE: 1"=300' DWG. NO.: 21-04/338

3.0 Physical Site Conditions

Extensive information on the environmental setting of the study area was presented in Section 3.0 of the June 30, 1997 *Remedial Investigation Report*. Subjects discussed in that section included climate, topography and drainage, geology, soils, and hydrogeology. Additional information on the site geology and hydrogeology were obtained during the completion of Phase II RI field activities. This section serves as an addendum to previous discussions regarding site geology and hydrogeology.

3.1 Geology

As established in the June 30, 1997 *Remedial Investigation Report*, the geology of the Process Area and the Fill Area are significantly different. An updated discussion on the geology of the two areas is provided in the following subsections.

3.1.1 Offsite Process Area Geology

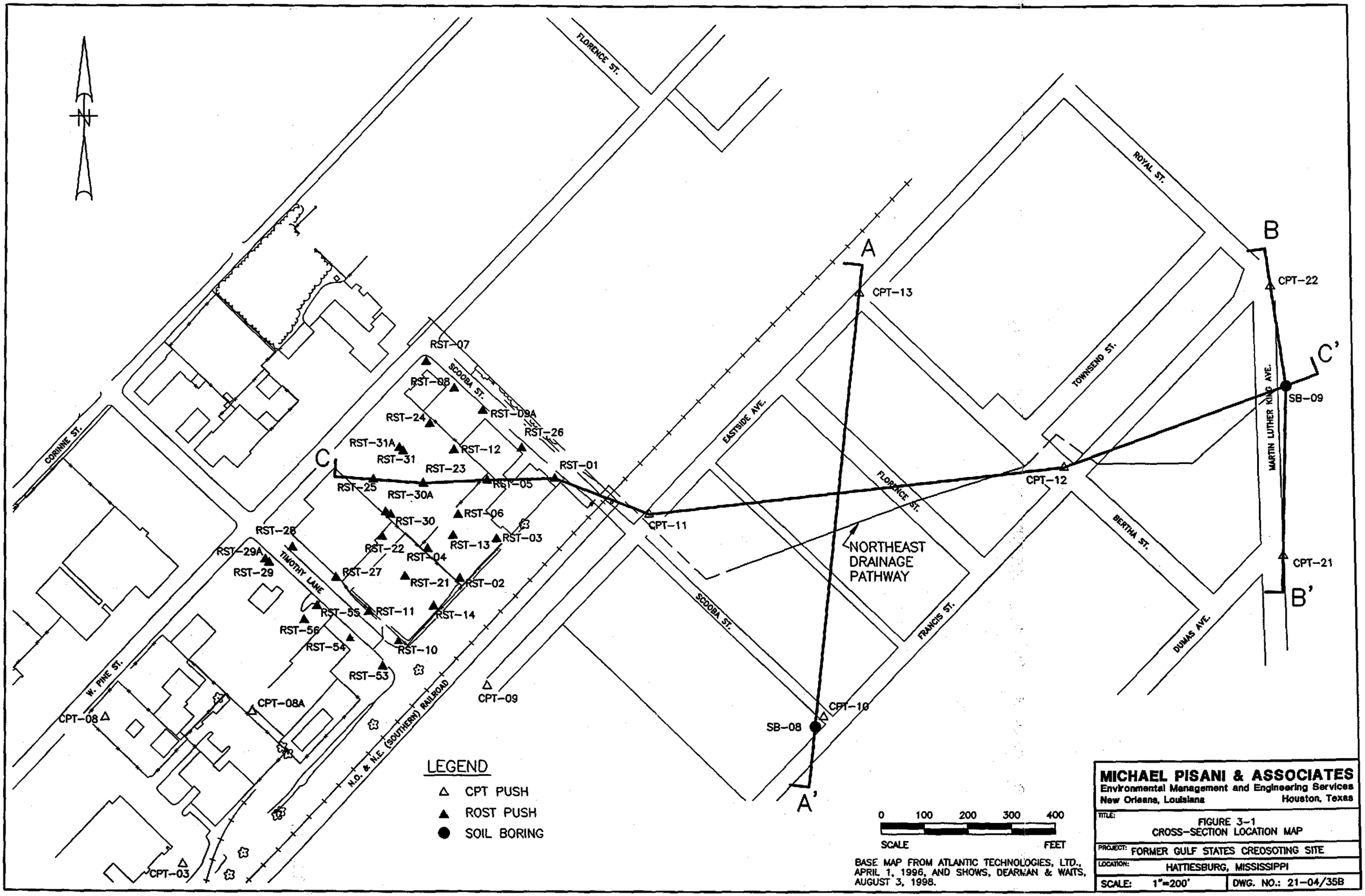
The Process Area is underlain by three major units. These units are, in descending order:

1. An upper silty clay, 20 to 25 feet thick;
2. The first water-bearing zone, a sand channel with a maximum thickness of 21 feet; and
3. An underlying clay aquitard at least 15 to 20 feet thick.

The upper unit is a light gray and tan silty clay that is moist, stiff to very stiff, and exhibits abundant orange and red mineral staining. The first water-bearing unit beneath the Process Area consists of white to light gray sand which is saturated, fine to medium grained, and dense, and contains a thin gravelly basal zone. The underlying aquitard is a gray to brown silty clay that is dry and hard, and is believed to represent the upper portion of the massive Hattiesburg clay. All three units are continuous beneath the Process Area, although the sand channel begins to pinch out at the western edge of the Process Area and does not extend westward to the Fill Area. Stratigraphic data from Phase I RI activities showed that the base of the sand channel dips northeastward beneath the Process Area.

Figure 3-1 depicts the locations of cross-sections generated using offsite Process Area stratigraphic data obtained during the Phase II RI. The three offsite Process Area cross-sections are illustrated on Figure 3-2. Figure 3-3 is a contour map on the base of the sand channel; the map has been extended eastward since the original *RI Report* to incorporate new offsite data.

The Phase II RI data indicate that the three units underlying the Process Area are also continuous east of the N.O. & N.E. railroad tracks (see Figure 3-2). The land surface within the offsite Process Area continues to slope gently eastward toward the floodplain of the Leaf River. The geology reflects the surface topography in that the upper surfaces of both the sand channel and aquitard dip gently to the east-northeast (see cross-section C-C' on Figure 3-2). It is also important to note that the upper clay layer thins significantly



BASE MAP FROM ATLANTIC TECHNOLOGIES, LTD., APRIL 1, 1996, AND SHOWS, DEARMAN & WAITS, AUGUST 3, 1998.

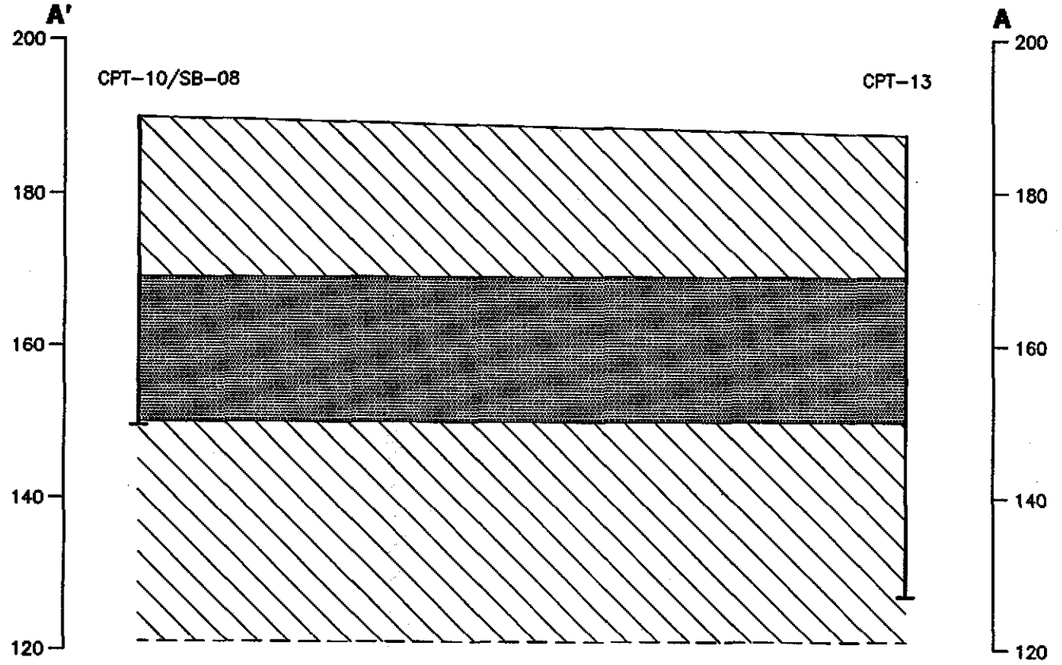
MICHAEL PISANI & ASSOCIATES
Environmental Management and Engineering Services
New Orleans, Louisiana Houston, Texas

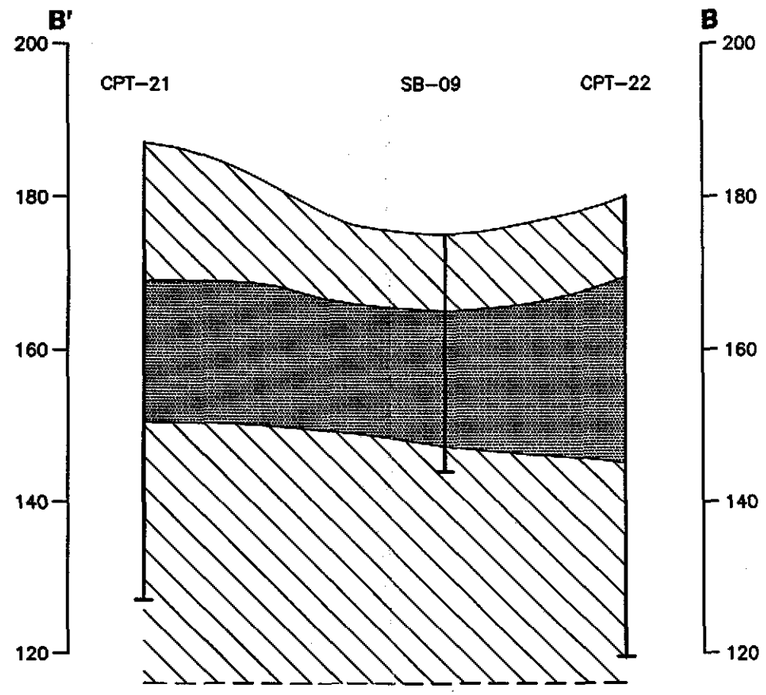
TITLE: FIGURE 3-1
CROSS-SECTION LOCATION MAP

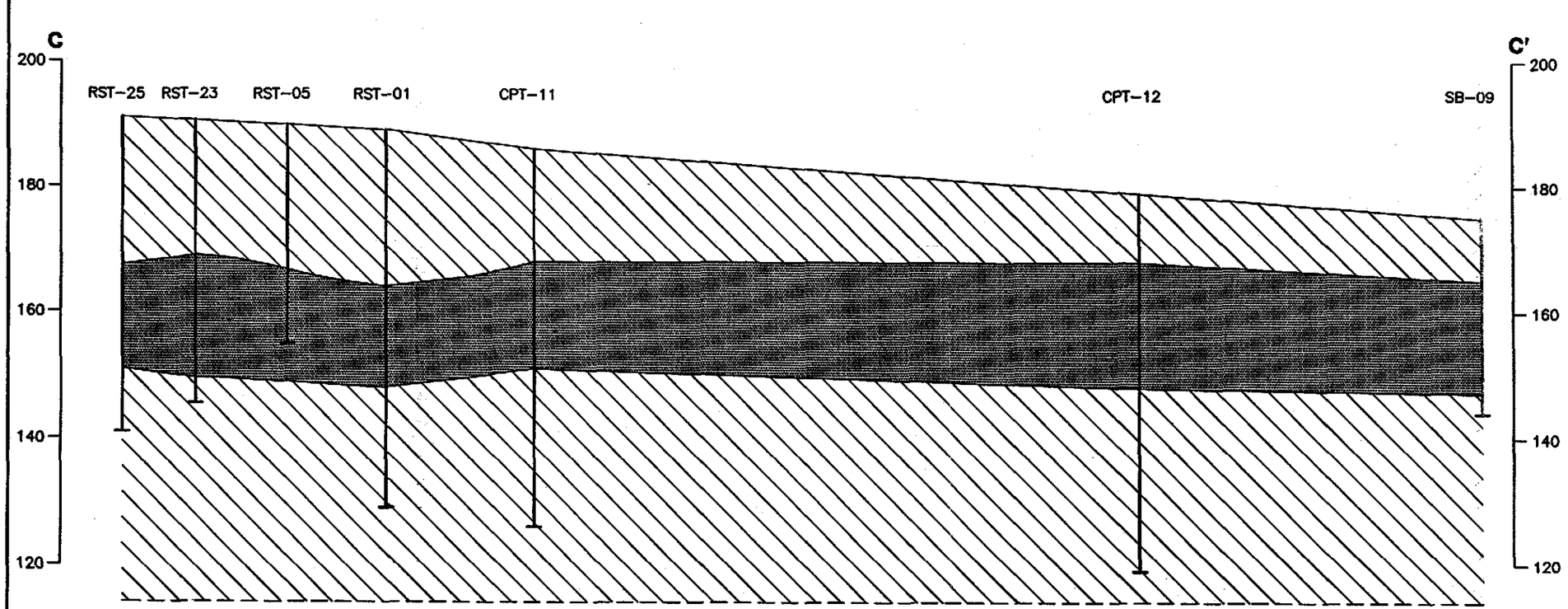
PROJECT: FORMER GULF STATES CREOSOTING SITE

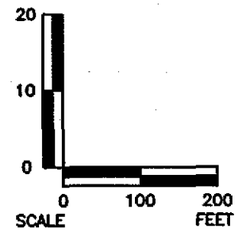
LOCATION: HATTIESBURG, MISSISSIPPI

SCALE: 1"=200' DWG. NO.: 21-04/35B









LEGEND

SAND

CLAY

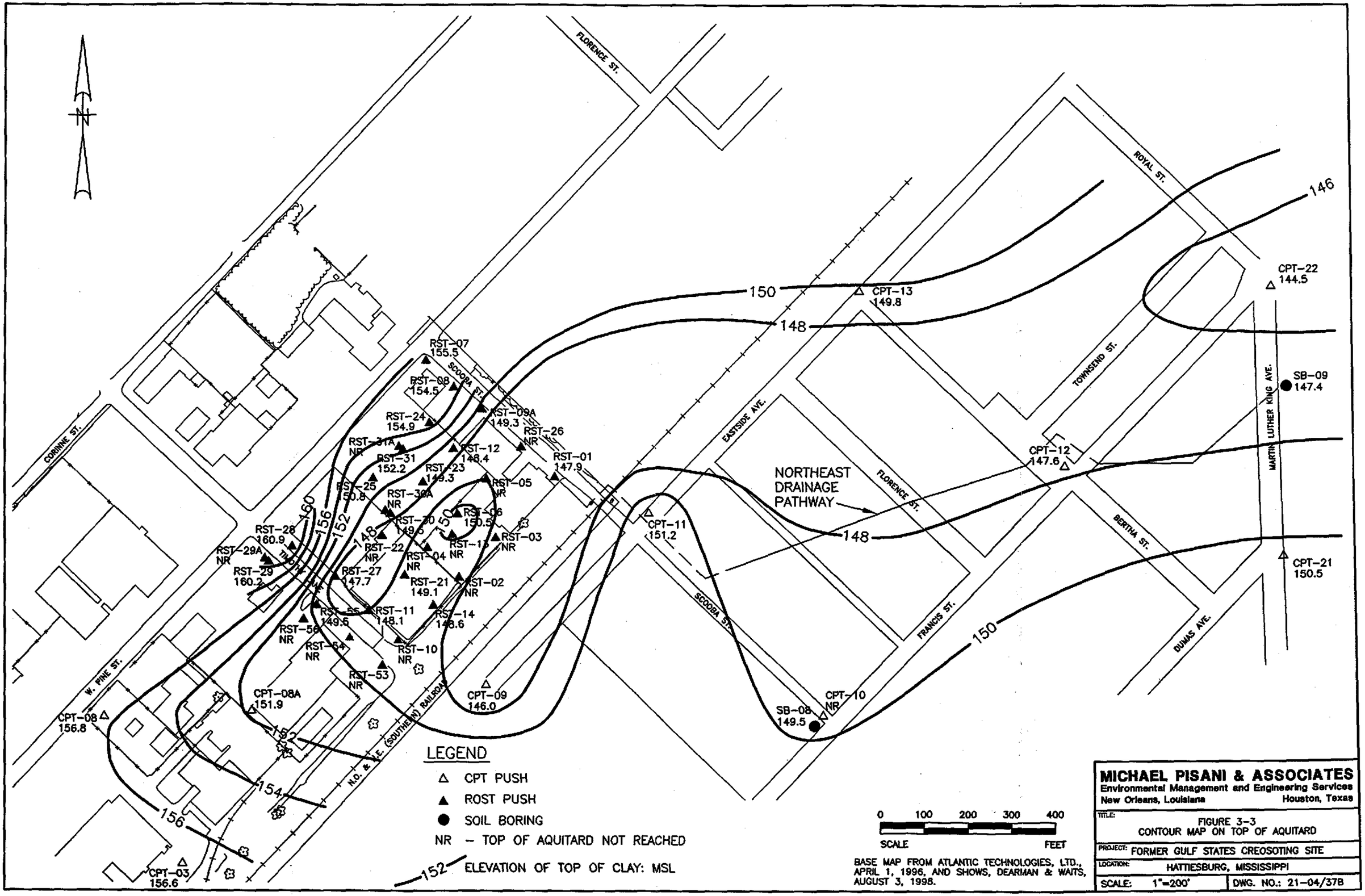
MICHAEL PISANI & ASSOCIATES
Environmental Management and Engineering Services
New Orleans, Louisiana Houston, Texas

TITLE: FIGURE 3-2
OFF-SITE PROCESS AREA CROSS-SECTIONS

PROJECT: FORMER GULF STATES CREOSOTING SITE

LOCATION: HATTIESBURG, MISSISSIPPI

SCALE: 1"=200'/1"=20' | DWG. NO.: 21-04/36B



BASE MAP FROM ATLANTIC TECHNOLOGIES, LTD., APRIL 1, 1996, AND SHOWS, DEARMAN & WAITS, AUGUST 3, 1998.

MICHAEL PISANI & ASSOCIATES
Environmental Management and Engineering Services
New Orleans, Louisiana Houston, Texas

TITLE: FIGURE 3-3
CONTOUR MAP ON TOP OF AQUITARD

PROJECT: FORMER GULF STATES CREOSOTING SITE

LOCATION: HATTIESBURG, MISSISSIPPI

SCALE: 1"=200' DWG. NO.: 21-04/37B

downdip, especially in areas immediately adjacent to the northeast drainage pathway (e.g., near soil boring/monitoring well SB/MW-09).

3.1.2 Fill Area Geology

The upper 20 to 25 feet beneath the Fill Area consists of interbedded sands and clays, making the geology of the area more difficult to define than that of the Process Area. The sandiest section of the Fill Area deposits is located immediately adjacent to Gordon's Creek. Beneath the creek's eastern bank, a clay layer separates two shallow sandy zones. A stiff clay layer is encountered beneath the second sandy zone. This clay is believed to represent the upper portion of the massive Hattiesburg clay.

During Phase II RI activities, a soil boring was installed on the northwest bank of Gordon's Creek to evaluate the shallow stratigraphy and allow for the installation of a monitoring well. The boring log for SB-13 revealed geology identical to that of the Fill Area, i.e., a surficial clay, underlain by two sandy zones separated by a thin clay, in turn underlain by a deeper clay.

3.2 Site Ground Water Conditions

Two distinct shallow aquifer systems are present within the upper 75 feet beneath the site. The first consists of the Process Area sand channel, while the second is comprised of the sandy zones in the vicinity of Gordon's Creek. As the sandy zones beneath the two areas are separated from one another by impermeable clay, ground water occurrence and conditions are addressed separately in the following subsections.

3.2.1 Offsite Process Area Ground Water

The results of previous investigations have indicated that ground water within the Process Area sand channel exists under confined or semi-confined conditions. By this, we mean that the sand channel is saturated from top to bottom, and that ground water in wells rises to levels within the overlying clay layer. Phase II RI data confirm this condition in most wells screened within the sand channel. The water level in well MW-05, however, has fallen to a level approximately 3.5 feet below the top of the sand (i.e., the top of sand is present at approximately 19.5 feet below grade, while the water level in the well was approximately 23 feet below grade).

Overall, water levels in wells screened within the sand channel were observed to be between 2.85 and 3.95 feet lower during Phase II field activities than during Phase I. This was anticipated, however, since Phase I water levels were measured in March 1997 during the rainy season, and Phase II water levels were measured in October 1998 during the dry season. The single exception to this phenomenon was well MW-04, in which the water level actually rose 0.84 feet between the Phase I and Phase II measurements. This suggests that the thin sand screened by well MW-04 is not hydraulically connected with the sand channel. Water levels in well MW-04 will continue to be observed during future events.

Ground water elevation data from March 1997 and October 1998 are summarized in Table 3-1. Figure 3-4 is a potentiometric surface map constructed using water level data obtained on October 13 and 14, 1998. The map shows that ground water within the sand channel flows to the east, similar to the slope of site topography, toward the floodplain of the Leaf River. Ground water elevations in the subsurface sand channel ranged from 172.85 feet above mean sea level (amsl) at the southwestern end of the channel in MW-03 to 166.50 feet amsl in offsite monitoring well MW-09.

The ground water gradient at the western end of the channel is approximately 0.006 feet per foot. However, the gradient flattens dramatically within and to the east of the Process Area. The gradient between well MW-3, at the eastern end of the Process Area, and MW-09, the furthest downgradient monitoring well, is only 0.0008 feet per foot. This value is appropriate to use in calculating ground water flow velocities that reflect the potential for offsite migration of site constituents via the ground water pathway.

Hydraulic conductivities of the sand channel estimated via slug test analyses during the Phase I RI ranged from 3.8×10^{-4} cm/sec to 2.1×10^{-3} cm/sec (1.1 ft/day to 5.9 ft/day). These values are consistent with published values for sandy aquifers. Using this range of hydraulic conductivity values, an assumed effective porosity of 30%, and a gradient of 0.0008 feet per foot, calculated linear ground water flow velocities in the sand channel range from 0.003 to 0.02 feet per day.

3.2.2 Fill Area Ground Water

Prior to Phase II RI activities, little information was available regarding ground water conditions within the Fill Area sands. The objectives of Fill Area ground water investigations were to:

1. Determine ground water flow direction within the Fill Area sands;
2. Determine the hydraulic connection between the Fill Area sands and Gordon's Creek; and
3. Determine ground water quality within the Fill Area sands.

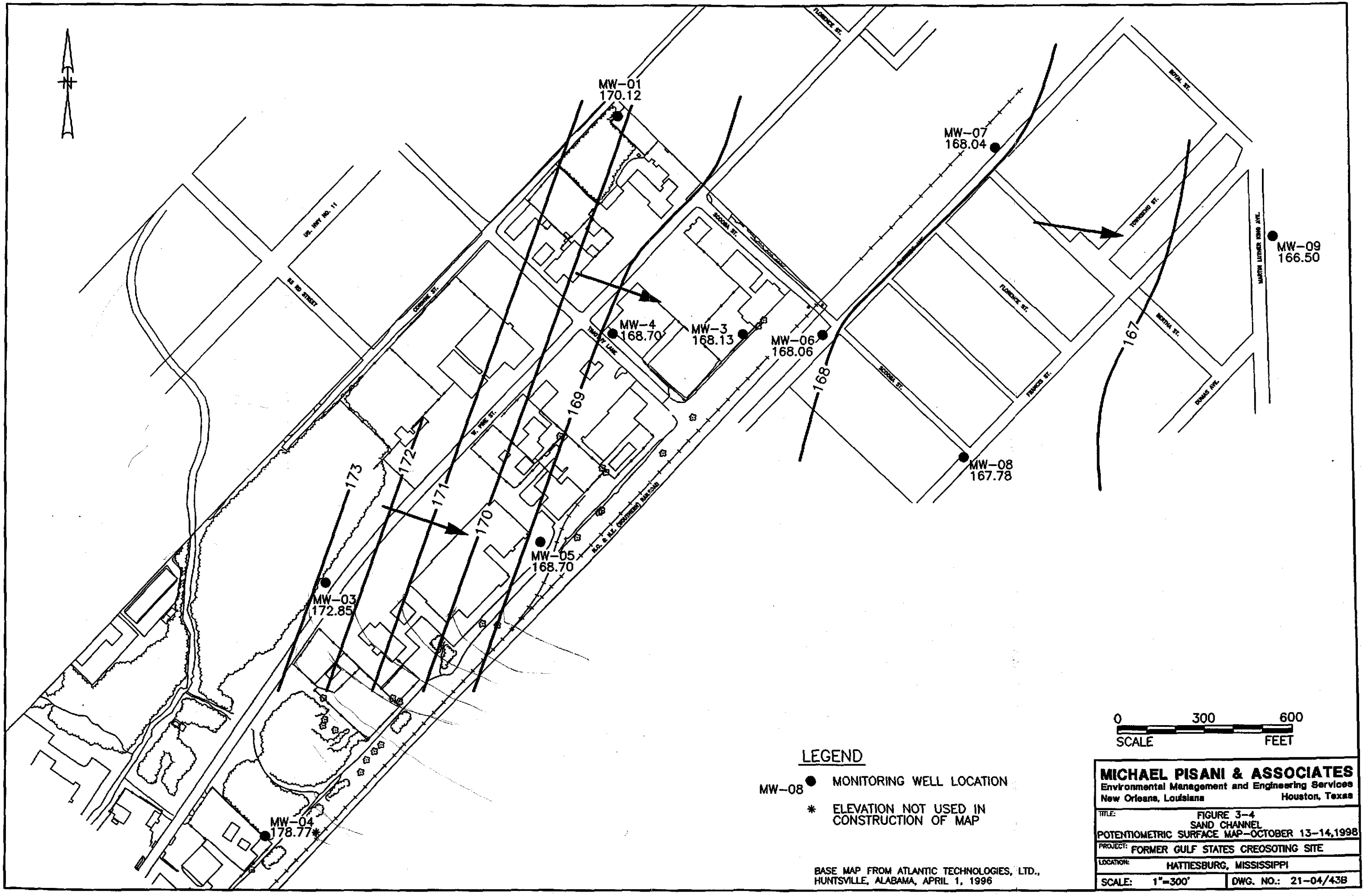
Water level elevation data from the four new Fill Area monitoring wells and the newly installed stream gauge are summarized in Table 3-1. Figure 3-5 is a potentiometric surface map constructed using water level data obtained on October 13 and 14, 1998. As anticipated, the map shows that ground water within the Fill Area sands flows toward Gordon's Creek and downstream along the creek. The hydraulic gradient toward the creek is approximately 0.02 feet per foot; the gradient downstream along the creek is approximately 0.007 feet per foot.

Table 3-1
Summary of Ground Water Elevation Data

Former Gulf States Creosoting Site
Hattiesburg, Mississippi

Well	Surveyed Elevation (ft.)	3/11/97 Water Level (a)	3/11/97 Ground Water Elevation (ft.)	10/13-14/98 Water Level (a)	10/13-14/98 Ground Water Elevation (ft.)	Change between 3/11/1997 and 10/13-14/98 (ft.)
MW-1	188.98	17.12	171.86	NM	NM	NM
MW-2	189.71	17.55	172.16	NM	NM	NM
MW-3	188.19	16.11	172.08	20.06	168.13	-3.95
MW-4	191.42	19.10	172.32	22.72	168.70	-3.62
MW-01	186.14	12.43	173.71	16.02	170.12	-3.59
MW-03	189.24	13.54	175.70	16.39	172.85	-2.85
MW-04	191.28	13.35	177.93	12.51	178.77	0.84
MW-05	191.59	19.47	172.12	22.89	168.70	-3.42
MW-06	185.44	NI	NI	17.38	168.06	NI
MW-07	186.45	NI	NI	18.41	168.04	NI
MW-08	188.73	NI	NI	20.95	167.78	NI
MW-09	174.99	NI	NI	8.49	166.50	NI
MW-10	186.73	NI	NI	7.52	179.21	NI
MW-11	187.76	NI	NI	8.41	179.35	NI
MW-12	183.84	NI	NI	9.30	174.54	NI
MW-13	183.98	NI	NI	7.91	176.07	NI
Stream Gauge	178.00	NI	NI	2.30	175.70	NI

Notes:
Elevations referenced to the North American Vertical Datum of 1988 (NAVD 88) and are reported with respect to mean sea level.
(a) Feet below surveyed elevation
NI - Well not installed until Phase II RI
NM - Water level not measured due to presence of product



LEGEND

MW-08 ● MONITORING WELL LOCATION

* ELEVATION NOT USED IN CONSTRUCTION OF MAP

BASE MAP FROM ATLANTIC TECHNOLOGIES, LTD., HUNTSVILLE, ALABAMA, APRIL 1, 1996

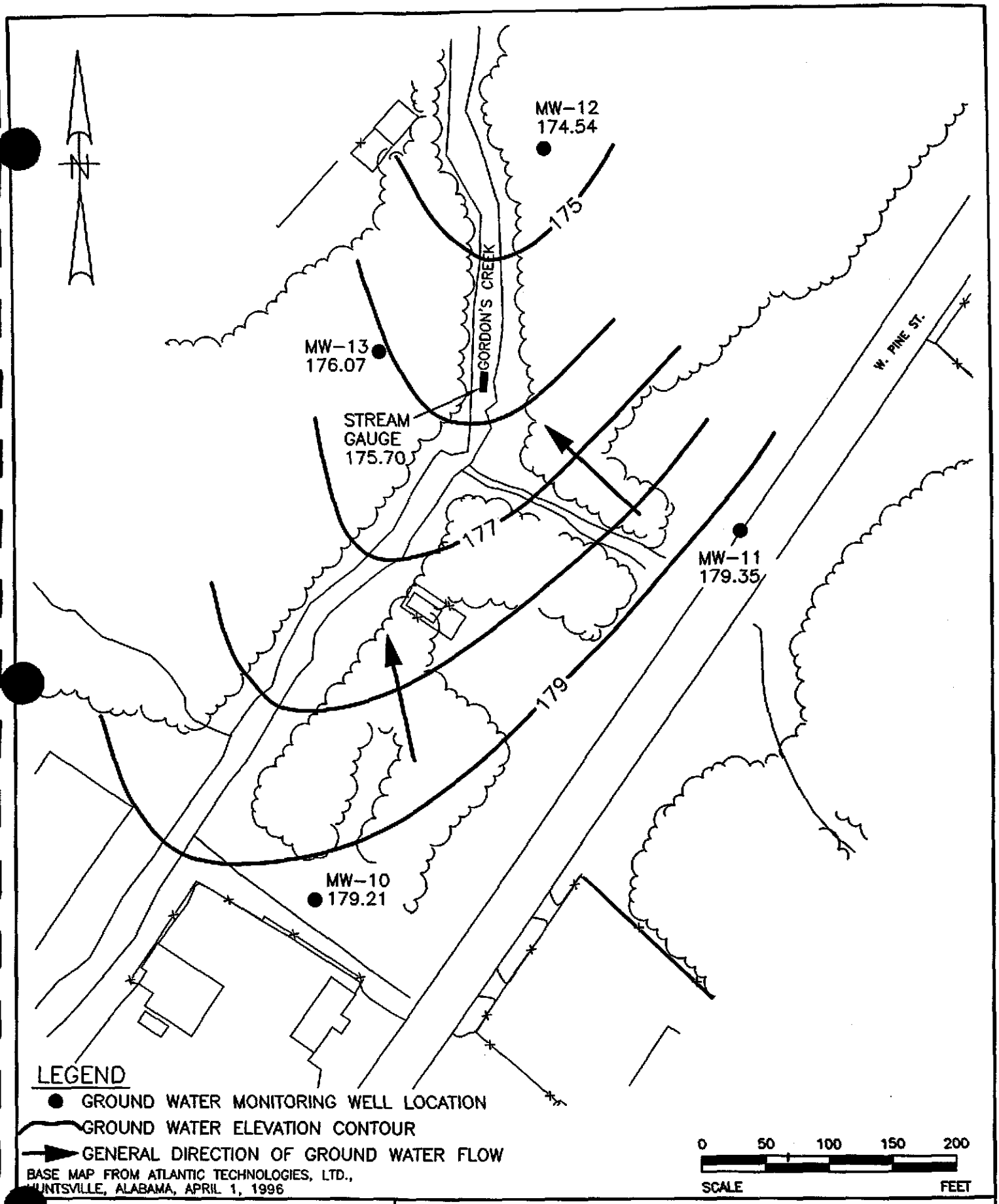
MICHAEL PISANI & ASSOCIATES
Environmental Management and Engineering Services
New Orleans, Louisiana Houston, Texas

TITLE: FIGURE 3-4
SAND CHANNEL
POTENTIOMETRIC SURFACE MAP-OCTOBER 13-14,1998

PROJECT: FORMER GULF STATES CREOSOTING SITE

LOCATION: HATTIESBURG, MISSISSIPPI

SCALE: 1"=300' DWG. NO.: 21-04/43B



BASE MAP FROM ATLANTIC TECHNOLOGIES, LTD.,
HUNTSVILLE, ALABAMA, APRIL 1, 1996

MICHAEL PISANI & ASSOCIATES
Environmental Management and Engineering Services
New Orleans, Louisiana Houston, Texas

SCALE: 1"=100' | DWG. NO.: 21-04/34A

FIGURE 3-5
FILL AREA
POTENTIOMETRIC SURFACE MAP - OCTOBER 13-14, 1998

FORMER GULF STATES CREOSOTING SITE
HATTIESBURG, MISSISSIPPI

A comparison of ground water elevation data to the Gordon's Creek surface water elevation indicates that at the time of Phase II RI field activities, surrounding ground water was discharging into Gordon's Creek. Given the sandy nature of the sediments along the banks of Gordon's Creek, it is possible that during high water stages some flow reversal could occur (i.e., the creek could contribute water to the surrounding sediments). It is not likely, however, that this condition would last for extended periods of time, or that flow from the creek into surrounding sediments would extend outward any distance.

3.2.3 Relationship Between Process Area Ground Water and Fill Area Ground Water

Previous stratigraphic characterization has shown that the uppermost water-bearing zone beneath the Process Area (the sand channel) does not extend westward to the Fill Area and that ground water flow direction within the sand channel is toward the east. Until Phase II RI activities were completed, no water level data from within the Fill Area were available. Figure 3-5 illustrates that ground water within the Fill Area flows westward toward Gordon's Creek (i.e., in the opposite direction of flow within the sand channel) and downstream along the creek. These findings are further evidence that the aquifer systems beneath the two areas are separate and distinct, and that no mechanism exists for the subsurface migration of site constituents from the Process Area to the Fill Area.

4.0 Nature and Extent of Affected Media

This section breaks down discussions regarding the nature and extent of affected media into the following areas:

1. Process Area and Offsite Process Area
2. Fill Area and Gordon's Creek
3. Other Onsite Areas

The results of soil analyses are summarized in Table 4-1. Figure 4-1 through 4-5 depict benzo(a)pyrene equivalence values in soil within the following depth intervals: zero to 2 feet, 2 to 5 feet, 5 to 10 feet, 10 to 15 feet, and 15 to 20 feet. The use of benzo(a)pyrene equivalence is a toxicity equivalence factor (TEF) approach for assessment of potentially carcinogenic PAHs. This approach assigns each of the seven potentially carcinogenic PAHs (CPAHs) an "estimated order of potential potency" based on its toxicity relative to benzo(a)pyrene in laboratory studies. U.S. EPA provides this methodology as a tool for assessing risk associated with CPAHs in the document *Provisional Guidance for Quantitative Risk Assessment of Polycyclic Aromatic Hydrocarbons*, EPA/600/R-93/089, July 1993.

The results of ground water analyses are summarized in Table 4-2. Figure 4-6 depicts naphthalene concentrations in ground water samples. Naphthalene is the single most prevalent wood treating constituent in ground water at the site, and is a good indicator parameter due to its mobility.

The results of surface water and sediment analyses are summarized in Tables 4-3 and 4-4, respectively. Figure 4-7 depicts total non-carcinogenic PAH and benzo(a)pyrene equivalence values in surface water samples collected from the two offsite drainage pathways. Figure 4-8 depicts benzo(a)pyrene equivalence values in sediment samples.

The tables and figures cited above provide the basis for discussions regarding the nature and extent of affected media at the site. For ease of review, these tables and figures are presented together at the end of this section. Narrative summaries for data validation reports are provided as Appendix E to this document. Laboratory analytical reports and data validation reports are provided as Appendices F and G, respectively.

4.1 Offsite Process Area

Data from the following samples collected during the Phase II RI activities were used to further delineate the nature and extent of affected media within the Process Area and offsite Process Area:

- 17 soil samples collected from five Geoprobe borings (GEO-19 through GEO–23);
- Eight ground water screening samples collected from CPT push-in well screen samplers (CPT-08A-GW through CPT-13-GW, CPT-21-GW, and CPT-22-GW);
- Four ground water samples from new offsite monitoring wells (MW-06 through MW-09);

- Three surface water samples from the northeast drainage pathway (SW-02, SW-03, and SW-04); and
- Five sediment samples from the northeast drainage pathway (SD-01 through SD-05).

4.1.1 Soil

The results of previous investigations have established the extent of affected soil to the southwest and northwest of the Process Area. The extent of affected soil to the southeast (i.e., toward the N.O. & N.E. Railroad right-of-way) and northeast (i.e., toward Scooba Street) of the Process Area had not been determined prior to the Phase II RI. Geoprobe borings GEO-19 through GEO-23 were advanced in these areas during the Phase II RI to further delineate the extent of affected soil.

The constituents reported in soil samples collected during the Phase II RI are identical to those reported previously, i.e., predominantly polycyclic aromatic hydrocarbons (PAHs) with far lesser concentrations of phenolics and phthalates. Of all the soil samples collected during the Phase II RI, the highest concentrations of wood treating constituents were reported in samples from borings advanced near former Process Area operations. Borings GEO-19 through GEO 22 were advanced within areas that likely received site runoff during operational times. In addition, a drainage ditch, which historical aerial photography indicates has existed for years, runs parallel to the railroad tracks between the former Process Area and borings GEO-19 through GEO-21. These factors have likely contributed to the elevated concentrations of wood treating constituents in borings GEO-19 through GEO 22 at depths of up to 10 feet below grade.

Because an access agreement with the N.O. and N.E. Railroad has not been executed, soil sampling activities could not be undertaken within 50 feet of the railroad tracks. This restriction prohibited the complete delineation of affected soil between the former Process Area and the railroad tracks. However, the railroad tracks are elevated above surrounding land and would serve as a natural barrier to any surface flow of affected storm water or process water.

4.1.2 Ground Water

Results of previous investigations indicated that ground water in the uppermost water-bearing zone beneath the former Process Area has been impacted by former wood treating operations. However, analytical data from on-site monitoring wells showed that affected ground water did not extend westward or significantly southward from the former Process Area. The extent of affected ground water to the north and east of the former Process Area had not been defined prior to Phase II RI ground water screening activities.

During the ground water screening phase, ground water samples were collected from one upgradient CPT push (CPT-08A) and seven downgradient pushes (CPT-09 through CPT-13, CPT-21, and CPT-22). With the exception of bis(2-ethylhexyl)phthalate, a common

laboratory artifact, no target constituents were detected above laboratory limits of quantitation in the following five ground water samples:

- CPT-08A-GW
- CPT-10-GW
- CPT-13-GW
- CPT-21-GW
- CPT-22-GW

Target constituents in the low parts per billion range were reported in samples CPT-11-GW and CPT-12-GW. Higher concentrations of target constituents, most notably naphthalene, were reported in sample CPT-09-GW. The data indicated that constituent concentrations decrease dramatically with distance from the former Process Area.

Based on the ground water screening results, monitoring well locations were proposed and subsequently approved by MDEQ. Wells MW-06, MW-07, and MW-08 were installed near CPT-11-GW, CPT-13-GW, and CPT-10-GW, respectively; well MW-09 was installed between CPT-21-GW and CPT-22-GW, immediately adjacent to the northeast drainage pathway.

Analytical results from wells MW-06 through MW-08 mirrored the results from the adjacent ground water screening samples. However, although the results from screening samples CPT-21-GW and CPT-22-GW had been essentially non-detect, the results from well MW-09 indicated the presence of non-carcinogenic PAHs, with concentrations of naphthalene slightly greater than 2 milligrams per liter (mg/l). Upon further review of the data, it appears likely that the presence of site constituents in CPT-12-GW and MW-09 is not the result of lateral migration via the ground water pathway, but has occurred due to the vertical migration of constituents from the northeast drainage pathway. Two observations make this a likely explanation. First, ground water flow velocities indicate that in 60 years, constituents could migrate a maximum of approximately 450 feet offsite (CPT-12-GW and MW-09 are 1,100 and 1,600 feet offsite, respectively). Secondly, no site constituent were detected in samples from wells MW-07 and MW-08, which are located closer to the Process Area than CPT-12-GW and MW-09.

4.1.3 Northeast Drainage Pathway Surface Water and Sediment

No surface water or sediment samples have been collected from the northeast drainage pathway as part of previous studies. During the Phase II RI, three surface water samples (SW-02 through SW-04) and five sediment samples (SD-01 through SD-05) were collected and analyzed to evaluate the potential for offsite migration of site constituents via the surface water pathway. In addition, a sample was collected from the outfall for the Courtesy Ford body shop.

It is important to note that within one week prior to surface water and sediment sampling activities, the City of Hattiesburg conducted routine maintenance of the drainage ditch parallel to the railroad tracks and the first 100 feet of the northeast drainage pathway. The area adjacent to these ditches was cleared of brush, and a trackhoe was used to "muck out" the ditch to promote drainage. The material removed from the ditches was deposited on the

surface of the newly-cleared area. These activities resulted in the exposure of "fresh" creosote-impacted materials within the ditch.

Low concentrations of several PAHs were reported in surface water sample SW-02, collected near the inception of the northeast drainage pathway. However, a slight sheen was present, and this could be the result of the exposure of creosote-impacted sediment/soil in that portion of the ditch. The number of constituents in surface water and their respective concentrations decreased with distance offsite. Only one target constituent, pyrene at a concentration of 0.012 mg/l, was reported in sample SW-04, located approximately 1,000 feet downstream of the site.

Elevated concentrations of PAHs were reported in samples SD-02 through SD-04. Again, it is important to note that sample SD-02 was collected from the portion of the ditch that had recently been "mucked out." As illustrated on Figure 4-7, the benzo(a)pyrene equivalence values calculated for sediment samples decreased with distance offsite, from 199 milligrams per kilogram (mg/kg) in SD-02 to 1.4 mg/kg in SD-05.

4.2 Fill Area

Data from the following samples collected during the Phase II RI activities were used to further delineate the nature and extent of affected media within the Fill Area and Gordon's Creek:

- Five ground water screening samples from temporary piezometers (GEO-16-GW through GEO-20-GW);
- Four ground water samples from new Fill Area monitoring wells (MW-10 through MW-13);
- Six surface water samples from Gordon's Creek (SW-06 through SW-11); and
- Six sediment samples from Gordon's Creek (SD-06 through SD-11).

4.2.1 Ground Water

The results of ground water screening activities confirmed that the area of affected ground water is similar in size and shape to the overlying area of affected soil delineated during the Phase I RI. No target constituents were detected above laboratory limits of quantitation in samples GEO-16-GW, CPT/GEO-18-GW, and GEO-20-GW located south, east, and north, respectively, of the Fill Area. Low to medium concentrations of target constituents were reported in samples GEO-17-GW and GEO-19-GW, which were collected within the area known to contain affected soil. Because site access could not be obtained prior to conducting ground water screening activities, ground water sampling across Gordon's Creek from the Fill Area was deferred until the monitoring well installation phase.

Subsequent to MDEQ approval of proposed locations, wells MW-10, MW-11, and MW-12 were installed near ground water screening locations GEO-16-GW, CPT/GEO-18-GW, and GEO-20-GW, respectively. The samples from MW-10 through MW-12 essentially confirmed the results of ground water screening activities, except that extremely low

concentrations of target constituents were reported in the sample from MW-12. This suggests that well MW-12 is located at the downstream edge of affected ground water.

MW-13 was installed on the northwest bank of Gordon's Creek on Ramada Inn property. No target constituents were reported in samples from well MW-13.

4.2.2 Gordon's Creek Surface Water and Sediment

No surface water and only two sediment samples have been collected from Gordon's Creek as part of previous studies. During the Phase II RI, six surface water samples (SW-06 through SW-11) and six sediment samples (SD-06 through SD-11) were collected and analyzed to evaluate the potential for offsite migration of site constituents via the surface water pathway.

Low concentrations of fluoranthene were reported in surface water samples SW-08 and SW-09 (0.013 and 0.012 mg/l, respectively). No other target constituents were reported in surface water samples from Gordon's Creek at concentrations exceeding laboratory limits of quantitation. PAHs were reported in sediment samples SD-07 through SD-09, albeit at much lower concentration than in the northeast drainage pathway. The lower concentration are likely attributable to two factors. First, although some site constituents have apparently migrated to Gordon's Creek from the Fill Area, Gordon's Creek did not receive discharge or runoff from wood treating operations during operational times. In addition, site constituents are less likely to adhere to the sandy sediments in Gordon's Creek than to the clayey bottom of the northeast drainage pathway.

4.3 Other Onsite Areas

Data from the following samples collected during the Phase II RI activities were used to further delineate the nature and extent of affected media within other onsite areas:

- 43 soil samples from 16 Geoprobe borings (GEO-03, GEO-10, GEO-13, GEO-16 through GEO-18, and GEO-24 through GEO-33);
- Four ground water samples from monitoring wells installed during the Phase I RI (MW-01 and MW-03 through MW-05);

4.3.1 Soil

During the Phase I RI, 18 surface soil samples (i.e., samples from the zero to 1-foot depth interval) were collected from unpaved areas of the site and were analyzed to determine the presence and concentrations of wood treating constituents in near surface soil. Extremely low concentrations of PAHs were reported in all but two of these surface soil samples. During the Phase II RI, samples from deeper intervals were collected at the six surface soil sampling locations that exhibited the highest benzo(a)pyrene equivalence values during the Phase I RI (locations SS-03, SS-10, SS-13, SS-16, SS-17, and SS-18). At all six locations, samples were collected from the 2- to 3-foot and 5- to 6-foot depth intervals to determine the vertical extent of constituents in soil. In addition, a sample was collected from zero to 1 foot at location SS-13 in an attempt to replicate the Phase I result.

At locations GEO-03 and GEO-16 through GEO-18, no target constituents were reported in samples from the 2- to 3-foot and 5- to 6-foot intervals. At locations GEO-10 and GEO-13, benzo(b)fluoranthene was reported in the deeper intervals, but was present at levels significantly lower than in surface soil samples. These results show that target constituents at these six locations are essentially confined to only near surface soil.
Concentrations of target constituents in GEO-13/0'-1' were three to four times greater than those reported in Phase RI sample SS-01. Although this difference is significant, the reported values from the two events are within the same order of magnitude.

Borings GEO-24, GEO-26, GEO-32, and GEO-33 were advanced within areas that had not previously been sampled to provide additional site coverage. Samples were collected from the zero to 1-foot, 2- to 3-foot, and 5- to 6-foot depth intervals.

No target constituents were reported in any of the three samples from GEO-24 or GEO-26. Borings GEO-32 and GEO-33 were advanced within areas that were historically used for the storage of treated wood; GEO-33 may have actually been advanced within the former "drip track" area. Low concentrations of target constituents were reported in two of the three samples collected from GEO-32. Elevated concentrations of target constituents were reported in the zero to 1-foot sample from GEO-33. However, constituent concentrations decreased dramatically in the 2- to 3-foot sample, and were almost non-detect in the 5- to 6-foot sample. This observation is consistent with experience at other wood treating sites, that is that constituents within former treated wood storage areas are typically confined to the upper several feet below grade.

Soil samples were collected at locations GEO-25 and GEO-27 to verify the results of previous studies. During a 1994 study of the Ryan/RSCO property by Bonner Analytical Testing Company (BATCO), two borings (BH #3 and BH#4) were advanced near the intersection of West Pine Street and Timothy Lane; three borings (BH#8, BH#9, and BH#10) were advanced within the fenced area behind Ryan Mitsubishi. No target constituents were reported in soil samples from BH#3, BH#4, or BH#9; low concentrations of target constituents were reported in soil samples from BH#8 and BH#10.

The soil samples from the borings in the Bonner study were generally composite samples, therefore a comparison to results from discrete grab samples is difficult. No target constituents were reported in any of the three samples collected from GEO-27, located within the fenced area behind Ryan Mitsubishi. A single target constituent, benzo(b)fluoranthene, was reported above the laboratory limit of quantitation in the zero to 1-foot sample from GEO-25, located near the intersection of West Pine and Timothy. No target constituents, however, were reported in samples from the 2- to 3-foot and 5- to 6-foot intervals.

Numerous subsurface soil samples were collected in the area at the northeast end of the former Gibson's Shopping Center during two BATCO studies conducted in 1994 and 1995. This area is known to have been utilized historically for the storage of treated wood. Results of previous studies indicate that the target constituents are confined to the

uppermost two feet of soil. Borings GEO-28 through GEO-31 were advanced at the former Gibson's Shopping Center to verify previous results.

Target constituents were reported in the zero to 1-foot samples collected from borings GEO-28 through GEO-30. No target constituents were reported in samples from the deeper intervals in these borings, or from any of the samples collected from GEO-31. These results confirm that target constituents in this portion of the former treated wood storage area are confined to the uppermost two feet of soil.

4.3.2 Ground Water

During the Phase I RI, four monitoring wells (MW-01, MW-03, MW-04, and MW-05) were installed to evaluate water levels and ground water quality on a site-wide basis (i.e., in neither the Process Area or Fill Area). Ground water samples were collected from these four wells as part of the Phase II RI. Samples were analyzed for TCL SVOCs by SW-846 Method 8270. In order to achieve detection limits as low as maximum contaminant levels (MCLs) for public drinking water supplies, samples were also analyzed by SW-846 Method 8310.

No target constituents were reported in any of the four samples analyzed by Method 8270. Several PAHs were reported at extremely low concentrations by Method 8310 analyses. None of the reported values approached any established MCL.

Table 4-1
Soil Sample Data Summary
Phase II Remedial Investigation

Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	Cas Registry Number	Units	Sample Identifier: GEO-03 (2' - 3')	GEO-03 (5' - 6')	GEO-03 (5' - 6') Duplicate (a)	GEO-10 (2' - 3')	GEO-10 (5' - 6')	GEO-10 (0' - 1')	GEO-13 (2' - 3')	GEO-13 (5' - 6')
TCL Semivolatile Organics (b)										
1,2,4-trichlorobenzene	120-82-1	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	ND (0.036) U	ND (0.039) U	ND (0.038) U
1,2-dichlorobenzene	95-50-1	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	ND (0.036) U	ND (0.039) U	ND (0.038) U
1,3-dichlorobenzene	541-73-1	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	ND (0.036) U	ND (0.039) U	ND (0.038) U
1,4-dichlorobenzene	106-46-7	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	ND (0.036) U	ND (0.039) U	ND (0.038) U
2,2'-oxybis (1-chloropropane)	108-60-1	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	ND (0.036) U	ND (0.039) U	ND (0.038) U
2,4,5-trichlorophenol	95-95-4	mg/kg	ND (0.073) U	ND (0.075) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.072) U	ND (0.078) U	ND (0.076) U
2,4,6-trichlorophenol	88-06-2	mg/kg	ND (0.073) U	ND (0.075) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.072) U	ND (0.078) U	ND (0.076) U
2,4-dichlorophenol	120-83-2	mg/kg	ND (0.073) U	ND (0.075) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.072) U	ND (0.078) U	ND (0.076) U
2,4-dimethylphenol	105-67-9	mg/kg	ND (0.073) U	ND (0.075) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.072) U	ND (0.078) U	ND (0.076) U
2,4-dinitrophenol	51-28-5	mg/kg	ND (0.21) U	ND (0.22) U	ND (0.22) U	ND (0.22) U	ND (0.22) U	ND (0.21) U	ND (0.23) U	ND (0.22) U
2,4-dinitrotoluene	121-14-2	mg/kg	ND (0.073) U	ND (0.075) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.072) U	ND (0.078) U	ND (0.076) U
2,6-dinitrotoluene	606-20-2	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	ND (0.036) U	ND (0.039) U	ND (0.038) U
2-chloronaphthalene	91-58-7	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	ND (0.036) U	ND (0.039) U	ND (0.038) U
2-chlorophenol	95-57-8	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	ND (0.036) U	ND (0.039) U	ND (0.038) U
2-methylnaphthalene	91-57-6	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	0.07 (0.036) J	ND (0.039) U	ND (0.038) U
2-methylphenol	95-48-7	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	ND (0.036) U	ND (0.039) U	ND (0.038) U
2-nitroaniline	88-74-4	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	ND (0.036) U	ND (0.039) U	ND (0.038) U
2-nitrophenol	88-75-5	mg/kg	ND (0.073) U	ND (0.075) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.072) U	ND (0.078) U	ND (0.076) U
3,3'-dichlorobenzidine	91-94-1	mg/kg	ND (0.073) U	ND (0.075) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.072) U	ND (0.078) U	ND (0.076) U
3- and 4-methylphenol	106-44-5	mg/kg	ND (0.073) U	ND (0.075) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.072) U	ND (0.078) U	ND (0.076) U
3-nitroaniline	99-09-2	mg/kg	ND (0.073) U	ND (0.075) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.072) U	ND (0.078) U	ND (0.076) U
4,6-dinitro-2-methylphenol	534-52-1	mg/kg	ND (0.18) U	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.18) U	ND (0.2) U	ND (0.19) U
4-bromophenyl phenyl ether	101-55-3	mg/kg	ND (0.073) U	ND (0.075) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.072) U	ND (0.078) U	ND (0.076) U
4-chloro-3-methylphenol	59-50-7	mg/kg	ND (0.073) U	ND (0.075) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.072) U	ND (0.078) U	ND (0.076) U
4-chloroaniline	106-47-8	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	ND (0.036) U	ND (0.039) U	ND (0.038) U
4-chlorophenyl phenyl ether	7005-72-3	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	ND (0.036) U	ND (0.039) U	ND (0.038) U
4-nitroaniline	100-01-6	mg/kg	ND (0.073) U	ND (0.075) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.072) U	ND (0.078) U	ND (0.076) U
4-nitrophenol	100-02-7	mg/kg	ND (0.18) U	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.18) U	ND (0.2) U	ND (0.19) U
acenaphthene	83-32-9	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	0.049 (0.036) J	ND (0.039) U	ND (0.038) U
acenaphthylene	208-96-8	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	1.3 (0.036)	ND (0.039) U	ND (0.038) U
anthracene	120-12-7	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	1.6 (0.036)	ND (0.039) U	ND (0.038) U
benzo (a) anthracene	56-55-3	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	6.7 (0.18)	0.041 (0.039) J	ND (0.038) U
benzo (a) pyrene	50-32-8	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	5.2 (0.18)	ND (0.039) U	ND (0.038) U
benzo (b) fluoranthene	205-99-2	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	0.4 (0.038)	0.39 (0.038)	9.2 (0.18)	0.45 (0.039)	ND (0.038) U
benzo (ghi) perylene	191-24-2	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	2.3 (0.036)	ND (0.039) U	ND (0.038) U
benzo (k) fluoranthene	207-08-9	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	0.33 (0.038) J	0.33 (0.038) J	3.6 (0.036)	0.35 (0.039) J	ND (0.038) U
bis (2-chloroethoxy) methane	111-91-1	mg/kg	ND (0.073) U	ND (0.075) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.072) U	ND (0.078) U	ND (0.076) U
bis (2-chloroethyl) ether	111-44-4	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	ND (0.036) U	ND (0.039) U	ND (0.038) U
bis (2-ethylhexyl) phthalate	117-81-7	mg/kg	ND (0.073) U	ND (0.075) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.072) U	ND (0.078) U	0.37 (0.076) J (d)
butyl benzyl phthalate	85-68-7	mg/kg	ND (0.073) U	ND (0.075) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.072) U	ND (0.078) U	ND (0.076) U
carbazole	86-74-8	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	0.35 (0.036) J	ND (0.039) U	ND (0.038) U
chrysene	218-01-9	mg/kg	ND (0.037) UJ	ND (0.037) UJ	ND (0.038) U	ND (0.038) UJ	ND (0.038) UJ	8 (0.18)	0.051 (0.039) J	ND (0.038) UJ
di-n-butyl phthalate	84-74-2	mg/kg	ND (0.073) U	ND (0.075) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.072) U	ND (0.078) U	ND (0.076) U
di-n-octyl phthalate	117-84-0	mg/kg	ND (0.073) U	ND (0.075) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.072) U	ND (0.078) U	ND (0.076) U
dibenz (a,h) anthracene	53-70-3	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	0.91 (0.036)	ND (0.039) U	ND (0.038) U
dibenzofuran	132-64-9	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	0.072 (0.036) J	ND (0.039) U	ND (0.038) U
diethyl phthalate	84-66-2	mg/kg	ND (0.073) U	ND (0.075) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.072) U	ND (0.078) U	ND (0.076) U
dimethyl phthalate	131-11-3	mg/kg	ND (0.073) U	ND (0.075) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.072) U	ND (0.078) U	ND (0.076) U
fluoranthene	206-44-0	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	12 (0.18)	0.05 (0.039) J	ND (0.038) U
fluorene	86-73-7	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	0.37 (0.036)	0.33 (0.039) J	ND (0.038) U
hexachlorobenzene	118-74-1	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	ND (0.036) U	ND (0.039) U	ND (0.038) U
hexachlorobutadiene	87-68-3	mg/kg	ND (0.073) U	ND (0.075) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.072) U	ND (0.078) U	ND (0.076) U
hexachlorocyclopentadiene	77-47-4	mg/kg	ND (0.18) U	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.18) U	ND (0.2) U	ND (0.19) U
hexachloroethane	67-72-1	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	ND (0.036) U	ND (0.039) U	ND (0.038) U
indeno (1,2,3-cd) pyrene	193-39-5	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	3.7 (0.036)	ND (0.039) U	ND (0.038) U
isophorone	78-59-1	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	ND (0.036) U	ND (0.039) U	ND (0.038) U
N-nitrosodi-n-propylamine	621-64-7	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	ND (0.036) U	ND (0.039) U	ND (0.038) U
N-nitrosodiphenylamine	86-30-6	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	ND (0.036) U	ND (0.039) U	ND (0.038) U
naphthalene	91-20-3	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	0.088 (0.036) J	ND (0.039) U	ND (0.038) U
nitrobenzene	98-95-3	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	ND (0.036) U	ND (0.039) U	ND (0.038) U
pentachlorophenol	87-86-5	mg/kg	ND (0.18) U	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.18) U	ND (0.2) U	ND (0.19) U
phenanthrene	85-01-8	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	0.74 (0.036)	ND (0.039) U	ND (0.038) U
phenol	108-95-2	mg/kg	ND (0.073) U	0.19 (0.075) J	0.26 (0.075) J	ND (0.076) U	0.11 (0.076) J	ND (0.072) U	ND (0.078) U	ND (0.076) U
pyrene	129-00-0	mg/kg	ND (0.037) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.038) U	14 (0.18)	0.068 (0.039) J	ND (0.038) U
Other Parameters										
Moisture Content (c)	N.A.	wt %	9.02 (0.1)	10.8 (0.08)	11.3 (0.08)	11.7 (0.08)	12.8 (0.08)	7.58 (0.08)	14.8 (0.08)	12.5 (0.08)

Notes:
ND denotes "Not Detected" at method detection limit shown in parentheses.
(a) Listed on chain-of-custody documentation as sample GEO-34/2'-3'.
(b) Target Compound List (TCL) base neutral/acid-extractable organic compounds by EPA SW-846 method 8270, reported as dry-weight concentrations.
(c) EPA method 160.3 (*Methods for Chemical Analysis of Water and Wastes,* March 1983).
(d) Low concentrations of this common laboratory contaminant warrant caution if this value is used as basis for environmental risk assessment or other decision-making process.
U qualifier denotes not detected.
J qualifier denotes quantitiation is estimated due to limitiations identified during the data validation quality assurance review.
UJ qualifier denotes that the compound was not detected, but the quantitation limit may or may not be higher than the value shown in parentheses due to a bias identified during the data validation quality assurance review.

Table 4-1
(Continued)
Soil Sample Data Summary
Phase II Remedial Investigation

Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Registry Number	Units	Sample Identifier: GEO-16 (2' - 3')			GEO-16 (5' - 6')			GEO-17 (2' - 3')			GEO-17 (5' - 6')			GEO-17 (5' - 6') Duplicate (a)		
TCL Semivolatile Organics (b)																	
1,2,4-trichlorobenzene	120-82-1	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
1,2-dichlorobenzene	95-50-1	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
1,3-dichlorobenzene	541-73-1	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
1,4-dichlorobenzene	106-46-7	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
2,2'-oxybis (1-chloropropane)	108-60-1	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
2,4,5-trichlorophenol	95-95-4	mg/kg	ND	(0.076)	U	ND	(0.079)	U	ND	(0.075)	U	ND	(0.077)	U	ND	(0.075)	U
2,4,6-trichlorophenol	88-06-2	mg/kg	ND	(0.076)	U	ND	(0.079)	U	ND	(0.075)	U	ND	(0.077)	U	ND	(0.075)	U
2,4-dichlorophenol	120-83-2	mg/kg	ND	(0.076)	U	ND	(0.079)	U	ND	(0.075)	U	ND	(0.077)	U	ND	(0.075)	U
2,4-dimethylphenol	105-67-9	mg/kg	ND	(0.076)	U	ND	(0.079)	U	ND	(0.075)	U	ND	(0.077)	U	ND	(0.075)	U
2,4-dinitrophenol	51-28-5	mg/kg	ND	(0.22)	U	ND	(0.23)	UJ	ND	(0.22)	UJ	ND	(0.22)	UJ	ND	(0.22)	U
2,4-dinitrotoluene	121-14-2	mg/kg	ND	(0.076)	U	ND	(0.079)	U	ND	(0.075)	U	ND	(0.077)	U	ND	(0.075)	U
2,6-dinitrotoluene	606-20-2	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
2-chloronaphthalene	91-58-7	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
2-chlorophenol	95-57-8	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
2-methylnaphthalene	91-57-6	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
2-methylphenol	95-48-7	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
2-nitroaniline	88-74-4	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
2-nitrophenol	88-75-5	mg/kg	ND	(0.076)	U	ND	(0.079)	U	ND	(0.075)	U	ND	(0.077)	U	ND	(0.075)	U
3,3'-dichlorobenzidine	91-94-1	mg/kg	ND	(0.076)	U	ND	(0.079)	U	ND	(0.075)	U	ND	(0.077)	U	ND	(0.075)	U
3- and 4-methylphenol	106-44-5	mg/kg	ND	(0.076)	U	ND	(0.079)	U	ND	(0.075)	U	ND	(0.077)	U	ND	(0.075)	U
3-nitroaniline	99-09-2	mg/kg	ND	(0.076)	U	ND	(0.079)	U	ND	(0.075)	U	ND	(0.077)	U	ND	(0.075)	U
4,6-dinitro-2-methylphenol	534-52-1	mg/kg	ND	(0.19)	U	ND	(0.2)	UJ	ND	(0.19)	UJ	ND	(0.19)	UJ	ND	(0.19)	U
4-bromophenyl phenyl ether	101-55-3	mg/kg	ND	(0.076)	U	ND	(0.079)	U	ND	(0.075)	U	ND	(0.077)	U	ND	(0.075)	U
4-chloro-3-methylphenol	59-50-7	mg/kg	ND	(0.076)	U	ND	(0.079)	U	ND	(0.075)	U	ND	(0.077)	U	ND	(0.075)	U
4-chloroaniline	106-47-8	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
4-chlorophenyl phenyl ether	7005-72-3	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
4-nitroaniline	100-01-6	mg/kg	ND	(0.076)	U	ND	(0.079)	U	ND	(0.075)	U	ND	(0.077)	U	ND	(0.075)	U
4-nitrophenol	100-02-7	mg/kg	ND	(0.19)	U	ND	(0.2)	U	ND	(0.19)	U	ND	(0.19)	U	ND	(0.19)	U
acenaphthene	83-32-9	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
acenaphthylene	208-96-8	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
anthracene	120-12-7	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
benzo (a) anthracene	56-55-3	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
benzo (a) pyrene	50-32-8	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
benzo (b) fluoranthene	205-99-2	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
benzo (ghi) perylene	191-24-2	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
benzo (k) fluoranthene	207-08-9	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
bis (2-chloroethoxy) methane	111-91-1	mg/kg	ND	(0.076)	U	ND	(0.079)	U	ND	(0.075)	U	ND	(0.077)	U	ND	(0.075)	U
bis (2-chloroethyl) ether	111-44-4	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
bis (2-ethylhexyl) phthalate	117-81-7	mg/kg	ND	(0.076)	U	ND	(0.079)	U	ND	(0.075)	U	ND	(0.077)	U	ND	(0.075)	U
butyl benzyl phthalate	85-68-7	mg/kg	ND	(0.076)	U	ND	(0.079)	U	ND	(0.075)	U	ND	(0.077)	U	ND	(0.075)	U
carbazole	86-74-8	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
chrysene	218-01-9	mg/kg	ND	(0.038)	UJ	ND	(0.04)	UJ	ND	(0.037)	UJ	ND	(0.038)	UJ	ND	(0.038)	U
di-n-butyl phthalate	84-74-2	mg/kg	ND	(0.076)	U	ND	(0.079)	U	ND	(0.075)	U	ND	(0.077)	U	ND	(0.075)	U
di-n-octyl phthalate	117-84-0	mg/kg	ND	(0.076)	U	ND	(0.079)	U	ND	(0.075)	U	ND	(0.077)	U	ND	(0.075)	U
dibenz (a,h) anthracene	53-70-3	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
dibenzofuran	132-64-9	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
diethyl phthalate	84-66-2	mg/kg	ND	(0.076)	U	ND	(0.079)	U	ND	(0.075)	U	ND	(0.077)	U	ND	(0.075)	U
dimethyl phthalate	131-11-3	mg/kg	ND	(0.076)	U	ND	(0.079)	U	ND	(0.075)	U	ND	(0.077)	U	ND	(0.075)	U
fluoranthene	206-44-0	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
fluorene	86-73-7	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
hexachlorobenzene	118-74-1	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	R
hexachlorobutadiene	87-68-3	mg/kg	ND	(0.076)	U	ND	(0.079)	U	ND	(0.075)	U	ND	(0.077)	U	ND	(0.075)	U
hexachlorocyclopentadiene	77-47-4	mg/kg	ND	(0.19)	U	ND	(0.2)	U	ND	(0.19)	U	ND	(0.19)	U	ND	(0.19)	U
hexachloroethane	67-72-1	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
indeno (1,2,3-cd) pyrene	193-39-5	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
isophorone	78-59-1	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
N-nitrosodi-n-propylamine	621-64-7	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
N-nitrosodrphenylamine	86-30-6	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
naphthalene	91-20-3	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
nitrobenzene	98-95-3	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
pentachlorophenol	87-86-5	mg/kg	ND	(0.19)	U	ND	(0.2)	U	ND	(0.19)	U	ND	(0.19)	U	ND	(0.19)	U
phenanthrene	85-01-8	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
phenol	108-95-2	mg/kg	ND	(0.076)	U	ND	(0.079)	U	0.096	(0.075)	J	0.19	(0.077)	J	0.27	(0.075)	J
pyrene	129-00-0	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.038)	U	ND	(0.038)	U
Other Parameters																	
Moisture Content (c)	N.A.	wt. %	12.3	(0.08)		15.7	(0.08)		11.0	(0.08)		13.2	(0.08)		11.6	(0.08)	

Notes:
ND denotes "Not Detected" at method detection limit shown in parentheses.
(a) Listed on chain-of-custody documentation as sample GEO-34/5'-6'.
(b) Target Compound List (TCL) base neutral/acid-extractable organic compounds by EPA SW-846 method 8270, reported as dry-weight concentrations.
(c) EPA method 160.3 (*Methods for Chemical Analysis of Water and Wastes,* March 1983).
U qualifier denotes not detected.
J qualifier denotes quantitiation is estimated due to limitiations identified during the data validation quality assurance review.
UJ qualifier denotes that the compound was not detected. but the quantitation limit may or may not be higher than the value shown in parentheses due to a bias identified during the data validation quality assurance review.
R qualifier denotes unusable result identified during data validation quality assurance review; compound may or may not be present in the sample.

Table 4-1
(Continued)
Soil Sample Data Summary
Phase II Remedial Investigation

Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Registry Number	Units	Sample Identifier: GEO-18 (2' - 3')			GEO-18 (5' - 6')			GEO-19 (0' - 1')			GEO-19 (2' - 3')			GEO-19 (5' - 6')		
TCL Semivolatile Organics (a)																	
1,2,4-trichlorobenzene	120-82-1	mg/kg	ND	(0.038)	U	ND	(0.038)	U	ND	(0.037)	U	ND	(0.037)	U	ND	(0.038)	U
1,2-dichlorobenzene	95-50-1	mg/kg	ND	(0.038)	U	ND	(0.038)	U	ND	(0.037)	U	ND	(0.037)	U	ND	(0.038)	U
1,3-dichlorobenzene	541-73-1	mg/kg	ND	(0.038)	U	ND	(0.038)	U	ND	(0.037)	U	ND	(0.037)	U	ND	(0.038)	U
1,4-dichlorobenzene	106-46-7	mg/kg	ND	(0.038)	U	ND	(0.038)	U	ND	(0.037)	U	ND	(0.037)	U	ND	(0.038)	U
2,2'-oxybis (1-chloropropane)	108-60-1	mg/kg	ND	(0.038)	U	ND	(0.038)	U	ND	(0.037)	U	ND	(0.037)	U	ND	(0.038)	U
2,4,5-trichlorophenol	95-95-4	mg/kg	ND	(0.076)	U	ND	(0.076)	U	ND	(0.074)	U	ND	(0.073)	U	ND	(0.075)	U
2,4,6-trichlorophenol	88-06-2	mg/kg	ND	(0.076)	U	ND	(0.076)	U	ND	(0.074)	U	ND	(0.073)	U	ND	(0.075)	U
2,4-dichlorophenol	120-83-2	mg/kg	ND	(0.076)	U	ND	(0.076)	U	ND	(0.074)	U	ND	(0.073)	U	ND	(0.075)	U
2,4-dimethylphenol	105-67-9	mg/kg	ND	(0.076)	U	ND	(0.076)	U	0.25	(0.074)	J	ND	(0.073)	U	ND	(0.075)	U
2,4-dinitrophenol	51-28-5	mg/kg	ND	(0.22)	UJ	ND	(0.22)	UJ	ND	(0.22)	U	ND	(0.21)	U	ND	(0.22)	U
2,4-dinitrotoluene	121-14-2	mg/kg	ND	(0.076)	U	ND	(0.076)	U	ND	(0.074)	U	ND	(0.073)	U	ND	(0.075)	U
2,6-dinitrotoluene	606-20-2	mg/kg	ND	(0.038)	U	ND	(0.038)	U	ND	(0.037)	U	ND	(0.037)	U	ND	(0.038)	U
2-chloronaphthalene	91-58-7	mg/kg	ND	(0.038)	U	ND	(0.038)	U	ND	(0.037)	U	ND	(0.037)	U	ND	(0.038)	U
2-chlorophenol	95-57-8	mg/kg	ND	(0.038)	U	ND	(0.038)	U	ND	(0.037)	U	ND	(0.037)	U	ND	(0.038)	U
2-methylnaphthalene	91-57-6	mg/kg	ND	(0.038)	U	ND	(0.038)	U	0.53	(0.037)		0.062	(0.037)	J	0.38	(0.038)	
2-methylphenol	95-48-7	mg/kg	ND	(0.038)	U	ND	(0.038)	U	0.073	(0.037)	J	ND	(0.037)	U	ND	(0.038)	U
2-nitroaniline	88-74-4	mg/kg	ND	(0.038)	U	ND	(0.038)	U	ND	(0.037)	U	ND	(0.037)	U	ND	(0.038)	U
2-nitrophenol	88-75-5	mg/kg	ND	(0.076)	U	ND	(0.076)	U	ND	(0.074)	U	ND	(0.073)	U	ND	(0.075)	U
3,3'-dichlorobenzidine	91-94-1	mg/kg	ND	(0.076)	U	ND	(0.076)	U	ND	(0.074)	U	ND	(0.073)	U	ND	(0.075)	U
3- and 4-methylphenol	106-44-5	mg/kg	ND	(0.076)	U	ND	(0.076)	U	0.21	(0.074)	J	ND	(0.073)	U	ND	(0.075)	U
3-nitroaniline	99-09-2	mg/kg	ND	(0.076)	U	ND	(0.076)	U	ND	(0.074)	U	ND	(0.073)	U	ND	(0.075)	U
4,6-dinitro-2-methylphenol	534-52-1	mg/kg	ND	(0.19)	UJ	ND	(0.19)	UJ	ND	(0.18)	U	ND	(0.18)	U	ND	(0.19)	U
4-bromophenyl phenyl ether	101-55-3	mg/kg	ND	(0.076)	U	ND	(0.076)	U	ND	(0.074)	U	ND	(0.073)	U	ND	(0.075)	U
4-chloro-3-methylphenol	59-50-7	mg/kg	ND	(0.076)	U	ND	(0.076)	U	ND	(0.074)	U	ND	(0.073)	U	ND	(0.075)	U
4-chloroaniline	106-47-8	mg/kg	ND	(0.038)	U	ND	(0.038)	U	ND	(0.037)	U	ND	(0.037)	U	ND	(0.038)	U
4-chlorophenyl phenyl ether	7005-72-3	mg/kg	ND	(0.038)	U	ND	(0.038)	U	ND	(0.037)	U	ND	(0.037)	U	ND	(0.038)	U
4-nitroaniline	100-01-6	mg/kg	ND	(0.076)	U	ND	(0.076)	U	ND	(0.074)	U	ND	(0.073)	U	ND	(0.075)	U
4-nitrophenol	100-02-7	mg/kg	ND	(0.19)	U	ND	(0.19)	U	ND	(0.18)	U	ND	(0.18)	U	ND	(0.19)	U
acenaphthene	83-32-9	mg/kg	ND	(0.038)	U	ND	(0.038)	U	1	(0.037)		0.097	(0.037)	J	1.4	(0.038)	
acenaphthylene	208-96-8	mg/kg	ND	(0.038)	U	ND	(0.038)	U	14	(0.37)		0.69	(0.037)		0.083	(0.038)	J
anthracene	120-12-7	mg/kg	ND	(0.038)	U	ND	(0.038)	U	25	(0.37)		1.6	(0.037)		1.5	(0.038)	
benzo (a) anthracene	56-55-3	mg/kg	ND	(0.038)	U	ND	(0.038)	U	63	(1.1)		3	(0.037)		0.81	(0.038)	
benzo (a) pyrene	50-32-8	mg/kg	ND	(0.038)	U	ND	(0.038)	U	56	(0.37)		2.4	(0.037)		0.29	(0.038)	J
benzo (b) fluoranthene	205-99-2	mg/kg	ND	(0.038)	U	ND	(0.038)	U	93	(1.1)		4.4	(0.037)		0.37	(0.038)	J
benzo (ghi) perylene	191-24-2	mg/kg	ND	(0.038)	U	ND	(0.038)	U	24	(0.37)		1	(0.037)		0.065	(0.038)	J
benzo (k) fluoranthene	207-08-9	mg/kg	ND	(0.038)	U	ND	(0.038)	U	32	(0.37)		1.5	(0.037)		0.16	(0.038)	J
bis (2-chloroethoxy) methane	111-91-1	mg/kg	ND	(0.076)	U	ND	(0.076)	U	ND	(0.074)	U	ND	(0.073)	U	ND	(0.075)	U
bis (2-chloroethyl) ether	111-44-4	mg/kg	ND	(0.038)	U	ND	(0.038)	U	ND	(0.037)	U	ND	(0.037)	U	ND	(0.038)	U
bis (2-ethylhexyl) phthalate	117-81-7	mg/kg	ND	(0.076)	U	ND	(0.076)	U	ND	(0.074)	U	ND	(0.073)	U	ND	(0.075)	U
butyl benzyl phthalate	85-68-7	mg/kg	ND	(0.076)	U	ND	(0.076)	U	ND	(0.074)	U	ND	(0.073)	U	ND	(0.075)	U
carbazole	86-74-8	mg/kg	ND	(0.038)	UJ	ND	(0.038)	U	5.9	(0.37)		0.4	(0.037)		0.49	(0.038)	
chrysene	218-01-9	mg/kg	ND	(0.038)	UJ	ND	(0.038)	UJ	66	(1.1)		3.3	(0.037)		0.61	(0.038)	
di-n-butyl phthalate	84-74-2	mg/kg	ND	(0.076)	U	ND	(0.076)	U	ND	(0.074)	U	ND	(0.073)	U	ND	(0.075)	U
di-n-octyl phthalate	117-84-0	mg/kg	ND	(0.076)	U	ND	(0.076)	U	ND	(0.074)	U	ND	(0.073)	U	ND	(0.075)	U
dibenz (a,h) anthracene	53-70-3	mg/kg	ND	(0.038)	U	ND	(0.038)	U	8.4	(0.37)		0.37	(0.037)		ND	(0.038)	U
dibenzofuran	132-64-9	mg/kg	ND	(0.038)	U	ND	(0.038)	U	0.75	(0.037)		0.078	(0.037)	J	1.6	(0.038)	
diethyl phthalate	84-66-2	mg/kg	ND	(0.076)	U	ND	(0.076)	U	ND	(0.074)	U	ND	(0.073)	U	ND	(0.075)	U
dimethyl phthalate	131-11-3	mg/kg	ND	(0.076)	U	ND	(0.076)	U	ND	(0.074)	U	ND	(0.073)	U	ND	(0.075)	U
fluoranthene	206-44-0	mg/kg	ND	(0.038)	U	ND	(0.038)	U	110	(1.1)		5.9	(0.037)		3.3	(0.038)	
fluorene	86-73-7	mg/kg	ND	(0.038)	U	ND	(0.038)	U	1.4	(0.037)		0.14	(0.037)	J	2.2	(0.038)	
hexachlorobenzene	118-74-1	mg/kg	ND	(0.038)	U	ND	(0.038)	U	ND	(0.037)	U	ND	(0.037)	U	ND	(0.038)	U
hexachlorobutadiene	87-68-3	mg/kg	ND	(0.076)	U	ND	(0.076)	U	ND	(0.074)	U	ND	(0.073)	U	ND	(0.075)	U
hexachlorocyclopentadiene	77-47-4	mg/kg	ND	(0.19)	U	ND	(0.19)	U	ND	(0.18)	U	ND	(0.18)	U	ND	(0.19)	U
hexachloroethane	67-72-1	mg/kg	ND	(0.038)	U	ND	(0.038)	U	ND	(0.037)	U	ND	(0.037)	U	ND	(0.038)	U
indeno (1,2,3-cd) pyrene	193-39-5	mg/kg	ND	(0.038)	U	ND	(0.038)	U	32	(0.37)		1.3	(0.037)		0.094	(0.038)	J
isophorone	78-59-1	mg/kg	ND	(0.038)	U	ND	(0.038)	U	ND	(0.037)	U	ND	(0.037)	U	ND	(0.038)	U
N-nitrosodi-n-propylamine	621-64-7	mg/kg	ND	(0.038)	U	ND	(0.038)	U	ND	(0.037)	U	ND	(0.037)	U	ND	(0.038)	U
N-nitrosodiphenylamine	86-30-6	mg/kg	ND	(0.038)	U	ND	(0.038)	U	ND	(0.037)	U	ND	(0.037)	U	ND	(0.038)	U
naphthalene	91-20-3	mg/kg	ND	(0.038)	U	ND	(0.038)	U	0.77	(0.037)		0.076	(0.037)	J	0.4	(0.038)	
nitrobenzene	98-95-3	mg/kg	ND	(0.038)	U	ND	(0.038)	U	ND	(0.037)	U	ND	(0.037)	U	ND	(0.038)	U
pentachlorophenol	87-86-5	mg/kg	ND	(0.19)	U	ND	(0.19)	U	ND	(0.18)	U	ND	(0.18)	U	ND	(0.19)	U
phenanthrene	85-01-8	mg/kg	ND	(0.038)	U	ND	(0.038)	U	7.7	(0.37)		0.56	(0.037)		7.6	(0.075)	
phenol	108-95-2	mg/kg	ND	(0.076)	U	0.22	(0.076)	J	ND	(0.074)	U	ND	(0.073)	U	ND	(0.075)	U
pyrene	129-00-0	mg/kg	ND	(0.038)	U	ND	(0.038)	U	140	(1.1)		7.9	(0.073)		2.2	(0.038)	
Other Parameters																	
Moisture Content (b)	N.A.	wt. %	11.9	(0.08)		11.8	(0.08)		9.64	(0.08)		8.97	(0.08)		11.3	(0.08)	

Notes:

ND denotes "Not Detected" at method detection limit shown in parentheses.

(a) Target Compound List (TCL) base neutral/acid-extractable organic compounds by EPA SW-846 method 8270, reported as dry-weight concentrations.

(b) EPA method 160.3 (*Methods for Chemical Analysis of Water and Wastes*, March 1983).

U qualifier denotes not detected.

J qualifier denotes quantitiation is estimated due to limitiations identified during the data validation quality assurance review.

UJ qualifier denotes that the compound was not detected, but the quantitation limit may or may not be higher than the value shown in parentheses due to a bias identified during the data validation quality assurance review.

Table 4-1
(Continued)
Soil Sample Data Summary
Phase II Remedial Investigation

Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Registry Number	Units	Sample Identifier																			
			GEO-20								GEO-21											
			(0' - 1')		(2' - 3')		(5' - 6')		(9' - 10')		(0' - 1')		(2' - 3')		(5' - 6')		(9' - 10')					
TCL Semivolatile Organics (a)																						
1,2,4-trichlorobenzene	120-82-1	mg/kg	ND	(0.2)	ND	(0.04) U	ND	(0.19)	ND	(0.037) U	ND	(5)	ND	(2.6)	ND	(0.038) U	ND	(0.04) U				
1,2-dichlorobenzene	95-50-1	mg/kg	ND	(0.2)	ND	(0.04) U	ND	(0.19)	ND	(0.037) U	ND	(5)	ND	(2.6)	ND	(0.038) U	ND	(0.04) U				
1,3-dichlorobenzene	541-73-1	mg/kg	ND	(0.2)	ND	(0.04) U	ND	(0.19)	ND	(0.037) U	ND	(5)	ND	(2.6)	ND	(0.038) U	ND	(0.04) U				
1,4-dichlorobenzene	106-46-7	mg/kg	ND	(0.2)	ND	(0.04) U	ND	(0.19)	ND	(0.037) U	ND	(5)	ND	(2.6)	ND	(0.038) U	ND	(0.04) U				
2,2'-oxybis (1-chloropropane)	108-60-1	mg/kg	ND	(0.2)	ND	(0.04) UJ	ND	(0.19) UJ	ND	(0.037) UJ	ND	(5) UJ	ND	(2.6) UJ	ND	(0.038) UJ	ND	(0.04) UJ				
2,4,5-trichlorophenol	95-95-4	mg/kg	ND	(0.41)	ND	(0.079) U	ND	(0.38)	ND	(0.075) U	ND	(9.9)	ND	(5.1)	ND	(0.077) U	ND	(0.08) U				
2,4,6-trichlorophenol	88-06-2	mg/kg	ND	(0.41)	ND	(0.079) U	ND	(0.38)	ND	(0.075) U	ND	(9.9)	ND	(5.1)	ND	(0.077) U	ND	(0.08) U				
2,4-dichlorophenol	120-83-2	mg/kg	ND	(0.41)	ND	(0.079) U	ND	(0.38)	ND	(0.075) U	ND	(9.9)	ND	(5.1)	ND	(0.077) U	ND	(0.08) U				
2,4-dimethylphenol	105-67-9	mg/kg	ND	(0.41)	ND	(0.079) U	ND	(0.38)	ND	(0.075) U	ND	(9.9)	8.9	(5.1) J	0.079	(0.077) J	0.22	(0.08) J				
2,4-dinitrophenol	51-28-5	mg/kg	ND	(1.2)	ND	(0.23) U	ND	(1.1)	ND	(0.22) U	ND	(29)	ND	(15)	ND	(0.22) U	ND	(0.23) U				
2,4-dinitrotoluene	121-14-2	mg/kg	ND	(0.41)	ND	(0.079) U	ND	(0.38)	ND	(0.075) U	ND	(9.9)	ND	(5.1)	ND	(0.077) U	ND	(0.08) U				
2,6-dinitrotoluene	606-20-2	mg/kg	ND	(0.2)	ND	(0.04) U	ND	(0.19)	ND	(0.037) U	ND	(5)	ND	(2.6)	ND	(0.038) U	ND	(0.04) U				
2-chloronaphthalene	91-58-7	mg/kg	ND	(0.2)	ND	(0.04) U	ND	(0.19)	ND	(0.037) U	ND	(5)	ND	(2.6)	ND	(0.038) U	ND	(0.04) U				
2-chlorophenol	95-57-8	mg/kg	ND	(0.2)	ND	(0.04) U	ND	(0.19)	ND	(0.037) U	ND	(5)	ND	(2.6)	ND	(0.038) U	ND	(0.04) U				
2-methylnaphthalene	91-57-6	mg/kg	0.27	(0.2) J	ND	(0.04) U	120	(1.9)	63	(1.9)	280	(5)	1500	(26)	0.1	(0.038) J	0.44	(0.04)				
2-methylphenol	95-48-7	mg/kg	ND	(0.2)	ND	(0.04) U	ND	(0.19)	ND	(0.037) U	ND	(5)	ND	(2.6)	ND	(0.038) U	0.051	(0.04) J				
2-nitroaniline	88-74-4	mg/kg	ND	(0.2)	ND	(0.04) U	ND	(0.19)	ND	(0.037) U	ND	(5)	ND	(2.6)	ND	(0.038) U	ND	(0.04) U				
2-nitrophenol	88-75-5	mg/kg	ND	(0.41)	ND	(0.079) U	ND	(0.38)	ND	(0.075) U	ND	(9.9)	ND	(5.1)	ND	(0.077) U	ND	(0.08) U				
3,3'-dichlorobenzidine	91-94-1	mg/kg	ND	(0.41)	ND	(0.079) U	ND	(0.38)	ND	(0.075) U	ND	(9.9)	ND	(5.1)	ND	(0.077) U	ND	(0.08) U				
3- and 4-methylphenol	106-44-5	mg/kg	ND	(0.41)	ND	(0.079) U	ND	(0.38)	ND	(0.075) U	ND	(9.9)	ND	(5.1)	ND	(0.077) U	ND	(0.08) U				
3-nitroaniline	99-09-2	mg/kg	ND	(0.41)	ND	(0.079) U	ND	(0.38)	ND	(0.075) U	ND	(9.9)	ND	(5.1)	ND	(0.077) U	ND	(0.08) U				
4,6-dinitro-2-methylphenol	534-52-1	mg/kg	ND	(1)	ND	(0.2) U	ND	(0.95)	ND	(0.19) U	ND	(25)	ND	(13)	ND	(0.19) U	ND	(0.2) U				
4-bromophenyl phenyl ether	101-55-3	mg/kg	ND	(0.41)	ND	(0.079) U	ND	(0.38)	ND	(0.075) U	ND	(9.9)	ND	(5.1)	ND	(0.077) U	ND	(0.08) U				
4-chloro-3-methylphenol	59-50-7	mg/kg	ND	(0.41)	ND	(0.079) U	ND	(0.38)	ND	(0.075) U	ND	(9.9)	ND	(5.1)	ND	(0.077) U	ND	(0.08) U				
4-chloroaniline	106-47-8	mg/kg	ND	(0.2)	ND	(0.04) U	ND	(0.19)	ND	(0.037) U	ND	(5)	ND	(2.6)	ND	(0.038) U	ND	(0.04) U				
4-chlorophenyl phenyl ether	7005-72-3	mg/kg	ND	(0.2)	ND	(0.04) U	ND	(0.19)	ND	(0.037) U	ND	(5)	ND	(2.6)	ND	(0.038) U	ND	(0.04) U				
4-nitroaniline	100-01-6	mg/kg	ND	(0.41)	ND	(0.079) U	ND	(0.38)	ND	(0.075) U	ND	(9.9)	ND	(5.1)	ND	(0.077) U	ND	(0.08) U				
4-nitrophenol	100-02-7	mg/kg	ND	(1)	ND	(0.2) U	ND	(0.95)	ND	(0.19) U	ND	(25)	ND	(13)	ND	(0.19) U	ND	(0.2) U				
acenaphthene	83-32-9	mg/kg	ND	(0.2)	ND	(0.04) U	100	(1.9)	53	(1.9)	190	(5)	1200	(26)	0.2	(0.038) J	0.47	(0.04)				
acenaphthylene	208-96-8	mg/kg	1.4	(0.2) J	ND	(0.04) U	2.9	(0.19)	1.6	(0.037)	47	(5) J	50	(2.6)	ND	(0.038) U	ND	(0.04) U				
anthracene	120-12-7	mg/kg	2.1	(0.2)	ND	(0.04) U	43	(1.9)	22	(1.9)	760	(9.9)	1800	(26)	0.29	(0.038) J	0.39	(0.04) J				
benzo (a) anthracene	56-55-3	mg/kg	3.2	(0.2)	0.04	(0.04) J	30	(0.19)	15	(1.9) J	280	(5)	390	(2.6)	0.16	(0.038) J	0.24	(0.04) J				
benzo (a) pyrene	50-32-8	mg/kg	3.2	(0.2)	0.079	(0.04) J	11	(0.19)	5.2	(1.9) J	230	(5)	190	(2.6)	0.079	(0.038) J	0.11	(0.04) J				
benzo (b) fluoranthene	205-99-2	mg/kg	5.6	(0.2)	0.067	(0.04) J	17	(0.19)	7.8	(1.9) J	460	(5)	270	(2.6)	0.11	(0.038) J	0.15	(0.04) J				
benzo (ghi) perylene	191-24-2	mg/kg	2.7	(0.2)	0.045	(0.04) J	2.5	(0.19)	1.5	(0.037)	90	(5)	71	(2.6)	ND	(0.038) U	ND	(0.04) U				
benzo (k) fluoranthene	207-08-9	mg/kg	1.8	(0.2) JD	ND	(0.04) U	6	(0.19)	3.7	(0.037)	160	(5)	76	(2.6)	ND	(0.038) U	0.051	(0.04) J				
bis (2-chloroethoxy) methane	111-91-1	mg/kg	ND	(0.41)	ND	(0.079) U	ND	(0.38)	ND	(0.075) U	ND	(9.9)	ND	(5.1)	ND	(0.077) U	ND	(0.08) U				
bis (2-chloroethyl) ether	111-44-4	mg/kg	ND	(0.2)	ND	(0.04) U	ND	(0.19)	ND	(0.037) U	ND	(5)	ND	(2.6)	ND	(0.038) U	ND	(0.04) U				
bis (2-ethylhexyl) phthalate	117-81-7	mg/kg	ND	(0.41)	ND	(0.079) U	ND	(0.38)	ND	(0.075) U	ND	(9.9)	ND	(5.1)	ND	(0.077) U	ND	(0.08) U				
butyl benzyl phthalate	85-68-7	mg/kg	ND	(0.41)	ND	(0.079) U	ND	(0.38)	ND	(0.075) U	ND	(9.9)	ND	(5.1)	ND	(0.077) U	ND	(0.08) U				
carbazole	86-74-8	mg/kg	0.6	(0.2) J	ND	(0.04) U	24	(0.19)	9.5	(1.9) J	230	(5)	620	(26)	0.21	(0.038) J	0.24	(0.04) J				
chrysene	218-01-9	mg/kg	3.7	(0.2)	0.05	(0.04) J	23	(0.19)	12	(1.9) J	290	(5)	410	(2.6)	0.14	(0.038) J	0.19	(0.04) J				
di-n-butyl phthalate	84-74-2	mg/kg	ND	(0.41)	ND	(0.079) U	ND	(0.38)	ND	(0.075) U	ND	(9.9)	ND	(5.1)	ND	(0.077) U	ND	(0.08) U				
di-n-octyl phthalate	117-84-0	mg/kg	ND	(0.41)	ND	(0.079) U	ND	(0.38)	ND	(0.075) U	ND	(9.9)	ND	(5.1)	ND	(0.077) U	ND	(0.08) U				
dibenz (a,h) anthracene	53-70-3	mg/kg	0.76	(0.2) J	ND	(0.04) U	0.76	(0.19) J	0.5	(0.037)	34	(5) J	22	(2.6) J	ND	(0.038) U	ND	(0.04) U				
dibenzofuran	132-64-9	mg/kg	0.34	(0.2) J	ND	(0.04) U	92	(1.9)	46	(1.9)	190	(5)	1100	(26)	0.24	(0.038) J	0.49	(0.04)				
diethyl phthalate	84-66-2	mg/kg	ND	(0.41) J	ND	(0.079) U	ND	(0.38)	ND	(0.075) U	ND	(9.9)	ND	(5.1)	ND	(0.077) U	ND	(0.08) U				
dimethyl phthalate	131-11-3	mg/kg	ND	(0.41)	ND	(0.079) U	ND	(0.38)	ND	(0.075) U	ND	(9.9)	ND	(5.1)	ND	(0.077) U	ND	(0.08) U				
fluoranthene	206-44-0	mg/kg	5.7	(0.2)	0.098	(0.04) J	150	(1.9)	78	(1.9)	670	(5)	2000	(26)	0.73	(0.038)	1.1	(0.04)				
fluorene	86-73-7	mg/kg	ND	(0.2)	ND	(0.04) U	110	(1.9)	54	(1.9)	260	(5)	1500	(26)	0.35	(0.038) J	0.62	(0.04)				
hexachlorobenzene	118-74-1	mg/kg	ND	(0.2)	ND	(0.04) U	ND	(0.19)	ND	(0.037) U	ND	(5)	ND	(2.6)	ND	(0.038) U	ND	(0.04) U				
hexachlorobutadiene	87-68-3	mg/kg	ND	(0.41)	ND	(0.079) U	ND	(0.38)	ND	(0.075) U	ND	(9.9)	ND	(5.1)	ND	(0.077) U	ND	(0.08) U				
hexachlorocyclopentadiene	77-47-4	mg/kg	ND	(1)	ND	(0.2) U	ND	(0.95)	ND	(0.19) U	ND	(25)	ND	(13)	ND	(0.19) U	ND	(0.2) U				
hexachloroethane	67-72-1	mg/kg	ND	(0.2)	ND	(0.04) U	ND	(0.19)	ND	(0.037) U	ND	(5)	ND	(2.6)	ND	(0.038) U	ND	(0.04) U				
indeno (1,2,3-cd) pyrene	193-39-5	mg/kg	2.9	(0.2)	0.057	(0.04) J	3.5	(0.19)	2	(0.037)	120	(5)	81	(2.6)	0.04	(0.038) J	0.047	(0.04) J				
isophorone	78-59-1	mg/kg	ND	(0.2)	ND	(0.04) U	ND	(0.19)	ND	(0.037) U	ND	(5)	ND	(2.6)	ND	(0.038) U	ND	(0.04) U				
N-nitrosodi-n-propylamine	621-64-7	mg/kg	ND	(0.2)	ND	(0.04) U	ND	(0.19)	ND	(0.037) U	ND	(5)	ND	(2.6)	ND	(0.038) U	ND	(0.04) U				
N-nitrosodiphenylamine	86-30-6	mg/kg	ND	(0.2)	ND	(0.04) U	ND	(0.19)	ND	(0.037) U	ND	(5)	ND	(2.6)	ND	(0.038) U	ND	(0.04) U				
naphthalene	91-20-3	mg/kg	0.68	(0.2) J	ND	(0.04) U	240	(1.9)	150	(1.9)	490	(5)	3500	(26)	0.15	(0.038) J	0.86	(0.04)				
nitrobenzene	98-95-3	mg/kg	ND	(0.2)	ND	(0.04) U	ND	(0.19)	ND	(0.037) U	ND	(5)	ND	(2.6)	ND	(0.038) U	ND	(0.04) U				
pentachlorophenol	87-86-5	mg/kg	ND	(1)	ND	(0.2) U	ND	(0.95)	ND	(0.19) U	ND	(25)	ND	(13)	ND	(0.19) U	ND	(0.2) U				
phenanthrene	85-01-8	mg/kg	1.7	(0.2) J	ND	(0.04) U	300	(1.9)	170	(1.9)	750	(5)	4000	(26)	1.4	(0.038)	2.2	(0.04)				
phenol	108-95-2	mg/kg	ND	(0.41)	ND	(0.079) U	ND	(0.38)	0.1	(0.075) J	ND	(9.9)	ND	(5.1)	ND	(0.077) U	ND	(0.08) U				
pyrene	129-00-0	mg/kg	5.3	(0.2)	0.091	(0.04) J	93	(1.9)	44	(1.9)	650	(5)	1300	(26)	0.45	(0.038)	0.7	(0.04)				
Other Parameters																						
Moisture Content (b)	N.A	wt.%	18.1	(0.08)	16.0	(0.08)	12.7	(0.08)	11.1	(0.08)	16.0	(0.08)	35.1	(0.08)	13.2	(0.08)	16.4	(0.08)				

Notes:

ND denotes "Not Detected" at method detection limit shown in parentheses.

(a) Target Compound List (TCL) base neutral/acid-extractable organic compounds by EPA SW-846 method 8270, reported as dry-weight concentrations.

(b) EPA method 160.3 (*Methods for Chemical Analysis of Water and Wastes*, March 1983).

U qualifier denotes not detected.

J qualifier denotes quantitiation is estimated due to limitiations identified during the data validation quality assurance review.

UJ qualifier denotes that the compound was not detected, but the quantitation limit may or may not be higher than the value shown in parentheses due to a bias identified during the data validation quality assurance review.

Table 4-1
(Continued)
Soil Sample Data Summary
Phase II Remedial Investigation

Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Registry Number	Units	Sample Identifier: GEO-22 (0' - 1')			GEO-22 (2' - 3')			GEO-22 (5' - 6')			GEO-23 (0' - 1')			GEO-23 (2' - 3')			GEO-23 (5' - 6')		
TCL Semivolatile Organics (a)																				
1,2,4-trichlorobenzene	120-82-1	mg/kg	ND	(0.034)	U	ND	(0.041)	U	ND	(0.039)	UJ	ND	(0.036)	U	ND	(0.04)	U	ND	(0.04)	U
1,2-dichlorobenzene	95-50-1	mg/kg	ND	(0.034)	U	ND	(0.041)	U	ND	(0.039)	UJ	ND	(0.036)	U	ND	(0.04)	U	ND	(0.04)	U
1,3-dichlorobenzene	541-73-1	mg/kg	ND	(0.034)	U	ND	(0.041)	U	ND	(0.039)	UJ	ND	(0.036)	U	ND	(0.04)	U	ND	(0.04)	U
1,4-dichlorobenzene	106-46-7	mg/kg	ND	(0.034)	U	ND	(0.041)	U	ND	(0.039)	UJ	ND	(0.036)	U	ND	(0.04)	U	ND	(0.04)	U
2,2'-oxybis (1-chloropropane)	108-60-1	mg/kg	ND	(0.034)	UJ	ND	(0.041)	UJ	ND	(0.039)	UJ	ND	(0.036)	U	ND	(0.04)	U	ND	(0.04)	U
2,4,5-trichlorophenol	95-95-4	mg/kg	ND	(0.069)	U	ND	(0.082)	U	ND	(0.078)	UJ	ND	(0.072)	U	ND	(0.08)	U	ND	(0.08)	U
2,4,6-trichlorophenol	88-06-2	mg/kg	ND	(0.069)	U	ND	(0.082)	U	ND	(0.078)	UJ	ND	(0.072)	U	ND	(0.08)	U	ND	(0.08)	U
2,4-dichlorophenol	120-83-2	mg/kg	ND	(0.069)	U	ND	(0.082)	U	ND	(0.078)	UJ	ND	(0.072)	U	ND	(0.08)	U	ND	(0.08)	U
2,4-dimethylphenol	105-67-9	mg/kg	ND	(0.069)	U	ND	(0.082)	U	ND	(0.078)	UJ	ND	(0.072)	U	ND	(0.08)	U	ND	(0.08)	U
2,4-dinitrophenol	51-28-5	mg/kg	ND	(0.2)	U	ND	(0.24)	U	ND	(0.23)	UJ	ND	(0.21)	U	ND	(0.23)	U	ND	(0.23)	U
2,4-dinitrotoluene	121-14-2	mg/kg	ND	(0.069)	U	ND	(0.082)	U	ND	(0.078)	UJ	ND	(0.072)	U	ND	(0.08)	U	ND	(0.08)	U
2,6-dinitrotoluene	606-20-2	mg/kg	ND	(0.034)	U	ND	(0.041)	U	ND	(0.039)	UJ	ND	(0.036)	U	ND	(0.04)	U	ND	(0.04)	U
2-chloronaphthalene	91-58-7	mg/kg	ND	(0.034)	U	ND	(0.041)	U	ND	(0.039)	UJ	ND	(0.036)	U	ND	(0.04)	U	ND	(0.04)	U
2-chlorophenol	95-57-8	mg/kg	ND	(0.034)	U	ND	(0.041)	U	ND	(0.039)	UJ	ND	(0.036)	U	ND	(0.04)	U	ND	(0.04)	U
2-methylnaphthalene	91-57-6	mg/kg	0.036	(0.034)	J	1.1	(0.041)		ND	(0.039)	UJ	0.074	(0.036)	J	ND	(0.04)	U	ND	(0.04)	U
2-methylphenol	95-48-7	mg/kg	ND	(0.034)	U	ND	(0.041)	U	ND	(0.039)	UJ	ND	(0.036)	U	ND	(0.04)	U	ND	(0.04)	U
2-nitroaniline	88-74-4	mg/kg	ND	(0.034)	U	ND	(0.041)	U	ND	(0.039)	UJ	ND	(0.036)	U	ND	(0.04)	U	ND	(0.04)	U
2-nitrophenol	88-75-5	mg/kg	ND	(0.069)	U	ND	(0.082)	U	ND	(0.078)	UJ	ND	(0.072)	U	ND	(0.08)	U	ND	(0.08)	U
3,3'-dichlorobenzidine	91-94-1	mg/kg	ND	(0.069)	U	ND	(0.082)	U	ND	(0.078)	UJ	ND	(0.072)	U	ND	(0.08)	U	ND	(0.08)	U
3- and 4-methylphenol	106-44-5	mg/kg	ND	(0.069)	U	ND	(0.082)	U	ND	(0.078)	UJ	ND	(0.072)	U	ND	(0.08)	U	ND	(0.08)	U
3-nitroaniline	99-09-2	mg/kg	ND	(0.069)	U	ND	(0.082)	U	ND	(0.078)	UJ	ND	(0.072)	U	ND	(0.08)	U	ND	(0.08)	U
4,6-dinitro-2-methylphenol	534-52-1	mg/kg	ND	(0.17)	U	ND	(0.2)	U	ND	(0.2)	UJ	ND	(0.18)	U	ND	(0.2)	U	ND	(0.2)	U
4-bromophenyl phenyl ether	101-55-3	mg/kg	ND	(0.069)	U	ND	(0.082)	U	ND	(0.078)	UJ	ND	(0.072)	U	ND	(0.08)	U	ND	(0.08)	U
4-chloro-3-methylphenol	59-50-7	mg/kg	ND	(0.069)	U	ND	(0.082)	U	ND	(0.078)	UJ	ND	(0.072)	U	ND	(0.08)	U	ND	(0.08)	U
4-chloroaniline	106-47-8	mg/kg	ND	(0.034)	U	ND	(0.041)	U	ND	(0.039)	UJ	ND	(0.036)	U	ND	(0.04)	U	ND	(0.04)	U
4-chlorophenyl phenyl ether	7005-72-3	mg/kg	ND	(0.034)	U	ND	(0.041)	U	ND	(0.039)	UJ	ND	(0.036)	U	ND	(0.04)	U	ND	(0.04)	U
4-nitroaniline	100-01-6	mg/kg	ND	(0.069)	U	ND	(0.082)	U	ND	(0.078)	UJ	ND	(0.072)	U	ND	(0.08)	U	ND	(0.08)	U
4-nitrophenol	100-02-7	mg/kg	ND	(0.17)	U	ND	(0.2)	U	ND	(0.2)	UJ	ND	(0.18)	U	ND	(0.2)	U	ND	(0.2)	U
acenaphthene	83-32-9	mg/kg	ND	(0.034)	U	0.35	(0.041)	J	ND	(0.039)	UJ	ND	(0.036)	U	ND	(0.04)	U	ND	(0.04)	U
acenaphthylene	208-96-8	mg/kg	0.098	(0.034)	J	2	(0.041)		ND	(0.039)	UJ	0.11	(0.036)	J	ND	(0.04)	U	ND	(0.04)	U
anthracene	120-12-7	mg/kg	0.21	(0.034)	J	3.4	(0.041)		0.078	(0.039)	J	0.11	(0.036)	J	0.15	(0.04)	J	ND	(0.04)	U
benzo (a) anthracene	56-55-3	mg/kg	0.39	(0.034)		4.5	(0.041)		ND	(0.039)	UJ	0.35	(0.036)	J	0.084	(0.04)	J	ND	(0.04)	U
benzo (a) pyrene	50-32-8	mg/kg	0.39	(0.034)		6.1	(0.2)		0.048	(0.039)	J	0.37	(0.036)		0.073	(0.04)	J	ND	(0.04)	U
benzo (b) fluoranthene	205-99-2	mg/kg	0.72	(0.034)		16	(0.2)	(c)	0.076	(0.039)	J	0.82	(0.036)	(c)	0.15	(0.04)	J (c)	ND	(0.04)	U
benzo (ghi) perylene	191-24-2	mg/kg	0.28	(0.034)	J	3.8	(0.041)		0.045	(0.039)	J	0.32	(0.036)	J	0.055	(0.04)	J	ND	(0.04)	U
benzo (k) fluoranthene	207-08-9	mg/kg	0.21	(0.034)	J	ND	(0.041)	U (c)	ND	(0.039)	UJ	ND	(0.036)	U (c)	ND	(0.04)	U (c)	ND	(0.04)	U
bis (2-chloroethoxy) methane	111-91-1	mg/kg	ND	(0.069)	U	ND	(0.082)	U	ND	(0.078)	UJ	ND	(0.072)	U	ND	(0.08)	U	ND	(0.08)	U
bis (2-chloroethyl) ether	111-44-4	mg/kg	ND	(0.034)	U	ND	(0.041)	U	ND	(0.039)	UJ	ND	(0.036)	U	ND	(0.04)	U	ND	(0.04)	U
bis (2-ethylhexyl) phthalate	117-81-7	mg/kg	0.65	(0.069)	(d)	ND	(0.082)	U	ND	(0.078)	UJ	0.11	(0.072)	J (d)	ND	(0.08)	U	ND	(0.08)	U
butyl benzyl phthalate	85-68-7	mg/kg	0.15	(0.069)	J (d)	ND	(0.082)	U	ND	(0.078)	UJ	ND	(0.072)	U	ND	(0.08)	U	ND	(0.08)	U
carbazole	86-74-8	mg/kg	0.096	(0.034)	J	0.39	(0.041)	J	ND	(0.039)	UJ	ND	(0.036)	U	ND	(0.04)	U	ND	(0.04)	U
chrysene	218-01-9	mg/kg	0.44	(0.034)		6.9	(0.2)		0.049	(0.039)	J	0.44	(0.036)		0.092	(0.04)	J	ND	(0.04)	U
di-n-butyl phthalate	84-74-2	mg/kg	ND	(0.069)	U	ND	(0.082)	U	ND	(0.078)	UJ	ND	(0.072)	U	ND	(0.08)	U	ND	(0.08)	U
di-n-octyl phthalate	117-84-0	mg/kg	ND	(0.069)	U	ND	(0.082)	U	ND	(0.078)	UJ	ND	(0.072)	U	ND	(0.08)	U	ND	(0.08)	U
dibenz (a,h) anthracene	53-70-3	mg/kg	0.084	(0.034)	J	1.5	(0.041)		ND	(0.039)	UJ	0.096	(0.036)	J	ND	(0.04)	U	ND	(0.04)	U
dibenzofuran	132-64-9	mg/kg	0.037	(0.034)	J	1.1	(0.041)		ND	(0.039)	UJ	ND	(0.036)	U	ND	(0.04)	U	ND	(0.04)	U
diethyl phthalate	84-66-2	mg/kg	ND	(0.069)	U	ND	(0.082)	U	ND	(0.078)	UJ	ND	(0.072)	U	ND	(0.08)	U	ND	(0.08)	U
dimethyl phthalate	131-11-3	mg/kg	ND	(0.069)	U	ND	(0.082)	U	ND	(0.078)	UJ	ND	(0.072)	U	ND	(0.08)	U	ND	(0.08)	U
fluoranthene	206-44-0	mg/kg	0.71	(0.034)		5.6	(0.2)		0.065	(0.039)	J	0.51	(0.036)		0.2	(0.04)	J	ND	(0.04)	U
fluorene	86-73-7	mg/kg	0.038	(0.034)	J	0.66	(0.041)	V	0.042	(0.039)	J	ND	(0.036)	U	0.054	(0.04)	J	ND	(0.04)	U
hexachlorobenzene	118-74-1	mg/kg	ND	(0.034)	U	ND	(0.041)	U	ND	(0.039)	UJ	ND	(0.036)	U	ND	(0.04)	U	ND	(0.04)	U
hexachlorobutadiene	87-68-3	mg/kg	ND	(0.069)	U	ND	(0.082)	U	ND	(0.078)	UJ	ND	(0.072)	U	ND	(0.08)	U	ND	(0.08)	U
hexachlorocyclopentadiene	77-47-4	mg/kg	ND	(0.17)	U	ND	(0.2)	U	ND	(0.2)	UJ	ND	(0.18)	U	ND	(0.2)	U	ND	(0.2)	U
hexachloroethane	67-72-1	mg/kg	ND	(0.034)	U	ND	(0.041)	U	ND	(0.039)	UJ	ND	(0.036)	U	ND	(0.04)	U	ND	(0.04)	U
indeno (1,2,3-cd) pyrene	193-39-5	mg/kg	0.3	(0.034)	J	5.3	(0.041)		0.056	(0.039)	J	0.35	(0.036)	J	0.057	(0.04)	J	ND	(0.04)	U
isophorone	78-59-1	mg/kg	ND	(0.034)	U	ND	(0.041)	U	ND	(0.039)	UJ	ND	(0.036)	U	ND	(0.04)	U	ND	(0.04)	U
N-nitrosodi-n-propylamine	621-64-7	mg/kg	ND	(0.034)	U	ND	(0.041)	U	ND	(0.039)	UJ	ND	(0.036)	U	ND	(0.04)	U	ND	(0.04)	U
N-nitrosodiphenylamine	86-30-6	mg/kg	ND	(0.034)	U	ND	(0.041)	U	ND	(0.039)	UJ	ND	(0.036)	U	0.061	(0.04)	J	ND	(0.04)	U
naphthalene	91-20-3	mg/kg	0.095	(0.034)	J	3.7	(0.041)		ND	(0.039)	UJ	0.086	(0.036)	J	ND	(0.04)	U	ND	(0.04)	U
nitrobenzene	98-95-3	mg/kg	ND	(0.034)	U	ND	(0.041)	U	ND	(0.039)	UJ	ND	(0.036)	U	ND	(0.04)	U	ND	(0.04)	U
pentachlorophenol	87-86-5	mg/kg	ND	(0.17)	U	ND	(0.2)	U	ND	(0.2)	UJ	ND	(0.18)	U	ND	(0.2)	U	ND	(0.2)	U
phenanthrene	85-01-8	mg/kg	0.39	(0.034)		2.5	(0.041)		0.064	(0.039)	J	0.18	(0.036)	J	0.27	(0.04)	J	ND	(0.04)	U
phenol	108-95-2	mg/kg	ND	(0.069)	U	ND	(0.082)	U	ND	(0.078)	UJ	ND	(0.072)	U	ND	(0.08)	U	ND	(0.08)	U
pyrene	129-00-0	mg/kg	0.61	(0.034)		8.4	(0.2)		0.092	(0.039)	J	0.5	(0.036)		0.16	(0.04)	J	ND	(0.04)	U
Other Parameters																				
Moisture Content (b)	N.A.	wt. %	3.35	(0.08)		18.3	(0.08)		15	(0.08)		7.36	(0.08)		16.5	(0.08)		17.1	(0.08)	

Notes:

ND denotes "Not Detected" at method detection limit shown in parentheses.

(a) Target Compound List (TCL) base neutral/acid-extractable organic compounds by EPA SW-846 method 8270, reported as dry-weight concentrations.

(b) EPA method 160.3 (*Methods for Chemical Analysis of Water and Wastes*, March 1983).

(c) Laboratory was unable to resolve distinct chromatographic peaks for Benzo(b)fluoranthene (B[b]F) and Benzo(k)fluoranthene (B[k]F). Therefore, reported B(b)F result for this sample is the sum total concentration of both isomers.

(d) Low concentrations of this common laboratory contaminant warrant caution if this value is used as basis for environmental risk assessment or other decision-making process.

U qualifier denotes not detected.

J qualifier denotes quantitiation is estimated due to limitiations identified during the data validation quality assurance review.

UJ qualifier denotes that the compound was not detected, but the quantitation limit may or may not be higher than the value shown in parentheses due to a bias identified during the data validation quality assurance review.

Table 4-1
(Continued)
Soil Sample Data Summary
Phase II Remedial Investigation

Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Registry Number	Units	Sample Identifier: GEO-24 (0' - 1')	GEO-24 (2' - 3')	GEO-24 (5' - 6')	GEO-25 (0' - 1')	GEO-25 (2' - 3')	GEO-25 (5' - 6')
TCL Semivolatile Organics (a)								
1,2,4-trichlorobenzene	120-82-1	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
1,2-dichlorobenzene	95-50-1	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
1,3-dichlorobenzene	541-73-1	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
1,4-dichlorobenzene	106-46-7	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
2,2'-oxybis (1-chloropropane)	108-60-1	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
2,4,5-trichlorophenol	95-95-4	mg/kg	ND (0.077) U	ND (0.077) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.078) U
2,4,6-trichlorophenol	88-06-2	mg/kg	ND (0.077) U	ND (0.077) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.078) U
2,4-dichlorophenol	120-83-2	mg/kg	ND (0.077) U	ND (0.077) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.078) U
2,4-dimethylphenol	105-67-9	mg/kg	ND (0.077) U	ND (0.077) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.078) U
2,4-dinitrophenol	51-28-5	mg/kg	ND (0.22) U	ND (0.22) U	ND (0.22) U	ND (0.22) U	ND (0.22) U	ND (0.23) U
2,4-dinitrotoluene	121-14-2	mg/kg	ND (0.077) U	ND (0.077) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.078) U
2,6-dinitrotoluene	606-20-2	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
2-chloronaphthalene	91-58-7	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
2-chlorophenol	95-57-8	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
2-methylnaphthalene	91-57-6	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
2-methylphenol	95-48-7	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
2-nitroaniline	88-74-4	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
2-nitrophenol	88-75-5	mg/kg	ND (0.077) U	ND (0.077) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.078) U
3,3'-dichlorobenzidine	91-94-1	mg/kg	ND (0.077) U	ND (0.077) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.078) U
3- and 4-methylphenol	106-44-5	mg/kg	ND (0.077) U	ND (0.077) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.078) U
3-nitroaniline	99-09-2	mg/kg	ND (0.077) U	ND (0.077) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.078) U
4,6-dinitro-2-methylphenol	534-52-1	mg/kg	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.19) U
4-bromophenyl phenyl ether	101-55-3	mg/kg	ND (0.077) U	ND (0.077) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.078) U
4-chloro-3-methylphenol	59-50-7	mg/kg	ND (0.077) U	ND (0.077) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.078) U
4-chloroaniline	106-47-8	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
4-chlorophenyl phenyl ether	7005-72-3	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
4-nitroaniline	100-01-6	mg/kg	ND (0.077) U	ND (0.077) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.078) U
4-nitrophenol	100-02-7	mg/kg	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.19) U
acenaphthene	83-32-9	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
acenaphthylene	208-96-8	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
anthracene	120-12-7	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	0.054 (0.038) J	ND (0.038) U	ND (0.039) U
benzo (a) anthracene	56-55-3	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	0.13 (0.038) J	ND (0.038) U	ND (0.039) U
benzo (a) pyrene	50-32-8	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	0.2 (0.038) J	ND (0.038) U	ND (0.039) U
benzo (b) fluoranthene	205-99-2	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	0.47 (0.038) (c)	0.039 (0.038) J (c)	ND (0.039) U
benzo (ghi) perylene	191-24-2	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	0.12 (0.038) J	ND (0.038) U	ND (0.039) U
benzo (k) fluoranthene	207-08-9	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U (c)	ND (0.038) U (c)	ND (0.039) U
bis (2-chloroethoxy) methane	111-91-1	mg/kg	ND (0.077) U	ND (0.077) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.078) U
bis (2-chloroethyl) ether	111-44-4	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
bis (2-ethylhexyl) phthalate	117-81-7	mg/kg	ND (0.077) U	ND (0.077) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.078) U
butyl benzyl phthalate	85-68-7	mg/kg	ND (0.077) U	ND (0.077) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.078) U
carbazole	86-74-8	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
chrysene	218-01-9	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	0.18 (0.038) J	ND (0.038) U	ND (0.039) U
di-n-butyl phthalate	84-74-2	mg/kg	ND (0.077) U	ND (0.077) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.078) U
di-n-octyl phthalate	117-84-0	mg/kg	ND (0.077) U	ND (0.077) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.078) U
dibenz (a,h) anthracene	53-70-3	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
dibenzofuran	132-64-9	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
diethyl phthalate	84-66-2	mg/kg	ND (0.077) U	ND (0.077) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.078) U
dimethyl phthalate	131-11-3	mg/kg	ND (0.077) U	ND (0.077) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.078) U
fluoranthene	206-44-0	mg/kg	ND (0.038) U	0.058 (0.038) J	ND (0.037) U	0.1 (0.038) J	ND (0.038) U	ND (0.039) U
fluorene	86-73-7	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
hexachlorobenzene	118-74-1	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
hexachlorobutadiene	87-68-3	mg/kg	ND (0.077) U	ND (0.077) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.078) U
hexachlorocyclopentadiene	77-47-4	mg/kg	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.19) U
hexachloroethane	67-72-1	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
indeno (1,2,3-cd) pyrene	193-39-5	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	0.15 (0.038) J	ND (0.038) U	ND (0.039) U
isophorone	78-59-1	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
N-nitrosodi-n-propylamine	621-64-7	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
N-nitrosodiphenylamine	86-30-6	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
naphthalene	91-20-3	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
nitrobenzene	98-95-3	mg/kg	ND (0.038) U	ND (0.038) U	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
pentachlorophenol	87-86-5	mg/kg	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.19) U
phenanthrene	85-01-8	mg/kg	ND (0.038) U	0.049 (0.038) J	ND (0.037) U	ND (0.038) U	ND (0.038) U	ND (0.039) U
phenol	108-95-2	mg/kg	ND (0.077) U	ND (0.077) U	ND (0.075) U	ND (0.076) U	ND (0.076) U	ND (0.078) U
pyrene	129-00-0	mg/kg	ND (0.038) U	0.041 (0.038) J	ND (0.037) U	0.17 (0.038) J	ND (0.038) U	ND (0.039) U
Other Parameters								
Moisture Content (b)	N.A.	wt.%	13.0 (0.08)	12.9 (0.08)	11.0 (0.08)	12.8 (0.08)	12.1 (0.08)	14.4 (0.08)

Notes:

ND denotes "Not Detected" at method detection limit shown in parentheses.

(a) Target Compound List (TCL) base neutral/acid-extractable organic compounds by EPA SW-846 method 8270, reported as dry-weight concentrations.

(b) EPA method 160.3 (*Methods for Chemical Analysis of Water and Wastes*, March 1983).

(c) Laboratory was unable to resolve distinct chromatographic peaks for Benzo(b)fluoranthene (B[b]F) and Benzo(k)fluoranthene (B[k]F). Therefore, reported B(b)F result for this sample is the sum total concentration of both isomers.

U qualifier denotes not detected.

J qualifier denotes quantitiation is estimated due to limitiations identified during the data validation quality assurance review.

UJ qualifier denotes that the compound was not detected, but the quantitation limit may or may not be higher than the value shown in parentheses due to a bias identified during the data validation quality assurance review.

Table 4-1
(Continued)
Soil Sample Data Summary
Phase II Remedial Investigation

Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Registry Number	Units	Sample Identifier: GEO-26 (0' - 1')	GEO-26 (2' - 3')	GEO-26 (5' - 6')	GEO-27 (0' - 1')	GEO-27 (2' - 3')	GEO-27 (5' - 6')	(5' - 6') Duplicate (a)
TCL Semivolatile Organics (b)									
1,2,4-trichlorobenzene	120-82-1	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
1,2-dichlorobenzene	95-50-1	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
1,3-dichlorobenzene	541-73-1	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
1,4-dichlorobenzene	106-46-7	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
2,2'-oxybis (1-chloropropane)	108-60-1	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
2,4,5-trichlorophenol	95-95-4	mg/kg	ND (0.078) U	ND (0.079) U	ND (0.078) U	ND (0.073) U	ND (0.072) U	ND (0.073) U	ND (73) U
2,4,6-trichlorophenol	88-06-2	mg/kg	ND (0.078) U	ND (0.079) U	ND (0.078) U	ND (0.073) U	ND (0.072) U	ND (0.073) U	ND (73) U
2,4-dichlorophenol	120-83-2	mg/kg	ND (0.078) U	ND (0.079) U	ND (0.078) U	ND (0.073) U	ND (0.072) U	ND (0.073) U	ND (73) U
2,4-dimethylphenol	105-67-9	mg/kg	ND (0.078) U	ND (0.079) U	ND (0.078) U	ND (0.073) U	ND (0.072) U	ND (0.073) U	ND (73) U
2,4-dinitrophenol	51-28-5	mg/kg	ND (0.23) U	ND (0.23) U	ND (0.23) U	ND (0.21) U	ND (0.21) U	ND (0.21) U	ND (210) U
2,4-dinitrotoluene	121-14-2	mg/kg	ND (0.078) U	ND (0.079) U	ND (0.078) U	ND (0.073) U	ND (0.072) U	ND (0.073) U	ND (73) U
2,6-dinitrotoluene	606-20-2	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
2-chloronaphthalene	91-58-7	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
2-chlorophenol	95-57-8	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
2-methylnaphthalene	91-57-6	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
2-methylphenol	95-48-7	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
2-nitroaniline	88-74-4	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
2-nitrophenol	88-75-5	mg/kg	ND (0.078) U	ND (0.079) U	ND (0.078) U	ND (0.073) U	ND (0.072) U	ND (0.073) U	ND (73) U
3,3'-dichlorobenzidine	91-94-1	mg/kg	ND (0.078) U	ND (0.079) U	ND (0.078) U	ND (0.073) U	ND (0.072) U	ND (0.073) U	ND (73) U
3- and 4-methylphenol	106-44-5	mg/kg	ND (0.078) U	ND (0.079) U	ND (0.078) U	ND (0.073) U	ND (0.072) U	ND (0.073) U	ND (73) U
3-nitroaniline	99-09-2	mg/kg	ND (0.078) U	ND (0.079) U	ND (0.078) U	ND (0.073) U	ND (0.072) U	ND (0.073) U	ND (73) U
4,6-dinitro-2-methylphenol	534-52-1	mg/kg	ND (0.19) U	ND (0.2) U	ND (0.19) U	ND (0.18) U	ND (0.18) U	ND (0.18) U	ND (180) U
4-bromophenyl phenyl ether	101-55-3	mg/kg	ND (0.078) U	ND (0.079) U	ND (0.078) U	ND (0.073) U	ND (0.072) U	ND (0.073) U	ND (73) U
4-chloro-3-methylphenol	59-50-7	mg/kg	ND (0.078) U	ND (0.079) U	ND (0.078) U	ND (0.073) U	ND (0.072) U	ND (0.073) U	ND (73) U
4-chloroaniline	106-47-8	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
4-chlorophenyl phenyl ether	7005-72-3	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
4-nitroaniline	100-01-6	mg/kg	ND (0.078) U	ND (0.079) U	ND (0.078) U	ND (0.073) U	ND (0.072) U	ND (0.073) U	ND (73) U
4-nitrophenol	100-02-7	mg/kg	ND (0.19) U	ND (0.2) U	ND (0.19) U	ND (0.18) U	ND (0.18) U	ND (0.18) U	ND (180) U
acenaphthene	83-32-9	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
acenaphthylene	208-96-8	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
anthracene	120-12-7	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
benzo (a) anthracene	56-55-3	mg/kg	ND (0.039) U	0.04 (0.039) J	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
benzo (a) pyrene	50-32-8	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
benzo (b) fluoranthene	205-99-2	mg/kg	ND (0.039) U	0.054 (0.039) J	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
benzo (ghi) perylene	191-24-2	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
benzo (k) fluoranthene	207-08-9	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
bis (2-chloroethoxy) methane	111-91-1	mg/kg	ND (0.078) U	ND (0.079) U	ND (0.078) U	ND (0.073) U	ND (0.072) U	ND (0.073) U	ND (73) U
bis (2-chloroethyl) ether	111-44-4	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
bis (2-ethylhexyl) phthalate	117-81-7	mg/kg	ND (0.078) U	ND (0.079) U	ND (0.078) U	ND (0.073) U	ND (0.072) U	ND (0.073) U	ND (73) U
butyl benzyl phthalate	85-68-7	mg/kg	ND (0.078) U	ND (0.079) U	ND (0.078) U	ND (0.073) U	ND (0.072) U	ND (0.073) U	ND (73) U
carbazole	86-74-8	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
chrysene	218-01-9	mg/kg	ND (0.039) U	0.04 (0.039) J	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
di-n-butyl phthalate	84-74-2	mg/kg	ND (0.078) U	ND (0.079) U	ND (0.078) U	ND (0.073) U	ND (0.072) U	ND (0.073) U	ND (73) U
di-n-octyl phthalate	117-84-0	mg/kg	ND (0.078) U	ND (0.079) U	ND (0.078) U	ND (0.073) U	ND (0.072) U	ND (0.073) U	ND (73) U
dibenz (a,h) anthracene	53-70-3	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
dibenzofuran	132-64-9	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
diethyl phthalate	84-66-2	mg/kg	ND (0.078) U	ND (0.079) U	ND (0.078) U	ND (0.073) U	ND (0.072) U	ND (0.073) U	ND (73) U
dimethyl phthalate	131-11-3	mg/kg	ND (0.078) U	ND (0.079) U	ND (0.078) U	ND (0.073) U	ND (0.072) U	ND (0.073) U	ND (73) U
fluoranthene	206-44-0	mg/kg	ND (0.039) U	0.072 (0.039) J	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
fluorene	86-73-7	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
hexachlorobenzene	118-74-1	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
hexachlorobutadiene	87-68-3	mg/kg	ND (0.078) U	ND (0.079) U	ND (0.078) U	ND (0.073) U	ND (0.072) U	ND (0.073) U	ND (73) U
hexachlorocyclopentadiene	77-47-4	mg/kg	ND (0.19) U	ND (0.2) U	ND (0.19) U	ND (0.18) U	ND (0.18) U	ND (0.18) U	ND (180) U
hexachloroethane	67-72-1	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
indeno (1,2,3-cd) pyrene	193-39-5	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
isophorone	78-59-1	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
N-nitrosodi-n-propylamine	621-64-7	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
N-nitrosodiphenylamine	86-30-6	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
naphthalene	91-20-3	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
nitrobenzene	98-95-3	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
pentachlorophenol	87-86-5	mg/kg	ND (0.19) U	ND (0.2) U	ND (0.19) U	ND (0.18) U	ND (0.18) U	ND (0.18) U	ND (180) U
phenanthrene	85-01-8	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
phenol	108-95-2	mg/kg	ND (0.078) U	ND (0.079) U	ND (0.078) U	ND (0.073) U	ND (0.072) U	ND (0.073) U	ND (73) U
pyrene	129-00-0	mg/kg	ND (0.039) U	0.085 (0.039) J	ND (0.039) U	ND (0.037) U	ND (0.036) U	ND (0.037) U	ND (36) U
Other Parameters									
Moisture Content (c)	N.A.	wt. %	14.1 (0.08)	15.4 (0.08)	14.3 (0.08)	8.79 (0.08)	7.70 (0.08)	8.92 (0.08)	8.39 (0.08)

Notes:

ND denotes "Not Detected" at method detection limit shown in parentheses.

(a) Listed on chain-of-custody documentation as sample GEO-06/5'-6'.

(b) Target Compound List (TCL) base neutral/acid-extractable organic compounds by EPA SW-846 method 8270, reported as dry-weight concentrations.

(c) EPA method 160.3 (*Methods for Chemical Analysis of Water and Wastes*, March 1983).

U qualifier denotes not detected.

J qualifier denotes quantitiation is estimated due to limitiations identified during the data validation quality assurance review.

UJ qualifier denotes that the compound was not detected, but the quantitation limit may or may not be higher than the value shown in parentheses due to a bias identified during the data validation quality assurance review.

Table 4-1
(Continued)
Soil Sample Data Summary
Phase II Remedial Investigation

Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Registry Number	Units	Sample Identifier: GEO-28 (0' - 1')			GEO-28 (2' - 3')			GEO-28 (5' - 6')			GEO-29 (0' - 1')			GEO-29 (0' - 1') Duplicate (a)			GEO-29 (2' - 3')			GEO-29 (5' - 6')		
TCL Semivolatile Organics (b)																							
1,2,4-trichlorobenzene	120-82-1	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.039)	U	ND	(0.19)		ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
1,2-dichlorobenzene	95-50-1	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.039)	U	ND	(0.19)		ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
1,3-dichlorobenzene	541-73-1	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.039)	U	ND	(0.19)		ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
1,4-dichlorobenzene	106-46-7	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.039)	U	ND	(0.19)		ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
2,2'-oxybis (1-chloropropane)	108-60-1	mg/kg	ND	(0.038)	UJ	ND	(0.04)	U	ND	(0.039)	U	ND	(0.19)		ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
2,4,5-trichlorophenol	95-95-4	mg/kg	ND	(0.077)	U	ND	(0.081)	U	ND	(0.078)	U	ND	(0.38)		ND	(0.37)		ND	(0.078)	U	ND	(0.078)	U
2,4,6-trichlorophenol	88-06-2	mg/kg	ND	(0.077)	U	ND	(0.081)	U	ND	(0.078)	U	ND	(0.38)		ND	(0.37)		ND	(0.078)	U	ND	(0.078)	U
2,4-dichlorophenol	120-83-2	mg/kg	ND	(0.077)	U	ND	(0.081)	U	ND	(0.078)	U	ND	(0.38)		ND	(0.37)		ND	(0.078)	U	ND	(0.078)	U
2,4-dimethylphenol	105-67-9	mg/kg	ND	(0.077)	U	ND	(0.081)	U	ND	(0.078)	U	ND	(0.38)		ND	(0.37)		ND	(0.078)	U	ND	(0.078)	U
2,4-dinitrophenol	51-28-5	mg/kg	ND	(0.22)	U	ND	(0.24)	U	ND	(0.23)	U	ND	(1.1)		ND	(1.1)		ND	(0.23)	U	ND	(0.23)	U
2,4-dinitrotoluene	121-14-2	mg/kg	ND	(0.077)	U	ND	(0.081)	U	ND	(0.078)	U	ND	(0.38)		ND	(0.37)		ND	(0.078)	U	ND	(0.078)	U
2,6-dinitrotoluene	606-20-2	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.039)	U	ND	(0.19)		ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
2-chloronaphthalene	91-58-7	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.039)	U	ND	(0.19)		ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
2-chlorophenol	95-57-8	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.039)	U	ND	(0.19)		ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
2-methylnaphthalene	91-57-6	mg/kg	0.051	(0.038)	J	ND	(0.04)	U	ND	(0.039)	U	0.26	(0.19)	J	0.71	(0.18)	J	ND	(0.039)	U	ND	(0.039)	U
2-methylphenol	95-48-7	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.039)	U	ND	(0.19)		ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
2-nitroaniline	88-74-4	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.039)	U	ND	(0.19)		ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
2-nitrophenol	88-75-5	mg/kg	ND	(0.077)	UJ	ND	(0.081)	U	ND	(0.078)	U	ND	(0.38)		ND	(0.37)		ND	(0.078)	U	ND	(0.078)	U
3,3'-dichlorobenzidine	91-94-1	mg/kg	ND	(0.077)	U	ND	(0.081)	U	ND	(0.078)	U	ND	(0.38)		ND	(0.37)		ND	(0.078)	U	ND	(0.078)	U
3- and 4-methylphenol	106-44-5	mg/kg	ND	(0.077)	U	ND	(0.081)	U	ND	(0.078)	U	ND	(0.38)		ND	(0.37)		ND	(0.078)	U	ND	(0.078)	U
3-nitroaniline	99-09-2	mg/kg	ND	(0.077)	U	ND	(0.081)	U	ND	(0.078)	U	ND	(0.38)		ND	(0.37)		ND	(0.078)	U	ND	(0.078)	U
4,6-dinitro-2-methylphenol	534-52-1	mg/kg	ND	(0.19)	U	ND	(0.2)	U	ND	(0.2)	U	ND	(0.95)		ND	(0.92)		ND	(0.2)	U	ND	(0.19)	U
4-bromophenyl phenyl ether	101-55-3	mg/kg	ND	(0.077)	U	ND	(0.081)	U	ND	(0.078)	U	ND	(0.38)		ND	(0.37)		ND	(0.078)	U	ND	(0.078)	U
4-chloro-3-methylphenol	59-50-7	mg/kg	ND	(0.077)	U	ND	(0.081)	U	ND	(0.078)	U	ND	(0.38)		ND	(0.37)		ND	(0.078)	U	ND	(0.078)	U
4-chloroaniline	106-47-8	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.039)	U	ND	(0.19)		ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
4-chlorophenyl phenyl ether	7005-72-3	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.039)	U	ND	(0.19)		ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
4-nitroaniline	100-01-6	mg/kg	ND	(0.077)	U	ND	(0.081)	U	ND	(0.078)	U	ND	(0.38)		ND	(0.37)		ND	(0.078)	U	ND	(0.078)	U
4-nitrophenol	100-02-7	mg/kg	ND	(0.19)	U	ND	(0.2)	U	ND	(0.2)	U	ND	(0.95)		ND	(0.92)		ND	(0.2)	U	ND	(0.19)	U
acenaphthene	83-32-9	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.039)	U	ND	(0.19)		ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
acenaphthylene	208-96-8	mg/kg	0.12	(0.038)	J	ND	(0.04)	U	ND	(0.039)	U	1.2	(0.19)	J	0.39	(0.18)	J	ND	(0.039)	U	ND	(0.039)	U
anthracene	120-12-7	mg/kg	0.13	(0.038)	J	ND	(0.04)	U	ND	(0.039)	U	2.5	(0.19)		0.48	(0.18)	J	ND	(0.039)	U	ND	(0.039)	U
benzo (a) anthracene	56-55-3	mg/kg	0.79	(0.038)		ND	(0.04)	U	ND	(0.039)	U	4.1	(0.19)		0.61	(0.18)	J	ND	(0.039)	U	ND	(0.039)	U
benzo (a) pyrene	50-32-8	mg/kg	1.1	(0.038)		ND	(0.04)	U	ND	(0.039)	U	3.5	(0.19)		0.75	(0.18)	J	ND	(0.039)	U	ND	(0.039)	U
benzo (b) fluoranthene	205-99-2	mg/kg	1.9	(0.038)		ND	(0.04)	U	ND	(0.039)	U	8.6	(0.19)		1.4	(0.18)	J	ND	(0.039)	U	ND	(0.039)	U
benzo (ghi) perylene	191-24-2	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.039)	U	1.4	(0.19)	J	0.57	(0.18)	J	ND	(0.039)	U	ND	(0.039)	U
benzo (k) fluoranthene	207-08-9	mg/kg	0.67	(0.038)		ND	(0.04)	U	ND	(0.039)	U	3.2	(0.19)		0.44	(0.18)	J	ND	(0.039)	U	ND	(0.039)	U
bis (2-chloroethoxy) methane	111-91-1	mg/kg	ND	(0.077)	U	ND	(0.081)	U	ND	(0.078)	U	ND	(0.38)		ND	(0.37)		ND	(0.078)	U	ND	(0.078)	U
bis (2-chloroethyl) ether	111-44-4	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.039)	U	ND	(0.19)		ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
bis (2-ethylhexyl) phthalate	117-81-7	mg/kg	ND	(0.077)	U	ND	(0.081)	U	ND	(0.078)	U	ND	(0.38)	U	ND	(0.37)	U	ND	(0.078)	U	ND	(0.078)	U
butyl benzyl phthalate	85-68-7	mg/kg	ND	(0.077)	U	ND	(0.081)	U	ND	(0.078)	U	ND	(0.38)		ND	(0.37)		ND	(0.078)	U	ND	(0.078)	U
carbazole	86-74-8	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.039)	U	0.88	(0.19)	J	ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
chrysene	218-01-9	mg/kg	1.1	(0.038)		ND	(0.04)	U	ND	(0.039)	U	6.7	(0.19)		0.9	(0.18)	J	ND	(0.039)	U	ND	(0.039)	U
di-n-butyl phthalate	84-74-2	mg/kg	ND	(0.077)	U	ND	(0.081)	U	ND	(0.078)	U	ND	(0.38)		ND	(0.37)		ND	(0.078)	U	ND	(0.078)	U
di-n-octyl phthalate	117-84-0	mg/kg	ND	(0.077)	U	ND	(0.081)	U	ND	(0.078)	U	ND	(0.38)		ND	(0.37)		ND	(0.078)	U	ND	(0.078)	U
dibenz (a,h) anthracene	53-70-3	mg/kg	0.2	(0.038)	J	ND	(0.04)	U	ND	(0.039)	U	0.6	(0.19)	J	0.23	(0.18)	J	ND	(0.039)	U	ND	(0.039)	U
dibenzofuran	132-64-9	mg/kg	0.039	(0.038)	J	ND	(0.04)	U	ND	(0.039)	U	0.25	(0.19)	J	ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
diethyl phthalate	84-66-2	mg/kg	ND	(0.077)	U	ND	(0.081)	U	ND	(0.078)	U	ND	(0.38)		ND	(0.37)		ND	(0.078)	U	ND	(0.078)	U
dimethyl phthalate	131-11-3	mg/kg	ND	(0.077)	U	ND	(0.081)	U	ND	(0.078)	U	ND	(0.38)		ND	(0.37)		ND	(0.078)	U	ND	(0.078)	U
fluoranthene	206-44-0	mg/kg	1	(0.038)		ND	(0.04)	U	ND	(0.039)	U	12	(0.19)		0.89	(0.18)	J	ND	(0.039)	U	ND	(0.039)	U
fluorene	86-73-7	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.039)	U	0.48	(0.19)	J	ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
hexachlorobenzene	118-74-1	mg/kg	ND	(0.038)	R	ND	(0.04)	R	ND	(0.039)	U	ND	(0.19)	R	ND	(0.18)	R	ND	(0.039)	R	ND	(0.039)	R
hexachlorobutadiene	87-68-3	mg/kg	ND	(0.077)	U	ND	(0.081)	U	ND	(0.078)	U	ND	(0.38)		ND	(0.37)		ND	(0.078)	U	ND	(0.078)	U
hexachlorocyclopentadiene	77-47-4	mg/kg	ND	(0.19)	U	ND	(0.2)	U	ND	(0.2)	U	ND	(0.95)		ND	(0.92)		ND	(0.2)	U	ND	(0.19)	U
hexachloroethane	67-72-1	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.039)	U	ND	(0.19)		ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
indeno (1,2,3-cd) pyrene	193-39-5	mg/kg	0.73	(0.038)		ND	(0.04)	U	ND	(0.039)	U	2.1	(0.19)		0.69	(0.18)	J	ND	(0.039)	U	ND	(0.039)	U
isophorone	78-59-1	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.039)	U	ND	(0.19)		ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
N-nitrosodi-n-propylamine	621-64-7	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.039)	U	ND	(0.19)		ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
N-nitrosodiphenylamine	86-30-6	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.039)	U	ND	(0.19)		ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
naphthalene	91-20-3	mg/kg	0.075	(0.038)	J	ND	(0.04)	U	ND	(0.039)	U	0.35	(0.19)	J	0.34	(0.18)	J	ND	(0.039)	U	ND	(0.039)	U
nitrobenzene	98-95-3	mg/kg	ND	(0.038)	U	ND	(0.04)	U	ND	(0.039)	U	ND	(0.19)		ND	(0.18)		ND	(0.039)	U	ND	(0.039)	U
pentachlorophenol	87-86-5	mg/kg	ND	(0.19)	U	ND	(0.2)	U	ND	(0.2)	U	ND	(0.95)		ND	(0.92)		ND	(0.2)	U	ND	(0.19)	U
phenanthrene	85-01-8	mg/kg	0.18	(0.038)	J	ND	(0.04)	U	ND	(0.039)	U	2.8	(0.19)		0.42	(0.18)	J	ND	(0.039)	U	ND	(0.039)	U
phenol	108-95-2	mg/kg	ND	(0.077)	U	0.15	(0.081)	J	0.23	(0.078)	J	ND	(0.38)		0.38	(0.37)	J	0.11	(0.078)	J	0.11	(0.078)	J
pyrene	129-00-0	mg/kg	1.5	(0.038)		ND	(0.04)	U	ND	(0.039)	U	9.8	(0.19)		0.91	(0.18)	J	ND	(0.039)	U	ND	(0.039)	U
Other Parameters																							
Moisture Content (c)	N.A.	wt. %	13.3	(0.08)		17.3	(0.08)		14.8	(0.08)		12.3	(0.08)		8.93	(0.08)		14.8	(0.08)		14.1	(0.08)	

Notes:
ND denotes "Not Detected" at method detection limit shown in parentheses.
(a) Listed on chain-of-custody documentation as sample GEO-34/0'-1'.
(b) Target Compound List (TCL) base neutral/acid-extractable organic compounds by EPA SW-846 method 8270, reported as dry-weight concentrations.
(c) EPA method 160.3 (*Methods for Chemical Analysis of Water and Wastes*, March 1983).
U qualifier denotes not detected.
J qualifier denotes quantitiation is estimated due to limitiations identified during the data validation quality assurance review.
UJ qualifier denotes that the compound was not detected, but the quantitation limit may or may not be higher than the value shown in parentheses due to a bias identified during the data validation quality assurance review.
R qualifier denotes unusable result identified during data validation quality assurance review; compound may or may not be present in the sample.

Table 4-1
(Continued)
Soil Sample Data Summary
Phase II Remedial Investigation

Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Registry Number	Units	Sample Identifier: GEO-30 (0' - 1')	GEO-30 (2' - 3')	GEO-30 (5' - 6')	GEO-31 (0' - 1')	GEO-31 (2' - 3')	GEO-31 (5' - 6')
TCL Semivolatile Organics (a)								
1,2,4-trichlorobenzene	120-82-1	mg/kg	ND (0.039) U	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
1,2-dichlorobenzene	95-50-1	mg/kg	ND (0.039) U	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
1,3-dichlorobenzene	541-73-1	mg/kg	ND (0.039) U	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
1,4-dichlorobenzene	106-46-7	mg/kg	ND (0.039) U	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
2,2'-oxybis (1-chloropropane)	108-60-1	mg/kg	ND (0.039) U	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
2,4,5-trichlorophenol	95-95-4	mg/kg	ND (0.077) U	ND (0.082) U	ND (0.077) U	ND (0.076) U	ND (0.076) U	ND (0.075) U
2,4,6-trichlorophenol	88-06-2	mg/kg	ND (0.077) U	ND (0.082) U	ND (0.077) U	ND (0.076) U	ND (0.076) U	ND (0.075) U
2,4-dichlorophenol	120-83-2	mg/kg	ND (0.077) U	ND (0.082) U	ND (0.077) U	ND (0.076) U	ND (0.076) U	ND (0.075) U
2,4-dimethylphenol	105-67-9	mg/kg	0.11 (0.077) J	ND (0.082) U	ND (0.077) U	ND (0.076) U	ND (0.076) U	ND (0.075) U
2,4-dinitrophenol	51-28-5	mg/kg	ND (0.23) U	ND (0.24) U	ND (0.22) U	ND (0.22) U	ND (0.22) U	ND (0.22) U
2,4-dinitrotoluene	121-14-2	mg/kg	ND (0.077) U	ND (0.082) U	ND (0.077) U	ND (0.076) U	ND (0.076) U	ND (0.075) U
2,6-dinitrotoluene	606-20-2	mg/kg	ND (0.039) U	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
2-chloronaphthalene	91-58-7	mg/kg	ND (0.039) U	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
2-chlorophenol	95-57-8	mg/kg	ND (0.039) U	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
2-methylnaphthalene	91-57-6	mg/kg	0.3 (0.039) J	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
2-methylphenol	95-48-7	mg/kg	0.042 (0.039) J	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
2-nitroaniline	88-74-4	mg/kg	ND (0.039) U	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
2-nitrophenol	88-75-5	mg/kg	ND (0.077) U	ND (0.082) U	ND (0.077) U	ND (0.076) U	ND (0.076) U	ND (0.075) U
3,3'-dichlorobenzidine	91-94-1	mg/kg	ND (0.077) U	ND (0.082) U	ND (0.077) U	ND (0.076) U	ND (0.076) U	ND (0.075) U
3- and 4-methylphenol	106-44-5	mg/kg	0.14 (0.077) J	ND (0.082) U	ND (0.077) U	ND (0.076) U	ND (0.076) U	ND (0.075) U
3-nitroaniline	99-09-2	mg/kg	ND (0.077) U	ND (0.082) U	ND (0.077) U	ND (0.076) U	ND (0.076) U	ND (0.075) U
4,6-dinitro-2-methylphenol	534-52-1	mg/kg	ND (0.19) U	ND (0.21) U	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.19) U
4-bromophenyl phenyl ether	101-55-3	mg/kg	ND (0.077) U	ND (0.082) U	ND (0.077) U	ND (0.076) U	ND (0.076) U	ND (0.075) U
4-chloro-3-methylphenol	59-50-7	mg/kg	ND (0.077) U	ND (0.082) U	ND (0.077) U	ND (0.076) U	ND (0.076) U	ND (0.075) U
4-chloroaniline	106-47-8	mg/kg	ND (0.039) U	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
4-chlorophenyl phenyl ether	7005-72-3	mg/kg	ND (0.039) U	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
4-nitroaniline	100-01-6	mg/kg	ND (0.077) U	ND (0.082) U	ND (0.077) U	ND (0.076) U	ND (0.076) U	ND (0.075) U
4-nitrophenol	100-02-7	mg/kg	ND (0.19) U	ND (0.21) U	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.19) U
acenaphthene	83-32-9	mg/kg	0.16 (0.039) J	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
acenaphthylene	208-96-8	mg/kg	2.4 (0.039)	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
anthracene	120-12-7	mg/kg	4.1 (0.039)	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
benzo (a) anthracene	56-55-3	mg/kg	11 (0.39)	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
benzo (a) pyrene	50-32-8	mg/kg	8 (0.39)	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
benzo (b) fluoranthene	205-99-2	mg/kg	17 (0.39)	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
benzo (ghi) perylene	191-24-2	mg/kg	3.7 (0.039)	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
benzo (k) fluoranthene	207-08-9	mg/kg	6.1 (0.039)	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
bis (2-chloroethoxy) methane	111-91-1	mg/kg	ND (0.077) U	ND (0.082) U	ND (0.077) U	ND (0.076) U	ND (0.076) U	ND (0.075) U
bis (2-chloroethyl) ether	111-44-4	mg/kg	ND (0.039) U	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
bis (2-ethylhexyl) phthalate	117-81-7	mg/kg	ND (0.077) U	ND (0.082) U	ND (0.077) U	ND (0.076) U	ND (0.076) U	ND (0.075) U
butyl benzyl phthalate	85-68-7	mg/kg	ND (0.077) U	ND (0.082) U	ND (0.077) U	ND (0.076) U	ND (0.076) U	ND (0.075) U
carbazole	86-74-8	mg/kg	1.7 (0.039)	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
chrysene	218-01-9	mg/kg	15 (0.39)	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
di-n-butyl phthalate	84-74-2	mg/kg	ND (0.077) U	ND (0.082) U	ND (0.077) U	ND (0.076) U	ND (0.076) U	ND (0.075) U
di-n-octyl phthalate	117-84-0	mg/kg	ND (0.077) U	ND (0.082) U	ND (0.077) U	ND (0.076) U	ND (0.076) U	ND (0.075) U
dibenz (a,h) anthracene	53-70-3	mg/kg	1.5 (0.039)	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
dibenzofuran	132-64-9	mg/kg	0.34 (0.039) J	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
diethyl phthalate	84-66-2	mg/kg	ND (0.077) U	ND (0.082) U	ND (0.077) U	ND (0.076) U	ND (0.076) U	ND (0.075) U
dimethyl phthalate	131-11-3	mg/kg	ND (0.077) U	ND (0.082) U	ND (0.077) U	ND (0.076) U	ND (0.076) U	ND (0.075) U
fluoranthene	206-44-0	mg/kg	23 (0.39)	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
fluorene	86-73-7	mg/kg	0.47 (0.039)	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
hexachlorobenzene	118-74-1	mg/kg	ND (0.039) R	ND (0.041) R	ND (0.039) R	ND (0.038) R	ND (0.038) R	ND (0.038) U
hexachlorobutadiene	87-68-3	mg/kg	ND (0.077) U	ND (0.082) U	ND (0.077) U	ND (0.076) U	ND (0.076) U	ND (0.075) U
hexachlorocyclopentadiene	77-47-4	mg/kg	ND (0.19) U	ND (0.21) U	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.19) U
hexachloroethane	67-72-1	mg/kg	ND (0.039) U	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
indeno (1,2,3-cd) pyrene	193-39-5	mg/kg	5.6 (0.039)	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
isophorone	78-59-1	mg/kg	ND (0.039) U	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
N-nitrosodi-n-propylamine	621-64-7	mg/kg	ND (0.039) U	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
N-nitrosodiphenylamine	86-30-6	mg/kg	ND (0.039) U	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
naphthalene	91-20-3	mg/kg	0.69 (0.039)	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
nitrobenzene	98-95-3	mg/kg	ND (0.039) U	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
pentachlorophenol	87-86-5	mg/kg	ND (0.19) U	ND (0.21) U	ND (0.19) U	ND (0.19) U	ND (0.19) U	ND (0.19) U
phenanthrene	85-01-8	mg/kg	2.7 (0.039)	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
phenol	108-95-2	mg/kg	0.24 (0.077) J	0.1 (0.082) J	0.15 (0.077) J	0.19 (0.076) J	0.14 (0.076) J	ND (0.075) U
pyrene	129-00-0	mg/kg	19 (0.39)	ND (0.041) U	ND (0.039) U	ND (0.038) U	ND (0.038) U	ND (0.038) U
Other Parameters								
Moisture Content (b)	N.A.	wt %	13.6 (0.08)	19 (0.08)	13.5 (0.08)	12.3 (0.08)	12.6 (0.08)	11.3 (0.08)

Notes:

ND denotes "Not Detected" at the method detection limit shown in parentheses.

(a) Target Compound List (TCL) base neutral/acid-extractable organic compounds by EPA SW-846 method 8270, reported as dry-weight concentrations.

(b) EPA method 160.3 (*Methods for Chemical Analysis of Water and Wastes,* March 1983).

U qualifier denotes not detected.

J qualifier denotes quantitiation is estimated due to limitiations identified during the data validation quality assurance review.

UJ qualifier denotes that the compound was not detected, but the quantitation limit may or may not be higher than the value shown in parentheses due to a bias identified during the data validation quality assurance review.

R qualifier denotes unusable result identified during data validation quality assurance review; compound may or may not be present in the sample.

Table 4-1
(Continued)
Soil Sample Data Summary
Phase II Remedial Investigation

Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Registry Number	Units	Sample Identifier: GEO-32 (0' - 1')	GEO-32 (2' - 3')	GEO-32 (5' - 6')	GEO-33 (0' - 1')	GEO-33 (0' - 1') Duplicate (a)	GEO-33 (2' - 3')	GEO-33 (5' - 6')
TCL Semivolatile Organics (b)									
1,2,4-trichlorobenzene	120-82-1	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.38)	ND (0.038) U	ND (0.039) U	ND (0.041) U
1,2-dichlorobenzene	95-50-1	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.38)	ND (0.038) U	ND (0.039) U	ND (0.041) UJ
1,3-dichlorobenzene	541-73-1	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.38)	ND (0.038) U	ND (0.039) U	ND (0.041) UJ
1,4-dichlorobenzene	106-46-7	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.38)	ND (0.038) U	ND (0.039) U	ND (0.041) U
2,2'-oxybis (1-chloropropane)	108-60-1	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.38)	ND (0.038) U	ND (0.039) U	ND (0.041) U
2,4,5-trichlorophenol	95-95-4	mg/kg	ND (0.078) U	ND (0.077) U	ND (0.078) U	ND (0.75)	ND (0.076) U	ND (0.079) U	ND (0.083) U
2,4,6-trichlorophenol	88-06-2	mg/kg	ND (0.078) U	ND (0.077) U	ND (0.078) U	ND (0.75)	ND (0.076) U	ND (0.079) U	ND (0.083) U
2,4-dichlorophenol	120-83-2	mg/kg	ND (0.078) U	ND (0.077) U	ND (0.078) U	ND (0.75)	ND (0.076) U	ND (0.079) U	ND (0.083) U
2,4-dimethylphenol	105-67-9	mg/kg	ND (0.078) U	ND (0.077) U	ND (0.078) U	ND (0.75)	0.16 (0.076) J	ND (0.079) U	ND (0.083) U
2,4-dinitrophenol	51-28-5	mg/kg	ND (0.23) UJ	ND (0.23) U	ND (0.23) U	ND (2.2)	ND (0.22) U	ND (0.23) U	ND (0.24) U
2,4-dinitrotoluene	121-14-2	mg/kg	ND (0.078) U	ND (0.077) U	ND (0.078) U	ND (0.75)	ND (0.076) U	ND (0.079) U	ND (0.083) U
2,6-dinitrotoluene	606-20-2	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.38)	ND (0.038) U	ND (0.039) U	ND (0.041) U
2-chloronaphthalene	91-58-7	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.38)	ND (0.038) U	ND (0.039) U	ND (0.041) U
2-chlorophenol	95-57-8	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.38)	ND (0.038) U	ND (0.039) U	ND (0.041) U
2-methylnaphthalene	91-57-6	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	11 (0.38)	7.4 (3) J	0.88 (0.039)	ND (0.041) U
2-methylphenol	95-48-7	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.38)	ND (0.038) U	ND (0.039) U	ND (0.041) U
2-nitroaniline	88-74-4	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.38)	ND (0.038) U	ND (0.039) U	ND (0.041) U
2-nitrophenol	88-75-5	mg/kg	ND (0.078) U	ND (0.077) U	ND (0.078) U	ND (0.75)	ND (0.076) U	ND (0.079) U	ND (0.083) U
3,3'-dichlorobenzidine	91-94-1	mg/kg	ND (0.078) U	ND (0.077) U	ND (0.078) U	ND (0.75)	ND (0.076) U	ND (0.079) U	ND (0.083) U
3- and 4-methylphenol	106-44-5	mg/kg	ND (0.078) U	ND (0.077) U	ND (0.078) U	ND (0.75)	ND (0.076) U	ND (0.079) U	ND (0.083) U
3-nitroaniline	99-09-2	mg/kg	ND (0.078) U	ND (0.077) U	ND (0.078) U	ND (0.75)	ND (0.076) U	ND (0.079) U	ND (0.083) U
4,6-dinitro-2-methylphenol	534-52-1	mg/kg	ND (0.19) UJ	ND (0.19) U	ND (0.2) U	ND (1.9)	ND (0.19) U	ND (0.2) U	ND (0.21) U
4-bromophenyl phenyl ether	101-55-3	mg/kg	ND (0.078) U	ND (0.077) U	ND (0.078) U	ND (0.75)	ND (0.076) U	ND (0.079) U	ND (0.083) U
4-chloro-3-methylphenol	59-50-7	mg/kg	ND (0.078) U	ND (0.077) U	ND (0.078) U	ND (0.75)	ND (0.076) U	ND (0.079) U	ND (0.083) U
4-chloroaniline	106-47-8	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.38)	ND (0.038) U	ND (0.039) U	ND (0.041) U
4-chlorophenyl phenyl ether	7005-72-3	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.38)	ND (0.038) U	ND (0.039) U	ND (0.041) U
4-nitroaniline	100-01-6	mg/kg	ND (0.078) U	ND (0.077) U	ND (0.078) U	ND (0.75)	ND (0.076) U	ND (0.079) U	ND (0.083) U
4-nitrophenol	100-02-7	mg/kg	ND (0.19) U	ND (0.19) U	ND (0.2) U	ND (1.9)	ND (0.19) U	ND (0.2) U	ND (0.21) U
acenaphthene	83-32-9	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	66 (7.5) J	41 (3)	5 (0.039)	0.11 (0.041) J
acenaphthylene	208-96-8	mg/kg	0.048 (0.039) J	ND (0.039) U	ND (0.039) U	20 (0.38)	12 (3) J	1.7 (0.039)	ND (0.041) U
anthracene	120-12-7	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	94 (7.5)	58 (3)	8.5 (0.79)	0.22 (0.041) J
benzo (a) anthracene	56-55-3	mg/kg	0.29 (0.039) J	ND (0.039) U	ND (0.039) U	100 (7.5)	67 (3)	11 (0.79)	0.16 (0.041) J
benzo (a) pyrene	50-32-8	mg/kg	0.31 (0.039) J	ND (0.039) U	ND (0.039) U	64 (7.5) J	41 (3)	5.2 (0.039)	0.089 (0.041) J
benzo (b) fluoranthene	205-99-2	mg/kg	0.76 (0.039)	ND (0.039) U	0.41 (0.039)	97 (7.5)	62 (3)	8.6 (0.79)	0.14 (0.041) J
benzo (ghi) perylene	191-24-2	mg/kg	0.23 (0.039) J	ND (0.039) U	ND (0.039) U	30 (0.38)	21 (3) J	2.4 (0.039)	0.042 (0.041) J
benzo (k) fluoranthene	207-08-9	mg/kg	0.46 (0.039)	ND (0.039) U	0.35 (0.039) J	36 (0.38)	21 (3) J	2.9 (0.039)	0.05 (0.041) J
bis (2-chloroethoxy) methane	111-91-1	mg/kg	ND (0.078) U	ND (0.077) U	ND (0.078) U	ND (0.75)	ND (0.076) U	ND (0.079) U	ND (0.083) U
bis (2-chloroethyl) ether	111-44-4	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.38)	ND (0.038) U	ND (0.039) U	ND (0.041) U
bis (2-ethylhexyl) phthalate	117-81-7	mg/kg	ND (0.078) U	0.15 (0.077) J (d)	0.14 (0.078) J (d)	ND (0.75)	ND (0.076) U	ND (0.079) U	ND (0.083) U
butyl benzyl phthalate	85-68-7	mg/kg	ND (0.078) U	ND (0.077) U	ND (0.078) U	ND (0.75)	ND (0.076) U	ND (0.079) U	ND (0.083) U
carbazole	86-74-8	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	16 (0.38)	11 (3) J	1.6 (0.039)	ND (0.041) U
chrysene	218-01-9	mg/kg	0.37 (0.039) J	ND (0.039) UJ	0.041 (0.039) J	100 (7.5)	65 (3)	9.6 (0.79)	0.17 (0.041) J
di-n-butyl phthalate	84-74-2	mg/kg	ND (0.078) U	ND (0.077) U	ND (0.078) U	ND (0.75)	ND (0.076) U	ND (0.079) U	ND (0.083) U
di-n-octyl phthalate	117-84-0	mg/kg	ND (0.078) U	ND (0.077) U	ND (0.078) U	ND (0.75)	ND (0.076) U	ND (0.079) U	ND (0.083) U
dibenz (a,h) anthracene	53-70-3	mg/kg	0.063 (0.039) J	ND (0.039) U	ND (0.039) U	16 (0.38)	4.9 (0.038)	0.84 (0.039)	ND (0.041) U
dibenzofuran	132-64-9	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	35 (0.38)	23 (3) J	2.8 (0.039)	0.099 (0.041) J
diethyl phthalate	84-66-2	mg/kg	ND (0.078) U	ND (0.077) U	ND (0.078) U	ND (0.75)	ND (0.076) U	ND (0.079) U	ND (0.083) U
dimethyl phthalate	131-11-3	mg/kg	ND (0.078) U	ND (0.077) U	ND (0.078) U	ND (0.75)	ND (0.076) U	ND (0.079) U	ND (0.083) U
fluoranthene	206-44-0	mg/kg	0.13 (0.039) J	ND (0.039) U	0.13 (0.039) J	440 (7.5)	270 (3)	42 (0.79)	0.7 (0.041)
fluorene	86-73-7	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	78 (7.5)	48 (3)	6.2 (0.039)	0.17 (0.041) J
hexachlorobenzene	118-74-1	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.38)	ND (0.038) U	ND (0.039) U	ND (0.041) U
hexachlorobutadiene	87-68-3	mg/kg	ND (0.078) U	ND (0.077) U	ND (0.078) U	ND (0.75)	ND (0.076) U	ND (0.079) U	ND (0.083) U
hexachlorocyclopentadiene	77-47-4	mg/kg	ND (0.19) U	ND (0.19) U	ND (0.2) U	ND (1.9)	ND (0.19) U	ND (0.2) U	ND (0.21) U
hexachloroethane	67-72-1	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.38)	ND (0.038) U	ND (0.039) U	ND (0.041) UJ
indeno (1,2,3-cd) pyrene	193-39-5	mg/kg	0.26 (0.039) J	ND (0.039) U	ND (0.039) U	37 (0.38)	25 (3) J	3 (0.039)	0.052 (0.041) J
isophorone	78-59-1	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.38)	ND (0.038) U	ND (0.039) U	ND (0.041) U
N-nitrosodi-n-propylamine	621-64-7	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.38)	ND (0.038) U	ND (0.039) U	ND (0.041) U
N-nitrosodiphenylamine	86-30-6	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.38)	ND (0.038) U	ND (0.039) U	ND (0.041) U
naphthalene	91-20-3	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	8.3 (0.38)	5.4 (0.038) V	0.75 (0.039)	ND (0.041) U
nitrobenzene	98-95-3	mg/kg	ND (0.039) U	ND (0.039) U	ND (0.039) U	ND (0.38)	ND (0.038) U	ND (0.039) U	ND (0.041) U
pentachlorophenol	87-86-5	mg/kg	ND (0.19) U	ND (0.19) U	ND (0.2) U	ND (1.9)	ND (0.19) U	ND (0.2) U	ND (0.21) U
phenanthrene	85-01-8	mg/kg	ND (0.039) U	ND (0.039) U	0.085 (0.039) J	300 (7.5)	190 (3)	29 (0.79)	0.76 (0.041)
phenol	108-95-2	mg/kg	0.14 (0.078) J	0.12 (0.077) J	0.17 (0.078) J	ND (0.75)	ND (0.076) U	ND (0.079) U	ND (0.083) U
pyrene	129-00-0	mg/kg	0.25 (0.039) J	ND (0.039) U	0.11 (0.039) J	320 (7.5)	200 (3)	30 (0.79)	0.44 (0.041)
Other Parameters									
Moisture Content (c)	N.A.	wt. %	14.1 (0.08)	13.9 (0.08)	15.0 (0.08)	11.4 (0.08)	12.4 (0.08)	15.1 (0.08)	19.3 (0.08)

Notes:

ND denotes "Not Detected" at the method detection limit shown in parentheses.
(a) Listed on chain-of-custody documentation as sample GEO-02/0'-2'.
(b) Target Compound List (TCL) base neutral/acid-extractable organic compounds by EPA SW-846 method 8270, reported as dry-weight concentrations.
(c) EPA method 160.3 (*Methods for Chemical Analysis of Water and Wastes*, March 1983).
U qualifier denotes not detected.
J qualifier denotes quantitiation is estimated due to limitiations identified during the data validation quality assurance review.
UJ qualifier denotes that the compound was not detected, but the quantitation limit may or may not be higher than the value shown in parentheses due to a bias identified during the data validation quality assurance review.

Table 4-2

Volatile Organic Compound Data Summary
Ground Water Screening Samples
Phase II Remedial Investigation

Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Registry Number	Units	Sample Identifier: GEO-16-GW	GEO-17-GW	GEO-17 (Duplicate) (a)	GEO-18-GW	GEO-19-GW	GEO-20-GW
TCL Volatile Organics (b)								
1,1,1-Trichloroethane	71-55-6	mg/L	ND (0.001) U	ND (0.050) U	ND (0.050) U	ND (0.001) U	ND (0.005) U	ND (0.001) U
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	ND (0.002) U	ND (0.100) U	ND (0.100) U	ND (0.002) U	ND (0.010) U	ND (0.002) U
1,1,2-Trichloroethane	79-00-5	mg/L	ND (0.002) U	ND (0.100) U	ND (0.100) U	ND (0.002) U	ND (0.010) U	ND (0.002) U
1,1-Dichloroethane	75-34-3	mg/L	ND (0.002) U	ND (0.100) U	ND (0.100) U	ND (0.002) U	ND (0.010) U	ND (0.002) U
1,1-Dichloroethene	75-35-4	mg/L	ND (0.001) U	ND (0.050) U	ND (0.050) U	ND (0.001) U	ND (0.005) U	ND (0.001) U
1,2-Dichloroethane	107-06-2	mg/L	ND (0.002) U	ND (0.100) U	ND (0.100) U	ND (0.002) U	ND (0.010) U	ND (0.002) U
1,2-Dichloropropane	78-87-5	mg/L	ND (0.001) U	ND (0.050) U	ND (0.050) U	ND (0.001) U	ND (0.005) U	ND (0.001) U
2-Butanone	78-93-3	mg/L	ND (0.003) U	ND (0.150) U	ND (0.150) U	ND (0.003) U	ND (0.015) U	ND (0.003) U
2-Hexanone	591-78-6	mg/L	ND (0.007) U	ND (0.350) U	ND (0.350) U	ND (0.007) U	ND (0.035) U	ND (0.007) U
4-Methyl-2-pentanone	108-10-1	mg/L	ND (0.005) U	ND (0.250) U	ND (0.250) U	ND (0.005) U	ND (0.025) U	ND (0.005) U
Acetone	67-64-1	mg/L	ND (0.006) U	ND (0.300) U	ND (0.300) U	ND (0.006) U	ND (0.030) U	ND (0.006) U
Benzene	71-43-2	mg/L	ND (0.001) U	ND (0.050) U	ND (0.050) U	ND (0.001) U	ND (0.005) U	ND (0.001) U
Bromodichloromethane	75-27-4	mg/L	ND (0.001) U	ND (0.050) U	ND (0.050) U	ND (0.001) U	ND (0.005) U	ND (0.001) U
Bromoform	75-25-2	mg/L	ND (0.001) U	ND (0.050) U	ND (0.050) U	ND (0.001) U	ND (0.005) U	ND (0.001) U
Bromomethane	74-83-9	mg/L	ND (0.003) U	ND (0.150) U	ND (0.150) U	ND (0.003) U	ND (0.015) U	ND (0.003) U
Carbon Disulfide	75-15-0	mg/L	ND (0.003) U	ND (0.150) U	ND (0.150) U	ND (0.003) U	ND (0.015) U	ND (0.003) U
Carbon Tetrachloride	56-23-5	mg/L	ND (0.001) U	ND (0.050) U	ND (0.050) U	ND (0.001) U	ND (0.005) U	ND (0.001) U
Chlorobenzene	108-90-7	mg/L	ND (0.001) U	ND (0.050) U	ND (0.050) U	ND (0.001) U	ND (0.005) U	ND (0.001) U
Chloroethane	75-00-3	mg/L	ND (0.003) U	ND (0.150) U	ND (0.150) U	ND (0.003) U	ND (0.015) U	ND (0.003) U
Chloroform	67-66-3	mg/L	ND (0.001) U	ND (0.050) U	ND (0.050) U	ND (0.001) U	ND (0.005) U	ND (0.001) U
Chloromethane	74-87-3	mg/L	ND (0.003) U	ND (0.150) U	ND (0.150) U	ND (0.003) U	ND (0.015) U	ND (0.003) U
cis-1,2-Dichloroethene	156-59-2	mg/L	ND (0.002) U	ND (0.100) U	ND (0.100) U	ND (0.002) U	ND (0.010) U	ND (0.002) U
cis-1,3-Dichloropropene	10061-01-5	mg/L	ND (0.001) U	ND (0.050) U	ND (0.050) U	ND (0.001) U	ND (0.005) U	ND (0.001) U
Dibromochloromethane	124-48-1	mg/L	ND (0.002) U	ND (0.100) U	ND (0.100) U	ND (0.002) U	ND (0.010) U	ND (0.002) U
Ethylbenzene	100-41-4	mg/L	ND (0.002) U	ND (0.100) U	ND (0.100) U	ND (0.002) U	ND (0.010) U	ND (0.002) U
Methylene Chloride	75-09-2	mg/L	ND (0.002) U	ND (0.100) U	ND (0.100) U	ND (0.002) U	ND (0.010) U	ND (0.002) U
Styrene	100-42-5	mg/L	ND (0.001) U	ND (0.050) U	ND (0.050) U	ND (0.001) U	ND (0.005) U	ND (0.001) U
Tetrachloroethene	127-18-4	mg/L	ND (0.001) U	ND (0.050) U	ND (0.050) U	ND (0.001) U	ND (0.005) U	ND (0.001) U
Toluene	108-88-3	mg/L	ND (0.002) U	ND (0.100) U	ND (0.100) U	ND (0.002) U	ND (0.010) U	ND (0.002) U
trans-1,2-Dichloroethene	156-60-5	mg/L	ND (0.002) U	ND (0.100) U	ND (0.100) U	ND (0.002) U	ND (0.010) U	ND (0.002) U
trans-1,3-Dichloropropene	10061-02-6	mg/L	ND (0.001) U	ND (0.050) U	ND (0.050) U	ND (0.001) U	ND (0.005) U	ND (0.001) U
Trichloroethene	79-01-6	mg/L	ND (0.001) U	ND (0.050) U	ND (0.050) U	ND (0.001) U	ND (0.005) U	ND (0.001) U
Vinyl Chloride	75-01-4	mg/L	ND (0.002) U	ND (0.100) U	ND (0.100) U	ND (0.002) U	ND (0.010) U	ND (0.002) U
Xylene (Total)	1330-20-7	mg/L	ND (0.001) U	0.082 (0.050) J	0.057 (0.050) J	ND (0.001) U	0.027 (0.005) J	ND (0.001) U

Notes:

ND denotes "Not Detected" at method detection limit shown in parentheses.

(a) Listed on chain-of-custody documentation as sample GEO-21-GW.

(b) Target Compound List (TCL) volatile organic compounds by EPA SW-846 method 8260.

U qualifier denotes not detected.

J qualifier denotes quantitation is estimated due to limitations identified during data validation quality assurance review.

Table 4-2
(Continued)

Semivolatile Organic Compound Data Summary
Ground Water Screening Samples
Phase II Remedial Investigation

Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Registry Number	Units	Sample Identifier: CPT-08-GW	CPT-09-GW	CPT-09-GW (Duplicate) (a)	CPT-10-GW	CPT-11-GW	CPT-12-GW	CPT-13-GW
TCL Semivolatile Organics (b)									
1,2,4-trichlorobenzene	120-82-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
1,2-dichlorobenzene	95-50-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
1,3-dichlorobenzene	541-73-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
1,4-dichlorobenzene	106-46-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
2,2'oxybis (1-chloropropane)	108-60-1	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
2,4,5-trichlorophenol	95-95-4	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
2,4,6-trichlorophenol	88-06-2	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
1 2,4-dichlorophenol	120-83-2	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
2,4-dimethylphenol	105-67-9	mg/L	ND (0.001) U	0.06 (0.001)	0.063 (0.001)	ND (0.001) U	0.002 (0.001) J	ND (0.0009) U	ND (0.001) U
2,4-dinitrophenol	51-28-5	mg/L	ND (0.014) U	ND (0.014) U	ND (0.014) U	ND (0.015) U	ND (0.016) U	ND (0.014) U	ND (0.015) UJ
2,4-dinitrotoluene	121-14-2	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
2,6-dinitrotoluene	606-20-2	mg/L	0.005 (0.002) J	0.002 (0.002) J	0.006 (0.002) J	0.003 (0.002) J	0.003 (0.002) J	0.004 (0.002) J	ND (0.002) U
2-chloronaphthalene	91-58-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
2-chlorophenol	95-57-8	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
2-methylnaphthalene	91-57-6	mg/L	0.001 (0.001) J	0.8 (0.095) J	0.71 (0.095) J	ND (0.001) U	0.023 (0.001)	0.042 (0.0009)	0.002 (0.001) J
2-methylphenol	95-48-7	mg/L	ND (0.001) U	0.009 (0.001) J	0.008 (0.001) J	ND (0.001) U	0.001 (0.001) J	ND (0.0009) U	ND (0.001) U
2-nitroaniline	88-74-4	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
2-nitrophenol	88-75-5	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
3,3'-dichlorobenzidine	91-94-1	mg/L	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U
3-nitroaniline	99-09-2	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
4,6-dinitro-2-methylphenol	534-52-1	mg/L	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U
4-bromophenyl phenyl ether	101-55-3	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
4-chloro-3-methylphenol	59-50-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
4-chloroaniline	106-47-8	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
4-chlorophenyl phenyl ether	7005-72-3	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
4-methylphenol	106-44-5	mg/L	ND (0.003) U	0.018 (0.003)	0.018 (0.003)	ND (0.003) U	0.009 (0.003) J	ND (0.003) U	ND (0.003) U
4-nitroaniline	100-01-6	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
4-nitrophenol	100-02-7	mg/L	ND (0.010) U	ND (0.009) U	ND (0.010) U	ND (0.010) U	ND (0.011) U	ND (0.009) U	ND (0.010) U
acenaphthene	83-32-9	mg/L	0.002 (0.001) J	0.25 (0.095) J	0.22 (0.095) J	0.002 (0.001) J	0.019 (0.001)	0.1 (0.0009)	0.002 (0.001) J
acenaphthylene	208-96-8	mg/L	ND (0.002) U	0.029 (0.002)	0.026 (0.002)	ND (0.002) U	ND (0.002) U	0.007 (0.002) J	ND (0.002) U
anthracene	120-12-7	mg/L	0.002 (0.001) J	0.009 (0.001) J	0.007 (0.001) J	ND (0.001) U	ND (0.001) U	0.006 (0.0009) J	ND (0.001) U
benzo (a) anthracene	56-55-3	mg/L	0.002 (0.001) J	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.001 (0.0009) J	ND (0.001) U
benzo (a) pyrene	50-32-8	mg/L	0.001 (0.001) J	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
benzo (b) fluoranthene	205-99-2	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
benzo (ghi) perylene	191-24-2	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
benzo (k) fluoranthene	207-08-9	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
bis (2-chloroethoxy) methane	111-91-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
bis (2-chloroethyl) ether	111-44-4	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
bis (2-ethylhexyl) phthalate	117-81-7	mg/L	0.042 (0.002) U*	0.004 (0.002) U*	0.003 (0.002) U*	ND (0.002) U	0.017 (0.002) U*	0.007 (0.002) U*	0.002 (0.002) U*
butyl benzyl phthalate	85-68-7	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	0.002 (0.002) (c,d)	ND (0.002) U	ND (0.002) U	ND (0.002) U
carbazole	86-74-8	mg/L	ND (0.001) U	0.36 (0.095) J	0.37 (0.095) J	0.002 (0.001) J	0.003 (0.001) J	0.084 (0.0009) V	0.005 (0.001) J
chrysene	218-01-9	mg/L	0.001 (0.001) J	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.001 (0.0009) J	ND (0.001) U
di-n-butyl phthalate	84-74-2	mg/L	0.005 (0.002) U* (c)	0.003 (0.002) J (c)	0.004 (0.002) J (c)	0.003 (0.002) J (c)	0.004 (0.002) J (c)	0.004 (0.002) J (c)	ND (0.002) U
di-n-octyl phthalate	117-84-0	mg/L	0.006 (0.002) J (c)	ND (0.002) U	ND (0.002) U	ND (0.002) U	0.005 (0.002) U* (c)	ND (0.002) U	ND (0.002) U
dibenz (a,h) anthracene	53-70-3	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
dibenzofuran	132-64-9	mg/L	0.002 (0.001) J	0.21 (0.095) J	0.14 (0.001)	0.002 (0.001) J	0.03 (0.001)	0.087 (0.0009)	0.003 (0.001) J
diethyl phthalate	84-66-2	mg/L	0.005 (0.002) J	ND (0.002) U	0.004 (0.002) J	ND (0.002) U	0.003 (0.002) J	0.006 (0.002) J	ND (0.002) U
dimethyl phthalate	131-11-3	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
fluoranthene	206-44-0	mg/L	0.006 (0.001) J	0.002 (0.001) J	0.001 (0.001) J	ND (0.001) U	0.001 (0.001) J	0.006 (0.0009) J	ND (0.001) U
fluorene	86-73-7	mg/L	0.003 (0.001) J	0.13 (0.001)	0.11 (0.001)	0.001 (0.001) J	0.015 (0.001)	0.046 (0.0009)	0.003 (0.001) J
hexachlorobenzene	118-74-1	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
hexachlorobutadiene	87-68-3	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
hexachlorocyclopentadiene	77-47-4	mg/L	ND (0.005) U	ND (0.005) U	ND (0.005) U	0.002 (0.005) (d)	ND (0.005) U	ND (0.005) U	ND (0.005) UJ
hexachloroethane	67-72-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
indeno (1,2,3-cd) pyrene	193-39-5	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
isophorone	78-59-1	mg/L	ND (0.001) U	ND (0.001) U	0.001 (0.001) J	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
N-nitrosodi-n-propylamine	621-64-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
N-nitrosodiphenylamine	86-30-6	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
naphthalene	91-20-3	mg/L	0.004 (0.001) J	12 (0.095)	11 (0.095)	0.001 (0.001) J	0.12 (0.001)	0.71 (0.005)	0.009 (0.001) J
nitrobenzene	98-95-3	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.0009) U	ND (0.001) U
pentachlorophenol	87-86-5	mg/L	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U
phenanthrene	85-01-8	mg/L	0.007 (0.001) J	0.088 (0.001)	0.067 (0.001)	ND (0.001) U	0.017 (0.001)	0.057 (0.0009)	0.004 (0.001) J
phenol	108-95-2	mg/L	0.004 (0.001) J	0.001 (0.001) J	ND (0.001) U	ND (0.001) U	0.008 (0.001) J	0.003 (0.0009) J	0.001 (0.001) J
pyrene	129-00-0	mg/L	0.006 (0.001) J	0.001 (0.001) J	ND (0.001) U	ND (0.001) U	0.001 (0.001) J	0.009 (0.0009)	ND (0.001) U

Notes:
ND denotes "Not Detected" at method detection limit shown in parentheses.
(a) Listed on chain-of-custody documentation as sample CPT-07-GW.
(b) Target Compound List (TCL) base neutral/acid-extractable organic compounds by EPA SW-846 method 8270.
(c) Low concentrations of this common laboratory contaminant warrant caution if this value is used as basis for environmental risk assessment or other decision-making process.
(d) Corrected value resulting from data validation quality assurance review.
U qualifier denotes not detected.
J qualifier denotes quantitation is estimated due to limitations identified during data validation quality assurance review.
U* qualifier denotes that compound should be considered "not-detected" since it was detected in a corresponding field, trip, and/or laboratory blank sample at a similar concentration.

Table 4-2
(Continued)

Semivolatile Organic Compound Data Summary
Ground Water Screening Samples
Phase II Remedial Investigation

Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Registry Number	Units	Sample Identifier: CPT-21-GW	CPT-22-GW	GEO-16-GW	GEO-17-GW	GEO-17 (Duplicate) (a)	CPT-18-GW	GEO-19-GW	GEO-20-GW
TCL Semivolatile Organics (b)										
1,2,4-trichlorobenzene	120-82-1	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
1,2-dichlorobenzene	95-50-1	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
1,3-dichlorobenzene	541-73-1	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
1,4-dichlorobenzene	106-46-7	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
2,2'oxybis (1-chloropropane)	108-60-1	µg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
2,4,5-trichlorophenol	95-95-4	µg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
2,4,6-trichlorophenol	88-06-2	µg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
2,4-dichlorophenol	120-83-2	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
2,4-dimethylphenol	105-67-9	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.011 (0.001)	ND (0.001) U	0.014 (0.001)	ND (0.001) U
2,4-dinitrophenol	51-28-5	µg/L	ND (0.015) U	ND (0.014) U	ND (0.015) U	ND (0.015) U	ND (0.015) U	ND (0.015) U	ND (0.016) U	ND (0.015) U
2,4-dinitrotoluene	121-14-2	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
2,6-dinitrotoluene	606-20-2	µg/L	0.003 (0.002) J	0.006 (0.002) J	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
2-chloronaphthalene	91-58-7	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
2-chlorophenol	95-57-8	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
2-methylnaphthalene	91-57-6	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.73 (0.200) J	0.59 (0.097) J	ND (0.001) U	0.13 (0.001)	ND (0.001) U
2-methylphenol	95-48-7	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.001 (0.001) J	ND (0.001) U	0.003 (0.001) J	ND (0.001) U
2-nitroaniline	88-74-4	µg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
2-nitrophenol	88-75-5	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
3,3'-dichlorobenzidine	91-94-1	µg/L	ND (0.005) U	ND (0.005) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.005) U	ND (0.002) U	ND (0.002) U
3-nitroaniline	99-09-2	µg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
4,6-dinitro-2-methylphenol	534-52-1	µg/L	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U
4-bromophenyl phenyl ether	101-55-3	µg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
4-chloro-3-methylphenol	59-50-7	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
4-chloroaniline	106-47-8	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
4-chlorophenyl phenyl ether	7005-72-3	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
4-methylphenol	106-44-5	µg/L	ND (0.003) U	ND (0.003) U	ND (0.003) U	0.01 (0.003) J	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U
4-nitroaniline	100-01-6	µg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
4-nitrophenol	100-02-7	µg/L	ND (0.010) U	ND (0.009) U	ND (0.010) U	ND (0.010) U	ND (0.010) U	ND (0.010) U	ND (0.011) U	ND (0.010) U
acenaphthene	83-32-9	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.34 (0.200) J	0.32 (0.097) J	0.001 (0.001) J	0.14 (0.001)	ND (0.001) U
acenaphthylene	208-96-8	µg/L	ND (0.002) U	ND (0.002) U	ND (0.001) U	0.02 (0.001)	0.015 (0.001)	ND (0.002) U	0.009 (0.001) J	ND (0.001) U
anthracene	120-12-7	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.04 (0.001)	0.03 (0.001)	ND (0.001) U	0.026 (0.001)	ND (0.001) U
benzo (a) anthracene	56-55-3	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.01 (0.001)	0.007 (0.001) J	ND (0.001) U	0.017 (0.001)	ND (0.001) U
benzo (a) pyrene	50-32-8	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.01 (0.001) J	0.003 (0.001) J	ND (0.001) U	0.008 (0.001) J	ND (0.001) U
benzo (b) fluoranthene	205-99-2	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.01 (0.001) J	0.004 (0.001) J	ND (0.001) U	0.013 (0.001)	ND (0.001) U
benzo (ghi) perylene	191-24-2	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	0 (0.001) J	0.001 (0.001) J	ND (0.001) U	0.003 (0.001) J	ND (0.001) U
benzo (k) fluoranthene	207-08-9	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	0 (0.001) J	0.002 (0.001) J	ND (0.001) U	0.004 (0.001) J	ND (0.001) U
bis (2-chloroethoxy) methane	111-91-1	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
bis (2-chloroethyl) ether	111-44-4	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
bis (2-ethylhexyl) phthalate	117-81-7	µg/L	0.019 (0.002) U*	0.01 (0.002) U*	ND (0.002) U	ND (0.002) U	ND (0.002) U	0.007 (0.002) J	ND (0.002) U	ND (0.002) U
butyl benzyl phthalate	85-68-7	µg/L	0.002 (0.002) (c,d)	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
carbazole	86-74-8	µg/L	0.002 (0.001) J	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.2 (0.097) JD	0.002 (0.001) J	0.077 (0.001)	ND (0.001) U
chrysene	218-01-9	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.01 (0.001)	0.005 (0.001) J	ND (0.001) U	0.015 (0.001)	ND (0.001) U
di-n-butyl phthalate	84-74-2	µg/L	0.003 (0.002) J (d)	0.005 (0.002) J (d)	ND (0.002) U	ND (0.002) U	ND (0.002) U	0.002 (0.002) J (d)	ND (0.002) U	ND (0.002) U
di-n-octyl phthalate	117-84-0	µg/L	0.004 (0.002) U* (d)	0.003 (0.002) U* (d)	ND (0.002) U	ND (0.002) U	ND (0.002) U	0.003 (0.002) J (d)	ND (0.002) U	ND (0.002) U
dibenz (a,h) anthracene	53-70-3	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.001 (0.001) J	ND (0.001) U
dibenzofuran	132-64-9	µg/L	ND (0.001) U	0.001 (0.001) J	ND (0.001) U	0.22 (0.200) J	0.22 (0.097) J	0.002 (0.001) J	0.048 (0.001)	ND (0.001) U
diethyl phthalate	84-66-2	µg/L	0.002 (0.002) J	0.008 (0.002) J	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
dimethyl phthalate	131-11-3	µg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
fluoranthene	206-44-0	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.08 (0.001)	0.047 (0.001)	ND (0.001) U	0.1 (0.001)	ND (0.001) U
fluorene	86-73-7	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.22 (0.200) J	0.2 (0.097) J	0.002 (0.001) J	0.067 (0.001)	ND (0.001) U
hexachlorobenzene	118-74-1	µg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
hexachlorobutadiene	87-68-3	µg/L	0.002 (0.002) (c)	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
hexachlorocyclopentadiene	77-47-4	µg/L	ND (0.005) U	ND (0.005) U	ND (0.005) UJ	ND (0.005) UJ	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U
hexachloroethane	67-72-1	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
indeno (1,2,3-cd) pyrene	193-39-5	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	0 (0.001) J	0.001 (0.001) J	ND (0.001) U	0.004 (0.001) J	ND (0.001) U
isophorone	78-59-1	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
N-nitrosodi-n-propylamine	621-64-7	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
N-nitrosodiphenylamine	86-30-6	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
naphthalene	91-20-3	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	8.8 (0.200)	5.5 (0.097)	0.001 (0.001) J	1.9 (0.022)	ND (0.001) U
nitrobenzene	98-95-3	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
pentachlorophenol	87-86-5	µg/L	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U
phenanthrene	85-01-8	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.31 (0.200) J	0.28 (0.097) J	0.004 (0.001) J	0.14 (0.001)	ND (0.001) U
phenol	108-95-2	µg/L	0.001 (0.001) J	0.004 (0.001) J	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
pyrene	129-00-0	µg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.05 (0.001)	0.03 (0.001)	ND (0.001) U	0.076 (0.001)	ND (0.001) U

Notes:
ND denotes "Not Detected" at method detection limit shown in parentheses.
(a) Listed on chain-of-custody documentation as sample GEO-21-GW.
(b) Target Compound List (TCL) base neutral/acid-extractable organic compounds by EPA SW-846 method 8270.
(c) Corrected value resulting from data validation quality assurance review.
(d) Low concentrations of this common laboratory contaminant warrant caution if this value is used as basis for environmental risk assessment or other decision-making process.
U qualifier denotes not detected.
J qualifier denotes quantitation is estimated due to limitations identified during data validation quality assurance review.
U* qualifier denotes that compound should be considered "not-detected" since it was detected in a corresponding field, trip, and/or laboratory blank sample at a similar concentration.
UJ qualifier denotes that the compound was not detected, but the quantitation limit may or may not be higher thatn the value shown in parentheses due to a bias identified during the data validation quality assurance review.

Table 4-2
(Continued)

Volatile Organic Compound Data Summary
Ground Water Monitoring Samples
Phase II Remedial Investigation

Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Registry Number	Units	Sample Identifier: MW-10	MW-11	MW-12	MW-13	MW-13 (Duplicate) (b)
TCL Volatile Organics (c)							
1,1,1-Trichloroethane	71-55-6	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
1,1,2,2-Tetrachloroethane	79-34-5	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
1,1,2-Trichloroethane	79-00-5	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
1,1-Dichloroethane	75-34-3	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
1,1-Dichloroethene	75-35-4	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
1,2-Dichloroethane	107-06-2	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
1,2-Dichloropropane	78-87-5	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
2-Butanone	78-93-3	mg/L	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U
2-Hexanone	591-78-6	mg/L	ND (0.007) U	ND (0.007) U	ND (0.007) U	ND (0.007) U	ND (0.007) U
4-Methyl-2-pentanone	108-10-1	mg/L	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U
Acetone	67-64-1	mg/L	ND (0.006) R	ND (0.006) R	ND (0.006) R	ND (0.006) R	ND (0.006) R
Benzene	71-43-2	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
Bromodichloromethane	75-27-4	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
Bromoform	75-25-2	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
Bromomethane	74-83-9	mg/L	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U
Carbon Disulfide	75-15-0	mg/L	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U
Carbon Tetrachloride	56-23-5	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
Chlorobenzene	108-90-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
Chloroethane	75-00-3	mg/L	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U
Chloroform	67-66-3	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
Chloromethane	74-87-3	mg/L	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U
cis-1,2-Dichloroethene	156-59-0	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
cis-1,3-Dichloropropene	10061-01-5	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
Dibromochloromethane	124-48-1	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
Ethylbenzene	100-41-4	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
Methylene Chloride	75-09-2	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
Styrene	100-42-5	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
Tetrachloroethene	127-18-4	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
Toluene	108-88-3	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
trans-1,2-Dichloroethene	156-60-5	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
trans-1,3-Dichloropropene	10061-02-6	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
Trichloroethene	79-01-6	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
Vinyl Chloride	75-01-4	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
Xylene (Total)	1330-20-7	mg/L	ND (0.001) U	ND (0.001) U	0.004 (0.001) J	ND (0.001) U	ND (0.001) U

Notes:

ND denotes "Not Detected" at method detection limit shown in parentheses.

(a) Listed on chain-of-custody documentation as sample MW-19.

(b) Listed on chain-of-custody documentation as sample MW-23.

(c) Target Compound List (TCL) volatile organic compounds (VOCs) by EPA SW-846 method 8260.

U qualifier denotes not detected.

J qualifier denotes quantitation is estimated due to limitations identified during data validation quality assurance review.

R qualifier denotes unusable result identified during data validation quality assurance review; analyte may or may not be present in the sample.

Table 4-2
(Continued)

Semivolatile Organic Compound Data Summary
Ground Water Monitoring Samples
Phase II Remedial Investigation

Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Registry Number	Units	Sample Identifier MW-01	MW-03	MW-04	MW-05	MW-06	MW-07	MW-08
TCL Semivolatile Organics (a)									
1,2,4-trichlorobenzene	120-82-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
1,2-dichlorobenzene	95-50-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
1,3-dichlorobenzene	541-73-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
1,4-dichlorobenzene	106-46-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
2,2'oxybis(1-chloropropane)	108-60-1	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
2,4,5-trichlorophenol	95-95-4	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
2,4,6-trichlorophenol	88-06-2	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
2,4-dichlorophenol	120-83-2	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
2,4-dimethylphenol	105-67-9	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.048 (0.001)	ND (0.001) U	ND (0.001) U
2,4-dinitrophenol	51-28-5	mg/L	ND (0.015) U	ND (0.015) U	ND (0.015) U	ND (0.015) U	ND (0.015) U	ND (0.015) U	ND (0.015) U
2,4-dinitrotoluene	121-14-2	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
2,6-dinitrotoluene	606-20-2	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
2-chloronaphthalene	91-58-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
2-chlorophenol	95-57-8	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
2-methylnaphthalene	91-57-6	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.033 (0.001)	ND (0.001) U	ND (0.001) U
2-methylphenol	95-48-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.035 (0.001)	ND (0.001) U	ND (0.001) U
2-nitroaniline	88-74-4	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
2-nitrophenol	88-75-5	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
3,3'-dichlorobenzidine	91-94-1	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
3-nitroaniline	99-09-2	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
4,6-dinitro-2-methylphenol	534-52-1	mg/L	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U
4-bromophenylphenylether	101-55-3	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
4-chloro-3-methylphenol	59-50-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
4-chloroaniline	106-47-8	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
4-chlorophenylphenylether	7005-72-3	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
4-methylphenol	106-44-5	mg/L	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	0.009 (0.003) J	ND (0.003) U	ND (0.003) U
4-nitroaniline	100-01-6	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
4-nitrophenol	100-02-7	mg/L	ND (0.010) U	ND (0.010) U	ND (0.010) U	ND (0.010) U	ND (0.010) U	ND (0.010) U	ND (0.010) U
acenaphthene	83-32-9	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.023 (0.001)	ND (0.001) U	ND (0.001) U
acenaphthylene	208-96-8	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
anthracene	120-12-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.001 (0.001) J	ND (0.001) U	ND (0.001) U
benzo(a)anthracene	56-55-3	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
benzo(a)pyrene	50-32-8	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
benzo(b)fluoranthene	205-99-2	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
benzo(ghi)perylene	191-24-2	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
benzo(k)fluoranthene	207-08-9	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
bis(2-chloroethoxy)methane	111-91-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
bis(2-chloroethyl)ether	111-44-4	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
bis(2-ethylhexyl)phthalate	117-81-7	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	0.004 (0.002) J (b)	ND (0.002) U
butylbenzylphthalate	85-68-7	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
carbazole	86-74-8	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.025 (0.001)	ND (0.001) U	ND (0.001) U
chrysene	218-01-9	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
di-n-butylphthalate	84-74-2	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
di-n-octylphthalate	117-84-0	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
dibenz(a,h)anthracene	53-70-3	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
dibenzofuran	132-64-9	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.043 (0.001)	ND (0.001) U	ND (0.001) U
diethylphthalate	84-66-2	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
dimethylphthalate	131-11-3	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
fluoranthene	206-44-0	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
fluorene	86-73-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.019 (0.001)	ND (0.001) U	ND (0.001) U
hexachlorobenzene	118-74-1	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
hexachlorobutadiene	87-68-3	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
hexachlorocyclopentadiene	77-47-4	mg/L	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U
hexachloroethane	67-72-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
indeno(1,2,3-cd)pyrene	193-39-5	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
isophorone	78-59-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
N-nitrosodi-n-propylamine	621-64-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
N-nitrosodiphenylamine	86-30-6	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
naphthalene	91-20-3	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.8 (0.010)	ND (0.001) U	ND (0.001) U
nitrobenzene	98-95-3	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
pentachlorophenol	87-86-5	mg/L	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U
phenanthrene	85-01-8	mg/L	ND (0.001) U	0.002 (0.001) J	ND (0.001) U	ND (0.001) U	0.013 (0.001)	ND (0.001) U	ND (0.001) U
phenol	108-95-2	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.008 (0.001) J	ND (0.001) U	ND (0.001) U
pyrene	129-00-0	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U

Notes:
ND denotes "Not Detected" at method detection limit shown in parentheses.
(a) Target Compound List (TCL) base neutral/acid-extractable organic compounds by EPA SW-846 method 8270.
(b) Low concentrations of this common laboratory contaminant warrant caution if this value is used as basis for environmental risk assessment or other decision-making process.
U qualifier denotes not detected.
J qualifier denotes quantitation is estimated due to limitations identified during data validation quality assurance review.

Table 4-2
(Continued)

Semivolatile Organic Compound Data Summary
Ground Water Monitoring Samples
Phase II Remedial Investigation

Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Registry Number	Units	Sample Identifier: MW-09	MW-09 (Duplicate) (a)	MW-10	MW-11	MW-12	MW-13	MW-13 (Duplicate) (b)
TCL Semivolatile Organics (c)									
1,2,4-trichlorobenzene	120-82-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
1,2-dichlorobenzene	95-50-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
1,3-dichlorobenzene	541-73-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
1,4-dichlorobenzene	106-46-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
2,2'oxybis(1-chloropropane)	108-60-1	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
2,4,5-trichlorophenol	95-95-4	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
2,4,6-trichlorophenol	88-06-2	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
2,4-dichlorophenol	120-83-2	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
2,4-dimethylphenol	105-67-9	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	0.01 (0.001) J	ND (0.001) U	ND (0.001) U
2,4-dinitrophenol	51-28-5	mg/L	ND (0.015) U	ND (0.015) U	ND (0.015) U	ND (0.015) U	ND (0.015) U	ND (0.015) U	ND (0.016) U
2,4-dinitrotoluene	121-14-2	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
2,6-dinitrotoluene	606-20-2	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
2-chloronaphthalene	91-58-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
2-chlorophenol	95-57-8	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
2-methylnaphthalene	91-57-6	mg/L	0.43 (0.020)	0.5 (0.030)	ND (0.001) U	ND (0.001) U	0.004 (0.001) J	ND (0.001) U	ND (0.001) U
2-methylphenol	95-48-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
2-nitroaniline	88-74-4	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
2-nitrophenol	88-75-5	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
3,3'-dichlorobenzidine	91-94-1	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
3-nitroaniline	99-09-2	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
4,6-dinitro-2-methylphenol	534-52-1	mg/L	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U
4-bromophenylphenylether	101-55-3	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
4-chloro-3-methylphenol	59-50-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
4-chloroaniline	106-47-8	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
4-chlorophenylphenylether	7005-72-3	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
4-methylphenol	106-44-5	mg/L	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U
4-nitroaniline	100-01-6	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
4-nitrophenol	100-02-7	mg/L	ND (0.010) U	ND (0.010) U	ND (0.010) U	ND (0.010) U	ND (0.010) U	ND (0.010) U	ND (0.010) U
acenaphthene	83-32-9	mg/L	0.19 (0.020) J	0.21 (0.030) J	ND (0.001) U	ND (0.001) U	0.003 (0.001) J	ND (0.001) U	ND (0.001) U
acenaphthylene	208-96-8	mg/L	0.007 (0.001) J	0.008 (0.001) J	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
anthracene	120-12-7	mg/L	0.005 (0.001) J	0.005 (0.001) J	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
benzo(a)anthracene	56-55-3	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
benzo(a)pyrene	50-32-8	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
benzo(b)fluoranthene	205-99-2	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
benzo(ghi)perylene	191-24-2	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
benzo(k)fluoranthene	207-08-9	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
bis(2-chloroethoxy)methane	111-91-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
bis(2-chloroethyl)ether	111-44-4	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
bis(2-ethylhexyl)phthalate	117-81-7	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
butylbenzylphthalate	85-68-7	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
carbazole	86-74-8	mg/L	0.11 (0.001)	0.12 (0.001)	ND (0.001) U	ND (0.001) U	0.004 (0.001) J	ND (0.001) U	ND (0.001) U
chrysene	218-01-9	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
di-n-butylphthalate	84-74-2	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
di-n-octylphthalate	117-84-0	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
dibenz(a,h)anthracene	53-70-3	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
dibenzofuran	132-64-9	mg/L	0.12 (0.001)	0.14 (0.001)	ND (0.001) U	ND (0.001) U	0.004 (0.001) J	ND (0.001) U	ND (0.001) U
diethylphthalate	84-66-2	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
dimethylphthalate	131-11-3	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
fluoranthene	206-44-0	mg/L	0.007 (0.001) J	0.007 (0.001) J	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
fluorene	86-73-7	mg/L	0.093 (0.001)	0.1 (0.001)	ND (0.001) U	ND (0.001) U	0.001 (0.001) J	ND (0.001) U	ND (0.001) U
hexachlorobenzene	118-74-1	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
hexachlorobutadiene	87-68-3	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U	ND (0.002) U
hexachlorocyclopentadiene	77-47-4	mg/L	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U	ND (0.005) U
hexachloroethane	67-72-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
indeno(1,2,3-cd)pyrene	193-39-5	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
isophorone	78-59-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
N-nitrosodi-n-propylamine	621-64-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
N-nitrosodiphenylamine	86-30-6	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
naphthalene	91-20-3	mg/L	2.1 (0.020)	2.4 (0.030)	ND (0.001) U	ND (0.001) U	0.072 (0.001)	ND (0.001) U	ND (0.001) U
nitrobenzene	98-95-3	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
pentachlorophenol	87-86-5	mg/L	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U	ND (0.003) U
phenanthrene	85-01-8	mg/L	0.052 (0.001)	0.058 (0.001)	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
phenol	108-95-2	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U
pyrene	129-00-0	mg/L	0.004 (0.001) J	0.004 (0.001) J	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U	ND (0.001) U

Notes:
ND denotes "Not Detected" at method detection limit shown in parentheses.
(a) Listed on chain-of-custody documentation as sample MW-19.
(b) Listed on chain-of-custody documentation as sample MW-23.
(c) Target Compound List (TCL) base neutral/acid-extractable organic compounds by EPA SW-846 method 8270.
U qualifier denotes not detected.
J qualifier denotes quantitation is estimated due to limitations identified during data validation quality assurance review.

Table 4-2
(Continued)

PAH Compound Data Summary
Ground Water Monitoring Samples
Phase II Remedial Investigation

Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Registry Number	Units	Sample Identifier MW-01	MW-03	MW-04	MW-05	MW-06	MW-07	MW-08
PAH Compounds (a)									
Acenaphthene	83-32-9	mg/L	ND (0.000780) UJ	ND (0.000780) U	ND (0.00079) U	ND (0.000800) UJ	0.026 (0.00081) J	ND (0.00083) UJ	ND (0.00081) UJ
Acenaphthylene	208-96-8	mg/L	ND (0.000780) UJ	ND (0.000780) U	ND (0.00079) U	ND (0.000800) UJ	0.026 (0.00081) J	ND (0.00083) UJ	ND (0.00081) UJ
Anthracene	120-12-7	mg/L	ND (0.000030) UJ	0.000178 (0.000030) J	0.000031 (0.000030) U	ND (0.000031) UJ	0.00075 (0.000031) J	ND (0.000032) UJ	ND (0.000031) UJ
Benzo(a)anthracene	56-55-3	mg/L	ND (0.000018) UJ	0.00131 (0.000017)	ND (0.000018) U	0.000018 (0.000018) J	ND (0.000018) UJ	ND (0.000019) UJ	ND (0.000018) UJ
Benzo(a)pyrene	50-32-8	mg/L	ND (0.000021) UJ	ND (0.000021) U	ND (0.000022) U	0.000032 (0.000022) J	ND (0.000022) UJ	ND (0.000023) UJ	ND (0.000022) UJ
Benzo(b)fluoranthene	205-99-2	mg/L	ND (0.000034) UJ	ND (0.000034) U	ND (0.000034) U	0.000047 (0.000035) J	ND (0.000035) UJ	ND (0.000036) UJ	ND (0.000036) UJ
Benzo(g,h,i)perylene	191-24-2	mg/L	ND (0.000097) UJ	ND (0.000096) U	ND (0.000097) U	ND (0.000099) UJ	ND (0.000100) UJ	ND (0.000100) UJ	ND (0.000100) UJ
Benzo(k)fluoranthene	207-08-9	mg/L	ND (0.000026) UJ	ND (0.000026) U	ND (0.000027) U	ND (0.000027) UJ	ND (0.000027) UJ	ND (0.000028) UJ	ND (0.000027) UJ
Chrysene	218-01-9	mg/L	0.000067 (0.000058) J	0.0039 (0.000057)	0.000063 (0.000058) J	ND (0.000059) UJ	ND (0.000060) UJ	ND (0.000061) UJ	ND (0.000060) UJ
Dibenzo(a,h)anthracene	53-70-3	mg/L	ND (0.000046) UJ	ND (0.000046) U	ND (0.000046) U	ND (0.000047) UJ	ND (0.000048) UJ	ND (0.000049) UJ	ND (0.000048) UJ
Fluoranthene	206-44-0	mg/L	ND (0.000020) UJ	0.00038 (0.000019)	ND (0.000020) U	0.000074 (0.000020) J	0.00052 (0.000020) J	ND (0.000021) UJ	ND (0.000020) UJ
Fluorene	86-73-7	mg/L	ND (0.000170) UJ	0.00099 (0.000160)	ND (0.00017) U	ND (0.000170) UJ	0.0155 (0.0034) J	ND (0.000180) UJ	ND (0.00017) UJ
Indeno(1,2,3-cd)pyrene	193-39-5	mg/L	ND (0.000063) UJ	ND (0.000062) U	ND (0.000063) U	ND (0.000064) UJ	ND (0.000065) UJ	ND (0.000066) UJ	ND (0.000065) UJ
Naphthalene	91-20-3	mg/L	ND (0.000780) UJ	ND (0.000780) U	ND (0.00079) U	ND (0.000800) UJ	0.680 (0.016) J	ND (0.00083) UJ	ND (0.00081) UJ
Phenanthrene	85-01-8	mg/L	ND (0.000045) UJ	0.00214 (0.000045)	ND (0.000045) U	ND (0.000046) UJ	0.00928 (0.000047) J	ND (0.000048) UJ	ND (0.000047) UJ
Pyrene	129-00-0	mg/L	0.00329 (0.000180) J	ND (0.000170) U	10.4 (0.00018) J (b)	ND (0.000180) UJ	ND (0.000180) UJ	0.00142 (0.000190) J	ND (0.000180) UJ

Notes:

ND denotes "Not Detected" at method detection limit shown in parentheses.

(a) Polynucleated Aromatic Hydrocarbons (PAHs) by EPA SW-846 method 8310.

(b) Corrected value resulting from data validation quality assurance review.

U qualifier denotes not detected.

J qualifier denotes quantitation is estimated due to limitations identified during data validation quality assurance review.

UJ qualifier denotes that the compound was not detected, but the quantitation limit may or may not be higher than the value shown in parentheses due to a bias identified during the data validation quality assurance review.

Table 4-2
(Continued)

PAH Compound Data Summary
Ground Water Monitoring Samples
Phase II Remedial Investigation

Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Registry Number	Units	Sample Identifier																	
			MW-09		MW-09 (Duplicate) (a)		MW-10		MW-11		MW-12		MW-13		MW-13 (Duplicate) (b)	
PAH Compounds (c)																
Acenaphthene	83-32-9	mg/L	0.230	(0.000800)	0.220	(0.000800)	ND	(0.000820) U	ND	(0.000800) U	0.0033	(0.000820) J	ND	(0.000800) UJ	ND	(0.000800) UJ
Acenaphthylene	208-96-8	mg/L	0.197	(0.000800)	0.191	(0.000800)	ND	(0.000820) U	ND	(0.000800) U	0.00656	(0.000820) J	ND	(0.000800) UJ	ND	(0.000800) UJ
Anthracene	120-12-7	mg/L	0.00417	(0.000031)	0.00390	(0.000031)	ND	(0.000032) U	ND	(0.000031) U	4.2E-05	(0.000032) J	ND	(0.000031) UJ	ND	(0.000031) UJ
Benzo(a)anthracene	56-55-3	mg/L	ND	(0.000018) U	0.000186	(0.000018)	ND	(0.000018) U	ND	(0.000018) U	ND	(0.000019) U	ND	(0.000018) UJ	ND	(0.000018) UJ
Benzo(a)pyrene	50-32-8	mg/L	ND	(0.000022) UJ	0.000038	(0.000022) J	ND	(0.000023) UJ	0.000024	(0.000022) J	ND	(0.000023) UJ	ND	(0.000022) UJ	ND	(0.000022) UJ
Benzo(b)fluoranthene	205-99-2	mg/L	0.000041	(0.000035) J	ND	(0.000035) U	ND	(0.000036) U	ND	(0.000035) U	ND	(0.000036) U	ND	(0.000035) UJ	ND	(0.000035) UJ
Benzo(g,h,i)perylene	191-24-2	mg/L	ND	(0.000099) UJ	ND	(0.000099) UJ	ND	(0.000100) UJ	ND	(0.000098) UJ	ND	(0.000100) UJ	ND	(0.000099) UJ	ND	(0.000100) UJ
Benzo(k)fluoranthene	207-08-9	mg/L	0.000037	(0.000027) J	ND	(0.000027) U	ND	(0.000028) U	ND	(0.000027) U	ND	(0.000028) U	ND	(0.000027) UJ	ND	(0.000027) UJ
Chrysene	218-01-9	mg/L	0.000224	(0.000059) J	0.000128	(0.000059) J	ND	(0.000061) U	0.000117	(0.000059) J	ND	(0.000061) U	ND	(0.000059) UJ	ND	(0.000059) UJ
Dibenzo(a,h)anthracene	53-70-3	mg/L	ND	(0.000047) U	ND	(0.000047) U	ND	(0.000048) U	ND	(0.000047) U	ND	(0.000048) U	ND	(0.000047) UJ	ND	(0.000047) UJ
Fluoranthene	206-44-0	mg/L	0.00632	(0.000020)	0.00493	(0.000020)	ND	(0.000021) U	ND	(0.000020) U	ND	(0.000021) U	ND	(0.000020) UJ	ND	(0.000020) UJ
Fluorene	86-73-7	mg/L	0.093	(0.008500)	0.078	(0.008500)	ND	(0.000170) U	ND	(0.000170) U	0.00134	(0.000170)	ND	(0.000170) UJ	ND	(0.000170) UJ
Indeno(1,2,3-cd)pyrene	193-39-5	mg/L	ND	(0.000064) U	ND	(0.000064) U	ND	(0.000066) U	ND	(0.000064) U	ND	(0.000066) U	ND	(0.000064) UJ	ND	(0.000064) UJ
Naphthalene	91-20-3	mg/L	2.200	(0.040000)	1.810	(0.040000)	ND	(0.000820) U	ND	(0.000800) U	0.106	(0.000820)	ND	(0.000800) UJ	ND	(0.000800) UJ
Phenanthrene	85-01-8	mg/L	0.050	(0.002300)	0.041	(0.002300)	ND	(0.000047) U	ND	(0.000046) U	0.00040	(0.000047)	ND	(0.000046) UJ	ND	(0.000046) UJ
Pyrene	129-00-0	mg/L	0.00515	(0.000180)	0.00395	(0.000180)	0.00184	(0.000180)	0.00154	(0.000180)	0.00277	(0.000190)	ND	(0.000180) UJ	0.00099	(0.000180) J

Notes:

ND denotes "Not Detected" at method detection limit shown in parentheses.

(a) Listed on chain-of-custody documentation as sample MW-19.

(b) Listed on chain-of-custody documentation as sample MW-23.

(c) Polynucleated Aromatic Hydrocarbons (PAHs) by EPA SW-846 method 8310.

U qualifier denotes not detected.

J qualifier denotes quantitation is estimated due to limitations identified during data validation quality assurance review.

UJ qualifier denotes that the compound was not detected, but the quantitation limit may or may not be higher thatn the value shown in parentheses due to a bias identified during the data validation quality assurance review.

Table 4-3
Surface Water Sample Data Summary
Phase II Remedial Investigation

Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Registry Number	Units	Sample Identifier SW-02			SW-03			SW-04			SW-06			SW-07		
TCL Semivolatile Organics (a)																	
1,2,4-trichlorobenzene	120-82-1	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
1,2-dichlorobenzene	95-50-1	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
1,3-dichlorobenzene	541-73-1	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
1,4-dichlorobenzene	106-46-7	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
2,2'oxybis (1-chloropropane)	108-60-1	mg/L	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U
2,4,5-trichlorophenol	95-95-4	mg/L	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U
2,4,6-trichlorophenol	88-06-2	mg/L	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U
2,4-dichlorophenol	120-83-2	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
2,4-dimethylphenol	105-67-9	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
2,4-dinitrophenol	51-28-5	mg/L	ND	(0.016)	U	ND	(0.016)	U	ND	(0.016)	U	ND	(0.015)	U	ND	(0.015)	U
2,4-dinitrotoluene	121-14-2	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
2,6-dinitrotoluene	606-20-2	mg/L	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U
2-chloronaphthalene	91-58-7	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
2-chlorophenol	95-57-8	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
2-methylnaphthalene	91-57-6	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
2-methylphenol	95-48-7	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
2-nitroaniline	88-74-4	mg/L	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U
2-nitrophenol	88-75-5	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
3,3'-dichlorobenzidine	91-94-1	mg/L	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U
3-nitroaniline	99-09-2	mg/L	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U
4,6-dinitro-2-methylphenol	534-52-1	mg/L	ND	(0.005)	U	ND	(0.005)	U	ND	(0.005)	U	ND	(0.005)	U	ND	(0.005)	U
4-bromophenyl phenyl ether	101-55-3	mg/L	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U
4-chloro-3-methylphenol	59-50-7	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
4-chloroaniline	106-47-8	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
4-chlorophenyl phenyl ether	7005-72-3	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
4-methylphenol	106-44-5	mg/L	ND	(0.003)	U	ND	(0.003)	U	ND	(0.003)	U	ND	(0.003)	U	ND	(0.003)	U
4-nitroaniline	100-01-6	mg/L	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U
4-nitrophenol	100-02-7	mg/L	ND	(0.01)	U	ND	(0.011)	U	ND	(0.011)	U	ND	(0.01)	U	ND	(0.01)	U
acenaphthene	83-32-9	mg/L	0.014	(0.001)		0.009	(0.001)	J	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
acenaphthylene	208-96-8	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
anthracene	120-12-7	mg/L	0.013	(0.001)		ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
benzo (a) anthracene	56-55-3	mg/L	0.005	(0.001)	J	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
benzo (a) pyrene	50-32-8	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
benzo (b) fluoranthene	205-99-2	mg/L	0.012	(0.001)		0.009	(0.001)	J	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
benzo (ghi) perylene	191-24-2	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
benzo (k) fluoranthene	207-08-9	mg/L	0.002	(0.001)	J	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
bis (2-chloroethoxy) methane	111-91-1	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
bis (2-chloroethyl) ether	111-44-4	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
bis (2-ethylhexyl) phthalate	117-81-7	mg/L	0.003	(0.002)	J (b)	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U
butyl benzyl phthalate	85-68-7	mg/L	0.003	(0.002)	U*	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U
carbazole	86-74-8	mg/L	0.01	(0.001)	J	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
chrysene	218-01-9	mg/L	0.006	(0.001)	J	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
di-n-butyl phthalate	84-74-2	mg/L	0.009	(0.002)	U*	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U
di-n-octyl phthalate	117-84-0	mg/L	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U
dibenz (a,h) anthracene	53-70-3	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
dibenzofuran	132-64-9	mg/L	0.011	(0.001)		ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
diethyl phthalate	84-66-2	mg/L	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U
dimethyl phthalate	131-11-3	mg/L	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U
fluoranthene	206-44-0	mg/L	0.039	(0.001)		0.013	(0.001)		0.012	(0.001)		ND	(0.001)	U	ND	(0.001)	U
fluorene	86-73-7	mg/L	0.012	(0.001)		0.011	(0.001)		ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
hexachlorobenzene	118-74-1	mg/L	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U
hexachlorobutadiene	87-68-3	mg/L	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U	ND	(0.002)	U
hexachlorocyclopentadiene	77-47-4	mg/L	ND	(0.005)	U	ND	(0.005)	U	ND	(0.005)	U	ND	(0.005)	U	ND	(0.005)	U
hexachloroethane	67-72-1	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
indeno (1,2,3-cd) pyrene	193-39-5	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
isophorone	78-59-1	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
N-nitrosodi-n-propylamine	621-64-7	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
N-nitrosodiphenylamine	86-30-6	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
naphthalene	91-20-3	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
nitrobenzene	98-95-3	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
pentachlorophenol	87-86-5	mg/L	ND	(0.003)	U	ND	(0.003)	U	ND	(0.003)	U	ND	(0.003)	U	ND	(0.003)	U
phenanthrene	85-01-8	mg/L	0.017	(0.001)		ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
phenol	108-95-2	mg/L	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U
pyrene	129-00-0	mg/L	0.021	(0.001)		ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U	ND	(0.001)	U

Notes:

(a) Target Compound List (TCL) base neutral/acid-extractable organic compounds by EPA SW-846 method 8270.

(b) Low concentrations of this common laboratory contaminant warrant caution if this value is used as basis for environmental risk assessment or other decision-making process.

ND denotes "Not Detected" at method detection limit shown in parentheses.

U qualifier denotes not detected.

J qualifier denotes quantitation is estimated due to limitations identified during data validation quality assurance review.

U* qualifier denotes that compound should be considered "not-detected" since it was detected in a corresponding field, trip, and/or laboratory blank sample at a similar concentration.

Table 4-3
(Continued)
Surface Water Sample Data Summary
Phase II Remedial Investigation

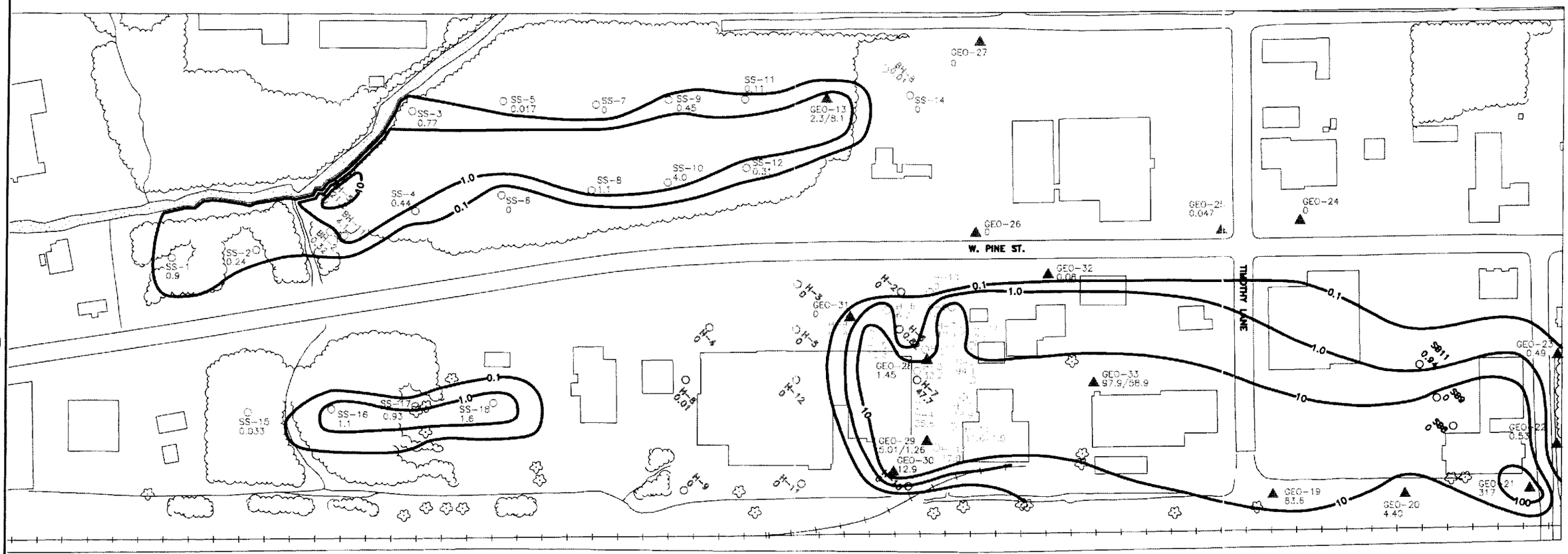
Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Registry Number	Units	Sample Identifier: SW-08	SW-08 (Duplicate) (a)	SW-09	SW-10	SW-11	CFO (b)
TCL Semivolatile Organics (c)								
1,2,4-trichlorobenzene	120-82-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
1,2-dichlorobenzene	95-50-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
1,3-dichlorobenzene	541-73-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
1,4-dichlorobenzene	106-46-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
2,2'oxybis (1-chloropropane)	108-60-1	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) UJ	ND (0.002) U	ND (0.002) U	ND (0.002) U
2,4,5-trichlorophenol	95-95-4	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) UJ	ND (0.002) U	ND (0.002) U	ND (0.002) U
2,4,6-trichlorophenol	88-06-2	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) UJ	ND (0.002) U	ND (0.002) U	ND (0.002) U
2,4-dichlorophenol	120-83-2	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
2,4-dimethylphenol	105-67-9	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
2,4-dinitrophenol	51-28-5	mg/L	ND (0.015) U	ND (0.015) U	ND (0.015) UJ	ND (0.014) U	ND (0.016) U	ND (0.016) U
2,4-dinitrotoluene	121-14-2	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
2,6-dinitrotoluene	606-20-2	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) UJ	ND (0.002) U	ND (0.002) U	ND (0.002) U
2-chloronaphthalene	91-58-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
2-chlorophenol	95-57-8	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
2-methylnaphthalene	91-57-6	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
2-methylphenol	95-48-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
2-nitroaniline	88-74-4	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) UJ	ND (0.002) U	ND (0.002) U	ND (0.002) U
2-nitrophenol	88-75-5	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
3,3'-dichlorobenzidine	91-94-1	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) UJ	ND (0.002) U	ND (0.002) U	ND (0.002) U
3-nitroaniline	99-09-2	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) UJ	ND (0.002) U	ND (0.002) U	ND (0.002) U
4,6-dinitro-2-methylphenol	534-52-1	mg/L	ND (0.005) U	ND (0.005) U	ND (0.005) UJ	ND (0.005) U	ND (0.005) U	ND (0.005) U
4-bromophenyl phenyl ether	101-55-3	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) UJ	ND (0.002) U	ND (0.002) U	ND (0.002) U
4-chloro-3-methylphenol	59-50-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
4-chloroaniline	106-47-8	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
4-chlorophenyl phenyl ether	7005-72-3	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
4-methylphenol	106-44-5	mg/L	ND (0.003) U	ND (0.003) U	ND (0.003) UJ	ND (0.003) U	ND (0.003) U	ND (0.003) U
4-nitroaniline	100-01-6	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) UJ	ND (0.002) U	ND (0.002) U	ND (0.002) U
4-nitrophenol	100-02-7	mg/L	ND (0.01) U	ND (0.01) U	ND (0.01) UJ	ND (0.01) U	ND (0.011) U	ND (0.01) U
acenaphthene	83-32-9	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
acenaphthylene	208-96-8	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
anthracene	120-12-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
benzo (a) anthracene	56-55-3	mg/L	0.001 (0.001) J	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
benzo (a) pyrene	50-32-8	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
benzo (b) fluoranthene	205-99-2	mg/L	ND (0.001) U	ND (0.001) U	0.009 (0.001) J	ND (0.001) U	ND (0.001) U	ND (0.001) U
benzo (ghi) perylene	191-24-2	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
benzo (k) fluoranthene	207-08-9	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
bis (2-chloroethoxy) methane	111-91-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
bis (2-chloroethyl) ether	111-44-4	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
bis (2-ethylhexyl) phthalate	117-81-7	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) UJ	ND (0.002) U	ND (0.002) U	0.007 (0.002) J (d)
butyl benzyl phthalate	85-68-7	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) UJ	ND (0.002) U	ND (0.002) U	0.013 (0.002) U*
carbazole	86-74-8	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
chrysene	218-01-9	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
di-n-butyl phthalate	84-74-2	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) UJ	ND (0.002) U	ND (0.002) U	0.003 (0.002) U*
di-n-octyl phthalate	117-84-0	mg/L	ND (0.002) U	ND (0.002) U	0.006 (0.002) J (d)	ND (0.002) U	ND (0.002) U	ND (0.002) U
dibenz (a,h) anthracene	53-70-3	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
dibenzofuran	132-64-9	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
diethyl phthalate	84-66-2	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) UJ	ND (0.002) U	ND (0.002) U	ND (0.002) U
dimethyl phthalate	131-11-3	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) UJ	ND (0.002) U	ND (0.002) U	ND (0.002) U
fluoranthene	206-44-0	mg/L	0.013 (0.001)	0.002 (0.001) J	0.012 (0.001) J	ND (0.001) U	ND (0.001) U	ND (0.001) U
fluorene	86-73-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
hexachlorobenzene	118-74-1	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) UJ	ND (0.002) U	ND (0.002) U	ND (0.002) U
hexachlorobutadiene	87-68-3	mg/L	ND (0.002) U	ND (0.002) U	ND (0.002) UJ	ND (0.002) U	ND (0.002) U	ND (0.002) U
hexachlorocyclopentadiene	77-47-4	mg/L	ND (0.005) U	ND (0.005) U	ND (0.005) UJ	ND (0.005) U	ND (0.005) U	ND (0.005) U
hexachloroethane	67-72-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
indeno (1,2,3-cd) pyrene	193-39-5	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
isophorone	78-59-1	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
N-nitrosodi-n-propylamine	621-64-7	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
N-nitrosodiphenylamine	86-30-6	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
naphthalene	91-20-3	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
nitrobenzene	98-95-3	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
pentachlorophenol	87-86-5	mg/L	ND (0.003) U	ND (0.003) U	ND (0.003) UJ	ND (0.003) U	ND (0.003) U	ND (0.003) U
phenanthrene	85-01-8	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
phenol	108-95-2	mg/L	ND (0.001) U	ND (0.001) U	ND (0.001) UJ	ND (0.001) U	ND (0.001) U	ND (0.001) U
pyrene	129-00-0	mg/L	0.001 (0.001) J	0.001 (0.001) J	0.001 (0.001) J	ND (0.001) U	ND (0.001) U	ND (0.001) U

Notes:

(a) Listed on chain-of-custody documentation as sample SW-12.
(b) Courtesy Ford dealership stormwater outfall.
(c) Target Compound List (TCL) base neutral/acid-extractable organic compounds by EPA SW-846 method 8270.
(d) Low concentrations of this common laboratory contaminant warrant caution if this value is used as basis for environmental risk assessment or other decision-making process.

ND denotes "Not Detected" at method detection limit shown in parentheses.
U qualifier denotes not detected.
J qualifier denotes quantitation is estimated due to limitations identified during data validation quality assurance review.
U* qualifier denotes that compound should be considered "not-detected" since it was detected in a corresponding field, trip, and/or laboratory blank sample at a similar concentration.
UJ qualifier denotes that the compound was not detected, but the quantitation limit may or may not be higher thatn the value shown in parentheses due to a bias identified during the data validation quality assurance review.



SITE INSPECTION, 1/92 BY MDEQ FOR EPA

SOIL GAS AND SOIL SAMPLING, 5/90 BY ROY F. WESTON FOR EPA

PHASE II INVESTIGATION OF PROCESS AREA, 1994 BY EPS FOR VAN SLYKE

PHASE II INVESTIGATION OF GIBSON'S SHOPPING CENTER, 6/94 BY BONNER FOR MS. THOMAS

PRELIMINARY SUBSURFACE INVESTIGATION OF RYAN MOTORS/RSCO REALTY, 10/94 BY BONNER ANALYTICAL TESTING

ADDITIONAL INVESTIGATION OF GIBSON'S SHOPPING CENTER, 7/95 BY BONNER FOR MS. THOMAS

SOIL BORING ASSESSMENT, 6/96 BY TDS

REMEDIAL INVESTIGATION, BY MP&A FOR KMCC

LEGEND

SS-7 ○ HISTORICAL SOIL BORING/SAMPLE

GEO-26 ▲ PHASE II RI SOIL BORING/SAMPLE

—0.1— BENZO(a)PYRENE ISOCONCENTRATION LINE (mg/kg)

NOTE:
CONTOUR LINES BETWEEN KNOWN POINTS ARE INTERPOLATIONS AND MAY NOT ACCURATELY REPRESENT CONSTITUENT CONCENTRATIONS.

BASE MAP FROM ATLANTIC TECHNOLOGIES, LTD., HUNTSVILLE, ALABAMA, APRIL 1, 1996

0 100 200 300 400
SCALE FEET

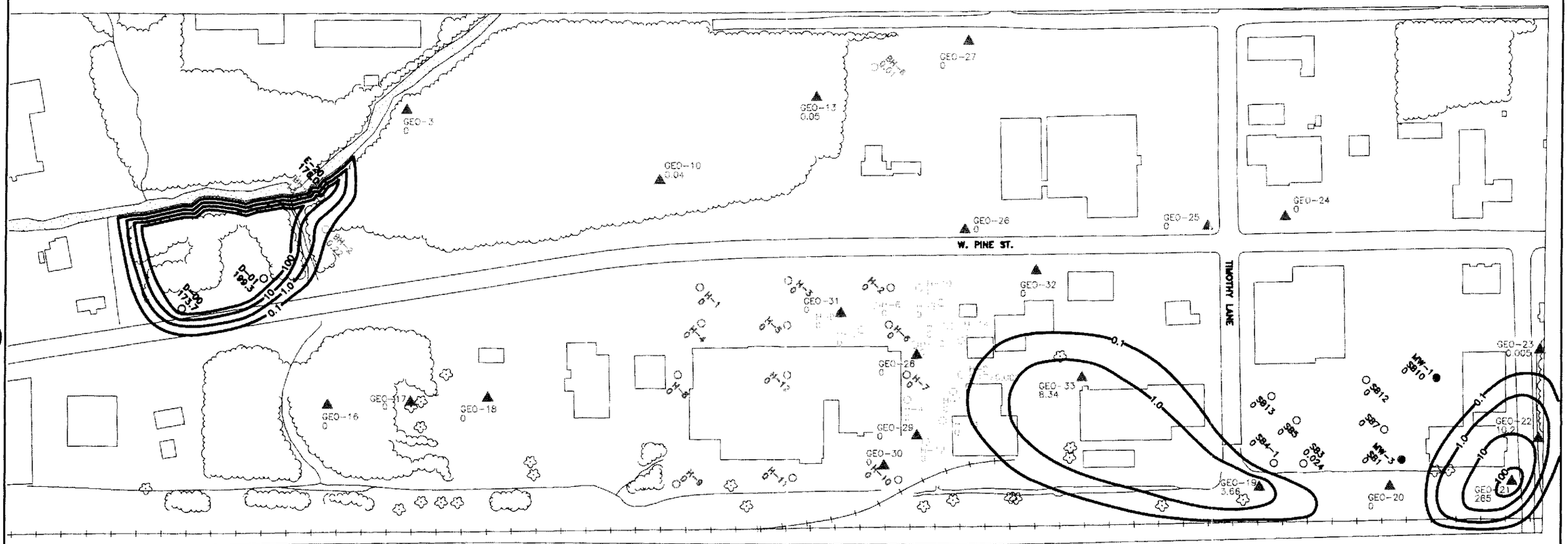
MICHAEL PISANI & ASSOCIATES
Environmental Management and Engineering Services
New Orleans, Louisiana Houston, Texas

TITLE: FIGURE 4-1
BENZO(A)PYRENE EQUIVALENCE (mg/kg)
IN 0-2' SOIL SAMPLES

PROJECT: FORMER GULF STATES CREOSOTING SITE

LOCATION: HATTIESBURG, MISSISSIPPI

SCALE: 1"=200' DWG. NO.: 21-04/55B



SITE INSPECTION, 1/92 BY MDEQ FOR EPA

SOIL GAS AND SOIL SAMPLING, 5/90 BY ROY F. WESTON FOR EPA

PHASE II INVESTIGATION OF PROCESS AREA, 1994 BY EPS FOR VAN SLYKE

PHASE II INVESTIGATION OF GIBSON'S SHOPPING CENTER, 6/94 BY BONNER FOR MS. THOMAS

PRELIMINARY SUBSURFACE INVESTIGATION OF RYAN MOTORS/RSCO REALTY, 10/94 BY BONNER ANALYTICAL TESTING

ADDITIONAL INVESTIGATION OF GIBSON'S SHOPPING CENTER, 7/95 BY BONNER FOR MS. THOMAS

SOIL BORING ASSESSMENT, 6/96 BY TDS

REMEDIAL INVESTIGATION, BY MP&A FOR KMCC

LEGEND

SB-12 ○ HISTORICAL SOIL BORING/SAMPLE

GEO-26 ▲ PHASE II RI SOIL BORING/SAMPLE

MW-3 ● HISTORICAL MONITOR WELL

—0.1— BENZO(a)PYRENE ISOCONCENTRATION LINE (mg/kg)

NOTE:
CONTOUR LINES BETWEEN KNOWN POINTS ARE INTERPOLATIONS AND MAY NOT ACCURATELY REPRESENT CONSTITUENT CONCENTRATIONS.

0 100 200 300 400
SCALE FEET

BASE MAP FROM ATLANTIC TECHNOLOGIES, LTD., HUNTSVILLE, ALABAMA, APRIL 1, 1996

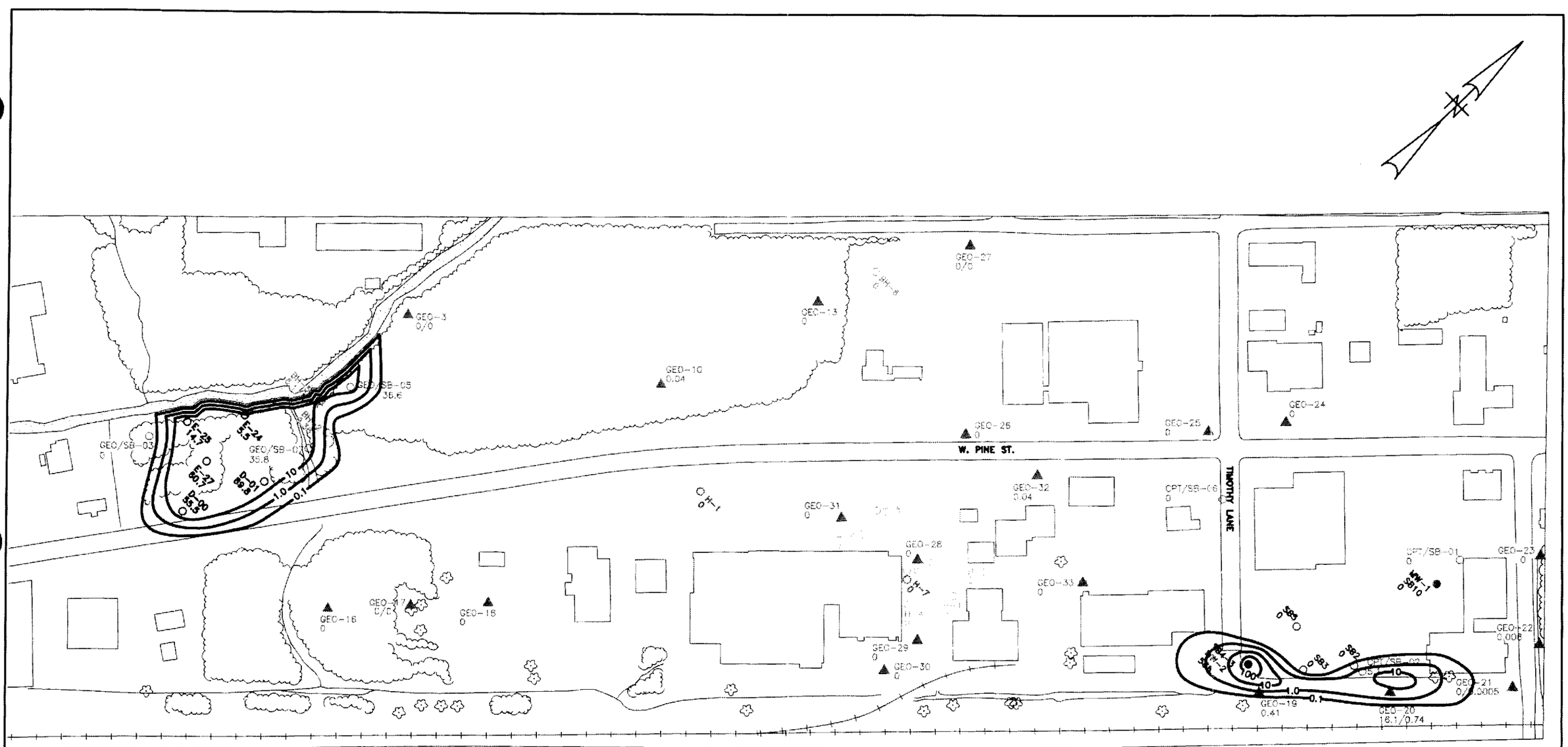
MICHAEL PISANI & ASSOCIATES
Environmental Management and Engineering Services
New Orleans, Louisiana **Houston, Texas**

TITLE: FIGURE 4-2
BENZO(A)PYRENE EQUIVALENCE (mg/kg)
IN 2-5' SOIL SAMPLES

PROJECT: FORMER GULF STATES CREOSOTING SITE

LOCATION: HATTIESBURG, MISSISSIPPI

SCALE: 1"=200' | DWG. NO.: 21-04/56B



SITE INSPECTION, 1/92 BY MDEQ FOR EPA

SOIL GAS AND SOIL SAMPLING, 5/90 BY ROY F. WESTON FOR EPA

PHASE II INVESTIGATION OF PROCESS AREA, 1994 BY EPS FOR VAN SLYKE

PHASE II INVESTIGATION OF GIBSON'S SHOPPING CENTER, 6/94 BY BONNER FOR MS. THOMAS

PRELIMINARY SUBSURFACE INVESTIGATION OF RYAN MOTORS/RSCO REALTY, 10/94 BY BONNER ANALYTICAL TESTING

ADDITIONAL INVESTIGATION OF GIBSON'S SHOPPING CENTER, 7/95 BY BONNER FOR MS. THOMAS

SOIL BORING ASSESSMENT, 6/96 BY TDS

REMEDIAL INVESTIGATION, BY MP&A FOR KMCC

LEGEND

- SB5 ○ — HISTORICAL SOIL BORING/SAMPLE
- GEO-26 ▲ — PHASE II RI SOIL BORING/SAMPLE
- MW-1 ● — HISTORICAL MONITOR WELL
- —0.1— — BENZO(a)PYRENE ISOCONCENTRATION LINE (mg/kg)

NOTE:
CONTOUR LINES BETWEEN KNOWN POINTS ARE INTERPOLATIONS AND MAY NOT ACCURATELY REPRESENT CONSTITUENT CONCENTRATIONS.

BASE MAP FROM ATLANTIC TECHNOLOGIES, LTD., HUNTSVILLE, ALABAMA, APRIL 1, 1996

0 100 200 300 400
SCALE FEET

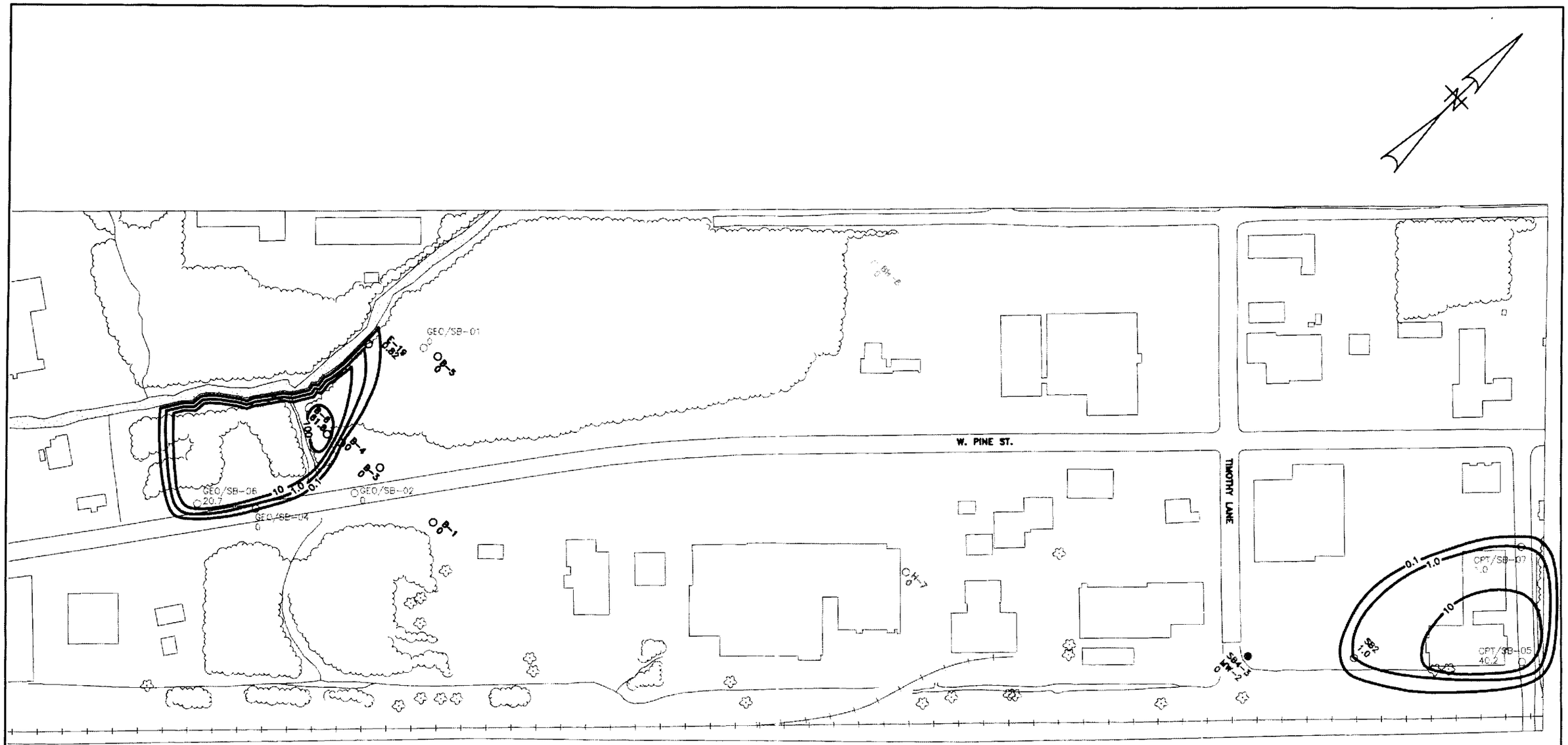
MICHAEL PISANI & ASSOCIATES
Environmental Management and Engineering Services
New Orleans, Louisiana Houston, Texas

TITLE: FIGURE 4-3
BENZO(A)PYRENE EQUIVALENCE (mg/kg)
IN 5-10' SOIL SAMPLES

PROJECT: FORMER GULF STATES CREOSOTING SITE

LOCATION: HATTIESBURG, MISSISSIPPI

SCALE: 1"=200' | DWG. NO.: 21-04/57B



SITE INSPECTION, 1/92 BY MDEQ FOR EPA

SOIL GAS AND SOIL SAMPLING, 5/90 BY ROY F. WESTON FOR EPA

PHASE II INVESTIGATION OF PROCESS AREA, 1994 BY EPS FOR VAN SLYKE

PHASE II INVESTIGATION OF GIBSON'S SHOPPING CENTER, 6/94 BY BONNER FOR MS. THOMAS

PRELIMINARY SUBSURFACE INVESTIGATION OF RYAN MOTORS/RSCO REALTY, 10/94 BY BONNER ANALYTICAL TESTING

ADDITIONAL INVESTIGATION OF GIBSON'S SHOPPING CENTER, 5/95 BY BONNER FOR MS. THOMAS

SURVEY OF UNDERGROUND [illegible] AND BY [illegible]

SOIL BORING ASSESSMENT, 6/96 BY TDS

REMEDIAL INVESTIGATION, 1997 BY MP&A FOR KMCC

LEGEND

B-1 ○ HISTORICAL SOIL BORING/SAMPLE

● HISTORICAL MONITOR WELL

—0.1— BENZO(a)PYRENE ISOCONCENTRATION LINE (mg/kg)

NOTE:
CONTOUR LINES BETWEEN KNOWN POINTS ARE INTERPOLATIONS AND MAY NOT ACCURATELY REPRESENT CONSTITUENT CONCENTRATIONS.

BASE MAP FROM ATLANTIC TECHNOLOGIES, LTD., HUNTSVILLE, ALABAMA, APRIL 1, 1996

0 100 200 300 400

SCALE FEET

MICHAEL PISANI & ASSOCIATES
Environmental Management and Engineering Services
New Orleans, Louisiana Houston, Texas

TITLE: FIGURE 4-4
BENZO(A)PYRENE EQUIVALENCE (mg/kg)
IN 10-15' SOIL SAMPLES

PROJECT: FORMER GULF STATES CREOSOTING SITE

LOCATION: HATTIESBURG, MISSISSIPPI

SCALE: 1"=200' DWG. NO.: 21-04/58B

Table 4-4
Sediment Sample Data Summary
Phase II Remedial Investigation

Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Registry Number	Units	Sample Identifier: SD-01			SD-02			SD-03			SD-04			SD-05			SD-06		
TCL Semivolatile Organics (a)																				
1,2,4-trichlorobenzene	120-82-1	mg/kg	ND	(0.039)	U	ND	(0.51)		ND	(0.043)	U	ND	(0.4)		ND	(0.042)	U	ND	(0.039)	U
1,2-dichlorobenzene	95-50-1	mg/kg	ND	(0.039)	U	ND	(0.51)		ND	(0.043)	U	ND	(0.4)		ND	(0.042)	U	ND	(0.039)	U
1,3-dichlorobenzene	541-73-1	mg/kg	ND	(0.039)	U	ND	(0.51)		ND	(0.043)	U	ND	(0.4)		ND	(0.042)	U	ND	(0.039)	U
1,4-dichlorobenzene	106-46-7	mg/kg	ND	(0.039)	U	ND	(0.51)		ND	(0.043)	U	ND	(0.4)		ND	(0.042)	U	ND	(0.039)	U
2,2'-oxybis (1-chloropropane)	108-60-1	mg/kg	ND	(0.039)	U	ND	(0.51)		ND	(0.043)	U	ND	(0.4)		ND	(0.042)	U	ND	(0.039)	U
2,4,5-trichlorophenol	95-95-4	mg/kg	ND	(0.079)	U	ND	(1)		ND	(0.085)	U	ND	(0.8)		ND	(0.084)	U	ND	(0.078)	U
2,4,6-trichlorophenol	88-06-2	mg/kg	ND	(0.079)	U	ND	(1)		ND	(0.085)	U	ND	(0.8)		ND	(0.084)	U	ND	(0.078)	U
2,4-dichlorophenol	120-83-2	mg/kg	ND	(0.079)	U	ND	(1)		ND	(0.085)	U	ND	(0.8)		ND	(0.084)	U	ND	(0.078)	U
2,4-dimethylphenol	105-67-9	mg/kg	ND	(0.079)	U	1.5	(1)	J	ND	(0.085)	U	ND	(0.8)		ND	(0.084)	U	ND	(0.078)	U
2,4-dinitrophenol	51-28-5	mg/kg	ND	(0.230)	U	ND	(3)		ND	(0.25)	U	ND	(2.3)		ND	(0.24)	U	ND	(0.23)	U
2,4-dinitrotoluene	121-14-2	mg/kg	ND	(0.079)	U	ND	(1)		ND	(0.085)	U	ND	(0.4)		ND	(0.084)	U	ND	(0.078)	U
2,6-dinitrotoluene	606-20-2	mg/kg	ND	(0.039)	U	ND	(0.51)		ND	(0.043)	U	ND	(0.4)		ND	(0.042)	U	ND	(0.039)	U
2-chloronaphthalene	91-58-7	mg/kg	ND	(0.039)	U	ND	(0.51)		ND	(0.043)	U	ND	(0.4)		ND	(0.042)	U	ND	(0.039)	U
2-chlorophenol	95-57-8	mg/kg	ND	(0.039)	U	ND	(0.51)		ND	(0.043)	U	ND	(0.4)		ND	(0.042)	U	ND	(0.039)	U
2-methylnaphthalene	91-57-6	mg/kg	ND	(0.039)	U	150	(25)		0.44	(0.043)		38	(0.4)		0.091	(0.042)	J	ND	(0.039)	U
2-methylphenol	95-48-7	mg/kg	ND	(0.039)	U	ND	(0.51)		ND	(0.043)	U	ND	(0.4)		ND	(0.042)	U	ND	(0.039)	U
2-nitroaniline	88-74-4	mg/kg	ND	(0.039)	U	ND	(0.51)		ND	(0.043)	U	ND	(0.4)		ND	(0.042)	U	ND	(0.039)	U
2-nitrophenol	88-75-5	mg/kg	ND	(0.079)	U	ND	(1)		ND	(0.085)	U	ND	(0.8)		ND	(0.084)	U	ND	(0.078)	U
3,3'-dichlorobenzidine	91-94-1	mg/kg	ND	(0.079)	U	ND	(1)		ND	(0.085)	U	ND	(0.8)		ND	(0.084)	U	ND	(0.078)	U
3- and 4-methylphenol	106-44-5	mg/kg	ND	(0.079)	U	ND	(1)		0.093	(0.085)	J	ND	(0.8)		0.11	(0.084)	J	ND	(0.078)	U
3-nitroaniline	99-09-2	mg/kg	ND	(0.079)	U	ND	(1)		ND	(0.085)	U	ND	(0.8)		ND	(0.084)	U	ND	(0.078)	U
4,6-dinitro-2-methylphenol	534-52-1	mg/kg	ND	(0.200)	U	ND	(2.5)		ND	(0.21)	U	ND	(2)		ND	(0.21)	U	ND	(0.19)	U
4-bromophenyl phenyl ether	101-55-3	mg/kg	ND	(0.079)	U	ND	(1)		ND	(0.085)	U	ND	(0.8)		ND	(0.084)	U	ND	(0.078)	U
4-chloro-3-methylphenol	59-50-7	mg/kg	ND	(0.079)	U	ND	(1)		ND	(0.085)	U	ND	(0.8)		ND	(0.084)	U	ND	(0.078)	U
4-chloroaniline	106-47-8	mg/kg	ND	(0.039)	U	ND	(0.51)		ND	(0.043)	U	ND	(0.4)		ND	(0.042)	U	ND	(0.039)	U
4-chlorophenyl phenyl ether	7005-72-3	mg/kg	ND	(0.039)	U	ND	(0.51)		ND	(0.043)	U	ND	(0.4)		ND	(0.042)	U	ND	(0.039)	U
4-nitroaniline	100-01-6	mg/kg	ND	(0.079)	U	ND	(1)		ND	(0.085)	U	ND	(0.8)		ND	(0.084)	U	ND	(0.078)	U
4-nitrophenol	100-02-7	mg/kg	ND	(0.200)	U	ND	(2.5)		ND	(0.21)	U	ND	(2)		ND	(0.21)	U	ND	(0.19)	U
acenaphthene	83-32-9	mg/kg	ND	(0.039)	U	100	(25)		0.89	(0.043)		140	(20)	J	0.1	(0.042)	J	ND	(0.039)	U
acenaphthylene	208-96-8	mg/kg	ND	(0.039)	U	35	(0.51)		8.9	(0.85)		6.8	(0.4)		0.17	(0.042)	J	ND	(0.039)	U
anthracene	120-12-7	mg/kg	ND	(0.039)	U	190	(25)		5.5	(0.85)	J	3.3	(0.4)	J	0.88	(0.042)		ND	(0.039)	U
benzo (a) anthracene	56-55-3	mg/kg	0.062	(0.039)	J	330	(25)		27	(0.85)		100	(20)	J	0.93	(0.042)		ND	(0.039)	U
benzo (a) pyrene	50-32-8	mg/kg	0.056	(0.039)	J	130	(25)	J	49	(0.85)		33	(0.4)		0.97	(0.042)		ND	(0.039)	U
benzo (b) fluoranthene	205-99-2	mg/kg	0.120	(0.039)	J	180	(25)	J	78	(0.85)		46	(0.4)		1.4	(0.042)		ND	(0.039)	U
benzo (ghi) perylene	191-24-2	mg/kg	0.046	(0.039)	J	36	(0.51)		32	(0.85)		9.5	(0.4)		0.42	(0.042)		ND	(0.039)	U
benzo (k) fluoranthene	207-08-9	mg/kg	ND	(0.039)	U	64	(0.51)		23	(0.85)		18	(0.4)		0.5	(0.042)		ND	(0.039)	U
bis (2-chloroethoxy) methane	111-91-1	mg/kg	ND	(0.079)	U	ND	(1)		ND	(0.085)	U	ND	(0.8)		ND	(0.084)	U	ND	(0.078)	U
bis (2-chloroethyl) ether	111-44-4	mg/kg	ND	(0.039)	U	ND	(0.51)		ND	(0.043)	U	ND	(0.4)		ND	(0.042)	U	ND	(0.039)	U
bis (2-ethylhexyl) phthalate	117-81-7	mg/kg	0.082	(0.079)	U*	ND	(1)		0.25	(0.085)	U*	0.88	(0.8)	J (c)	0.15	(0.084)	U*	ND	(0.078)	U
butyl benzyl phthalate	85-68-7	mg/kg	ND	(0.079)	U	ND	(1)		ND	(0.085)	U	ND	(0.8)		ND	(0.084)	U	ND	(0.078)	U
carbazole	86-74-8	mg/kg	ND	(0.039)	U	590	(25)		0.97	(0.043)		100	(20)	J	0.22	(0.042)	J	ND	(0.039)	U
chrysene	218-01-9	mg/kg	0.077	(0.039)	J	290	(25)		42	(0.85)		76	(20)	J	1.3	(0.042)		ND	(0.039)	U
di-n-butyl phthalate	84-74-2	mg/kg	ND	(0.079)	U	ND	(1)		ND	(0.085)	U	ND	(0.8)		ND	(0.084)	U	ND	(0.078)	U
di-n-octyl phthalate	117-84-0	mg/kg	ND	(0.079)	U	ND	(1)		ND	(0.085)	U	ND	(0.8)		ND	(0.084)	U	ND	(0.078)	U
dibenz (a,h) anthracene	53-70-3	mg/kg	ND	(0.039)	U	12	(0.51)		9.6	(0.85)		3.3	(0.4)	J	0.15	(0.042)	J	ND	(0.039)	U
dibenzofuran	132-64-9	mg/kg	ND	(0.039)	U	940	(25)		0.48	(0.043)		150	(20)	J	0.1	(0.042)	J	ND	(0.039)	U
diethyl phthalate	84-66-2	mg/kg	ND	(0.079)	U	ND	(1)		ND	(0.085)	U	ND	(0.8)		ND	(0.084)	U	ND	(0.078)	U
dimethyl phthalate	131-11-3	mg/kg	ND	(0.079)	U	ND	(1)		ND	(0.085)	U	ND	(0.8)		ND	(0.084)	U	ND	(0.078)	U
fluoranthene	206-44-0	mg/kg	0.089	(0.039)	J	160	(25)		21	(0.85)		470	(20)		2	(0.042)		ND	(0.039)	U
fluorene	86-73-7	mg/kg	ND	(0.039)	U	120	(25)		1	(0.043)		260	(20)		0.18	(0.042)	J	ND	(0.039)	U
hexachlorobenzene	118-74-1	mg/kg	ND	(0.039)	U	ND	(0.51)		ND	(0.043)	U	ND	(0.4)		ND	(0.042)	U	ND	(0.039)	U
hexachlorobutadiene	87-68-3	mg/kg	ND	(0.079)	U	ND	(1)		ND	(0.085)	U	ND	(0.8)		ND	(0.084)	U	ND	(0.078)	U
hexachlorocyclopentadiene	77-47-4	mg/kg	ND	(0.200)	U	ND	(2.5)		ND	(0.21)	U	ND	(2)		ND	(0.21)	U	ND	(0.19)	U
hexachloroethane	67-72-1	mg/kg	ND	(0.039)	U	ND	(0.51)		ND	(0.043)	U	ND	(0.4)		ND	(0.042)	U	ND	(0.039)	U
indeno (1,2,3-cd) pyrene	193-39-5	mg/kg	0.049	(0.039)	J	47	(0.51)		39	(0.85)		12	(0.4)		0.54	(0.042)		ND	(0.039)	U
isophorone	78-59-1	mg/kg	ND	(0.039)	U	ND	(0.51)		ND	(0.043)	U	ND	(0.4)		ND	(0.042)	U	ND	(0.039)	U
N-nitrosodi-n-propylamine	621-64-7	mg/kg	ND	(0.039)	U	ND	(0.51)		ND	(0.043)	U	ND	(0.4)		ND	(0.042)	U	ND	(0.039)	U
N-nitrosodiphenylamine	86-30-6	mg/kg	ND	(0.039)	U	ND	(0.51)		ND	(0.043)	U	ND	(0.4)		ND	(0.042)	U	ND	(0.039)	U
naphthalene	91-20-3	mg/kg	ND	(0.039)	U	300	(25)		1.6	(0.043)		14	(0.4)		0.16	(0.042)	J	ND	(0.039)	U
nitrobenzene	98-95-3	mg/kg	ND	(0.039)	U	ND	(0.51)		ND	(0.043)	U	ND	(0.4)		ND	(0.042)	U	ND	(0.039)	U
pentachlorophenol	87-86-5	mg/kg	ND	(0.200)	U	ND	(2.5)		ND	(0.21)	U	ND	(2)		ND	(0.21)	U	ND	(0.19)	U
phenanthrene	85-01-8	mg/kg	ND	(0.039)	U	320	(25)		3.6	(0.043)		870	(20)		0.66	(0.042)		ND	(0.039)	U
phenol	108-95-2	mg/kg	ND	(0.079)	U	ND	(1)		ND	(0.085)	U	ND	(0.8)		ND	(0.084)	U	ND	(0.078)	U
pyrene	129-00-0	mg/kg	0.110	(0.039)	J	100	(25)		32	(0.85)		300	(20)		1.6	(0.042)		ND	(0.039)	U
Other Parameters																				
Moisture Content (b)	N.A.	wt %	13.1	(0.08)		34.2	(0.08)		21.9	(0.08)		16.4	(0.08)		20.5	(0.08)		14.3	(0.08)	

Notes:

ND denotes "Not Detected" at method detection limit shown in parentheses.

(a) Target Compound List (TCL) base neutral/acid-extractable organic compounds by EPA SW-846 method 8270, reported as dry-weight concentrations.

(b) EPA method 160.3 (*Methods for Chemical Analysis of Water and Wastes*, March 1983).

(c) Low concentrations of this common laboratory contaminant warrant caution if this value is used as basis for environmental risk assessment or other decision-making process.

U qualifier denotes not detected.

J qualifier denotes quantitation is estimated due to limitations identified during data validation quality assurance review.

U* qualifier denotes that compound should be considered "not-detected" since it was detected in a corresponding field, trip, and/or laboratory blank sample at a similar concentration.

Table 4-4
(Continued)
Sediment Sample Data Summary
Phase II Remedial Investigation

Gulf Coast Creosoting Site
Hattiesburg, Mississippi

Analytical Parameter	CAS Registry Number	Units	Sample Identifier: SD-07			SD-08			SD-09			SD-09 (Duplicate) (a)			SD-10			SD-11		
TCL Semivolatile Organics (b)																				
1,2,4-trichlorobenzene	120-82-1	mg/kg	ND	(0.041)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.039)	UJ	ND	(0.04)	U	ND	(0.045)	U
1,2-dichlorobenzene	95-50-1	mg/kg	ND	(0.041)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.039)	UJ	ND	(0.04)	U	ND	(0.045)	U
1,3-dichlorobenzene	541-73-1	mg/kg	ND	(0.041)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.039)	UJ	ND	(0.04)	U	ND	(0.045)	U
1,4-dichlorobenzene	106-46-7	mg/kg	ND	(0.041)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.039)	UJ	ND	(0.04)	U	ND	(0.045)	U
2,2'-oxybis (1-chloropropane)	108-60-1	mg/kg	ND	(0.041)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.039)	UJ	ND	(0.04)	U	ND	(0.045)	U
2,4,5-trichlorophenol	95-95-4	mg/kg	ND	(0.081)	U	ND	(0.08)	U	ND	(0.075)	U	ND	(0.078)	UJ	ND	(0.08)	U	ND	(0.091)	U
2,4,6-trichlorophenol	88-06-2	mg/kg	ND	(0.081)	U	ND	(0.08)	U	ND	(0.075)	U	ND	(0.078)	UJ	ND	(0.08)	U	ND	(0.091)	U
2,4-dichlorophenol	120-83-2	mg/kg	ND	(0.081)	U	ND	(0.08)	U	ND	(0.075)	U	ND	(0.078)	UJ	ND	(0.08)	U	ND	(0.091)	U
2,4-dimethylphenol	105-67-9	mg/kg	ND	(0.081)	U	ND	(0.08)	U	ND	(0.075)	U	ND	(0.078)	UJ	ND	(0.08)	U	ND	(0.091)	U
2,4-dinitrophenol	51-28-5	mg/kg	ND	(0.24)	U	ND	(0.23)	U	ND	(0.22)	U	ND	(0.23)	UJ	ND	(0.23)	U	ND	(0.26)	U
2,4-dinitrotoluene	121-14-2	mg/kg	ND	(0.081)	U	ND	(0.08)	U	ND	(0.075)	U	ND	(0.078)	UJ	ND	(0.08)	U	ND	(0.091)	U
2,6-dinitrotoluene	606-20-2	mg/kg	ND	(0.041)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.039)	UJ	ND	(0.04)	U	ND	(0.045)	U
2-chloronaphthalene	91-58-7	mg/kg	ND	(0.041)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.039)	UJ	ND	(0.04)	U	ND	(0.045)	U
2-chlorophenol	95-57-8	mg/kg	ND	(0.041)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.039)	UJ	ND	(0.04)	U	ND	(0.045)	U
2-methylnaphthalene	91-57-6	mg/kg	0.51	(0.041)		0.074	(0.04)	J	0.044	(0.037)	J	0.055	(0.039)	J	ND	(0.04)	U	ND	(0.045)	U
2-methylphenol	95-48-7	mg/kg	ND	(0.041)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.039)	UJ	ND	(0.04)	U	ND	(0.045)	U
2-nitroaniline	88-74-4	mg/kg	ND	(0.041)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.039)	UJ	ND	(0.04)	U	ND	(0.045)	U
2-nitrophenol	88-75-5	mg/kg	ND	(0.081)	U	ND	(0.08)	U	ND	(0.075)	U	ND	(0.078)	UJ	ND	(0.08)	U	ND	(0.091)	U
3,3'-dichlorobenzidine	91-94-1	mg/kg	ND	(0.081)	U	ND	(0.08)	U	ND	(0.075)	U	ND	(0.078)	UJ	ND	(0.08)	U	ND	(0.091)	U
3- and 4-methylphenol	106-44-5	mg/kg	ND	(0.081)	U	ND	(0.08)	U	ND	(0.075)	U	ND	(0.078)	UJ	ND	(0.08)	U	ND	(0.091)	U
3-nitroaniline	99-09-2	mg/kg	ND	(0.081)	U	ND	(0.08)	U	ND	(0.075)	U	ND	(0.078)	UJ	ND	(0.08)	U	ND	(0.091)	U
4,6-dinitro-2-methylphenol	534-52-1	mg/kg	ND	(0.2)	U	ND	(0.2)	U	ND	(0.19)	U	ND	(0.19)	UJ	ND	(0.2)	U	ND	(0.23)	U
4-bromophenyl phenyl ether	101-55-3	mg/kg	ND	(0.081)	U	ND	(0.08)	U	ND	(0.075)	U	ND	(0.078)	UJ	ND	(0.08)	U	ND	(0.091)	U
4-chloro-3-methylphenol	59-50-7	mg/kg	ND	(0.081)	U	ND	(0.08)	U	ND	(0.075)	U	ND	(0.078)	UJ	ND	(0.08)	U	ND	(0.091)	U
4-chloroaniline	106-47-8	mg/kg	ND	(0.041)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.039)	UJ	ND	(0.04)	U	ND	(0.045)	U
4-chlorophenyl phenyl ether	7005-72-3	mg/kg	ND	(0.041)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.039)	UJ	ND	(0.04)	U	ND	(0.045)	U
4-nitroaniline	100-01-6	mg/kg	ND	(0.081)	U	ND	(0.08)	U	ND	(0.075)	U	ND	(0.078)	UJ	ND	(0.08)	U	ND	(0.091)	U
4-nitrophenol	100-02-7	mg/kg	ND	(0.2)	U	ND	(0.2)	U	ND	(0.19)	U	ND	(0.19)	UJ	ND	(0.2)	U	ND	(0.23)	U
acenaphthene	83-32-9	mg/kg	0.45	(0.041)		0.18	(0.04)	J	0.37	(0.037)	J	0.24	(0.039)	J	ND	(0.04)	U	ND	(0.045)	U
acenaphthylene	208-96-8	mg/kg	0.078	(0.041)	J	ND	(0.04)	U	ND	(0.037)	U	0.057	(0.039)	J	ND	(0.04)	U	ND	(0.045)	U
anthracene	120-12-7	mg/kg	0.46	(0.041)		0.26	(0.04)	J	0.12	(0.037)	J	0.87	(0.039)	J	0.054	(0.04)	J	ND	(0.045)	U
benzo (a) anthracene	56-55-3	mg/kg	0.59	(0.041)		0.18	(0.04)	J	0.24	(0.037)	J	0.37	(0.039)	J	ND	(0.04)	U	ND	(0.045)	U
benzo (a) pyrene	50-32-8	mg/kg	0.39	(0.041)	J	0.12	(0.04)	J	0.11	(0.037)	J	0.23	(0.039)	J	ND	(0.04)	U	ND	(0.045)	U
benzo (b) fluoranthene	205-99-2	mg/kg	0.58	(0.041)		0.17	(0.04)	J	0.17	(0.037)	J	0.34	(0.039)	J	ND	(0.04)	U	ND	(0.045)	U
benzo (ghi) perylene	191-24-2	mg/kg	0.18	(0.041)	J	0.065	(0.04)	J	0.042	(0.037)	J	0.098	(0.039)	J	ND	(0.04)	U	ND	(0.045)	U
benzo (k) fluoranthene	207-08-9	mg/kg	0.19	(0.041)	J	0.064	(0.04)	J	0.05	(0.037)	J	0.13	(0.039)	J	ND	(0.04)	U	ND	(0.045)	U
bis (2-chloroethoxy) methane	111-91-1	mg/kg	ND	(0.081)	U	ND	(0.08)	U	ND	(0.075)	U	ND	(0.078)	UJ	ND	(0.08)	U	ND	(0.091)	U
bis (2-chloroethyl) ether	111-44-4	mg/kg	ND	(0.041)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.039)	UJ	ND	(0.04)	U	ND	(0.045)	U
bis (2-ethylhexyl) phthalate	117-81-7	mg/kg	ND	(0.081)	U	ND	(0.08)	U	ND	(0.075)	U	ND	(0.078)	UJ	0.39	(0.08)	U*	ND	(0.091)	U
butyl benzyl phthalate	85-68-7	mg/kg	ND	(0.081)	U	ND	(0.08)	U	ND	(0.075)	U	ND	(0.078)	UJ	ND	(0.08)	U	ND	(0.091)	U
carbazole	86-74-8	mg/kg	0.57	(0.041)		0.16	(0.04)	J	ND	(0.037)	U	0.081	(0.039)	J	ND	(0.04)	U	ND	(0.045)	U
chrysene	218-01-9	mg/kg	0.53	(0.041)		0.18	(0.04)	J	0.21	(0.037)	J	0.61	(0.039)	J	ND	(0.04)	U	ND	(0.045)	U
di-n-butyl phthalate	84-74-2	mg/kg	ND	(0.081)	U	ND	(0.08)	U	ND	(0.075)	U	ND	(0.078)	UJ	ND	(0.08)	U	ND	(0.091)	U
di-n-octyl phthalate	117-84-0	mg/kg	ND	(0.081)	U	ND	(0.08)	U	ND	(0.075)	U	ND	(0.078)	UJ	ND	(0.08)	U	ND	(0.091)	U
dibenz (a,h) anthracene	53-70-3	mg/kg	0.062	(0.041)	J	ND	(0.04)	U	ND	(0.037)	U	ND	(0.039)	UJ	ND	(0.04)	U	ND	(0.045)	U
dibenzofuran	132-64-9	mg/kg	0.41	(0.041)		0.15	(0.04)	J	0.21	(0.037)	J	0.18	(0.039)	J	ND	(0.04)	U	ND	(0.045)	U
diethyl phthalate	84-66-2	mg/kg	ND	(0.081)	U	ND	(0.08)	U	ND	(0.075)	U	ND	(0.078)	UJ	ND	(0.08)	U	ND	(0.091)	U
dimethyl phthalate	131-11-3	mg/kg	ND	(0.081)	U	ND	(0.08)	U	ND	(0.075)	U	ND	(0.078)	UJ	ND	(0.08)	U	ND	(0.091)	U
fluoranthene	206-44-0	mg/kg	1.7	(0.041)		0.68	(0.04)		0.87	(0.037)		1.1	(0.039)	J	0.1	(0.04)	J	ND	(0.045)	U
fluorene	86-73-7	mg/kg	0.62	(0.041)		0.23	(0.04)	J	0.34	(0.037)	J	0.3	(0.039)	J	ND	(0.04)	U	ND	(0.045)	U
hexachlorobenzene	118-74-1	mg/kg	ND	(0.041)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.039)	UJ	ND	(0.04)	U	ND	(0.045)	U
hexachlorobutadiene	87-68-3	mg/kg	ND	(0.081)	U	ND	(0.08)	U	ND	(0.075)	U	ND	(0.078)	UJ	ND	(0.08)	U	ND	(0.091)	U
hexachlorocyclopentadiene	77-47-4	mg/kg	ND	(0.2)	U	ND	(0.2)	U	ND	(0.19)	U	ND	(0.19)	UJ	ND	(0.2)	U	ND	(0.23)	U
hexachloroethane	67-72-1	mg/kg	ND	(0.041)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.039)	UJ	ND	(0.04)	U	ND	(0.045)	U
indeno (1,2,3-cd) pyrene	193-39-5	mg/kg	0.22	(0.041)	J	0.069	(0.04)	J	0.051	(0.037)	J	0.12	(0.039)	J	ND	(0.04)	U	ND	(0.045)	U
isophorone	78-59-1	mg/kg	ND	(0.041)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.039)	UJ	ND	(0.04)	U	ND	(0.045)	U
N-nitrosodi-n-propylamine	621-64-7	mg/kg	ND	(0.041)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.039)	UJ	ND	(0.04)	U	ND	(0.045)	U
N-nitrosodiphenylamine	86-30-6	mg/kg	ND	(0.041)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.039)	UJ	ND	(0.04)	U	ND	(0.045)	U
naphthalene	91-20-3	mg/kg	1.1	(0.041)		0.18	(0.04)	J	0.18	(0.037)	J	0.24	(0.039)	J	ND	(0.04)	U	ND	(0.045)	U
nitrobenzene	98-95-3	mg/kg	ND	(0.041)	U	ND	(0.04)	U	ND	(0.037)	U	ND	(0.039)	UJ	ND	(0.04)	U	ND	(0.045)	U
pentachlorophenol	87-86-5	mg/kg	ND	(0.2)	U	ND	(0.2)	U	ND	(0.19)	U	ND	(0.19)	UJ	ND	(0.2)	U	ND	(0.23)	U
phenanthrene	85-01-8	mg/kg	1.7	(0.041)		0.72	(0.04)		0.5	(0.037)		0.89	(0.039)	J	0.12	(0.04)	J	ND	(0.045)	U
phenol	108-95-2	mg/kg	ND	0.000081	U	ND	(0.08)	U	ND	(0.075)	U	ND	(0.078)	UJ	ND	(0.08)	U	ND	(0.091)	U
pyrene	129-00-0	mg/kg	1.4	(0.041)	V	0.48	(0.04)		0.72	(0.037)		0.75	(0.039)	J	0.079	(0.04)	J	ND	(0.045)	U
Other Parameters																				
Moisture Content(c)	N.A.	wt. %	18.1	(0.08)		16.7	(0.08)		10.6	(0.08)		14.0	(0.08)		16.6	(0.08)		26.5	(0.08)	

Notes:

ND denotes "Not Detected" at method detection limit shown in parentheses.

(a) Listed on chain-of-custody documentation as sample SD-12.

(b) Target Compound List (TCL) base neutral/acid-extractable organic compounds by EPA SW-846 method 8270, reported as dry-weight concentrations.

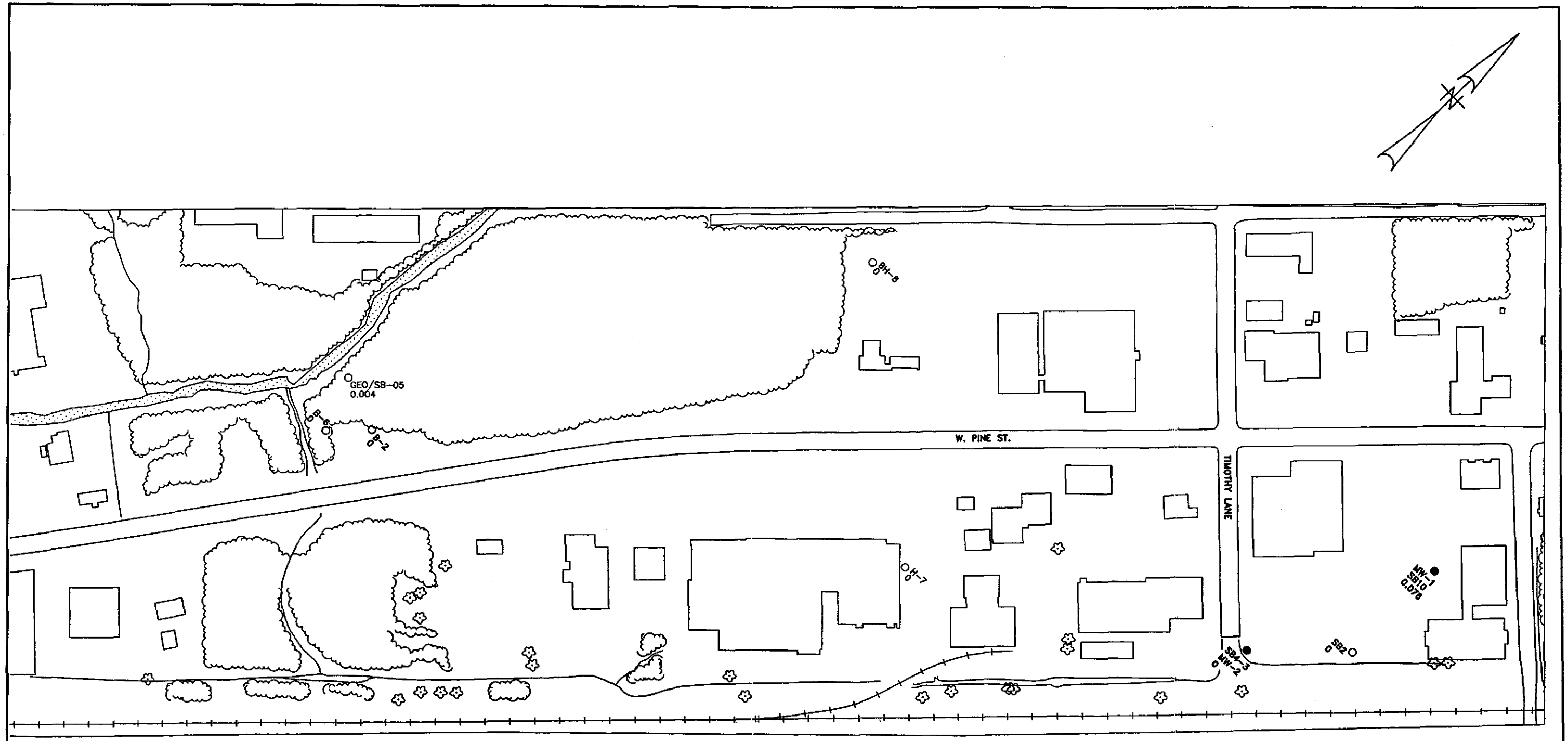
(c) EPA method 160.3 (*Methods for Chemical Analysis of Water and Wastes,* March 1983).

U qualifier denotes not detected.

J qualifier denotes quantitation is estimated due to limitations identified during data validation quality assurance review.

U* qualifier denotes that compound should be considered "not-detected" since it was detected in a corresponding field, trip, and/or laboratory blank sample at a similar concentration.

UJ qualifier denotes that the compound was not detected, but the quantitation limit may or may not be higher thatn the value shown in parentheses due to a bias identified during the data validation quality assurance review.



SITE INSPECTION,
1/92 BY MDEQ FOR EPA

SOIL GAS AND SOIL SAMPLING,
5/90 BY ROY F. WESTON FOR EPA

PHASE II INVESTIGATION OF PROCESS AREA, 1994 BY EPS FOR VAN SLYKE

PHASE II INVESTIGATION OF GIBSON'S SHOPPING CENTER, 6/94 BY BONNER FOR MS. THOMAS

PRELIMINARY SUBSURFACE INVESTIGATION OF RYAN MOTORS/RSCO REALTY, 10/94 BY BONNER ANALYTICAL TESTING

ADDITIONAL INVESTIGATION OF GIBSON'S SHOPPING CENTER, 7/95 BY BONNER FOR MS. THOMAS

REPORT OF INVESTIGATION ACTIVITIES 6/96 BY McLAREN HART FOR VAN SLYKE

SOIL BORING ASSESSMENT,
6/96 BY TDS

REMEDIAL INVESTIGATION, 1997 BY MP&A FOR KMCC

LEGEND

B-2 ○ HISTORICAL SOIL BORING/SAMPLE

MW-1 ● HISTORICAL MONITOR WELL

0 100 200 300 400

SCALE FEET

BASE MAP FROM ATLANTIC TECHNOLOGIES, LTD., HUNTSVILLE, ALABAMA, APRIL 1, 1996

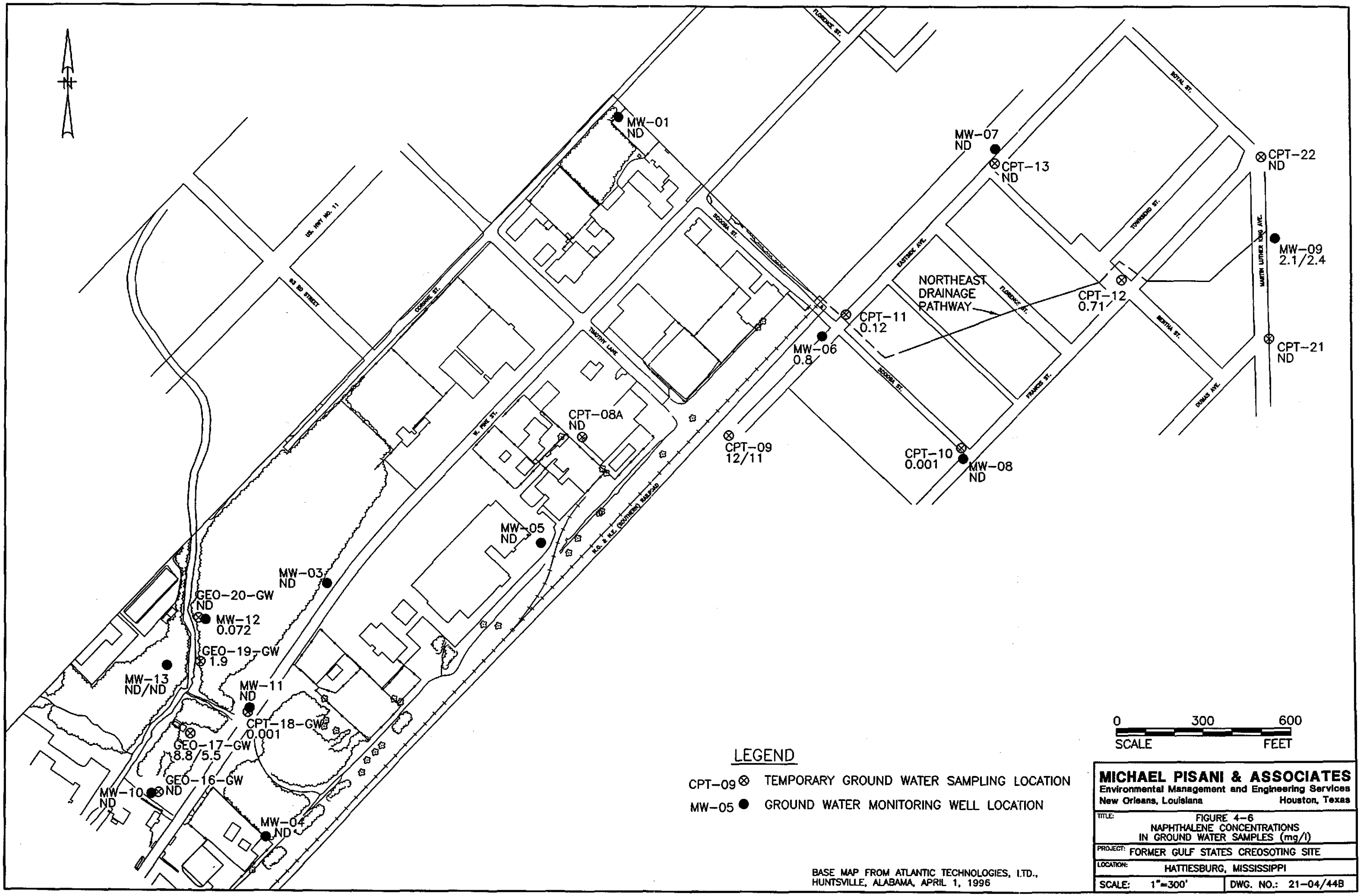
MICHAEL PISANI & ASSOCIATES
Environmental Management and Engineering Services
New Orleans, Louisiana Houston, Texas

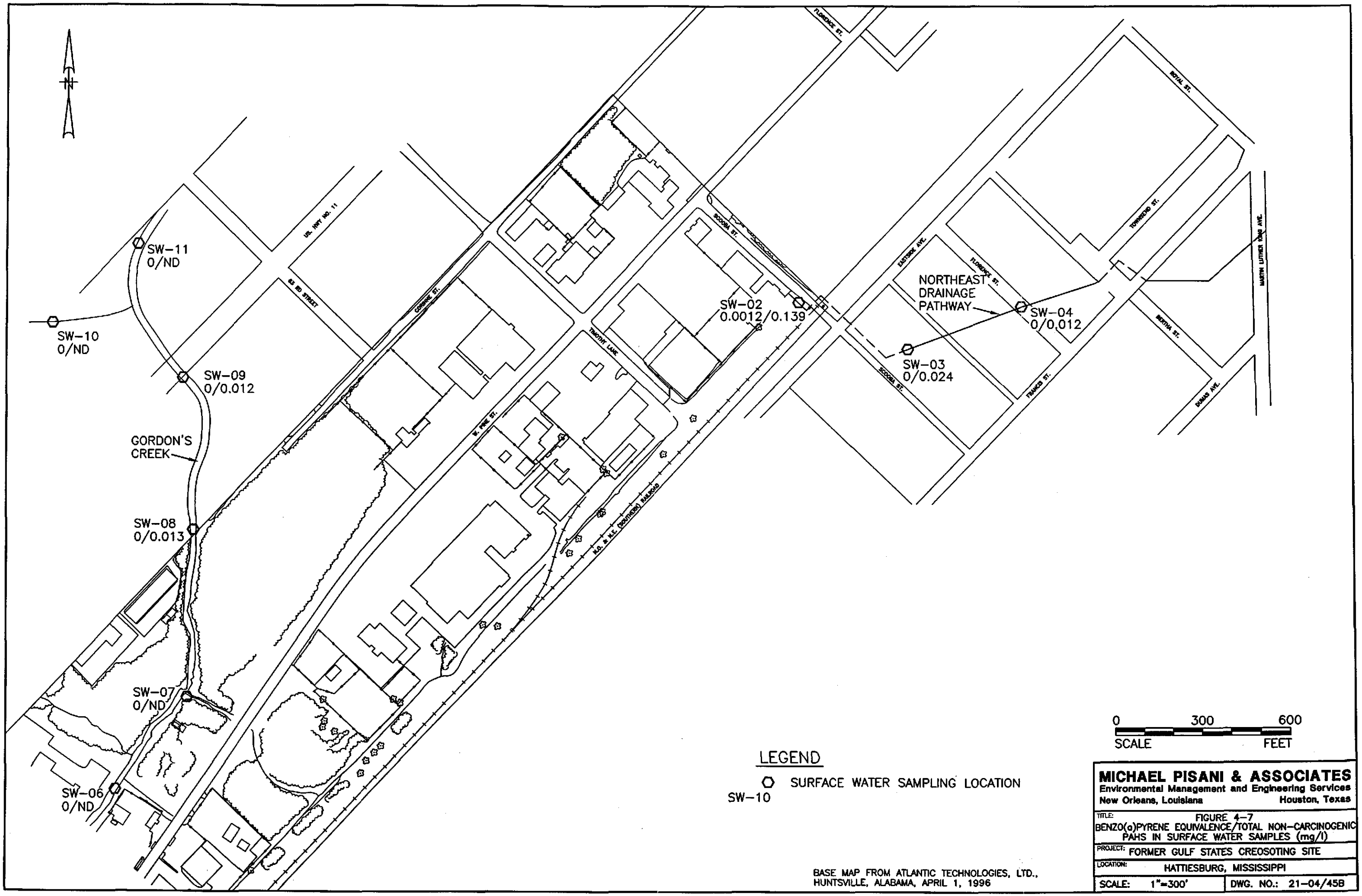
TITLE: FIGURE 4-5
BENZO(A)PYRENE EQUIVALENCE (mg/kg)
IN 15-20' SOIL SAMPLES

PROJECT: FORMER GULF STATES CREOSOTING SITE

LOCATION: HATTIESBURG, MISSISSIPPI

SCALE: 1"=200' DWG. NO.: 21-04/42B


MW-01
ND
MW-07
ND
CPT-13
ND
CPT-22
ND
MW-09
2.1/2.4
NORTHEAST
DRAINAGE
PATHWAY
CPT-12
0.71
CPT-11
0.12
MW-06
0.8
CPT-21
ND
CPT-08A
ND
CPT-09
12/11
CPT-10
0.001
MW-08
ND
MW-05
ND
MW-03
ND
GEO-20-GW
ND
MW-12
0.072
GEO-19-GW
1.9
MW-13
ND/ND
MW-11
ND
CPT-18-GW
0.001
GEO-17-GW
8.8/5.5
GEO-16-GW
ND
MW-10
ND
MW-04
ND
US. HWY NO. 11
63 RD STREET
DURANT ST.
FLORENCE ST.
SCIOTA ST.
TIMOTHY LANE
W. PINE ST.
N.O. & N.E. (SOUTHERN) RAILROAD
EASTSIDE AVE.
ROYAL ST.
TOWNSEND ST.
MARTIN LUTHER KING AVE.
BERTHA ST.
FRANCES ST.
DUMAS AVE.
0
300
600
SCALE
FEET
LEGEND
CPT-09 ⊗ TEMPORARY GROUND WATER SAMPLING LOCATION
MW-05 ● GROUND WATER MONITORING WELL LOCATION
BASE MAP FROM ATLANTIC TECHNOLOGIES, LTD.,
HUNTSVILLE, ALABAMA, APRIL 1, 1996
MICHAEL PISANI & ASSOCIATES
Environmental Management and Engineering Services
New Orleans, Louisiana
Houston, Texas
TITLE: FIGURE 4-6
NAPHTHALENE CONCENTRATIONS
IN GROUND WATER SAMPLES (mg/l)
PROJECT: FORMER GULF STATES CREOSOTING SITE
LOCATION: HATTIESBURG, MISSISSIPPI
SCALE: 1"=300'
DWG. NO.: 21-04/44B



LEGEND

⬡ SURFACE WATER SAMPLING LOCATION
SW-10

0 300 600
SCALE FEET

BASE MAP FROM ATLANTIC TECHNOLOGIES, LTD.,
HUNTSVILLE, ALABAMA, APRIL 1, 1996

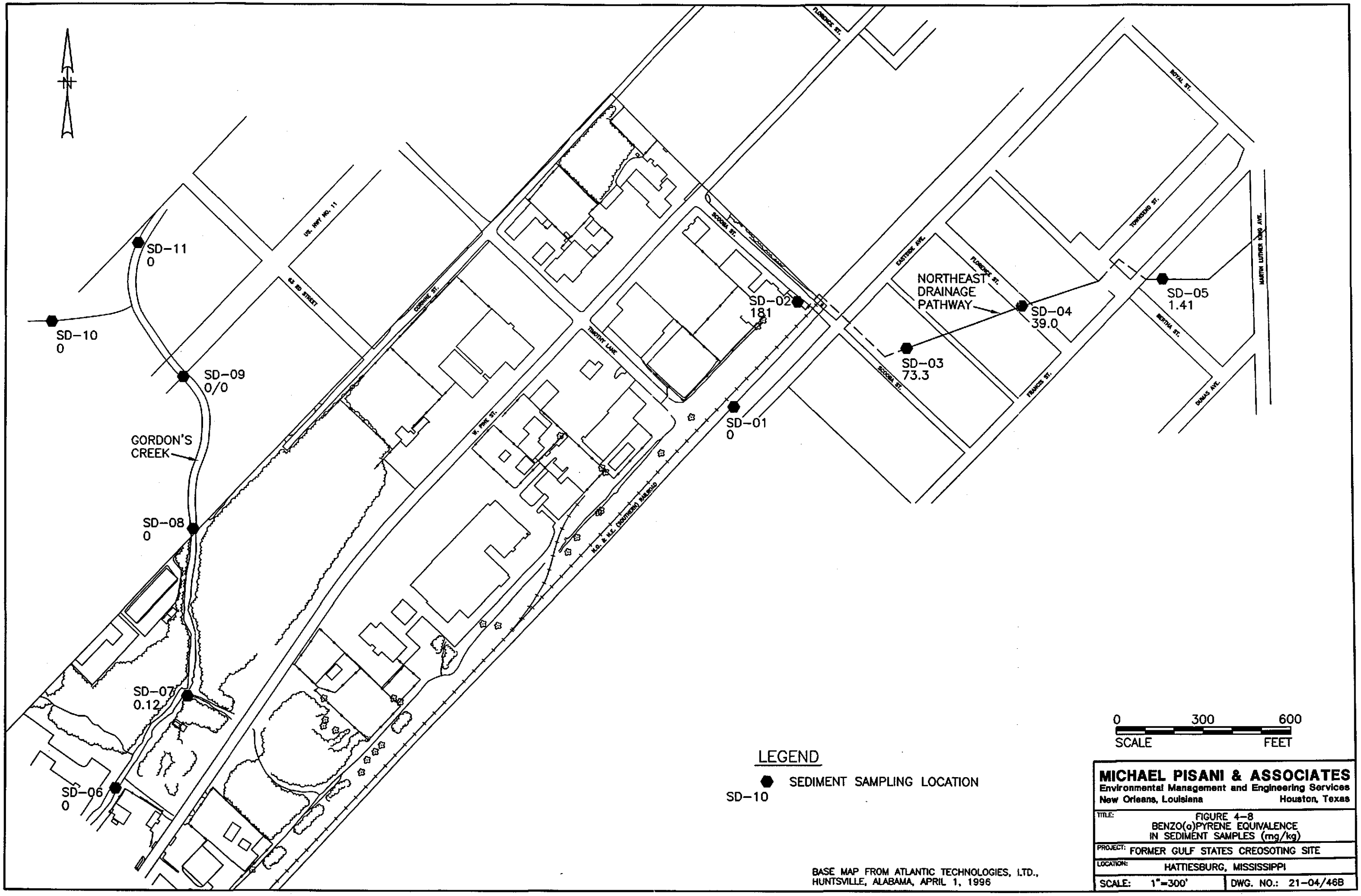
MICHAEL PISANI & ASSOCIATES
Environmental Management and Engineering Services
New Orleans, Louisiana Houston, Texas

TITLE: FIGURE 4-7
BENZO(a)PYRENE EQUIVALENCE/TOTAL NON-CARCINOGENIC PAHS IN SURFACE WATER SAMPLES (mg/l)

PROJECT: FORMER GULF STATES CREOSOTING SITE

LOCATION: HATTIESBURG, MISSISSIPPI

SCALE: 1"=300' DWG. NO.: 21-04/45B



LEGEND

SD-10 ● SEDIMENT SAMPLING LOCATION

BASE MAP FROM ATLANTIC TECHNOLOGIES, LTD., HUNTSVILLE, ALABAMA, APRIL 1, 1996

MICHAEL PISANI & ASSOCIATES
Environmental Management and Engineering Services
New Orleans, Louisiana Houston, Texas

TITLE: FIGURE 4-8
BENZO(a)PYRENE EQUIVALENCE
IN SEDIMENT SAMPLES (mg/kg)

PROJECT: FORMER GULF STATES CREOSOTING SITE

LOCATION: HATTIESBURG, MISSISSIPPI

SCALE: 1"=300' DWG. NO.: 21-04/46B

5.0 Conclusions

5.1 Conclusions

The following is a summary of major conclusions based on the results of RI activities:

Soil Investigations

1. Affected soil within the former Process Area extends to a distance at least 40 feet to the east of the Courtesy Ford fence line. This area has likely been impacted by drainage from former Process Area operations and the periodic "mucking out" of the ditch between the railroad tracks and the Process Area.
2. Target constituents within former treated wood storage areas are generally confined to soils within the first 2 feet below land surface. The majority of former treated wood storage areas are paved with asphalt.
3. Outside of the Gordon's Creek Fill Area, target constituents in soils on the RSCO property are generally confined to soils within the first 2 feet below land surface. This area was regraded during site development in the early 1960s.

Stratigraphic Characterization

4. The three distinct units beneath the Process Area (i.e., upper clay, sand channel, and underlying clay aquitard) extend to the east of the site and dip gradually eastward toward the Leaf River. As the land surface elevation falls to the east, the upper clay thins significantly.
5. The shallow geology on the opposite (northwest) bank of Gordon's Creek is identical to the geology of the Fill Area (i.e., a surficial clay, underlain by two sandy zones separated by a thin clay layer, in turn underlain by a deeper clay).

Ground Water Investigations

6. In October 1998, ground water elevations in wells screened within the Process Area sand channel were, on average, 3 to 4 feet lower than in April 1997. This is believed to be a seasonal effect.
7. Ground water flow direction within the sand channel is eastward from the Process Area toward the floodplain of the Leaf River. Water level elevations in offsite Process Area wells indicate a much flatter gradient (0.0008 feet per foot) to the east of the site. Offsite ground water flow velocities calculated using this flatter gradient range from 0.003 to 0.02 feet per day.
8. Process Area constituents have migrated offsite to the east via the ground water pathway. However, no free-phase product or carcinogenic PAHs were detected in offsite ground water, and constituent concentrations decrease dramatically with distance from the former Process Area. Furthermore, using conservative estimates of ground water velocity, the maximum distance that constituents could have migrated offsite in 60 years is approximately 450 feet.

9. The presence of site constituents in ground water samples collected at locations immediately adjacent to the northeast drainage pathway does not appear to be the result of lateral migration via the ground water pathway, but likely occurred due to the vertical migration of constituents from the drainage ditch itself.
10. The extent of affected ground water within the Fill Area has now been fully delineated. As anticipated, the area containing affected ground water is similar in size and shape to the overlying area of affected soil delineated during the Phase I RI.
11. Ground water within the Fill Area sands flows toward Gordon's Creek and downstream along the creek. A comparison of ground water elevation data to the Gordon's Creek surface water elevation indicates that at the time of Phase II RI field activities, surrounding ground water was discharging to Gordon's Creek.

Surface Water and Sediment Sampling

12. Neither surface water or near surface (zero to 6-inch) sediment samples from Gordon's Creek appear to have been significantly impacted with site constituents. However, a sheen has been observed sporadically on the surface water within Gordon's Creek.
13. Except at its inception, surface water within the northeast drainage pathway was essentially free of site constituents. Sediments within the ditch appear to have been impacted by site runoff to a distance of approximately 1,000 feet offsite.
14. The results of Phase II RI surface water and sediment sampling indicate little or no partitioning of constituents from sediments to surface water, and therefore minimal potential for the offsite migration of site constituents via the surface water pathway.