



November 13, 2012

Mr. David Brownlee
Unit Manager
Response and Remediation Program
Georgia Department of Natural Resources
Environmental Protection Division
Hazardous Sites Response Program
2 Martin Luther King Jr. Dr. SE Suite 1462 East
Atlanta, GA 30334

**Re: Voluntary Remediation Plan Application
Colonial Terminals, Plant #2
Georgia Hazardous Site Inventory No. 10098**

Dear Mr. Brownlee:

On behalf of our client, Colonial Terminals, Inc., ENVIRON is pleased to submit this application for enrollment of the referenced site into the Voluntary Remediation Program.

Enclosed are the application form and supporting documents, as well as a check for the \$5,000 application fee. This application requests the transfer of this site from the Hazardous Site Inventory to the Voluntary Remediation Program.

If you have any questions about the attached report, or any other project matter, please feel free to contact us at any time.

Sincerely,

A handwritten signature in black ink that appears to read "Ryan Slakman".

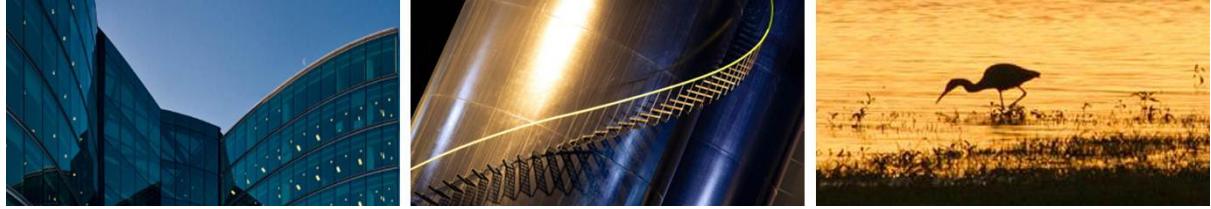
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A handwritten signature in black ink that appears to read "Jeff Margolin".

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Enclosures

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Michael Skinner, Michael J. Skinner Consulting, LLC
Kenneth Anderson, ConAgra Foods, Inc.



Voluntary Remediation Plan and Application Colonial Terminals, Plant #2

Prepared for:
Colonial Terminals, Inc.
Savannah, Georgia

Prepared by:
ENVIRON International Corporation

November 2012

Project Number:
07-30114B

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Acronyms and Abbreviations

11DCE	1,1-dichloroethene
12DCE	1,2-dichloroethene
ft amsl	Feet Above Mean Sea Level
AST	Aboveground Storage Tank
cm/sec	Centimeters per Second
CAP	Corrective Action Plan
CSM	Conceptual Site Model
CSR	Compliance Status Report
EDR	Environmental Data Resources
EPD	Georgia Environmental Protection Division
ft bgs	Feet Below Ground Surface
ft/day	Feet per Day
HSI	Hazardous Site Inventory
HSRA	Hazardous Site Response Act
kg	Kilograms
m ³ /day	Cubic Meters per Day
MeCl	Methylene Chloride
mg/day	Milligrams per Day
mg/kg	Milligrams per kilogram
PCE	Tetrachloroethylene
RME	Reasonable Maximum Exposure
RRS	Risk Reduction Standards
SVE	Solid Vapor Extraction
TCE	Trichloroethylene
UCL	Upper Confidence Limit
USEPA	United States Environmental Protection Agency
VC	Vinyl Chloride
VOC	Volatile Organic Compound
VRP	Georgia Voluntary Remediation Program

1 Introduction

This application to the Georgia Voluntary Remediation Program (VRP) has been prepared for a portion of the Colonial Terminals, Plant #2 (Colonial) property located at 373 North Lathrop Avenue, Savannah, Chatham County, Georgia (Figure 1). The approximately 78-acre property is comprised of six adjacent parcels of land identified by the Chatham County Board of Assessors as Tax Parcel IDs 1-0549-01-002 (4 parcels maintain this ID), 1-0549-01-002A, and 1-0550-02-004. The highly industrialized property is bordered by the Savannah River and is improved with administrative buildings, warehouses, bulk aboveground storage tanks (ASTs) and silos, shipping docks, truck loading racks, pipe racks, and rail spurs (Figure 2).

The subject property has been developed for industrial purposes since at least 1950 and was formerly used for the manufacture of fertilizers from the late 1950s through the late 1970s. Two sludge-settling ponds were historically used onsite for the capture of wastewater sludge associated with the fertilizer manufacturing operations. Since the late 1970s, the property has been used as a bulk storage facility for a variety of products including chlorinated solvents, petroleum compounds, food-grade products, and kaolin clay.

The property has been the subject of a number of previous environmental assessments that were conducted between 1984 and 2011. On June 29, 1994, three of the six parcels that comprise the property (Figure 2) were listed on the Georgia Environmental Protection Division's (EPD's) Hazardous Site Inventory (HSI, No. 10098) for a known release of metals and volatile organic compounds (VOCs) to the soil and groundwater. These three parcels (1-0549-01-002, 1-0549-01-002A, and 1-0550-02-004) are the subject of this application and are referred to herein as the "site." Historical remedial activities at the site have consisted of soil excavation and chemical injections into the groundwater. Current corrective action at the site consists of treatment of localized soils with a solid vapor extraction (SVE) system and annual groundwater monitoring.

2 Site Background

According to the Chatham County Board of Assessors, the site is owned and maintained by Colonial, and consists of Tax Parcel IDs 1-0549-01-002, 1-0549-01-002A, and 1-0550-02-004. A warranty deed with a legal description of the property and a tax plat map are included in **Appendix A**. The previous site owners include Virginia-Carolina Chemical Company (now Exxon Mobil Corporation) and Swift Agricultural Chemicals Corporation (now BFEL Indemnitor, Inc.).

2.1 Site Description

The approximately 34.6-acre site is a bulk petroleum and chemical storage facility that is located along the Savannah River, directly across from the northern end of Hutchinson Island. The site is developed with an approximately 60,000-square foot warehouse, approximately 50 ASTs, truck loading areas, a fueling station, and a loading dock for barges along the Savannah River. The ASTs are located within earthen dikes or concrete holding tanks. Exterior areas of the site consist of gravel-covered roads and parking areas, rail spurs, earthen-bermed tank farms, and the concrete-paved loading dock along the Savannah River. The site is bordered to the north by the Savannah River, to the west by the unlisted portions of the Colonial property, and by industrial properties to the south and east. The site is accessed from West Lathrop Avenue at

the southwest site boundary. Surface water at the site generally travels via sheet flow or by storm water ditches towards the Savannah River.

2.2 Site History

The site was formerly owned and operated by Virginia-Carolina Chemical Company and Swift Agricultural Chemicals Corporation for the manufacture of fertilizers from the late 1950s through the late 1970s. During that time, the site maintained two sludge-settling ponds and an adjacent sludge pile that have been documented as likely sources of impacts at the site, and historical fertilizer production facilities were present at various locations to the east side of the current rail yard (ERM, 2011). Since the late 1970s, Colonial has owned and operated the site for use as a bulk storage facility for various chemicals, petroleum, and kaolin clay. According to previous investigations and facility personnel, trichloroethylene (TCE) and tetrachloroethylene (PCE) were transferred from vessels to railcars and then to trucks in the area adjacent to the two former settling ponds and sludge pile from 1981 through 1985. Bulk storage of PCE and TCE at the site occurred in ASTs T-77 and T-78, located near the central northern end of the site, from 1985 through 1990, and in the adjacent ASTs 110 through 113 from 1991 through 2007 (TCE) and 2009 (PCE).

2.3 Summary of Previous Investigations

An investigation of the former settling ponds and sludge pile was conducted by the United States Environmental Protection Agency (USEPA) in 1984 and identified the presence of TCE at the site. Following an evaluation by the EPD in June 1994, the site was listed on the HSI for known releases of metals and VOCs to the soil and groundwater. In addition, methylene chloride (MeCl) and PCE degradation products 1,2-dichloroethene (12DCE); 1,1-dichloroethene (11DCE); and vinyl chloride (VC) were identified in soil and groundwater at the site during subsequent investigations. An initial Compliance Status Report was submitted to EPD in 1999, and since that time numerous reports have been submitted for the site, including the following that were used in the completion of this VRP application:

- Corrective Action Plan 4th Revision, prepared by Environmental Resources Management, dated October 24, 2005 (ERM, 2005).
- Corrective Action Plan for Volatile Organic Compounds, prepared by MACTEC Engineering and Consulting, dated August 2006 (MACTEC, 2006).
- Performance Standards Verification Report, prepared by Environmental Resources Management, dated January 15, 2007 (ERM, 2007a).
- Interim Design Report for VOC Corrective Action, prepared by MACTEC Engineering and Consulting, dated October 5, 2007 (MACTEC, 2007).
- Revised Corrective Action Plan for Volatile Organic Compounds, prepared by Environmental Resources Management, dated December 2007 (ERM, 2007b).
- Revised Corrective Action Plan for Volatile Organic Compounds, prepared by Environmental Resources Management, dated January 2009 (ERM, 2009a).
- Final Compliance Status Report for Metals in Soil, prepared by Environmental Resources Management, dated August 23, 2009 (ERM, 2009b).
- First Annual Groundwater CAER and Response to EPD Comment Letter, prepared by Environmental Resources Management, dated January 29, 2010 (ERM, 2010a).

- Revised Compliance Status Report for Metals in Soil, prepared by Environmental Resources Management, dated July 15, 2010 (ERM, 2010b).
- Second Corrective Action Effectiveness Report for Groundwater 2010, prepared by Environmental Resources Management, dated January 31, 2011 (ERM, 2011a).
- Revised Compliance Status Report for Metals in Soil, prepared by Environmental Resources Management, dated August 2011 (ERM, 2011).

Corrective actions for soil and groundwater at the site have been implemented since approximately 2005. A summary of these actions is provided in the following sections.

2.3.1 Summary of Corrective Actions – Soil

Corrective action of the soil at the site commenced in 2007 and includes the removal and treatment of impacted soil. A summary of the removal actions that have been undertaken at the site is provided below, and these excavation areas are illustrated in **Figure 3**:

- Approximately 23,415 tons of lead and/or arsenic-impacted soils were removed from eight distinct areas of the site in October through December 2007.
- Approximately 812 tons of VOC-impacted soils were removed adjacent to Tank T-88 at the southeast portion of the site in December 2007.
- Approximately 38 tons of soils were removed from the area surrounding the historical soil boring GP-07-06 in February and March 2009.

In addition to the soil removal activities, an SVE system was installed in 2009 for the purpose of addressing VOC impacts in the vicinity of Tank 75 through Tank 78 (**Figure 3**). The SVE system consists of a gallery of six SVE extraction wells, a vacuum blower, control panel, moisture knockout tank, and emission controls (activated carbon). Monthly air sampling and maintenance of the SVE system is ongoing.

2.3.2 Summary of Corrective Actions – Groundwater

In order to address metals and VOC impacts to the groundwater, a chemical injection program was proposed as part of the 2009 Revised Corrective Action Plan (CAP) for VOCs and was implemented in February through April 2009. A total of 250 injection wells were installed at the site, and more than 150,000 gallons of solution containing persulfate, lime, and caustic were injected into the groundwater. In addition, a network of 34 groundwater monitoring wells (**Figure 4**) have been sampled annually from 2008 through 2010 for VOCs, metals, and monitoring parameters (to gauge the effectiveness of the chemical injections).

2.3.3 Type 5 Risk Reduction Standards

In April 2006, EPD approved Type 5 risk reduction standards (RRS) for two conditions at the site:

- Areas within 12 feet of the railroad centerline where excavations could result in a loss of structural integrity of the tracks; and,
- Deep soil adjacent to retaining walls and loading docks along the Savannah River.

The Type 5 RRS areas are depicted in **Figure 5**. Engineering and institutional controls are maintained for these areas, including a Restrictive Covenant on the deeds for the three parcels that comprise the site.

3 Site Setting

The Colonial Terminals Plant 2 site is located in a highly industrial area of Savannah, Georgia, and is bordered to the north and northeast by the Savannah River (which is in high industrial use and has been altered for that purpose), to the southeast by Georgia Recyclers, to the south by North Lathrop Avenue (on the other side of which is Great Dane Trailers), and to the west by Arboris, LLC and International Paper Company's Savannah Pulp and Paper Mill. With the exception of the earthen berms at the site that surround the ASTs, the surface topography at the site is relatively flat and ranges from approximately 9 feet above mean sea level (ft amsl) at the southern and western property boundaries to approximately 4 ft amsl at the northern property boundary along the Savannah River.

3.1 Site Geology

The site is located in the Barrier Island Sequence District of the Coastal Plain Physiographic Province of Georgia. Regional soils are characterized by Pleistocene and Holocene barrier island deposits and marsh and lagoon deposits. Pleistocene sea levels advanced and retreated several times over the Coastal Plain to form a step-like progression of decreasing elevation toward the sea (Clark and Zisa, 1976). The area during the time of the former, higher sea levels existed as barrier island-salt marsh environments similar to the present coast. The changes in sea level left shoreline deposit complexes parallel to the present coastline, composed predominantly of unconsolidated sand and clayey sand deposited during the former high sea levels.

The regional geology has been characterized as Coastal Plain strata consisting of unconsolidated to semi-consolidated layers of sand and clay, and semi-consolidated to very dense layers of limestone and dolomite (Clarke et al, 1990). These sediments range in age from the late Cretaceous to Holocene periods. The strata generally strike southwest and northeast, and dip and gradually thicken to the southeast.

Based on historical site assessment activities, the site geology from land surface to approximately 2 feet below ground surface (ft bgs) consists of sequences of sands, which are underlain by stiff sandy clays that extend to approximately 8 to 10 ft bgs. Clayey sands with clay stringers are present from approximately 10 to 34 ft bgs, below which clay and silt is present to approximately 80 ft bgs. The cross-section transects are illustrated in **Figure 6**, and the cross sections are presented in **Figure 7**.

3.2 Site Hydrogeology

The Coastal Plain is underlain by multiple aquifers. In the vicinity of the site, the surficial aquifer consists of the Satilla Formation (Payne, Rumman and Clarke, 2005). Beneath the surficial aquifer are the upper and lower Brunswick aquifers, which consist of slightly phosphatic and dolomitic quartz sands and clay confining units. The Brunswick aquifer system is approximately 80 feet thick in the region of the site and has a higher percentage of low permeability, clayey deposits in the Savannah area. The underlying Upper Floridan aquifer, which consists of the Ocala Limestone, is the principal source of water in the coastal area (Clarke et al, 1990).

Due to the proximity of the site to the Savannah River and Atlantic Ocean, the surficial/shallow groundwater at the site is influenced by tidal activity, and the depth to groundwater at the site typically ranges from approximately 3 to 12 ft bgs. Additionally, the shallow groundwater at the

site has a high saline content due to tidal influence and, as such, the groundwater in the shallow surficial aquifer is not potable.

3.3 Hydraulic Characteristics

Slug tests were performed in three wells (MW-16, MW-18, and TW-28) on May 25 and 26, 2006, for the purpose of evaluating the hydraulic conductivity of the shallow aquifer. As shown below, based on the results of the tests, the average hydraulic conductivity of the shallow surficial aquifer at the site is approximately 3.05×10^{-3} centimeters per second (cm/s). Based on the site gradient, and assuming an effective porosity of 20 percent, the groundwater flow velocity is estimated to range between 0.1 feet per day (ft/d) and 0.2 ft/d.

Monitoring Well	Hydraulic Conductivity (K)	
	cm/s	ft/d
MW-16	4.42×10^{-3}	12.53
MW-18	5.44×10^{-3}	15.41
TW-28	2.42×10^{-4}	0.686
Average K	3.37×10^{-3}	9.54

3.3.1 Groundwater Flow Direction

The most recent water level measurements were collected on August 31 and September 1, 2010, and ranged from 0.21 to 6.09 ft amsl. A summary of the depth-to-groundwater measurements and corresponding groundwater elevation data are presented in **Table 1**. The groundwater elevation data were used to prepare a groundwater potentiometric map in order to estimate groundwater flow direction for the surficial aquifer (**Figure 8**).

Based on the potentiometric map and groundwater elevation data, groundwater flow at the site is generally to the northeast and is flowing with an average gradient of 0.0015 feet/foot from the shallow aquifer into the Savannah River. Additionally, the average hydraulic gradient for the deep surficial aquifer is -0.0130 feet/foot, indicating that recharge to the deep surficial aquifer from the river is occurring. A more detailed discussion of the hydraulic gradients and interface between groundwater at the site and the Savannah River is presented in **Appendix B**.

4 Nature and Extent of Contamination

Based on data presented in the historical reports identified in Section 2.3, substances that are regulated under the Georgia Hazardous Site Response Act (HSRA) are present in the soil and groundwater at the site that exceed background concentrations or the Type 1 RRS (**Table 2**; ENVIRON, 2012). The following subsections describe potential sources of the contamination and the nature and extent of contamination in the impacted media.

4.1 Potential Sources

The heavily industrialized site formerly housed fertilizer manufacturing operations, and has been used as a bulk storage facility for a variety of products since the late 1970s. Based on a review of available historical information pertaining to the site, there were two potential source areas for metals and VOC impacts at the site:

- Two former sludge-settling ponds and an associated sludge pile located at the north-northeast portion of the site; and,
- Historical fertilizer production facilities on the eastern side of the rail yard.

In addition, the VOC impacts in the northwest portion of the property may be due to chemical handling in proximity to the ASTs that stored PCE and TCE (Tanks T-77, T-78, and 110 through 113) from 1991 through 2009, as well as the associated transfer lines.

The ponds were closed in place, and soils from these areas were excavated in 2007. In addition, the site discontinued storage of TCE in 2007 and PCE in 2009.

4.2 Soil

The site has been the subject of extensive soil sampling from 1999 through 2007 as part of investigation and remediation efforts. Based on the results of the soil sampling activities, and in coordination with GA EPD, more than 23,000 tons of lead- and arsenic-impacted soil and approximately 850 tons of VOC-impacted soil have been excavated and removed from the site (as discussed in Section 2.3.1). In addition, Colonial maintains an SVE system to address localized VOC impacts in the area of Tanks T-77 and T-78.

The concentrations of regulated substances that currently exist in the soil at the site are presented in **Table 3**, and illustrated in **Figure 9**. As documented in **Table 3** and **Figure 9**, metal impacts in the soil at the site have been delineated. The lone exception to this is for lead and arsenic across the southeastern site boundary, where attempts to get access to the adjacent property have not been successful. Colonial has repeatedly requested and been denied access to this property (as detailed in historical correspondence with EPD).

The soil samples collected in April and August 2007 (GP-07-01 through GP-07-22) completed the delineation of VOC impacts in the soil to the north and west of the site. Following those efforts, additional soil borings (HA-07-01 through HA-07-09) were installed by Tank T-88 in October and November 2007 to complete the delineation of VOC impacts in the soil at the site. As presented in the Revised Corrective Action Plan for Volatile Organic Compounds, the results of this sampling “confirm that soil delineation is complete” for VOCs (ERM, 2009).

4.3 Groundwater

For the purpose of assessing VOC and metals impacts to the groundwater, a network of 34 groundwater monitoring wells have been installed (**Figure 4**) and were sampled annually from 2008 through 2010 for VOCs, metals, and various other parameters. Based on the results of the most recent groundwater sampling event and the historical data (**Table 4**), delineation in the groundwater has been achieved for VOCs. In addition, metal impacts in the groundwater have been delineated, with the lone exception of arsenic and lead across the southeastern site boundary. However, as discussed in Section 4.2, despite repeated attempts Colonial has not received access to this adjacent property.

In addition, as a further measure of groundwater delineation in the downgradient direction, ENVIRON estimated potential concentrations of regulated substances in the groundwater based on interactions between groundwater and the Savannah River. The predicted concentrations in the Savannah River are significantly less than the Type 1 groundwater RRS and the Georgia ISWQS (**Appendix B, Table 5**). A more detailed discussion of the river dilution calculations is presented in **Appendix B**.

4.4 Surface Water

Surface water samples from the Savannah River were collected three times in 2007 and once in 2010 as part of the 2010 groundwater monitoring event. The most recent, and therefore the most representative, data indicate that the surface water at the site has not been impacted (**Table 5**). The locations of the surface water sampling locations are illustrated in **Figure 4**.

4.5 Summary

Based on current site conditions, horizontal and vertical delineation has been achieved for the site-related regulated substances in the soil and groundwater at the site.

5 Exposure Assessment

Potential exposure pathways and receptors for the site have been identified in previous reports, as well as during a recent assessment of current conditions. This section summarizes the potential exposure pathways and receptors, as well as the potential sources of the contamination present at the site.

5.1 Conceptual Site Model

A conceptual site model (CSM) that identifies potential contaminant sources, exposure pathways, and receptors is presented in **Figure 10** and **Figure 11**. The CSM is based on available site information, including data from soil, groundwater, and surface water investigations that were conducted at the site between 2000 and 2011. A discussion of the components of the CSM is presented below.

5.2 Potential Sources

The potential sources of the impacts at the site were discussed in Section 4.1, and include two former sludge-settling ponds and an associated sludge pile, historical fertilizer production activities, and former PCE and TCE storage tanks and associated transfer lines. The settling ponds have been closed in place and their overlying soils excavated. Additionally, Colonial discontinued storage of chlorinated solvents in 2009. As such, no current sources of contamination are known to be present onsite.

5.3 Well Survey

Based on a windshield survey conducted by ENVIRON in September 2012, and information from a well search conducted by Environmental Data Resources, Inc. (EDR), there are no drinking water wells within 1,000 feet of the site (**Figure 12**). According to the EDR report, the nearest public water supply wells are located approximately 1 mile southwest and hydrogeologically upgradient of the site.

5.4 Potential Exposure Pathways and Receptors

Based on a review of historical data, the potential exposure pathways identified for the site include:

- Exposure to constituents in the soil;
- Exposure to constituents in the groundwater;
- Exposure to constituents in the surface water; and,
- Exposure to constituents due to vapor intrusion from impacted soil or groundwater beneath occupied buildings.

As discussed in Section 2, the site is developed in its entirety for industrial purposes and is improved with one warehouse, bulk storage ASTs, shipping docks, truck loading racks, pipe racks, rail spurs, and a fueling station. Based on the nature of current and expected future site activities, potential receptors at the site are:

- Commercial/industrial workers;
- Utility workers; and,
- Construction workers.

A discussion of these potentially complete pathways and receptors is provided below.

5.4.1 Potential Exposure to Constituents in Soil

Surface soil at the site that is not covered by a building or concrete may be contacted by commercial/industrial, utility, and construction workers. In addition, utility and construction workers may be exposed to surface and subsurface soil at the site. As such, exposure pathways for soil via ingestion and inhalation are potentially complete.

5.4.2 Ingestion and Inhalation of Groundwater

Groundwater at the site is not used as a drinking water source, and no drinking water wells are located within 1,000 feet of the site. As such, groundwater exposure pathways for human receptors associated with ingestion and inhalation are incomplete.

5.4.3 Leaching from Soil to Groundwater

Although metals or VOCs may have leached from the soil, there are no complete direct exposure pathways to groundwater at the site. Therefore, this potential pathway has not been evaluated further.

5.4.4 Vapor Intrusion

Vapor intrusion is considered a complete exposure pathway for routine workers at the site. As discussed further in **Appendix C**, these workers could inhale vapors in indoor air that migrate into buildings from impacted soil or groundwater.

5.4.5 Ecological Receptors

Terrestrial species are unlikely to occur at or near the site due to the lack of natural habitat for cover and foraging, the industrial hardscape, and substantial human activities. Consequently, the possible ecological receptors at the site are limited to aquatic organisms, particularly fish, in the adjacent Savannah River (a more detailed discussion of potential ecological receptors and associated risk are discussed in **Appendix D**).

6 Cleanup Standards

The subject property has been developed for industrial purposes since at least 1950 and has been used as a bulk storage facility for a variety of chemical and petroleum products since the late 1970s. Site-specific cleanup standards were developed for the identified potentially complete exposure pathways; as such, commercial/industrial workers, utility workers, and construction workers were considered in the development of the cleanup standards (**Figure 10** and **Figure 11**).

ENVIRON developed site-specific RRS for the purpose of identifying appropriate cleanup standards at the site. In accordance with EPD guidance (EPD, 2009), default criteria for the Type 3 RRS were identified. For the Type 4 RRS, exposure factor values were obtained from either state guidance (EPD, 2009) federal guidance (USEPA, 2002), or professional judgment.

6.1 Exposure Factors

A summary of the exposure factors used to develop the RRS for each of the receptors is discussed in the following subsections.

6.1.1 Commercial/Industrial Worker

Commercial/industrial workers were assumed to have a body weight of 70 kilograms (kg), ingest 50 milligrams per day (mg/day) of soil over the course of 250 days per year for 25 years (EPD, 2009), and have an inhalation rate of 20 cubic meters per day (m³/day).

6.1.2 Utility Worker

Future utility workers were assumed to have a body weight of 70 kg, ingest 330 mg/day of soil (USEPA, 2002) over the course of 5 days (professional judgment) per year for 25 years (EPD, 2009), and have an inhalation rate of 20 m³/day (EPD, 2009).

6.1.3 Construction Worker

Future construction workers were assumed to have a body weight of 70 kg, ingest 330 mg/day of soil (USEPA, 2002) over the course of 65 days (i.e., 3 months; professional judgment) per year for 1 year, and have an inhalation rate of 20 m³/day (EPD, 2009).

6.2 Surface Soil

Based on the conceptual site model for current and future land use, commercial/industrial, utility, and construction workers may be exposed to surface soil at the site. Consequently, the cleanup standards for surface soil are the lowest of the Type 4 RRS developed for each of these three receptors. The surface soil data and a comparison of these data to the Type 4 RRS are presented in **Table 6** (the calculations used to derive the RRS are provided in **Appendix E**) and indicates that arsenic and lead are the only constituents with concentrations that exceed the RRS, as follows:

- Arsenic was detected in 11 locations in the eastern portion of the site (D-2-SW-E, SB-8, SB-50, SB-52, SB-55, A-SB-1, B-SB-18, B-SB-20, B-SB-27, D-SB-2, and D-SB-8) at concentrations that exceed the cleanup standard of 38 milligrams per kilogram (mg/kg). The greatest concentration detected (230 mg/kg) was identified in D-2-SW-3.
- Lead was detected in one location (SB-55) at a concentration that exceeds the cleanup standard (1,500 mg versus a cleanup standard of 930 mg/kg).

The locations of surface soil exceedances of the RRS are illustrated in **Figure 13**. As a result of these exceedances, a 95percent Upper Confidence Limit (UCL) was calculated using USEPA's ProUCL software (USEPA, 2012) to estimate a more representative (and, therefore, appropriate) exposure point concentration. The UCLs for arsenic (31.1 mg/kg) and lead (317.6 mg/kg) do not exceed the respective RRS for surface soil. The UCL worksheets are provided in **Appendix E**.

6.3 Subsurface Soil

Based on the conceptual site model for current and future land use, utility and construction workers may be exposed to subsurface soil at the site. Consequently, the cleanup standards for subsurface soil are the lesser of the Type 4 RRS for these two receptors. The subsurface soil data and a comparison of these data to the Type 4 RRS are presented in **Table 7** (the calculations used to derive the RRS are provided in **Appendix E**). This comparison indicates that arsenic and lead are the only constituents with concentrations that exceed the RRS, as follows:

- Arsenic was detected in samples from four locations in proximity to each other (SB-28 at 3 to 5 ft bgs, Station 12+00 at 6 to 8 ft bgs, B-SB-48 DUP at 2 to 5 ft bgs, and B-SB-53 DUP at 2 to 5 ft bgs) at concentrations that exceed the RRS of 360 mg/kg. The greatest concentration detected (850 mg/kg) was identified in SB-28 at 3 to 5 feet bgs.
- Lead was detected in four samples from three locations in proximity to each other (SB-37 at 3 to 5 ft bgs, B-SB-48 at 2 to 5 ft bgs, B-SB-48 DUP at 2 to 5 ft bgs, and B-SB-53 DUP at 2 to 5 ft bgs) at concentrations that exceed the RRS of 4,800 mg/kg. The greatest concentration detected (17,000 mg/kg) was identified in B-SB-48 at 2 to 5 feet bgs.

The locations of subsurface soil exceedances of the RRS are illustrated in **Figure 14**. Similar to the surface soil, UCLs were calculated to estimate more representative exposure point concentration. The UCLs for arsenic (92.67 mg/kg) and lead (1261 mg/kg) do not exceed the respective RRS for subsurface soil. The UCL worksheets are provided in **Appendix E**.

6.4 Vapor Intrusion

Based on a comparison of the maximum detected and reasonable maximum exposure (RME) concentrations of VOCs in soil and groundwater with vapor intrusion criteria calculated in **Appendix C**, two locations (GP-07-04 and GP-07-06) exist at the site that could result in unacceptable risks associated with vapor intrusion exposures (**Figure 15**). However, because these locations are not under or in immediate proximity to current site structures at which workers might be exposed to indoor air (i.e., the warehouse to the north of Tanks 77 and 78), cleanup standards were not derived for the vapor intrusion pathway.

7 Proposed Corrective Action

Based on current site conditions, the exposure pathways discussed in Section 5, the cleanup standards presented in Section 6, and the comparison of site data to the cleanup standards, the following corrective actions are proposed for the site:

- **Soil:** Although arsenic and lead were detected in several locations at concentrations exceeding the Type 4 RRS in soil, the 95 percent UCLs for these constituents in both the surface soil and the subsurface soil were less than the Type 4 RRS. Therefore, corrective action for the soil at the site is not warranted.
- **Groundwater:** There is no direct exposure to groundwater via ingestion or inhalation at or within 1,000 feet of the site (also, the maximum concentrations that are estimated to discharge to the Savannah River are significantly less than the Georgia ISWQS [as described in the following bullet]). As such, corrective action for groundwater at the site is not warranted. However, for the purpose of identifying and tracking potential future changes related to the groundwater at the site, annual monitoring for 7 shallow wells (MW-11R, MW-

12, MW-25, MW-30, MW-35, TW-25, and TW-29) and 3 deep wells (MW-9D, MW-12D, and MW-36D) is proposed for 2 years after the site is accepted into the VRP. The results of these monitoring events will be included in the Annual Status Reports for the site.

- **Surface Water:** Because current site conditions do not indicate the presence of VOCs and metals in the Savannah River, and the predicted concentrations of these constituents in the river that might result from groundwater discharge are significantly less than the available and appropriate ecological criteria (including the Georgia ISWQS), corrective action related to surface water is not warranted.
- **Vapor Intrusion:** Based on current site conditions, corrective action for vapor intrusion is not required. However, prior to future development of habitable structures at the site, location-specific vapor intrusion risks will be assessed and mitigation measures, if necessary, will be implemented prior to or during construction.

In addition to the proposed annual monitoring of groundwater, an environmental covenant will be executed on the site in conformance with O.C.G.A. 44-61-1, et seq., the “Georgia Uniform Environmental Covenants Act.” This covenant will require that the land use of the site remains industrial, no drinking water wells will be installed on the site, and any future construction plans for a building on the site will be evaluated for vapor intrusion.

8 Project Schedule

The proposed schedule for continuing activities at the site is presented in **Appendix F**. An updated CSM (if indicated) and the required cost estimate associated with the site will be submitted within 30 months of acceptance into the VRP, and a final Compliance Status Report will be submitted within 60 months of acceptance into the VRP.

9 References

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Tables

Table 1 - Groundwater Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Well ID	TOC Elevation (feet AMSL)	Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet AMSL)
MW-1	10.80	8/11/2008	6.09	4.71
		8/31/2009	3.91	6.89
	9.64	8/30/2010	4.50	5.14
MW-3	11.64	8/31/2009	7.03	4.61
	10.35	8/30/2010	7.52	2.83
MW-6R	11.41	8/11/2008	9.35	2.06
		8/31/2009	8.03	3.38
	11.41	8/31/2010	8.62	2.79
MW-8	13.34	8/31/2009	9.78	3.56
	12.17	8/31/2010	9.88	2.29
MW-9D	13.36	8/11/2008	13.48	-0.12
		8/31/2009	9.31	4.05
	11.97	9/1/2010	10.20	1.77
MW-11R	12.78	8/31/2009	11.52	1.26
	11.64	9/1/2010	9.92	1.72
MW-12R	11.80	8/31/2010	9.95	1.85
MW-12D	12.33	8/31/2009	12.52	-0.19
	12.33	8/30/2010	9.98	2.35
MW-16	12.32	8/31/2009	10.69	1.63
	11.08	9/1/2010	9.38	1.70
MW-18	13.82	8/31/2009	12.15	1.67
	12.64	9/1/2010	11.65	0.99
MW-19	13.66	8/31/2009	12.73	0.93
	12.53	9/1/2010	11.52	1.01
MW-20	12.15	8/31/2009	7.98	4.17
		8/31/2010	8.61	3.54
MW-21	14.05	8/31/2009	7.72	6.33
	12.27	9/1/2010	9.56	2.71
MW-22	16.68	8/31/2009	12.37	4.31
	14.86	9/1/2010	13.50	1.36
MW-23	17.17	8/31/2009	13.12	4.05
	15.39	9/1/2010	13.99	1.40
MW-24	14.44	8/31/2009	10.90	3.54
	12.71	9/1/2010	11.55	1.16
MW-25	12.89	8/31/2009	9.29	3.60
	11.21	9/2/2010	10.63	0.58
MW-26	12.90	8/31/2009	9.25	3.65
	11.26	9/2/2010	11.05	0.21
MW-27	10.81	8/31/2009	2.45	8.36
	9.10	9/1/2010	3.01	6.09
MW-28	14.95	8/31/2009	10.71	4.24
	13.08	9/1/2010	12.02	1.06
MW-29	11.93	8/11/2008	11.45	0.48
		8/31/2009	11.31	0.62
	11.93	9/1/2010	10.66	1.27
MW-30	12.77	8/11/2008	11.47	1.30
		8/31/2009	10.32	2.45
	12.77	8/31/2010	10.98	1.79

Table 1 - Groundwater Levels and Elevations
Colonial Terminals, Plant #2
Savannah, Georgia

Well ID	TOC Elevation (feet AMSL)	Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet AMSL)
MW-31	13.30	8/11/2008	11.68	1.62
		8/31/2009	10.99	2.31
	13.30	8/31/2010	10.40	2.90
MW-32	10.42	8/11/2008	9.33	1.09
		8/31/2009	6.99	3.43
	10.42	9/1/2010	8.83	1.59
MW-33	12.02	8/11/2008	9.66	2.36
		8/31/2009	7.39	4.63
	12.02	8/31/2010	8.88	3.14
MW-34	11.23	8/11/2008	8.86	2.37
	11.23	8/31/2010	7.95	3.28
MW-35	11.40	8/11/2008	9.28	2.12
		8/31/2009	7.31	4.09
	11.40	8/31/2010	8.98	2.42
MW-36D	11.54	8/11/2008	9.35	2.19
		8/31/2009	8.00	3.54
	11.54	8/31/2010	8.75	2.79
TW-9	12.04	8/11/2008	10.56	1.48
		8/31/2009	9.78	2.26
		8/30/2010	9.71	2.33
TW-12	12.55	8/11/2008	11.26	1.29
		8/31/2009	10.68	1.87
		9/1/2010	10.82	1.73
TW-13	14.15	8/11/2008	12.60	1.55
		8/31/2009	11.91	2.24
		8/31/2010	12.32	1.83
TW-25	11.30	8/31/2009	8.13	3.17
		8/31/2010	8.78	2.52
TW-27	12.22	8/31/2009	7.69	4.53
		8/31/2010	9.57	2.65
TW-29	11.80	8/31/2009	7.38	4.42
		8/31/2010	9.12	2.68

Notes:

AMSL - Above Mean Sea Level

TOC - Top of Casing

BTOC - Below TOC

Table 2 - Delineation Criteria for Soil and Groundwater
Colonial Terminals, Plant #2
Savannah, Georgia

Detected Regulated Substance	Groundwater		Soil		
	Type 1 RRS (mg/L)	Source of Type 1 Standard	Background ⁽¹⁾ (mg/kg)	Type 1 RRS (mg/kg)	Source of Type 1 Standard
1,1-Dichloroethene	0.007	A-III	NA	0.7	T1 GWx100
cis-1,2-Dichloroethene	0.07	A-III	NA	7	T1 GWx100
trans-1,2-Dichloroethene	0.1	A-III	NA	10	T1 GWx100
Methylene Chloride	0.005	A-III	NA	0.5	T1 GWx100
Tetrachloroethene	0.005	A-III	NA	0.5	T1 GWx100
Trichloroethene	0.005	A-III	NA	0.5	T1 GWx100
Vinyl Chloride	0.002	A-III	NA	0.2	T1 GWx100
2,4-Dinitrotoluene	0.01	DL	NA	1	T1 GWx100
Antimony	0.06	DL	NA	4	A-III
Arsenic	0.01	A-III	12.86	20	A-III
Barium	2	A-III	674.1	1000	A-III
Beryllium	0.004	A-III	NA	2	A-III
Cadmium	0.005	A-III	NA	2	A-III
Chromium (total)	0.1	A-III	100	100	A-III
Chromium III	0.1	A-III	100	100	A-III
Chromium VI	0.1	A-III	100	100	A-III
Copper	1.3	A-III	46.7	100	A-III
Lead	0.015	A-III	30	75	A-III
Mercury	0.002	A-III	0.395	0.5	A-III
Nickel	0.1	A-III	24	50	A-III
Silver	0.1	A-III	NA	2	A-III
Thallium	0	DL	NA	2	A-III
Zinc	2	A-III	67	100	A-III

Notes:

(1) VRP Frequently Asked Questions (Georgia EPD, Revised Jan 2012)

A-III -- Appendix III Table 2 (16 metals).

DL -- Detection Limit

T1 GWx100 -- Appendix III Table 1 times 100.

mg/L - Milligrams per liter

mg/kg - Milligrams per kilogram

NA - Not Available

Table 3 - Summary of Soil Analytical Data
Colonial Terminals, Plant #2
Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units	1,1-DCE mg/kg	cis-1,2-DCE mg/kg	MeCl mg/kg	PCE mg/kg	trans-1,2-DCE mg/kg	TCE mg/kg	Vinyl Chloride mg/kg	Arsenic mg/kg	Lead mg/kg	Antimony mg/kg	Barium mg/kg	Beryllium mg/kg
1020SW	11/6/2007	0	5	ft bgs	--	--	--	--	--	--	--	96	520	--	--	--
1021SW	11/6/2007	0	5	ft bgs	--	--	--	--	--	--	--	100	1500	--	--	--
1022W-R	12/13/2007	2	5	ft bgs	--	--	--	--	--	--	--	50	630	--	--	--
1042-W	11/27/2007	0	2	ft bgs	--	--	--	--	--	--	--	22	230	--	--	--
1054W	12/11/2007	0	2	ft bgs	--	--	--	--	--	--	--	34	350	--	--	--
1058W-S-R	12/12/2007	0	2	ft bgs	--	--	--	--	--	--	--	9	56	--	--	--
1065W	12/11/2007	0	2	ft bgs	--	--	--	--	--	--	--	19	160	--	--	--
1066W	10/25/2007	0	2	ft bgs	--	--	--	--	--	--	--	2.3	51	--	--	--
1072-W	11/27/2007	0	2	ft bgs	--	--	--	--	--	--	--	6.2	57	--	--	--
1079W	10/29/2007	0	2	ft bgs	--	--	--	--	--	--	--	9.3	82	--	--	--
1081W	10/25/2007	0	2	ft bgs	--	--	--	--	--	--	--	23	180	--	--	--
1086W-R	11/29/2007	0	2	ft bgs	--	--	--	--	--	--	--	25	120	--	--	--
1095W	10/30/2007	0	2	ft bgs	--	--	--	--	--	--	--	15	140	--	--	--
A1-Floor	11/16/2007	6	6	ft bgs	--	--	--	--	--	--	--	100	82	--	--	--
A1-W-N (R)	11/28/2007	0	2	ft bgs	--	--	--	--	--	--	--	4.7	31	--	--	--
A2-Floor	11/16/2007	8	8	ft bgs	--	--	--	--	--	--	--	85	41	--	--	--
A3-Floor	11/19/2007	5	5	ft bgs	--	--	--	--	--	--	--	120	550	--	--	--
A4-Floor	11/20/2007	2	2	ft bgs	--	--	--	--	--	--	--	69	1000	--	--	--
A4-Wall South	11/19/2007	0	2	ft bgs	--	--	--	--	--	--	--	7	560	--	--	--
A5-Floor	11/20/2007	5	5	ft bgs	--	--	--	--	--	--	--	280	670	--	--	--
A5-W-S	11/27/2007	0	2	ft bgs	--	--	--	--	--	--	--	25	430	--	--	--
Area D Bottom-Center	11/9/2010	2	5	ft bgs	--	--	--	--	--	--	--	75.2	69	--	--	--
Area D Bottom-NE	11/9/2010	2	5	ft bgs	--	--	--	--	--	--	--	31.4	72.9	--	--	--
Area D Bottom-NW	11/9/2010	2	5	ft bgs	--	--	--	--	--	--	--	65.6	60	--	--	--
Area D Bottom-SE	11/9/2010	2	5	ft bgs	--	--	--	--	--	--	--	32	70.4	--	--	--
Area D Bottom-SW	11/9/2010	2	5	ft bgs	--	--	--	--	--	--	--	67.9	55.6	--	--	--
Area D SW-East	11/9/2010	0	2	ft bgs	--	--	--	--	--	--	--	2.14	5.64	--	--	--
Area D SW-North	11/11/2010	0	2	ft bgs	--	--	--	--	--	--	--	3.42	38.5	--	--	--
Area D SW-South	11/9/2010	0	2	ft bgs	--	--	--	--	--	--	--	< 2.12	3.2	--	--	--
Area D SW-West	11/9/2010	0	2	ft bgs	--	--	--	--	--	--	--	< 9.43	< 4.71	--	--	--
B2-SUP-WS1	12/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	11	220	--	--	--
B2-SUP-WS2	12/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	7.9	55	--	--	--
B2-SUP-WS3	12/5/2007	0	2	ft bgs	--	--	--	--	--	--	--	18	170	--	--	--
B2-SUP-WS4	12/5/2007	0	2	ft bgs	--	--	--	--	--	--	--	23	330	--	--	--
B2-SUP-WS5-R	12/12/2007	0	2	ft bgs	--	--	--	--	--	--	--	17	130	--	--	--
B2-SUP-WW	12/5/2007	0	2	ft bgs	--	--	--	--	--	--	--	31	310	--	--	--
B3-SUP-WS	12/5/2007	0	2	ft bgs	--	--	--	--	--	--	--	5.9	200	--	--	--
B3-SUP-WW	12/5/2007	0	2	ft bgs	--	--	--	--	--	--	--	8.4	100	--	--	--
C-Floor	11/17/2007	5.5	5.5	ft bgs	--	--	--	--	--	--	--	55	250	--	--	--
C-W-E	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	7.1	98	--	--	--
C-W-N	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	42	420	--	--	--
C-W-S	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	120	1300	--	--	--
C-W-W (R)	12/12/2007	2	5	ft bgs	--	--	--	--	--	--	--	20	13	--	--	--

Table 3 - Summary of Soil Analytical Data

Colonial Terminals, Plant #2

Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units	1,1-DCE mg/kg	cis-1,2-DCE mg/kg	MeCl mg/kg	PCE mg/kg	trans-1,2-DCE mg/kg	TCE mg/kg	Vinyl Chloride mg/kg	Arsenic mg/kg	Lead mg/kg	Antimony mg/kg	Barium mg/kg	Beryllium mg/kg
D-1-Floor	11/2/2007	2.5	2.5	ft bgs	--	--	--	--	--	--	--	94	670	--	--	--
D-1-Floor-2	11/3/2007	2.5	2.5	ft bgs	--	--	--	--	--	--	--	100	810	--	--	--
D-1-Floor-3	11/3/2007	2	2	ft bgs	--	--	--	--	--	--	--	8.1	14	--	--	--
D-2-Floor	11/4/2007	2	2	ft bgs	--	--	--	--	--	--	--	92	95	--	--	--
D2R-W-E	11/17/2007	0	2	ft bgs	--	--	--	--	--	--	--	18	160	--	--	--
D-2-SW-E	11/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	230	110	--	--	--
D-2-SW-S	11/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	13	140	--	--	--
D-3-Floor	11/4/2007	2	2	ft bgs	--	--	--	--	--	--	--	56	280	--	--	--
D-3-SW-N	11/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	22	180	--	--	--
D-3-SW-S	11/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	16	170	--	--	--
D-3-SW-W	11/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	6	92	--	--	--
D-Berm-2	11/3/2007	0	2	ft bgs	--	--	--	--	--	--	--	25	330	--	--	--
D-Berm-W-S	11/17/2007	0	2	ft bgs	--	--	--	--	--	--	--	31	300	--	--	--
D-HA-2	6/16/2010	0	2	ft bgs	--	--	--	--	--	--	--	17.4	107	--	--	--
D-HA-3	6/16/2010	0	2	ft bgs	--	--	--	--	--	--	--	6.7	52.1	--	--	--
E-Floor	11/17/2007	5.5	5.5	ft bgs	--	--	--	--	--	--	--	18	260	--	--	--
E-W-E	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	4.3	10	--	--	--
E-W-N	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	65	1400	--	--	--
E-W-S	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	18	280	--	--	--
E-W-W	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	14	210	--	--	--
F SUP NW	11/9/2007	0	2	ft bgs	--	--	--	--	--	--	--	24	410	--	--	--
F SUP SW	11/9/2007	0	2	ft bgs	--	--	--	--	--	--	--	13	150	--	--	--
F1-Floor	12/6/2007	2	2	ft bgs	--	--	--	--	--	--	--	31	670	--	--	--
F2-Floor	12/6/2007	2	2	ft bgs	--	--	--	--	--	--	--	38	560	--	--	--
F3-Floor 1	12/6/2007	5	5	ft bgs	--	--	--	--	--	--	--	62	21	--	--	--
F3-Floor 2	12/6/2007	6	6	ft bgs	--	--	--	--	--	--	--	7.3	17	--	--	--
F3-W-E	12/6/2007	2	5	ft bgs	--	--	--	--	--	--	--	73	1000	--	--	--
F4-Floor	12/6/2007	8	8	ft bgs	--	--	--	--	--	--	--	5.6	11	--	--	--
F4-W-E	12/6/2007	5	8	ft bgs	--	--	--	--	--	--	--	21	30	--	--	--
F5-Floor	12/17/2007	8	8	ft bgs	--	--	--	--	--	--	--	9.7	14	--	--	--
F5-Floor 3	12/17/2007	5	5	ft bgs	--	--	--	--	--	--	--	3.9	14	--	--	--
F5-Floor-2	12/14/2007	5	5	ft bgs	--	--	--	--	--	--	--	6.2	82	--	--	--
F5-W-S	12/19/2007	0	2	ft bgs	--	--	--	--	--	--	--	6.5	74	--	--	--
F5-W-S	12/19/2007	2	5	ft bgs	--	--	--	--	--	--	--	74	1000	--	--	--
F5-W-S	12/19/2007	5	8	ft bgs	--	--	--	--	--	--	--	8.3	90	--	--	--
F6 Floor 1	12/19/2007	3	3	ft bgs	--	--	--	--	--	--	--	46	990	--	--	--
F6 Floor 2	12/19/2007	2	2	ft bgs	--	--	--	--	--	--	--	33	370	--	--	--
F6-W-W	12/19/2007	0	2	ft bgs	--	--	--	--	--	--	--	30	240	--	--	--
F-Floor	11/6/2007	5	5	ft bgs	--	--	--	--	--	--	--	31	690	--	--	--
G2NE	10/29/2007	0	3	ft bgs	--	--	--	--	--	--	--	96	2100	--	--	--
G4 - Floor	11/6/2007	2	2	ft bgs	--	--	--	--	--	--	--	27	64	--	--	--
G4-W-S	11/15/2007	0	2	ft bgs	--	--	--	--	--	--	--	24	370	--	--	--
G5-Floor	11/15/2007	5	5	ft bgs	--	--	--	--	--	--	--	56	110	--	--	--

Table 3 - Summary of Soil Analytical Data
Colonial Terminals, Plant #2
Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units	1,1-DCE mg/kg	cis-1,2-DCE mg/kg	MeCl mg/kg	PCE mg/kg	trans-1,2-DCE mg/kg	TCE mg/kg	Vinyl Chloride mg/kg	Arsenic mg/kg	Lead mg/kg	Antimony mg/kg	Barium mg/kg	Beryllium mg/kg
G5-W-E (R)	11/28/2007	2	5	ft bgs	--	--	--	--	--	--	--	18	77	--	--	--
G5-W-N	11/15/2007	2	5	ft bgs	--	--	--	--	--	--	--	43	25	--	--	--
G5-W-S	11/15/2007	2	5	ft bgs	--	--	--	--	--	--	--	34	76	--	--	--
G-Floor	10/30/2007	3	3	ft bgs	--	--	--	--	--	--	--	96	1000	--	--	--
G-N2-Floor	11/1/2007	3	3	ft bgs	--	--	--	--	--	--	--	43	1300	--	--	--
G-N-Floor	10/31/2007	3	3	ft bgs	--	--	--	--	--	--	--	100	1400	--	--	--
G-NW-SW	11/6/2007	0	2	ft bgs	--	--	--	--	--	--	--	38	640	--	--	--
GP-01-05	8/17/2005	15	20	ft bgs	< 0.1	0.461	NA	4.18	0.013	0.434	0.06	--	--	--	--	--
GP-01-05	8/17/2005	25	30	ft bgs	0.006	0.089	NA	0.265	< 0.001	0.07	0.003	--	--	--	--	--
GP-02-05	8/17/2005	10	15	ft bgs	< 0.001	0.001	NA	0.001	< 0.001	0.001	< 0.001	--	--	--	--	--
GP-02-05	8/17/2005	20	25	ft bgs	0.052	0.126	NA	0.143	0.006	0.035	0.033	--	--	--	--	--
GP-03-05	8/17/2005	15	20	ft bgs	0.02	0.009	NA	0.323	< 0.001	0.11	< 0.001	--	--	--	--	--
GP-03-05	8/17/2005	20	25	ft bgs	0.011	0.005	NA	0.656	< 0.001	0.057	< 0.001	--	--	--	--	--
GP-04-05	8/17/2005	10	15	ft bgs	0.096	0.59	NA	1.6	0.007	0.313	0.065	--	--	--	--	--
GP-04-05	8/17/2005	15	20	ft bgs	0.035	0.315	NA	4.87	0.002	0.234	0.023	--	--	--	--	--
GP-05-05	8/18/2005	10	15	ft bgs	0.113	0.948	NA	7.57	0.01	0.729	0.055	--	--	--	--	--
GP-05-05	8/18/2005	15	20	ft bgs	0.014	0.254	NA	0.707	0.002	0.214	0.014	--	--	--	--	--
GP-06-05	8/18/2005	10	15	ft bgs	0.116	1.22	NA	3.81	0.01	0.895	0.014	--	--	--	--	--
GP-06-05	8/18/2005	15	20	ft bgs	0.036	0.715	NA	3.06	< 0.002	0.546	0.006	--	--	--	--	--
GP-07-01	4/23/2007	4	5	ft bgs	< 0.25	< 0.25	< 0.25	2.7	< 0.25	0.27	< 0.25	--	--	--	--	--
GP-07-02	4/23/2007	2	3	ft bgs	< 0.25	< 0.25	< 0.25	8.3	< 0.25	0.47	< 0.25	--	--	--	--	--
GP-07-03	4/24/2007	3	4	ft bgs	< 0.0053	< 0.0053	0.011	< 0.0053	< 0.0053	< 0.0053	< 0.0053	--	--	--	--	--
GP-07-04	4/24/2007	3	4	ft bgs	< 2.2	< 2.2	< 2.2	400	< 2.2	19	< 2.2	--	--	--	--	--
GP-07-05	4/24/2007	3	4	ft bgs	< 0.21	< 0.21	< 0.211	4.9	< 0.21	< 0.21	< 0.21	--	--	--	--	--
GP-07-06	4/25/2007	3	4	ft bgs	< 0.35	0.66	< 0.35	0.35	< 0.35	6.3	< 0.35	--	--	--	--	--
GP-07-07	4/26/2007	2	3	ft bgs	< 0.0062	< 0.0062	< 0.0062	< 0.0062	< 0.0062	< 0.0062	< 0.0062	--	--	--	--	--
GP-07-08	8/15/2007	3	4	ft bgs	< 0.0054	< 0.0054	< 0.011	< 0.0054	< 0.0054	< 0.0054	< 0.0054	--	--	--	--	--
GP-07-09	8/15/2007	3	4	ft bgs	< 0.0051	< 0.0051	< 0.01	< 0.0051	< 0.0051	< 0.0051	< 0.0051	--	--	--	--	--
GP-07-10	8/15/2007	3	4	ft bgs	< 0.0047	0.037	< 0.0094	0.33	< 0.0047	0.018	< 0.0047	--	--	--	--	--
GP-07-11	8/15/2007	3	4	ft bgs	< 0.0041	0.022	< 0.0082	0.22	< 0.0041	0.0058	< 0.0041	--	--	--	--	--
GP-07-12	8/15/2007	3	4	ft bgs	< 0.0053	< 0.0053	< 0.011	0.031	< 0.0053	< 0.0053	< 0.0053	--	--	--	--	--
GP-07-13	8/15/2007	2	3	ft bgs	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	0.38	< 0.005	--	--	--	--	--
GP-07-14	8/15/2007	2	3	ft bgs	< 0.0074	< 0.0074	< 0.015	0.034	< 0.0074	< 0.0074	< 0.0074	--	--	--	--	--
GP-07-15	8/15/2007	2	3	ft bgs	< 0.0046	< 0.0046	< 0.0092	< 0.0046	< 0.0046	< 0.0046	< 0.0046	--	--	--	--	--
GP-07-16	8/15/2007	3	4	ft bgs	< 0.0042	< 0.0042	< 0.0084	0.27	< 0.0042	0.0091	< 0.0042	--	--	--	--	--
GP-07-17	8/16/2007	3	4	ft bgs	< 0.18	< 0.18	< 0.9	1.8	< 0.18	< 0.18	< 0.18	--	--	--	--	--
GP-07-18	8/16/2007	3	4	ft bgs	< 0.0043	0.0092	< 0.0086	< 0.0043	< 0.0043	< 0.0043	0.0086	--	--	--	--	--
GP-07-19	8/16/2007	3	4	ft bgs	< 0.19	< 0.19	< 0.95	3.1	< 0.19	0.57	< 0.19	--	--	--	--	--
GP-07-20	8/16/2007	2	3	ft bgs	< 0.18	< 0.18	< 0.9	5	< 0.18	0.92	< 0.18	--	--	--	--	--
GP-07-21	8/16/2007	3	4	ft bgs	< 0.0043	< 0.0043	< 0.0086	< 0.0043	< 0.0043	< 0.0043	< 0.0043	--	--	--	--	--
GP-07-22	8/16/2007	3	4	ft bgs	< 0.19	< 0.19	< 0.95	1.5	< 0.19	< 0.19	< 0.19	--	--	--	--	--
G-W-N	12/11/2007	0	2	ft bgs	--	--	--	--	--	--	--	29	540	--	--	--
HA-07-02	10/22/2007	3	4	ft bgs	< 0.0073	< 0.0073	< 0.015	< 0.0073	< 0.0073	< 0.0073	< 0.0073	--	--	--	--	--

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Colonial Terminals, Plant #2

Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units	1,1-DCE mg/kg	cis-1,2-DCE mg/kg	MeCl mg/kg	PCE mg/kg	trans-1,2-DCE mg/kg	TCE mg/kg	Vinyl Chloride mg/kg	Arsenic mg/kg	Lead mg/kg	Antimony mg/kg	Barium mg/kg	Beryllium mg/kg
HA-07-04	10/22/2007	3	4	ft bgs	< 0.0066	< 0.0066	< 0.013	< 0.0066	< 0.0066	< 0.0066	< 0.0066	--	--	--	--	--
HA-07-06	10/23/2007	3	4	ft bgs	< 0.0049	0.0082	< 0.0098	0.066	< 0.0049	0.016	< 0.0049	--	--	--	--	--
HA-07-08	11/4/2007	4	6	ft bgs	< 0.0037	0.005	< 0.0074	0.011	< 0.0037	0.018	< 0.0037	--	--	--	--	--
I16	12/17/2007	0	2	ft bgs	--	--	--	--	--	--	--	37	330	--	--	--
I1-Floor	11/12/2007	2	2	ft bgs	--	--	--	--	--	--	--	5.7	45	--	--	--
I1-SW	11/12/2007	0	2	ft bgs	--	--	--	--	--	--	--	15	150	--	--	--
I2-Floor	11/12/2007	2	2	ft bgs	--	--	--	--	--	--	--	25	220	--	--	--
I3-Floor	11/13/2007	2	2	ft bgs	--	--	--	--	--	--	--	24	210	--	--	--
I3-W-W	11/13/2007	0	2	ft bgs	--	--	--	--	--	--	--	23	220	--	--	--
I4-Floor	11/13/2007	5	5	ft bgs	--	--	--	--	--	--	--	200	700	--	--	--
I4-W-N	11/13/2007	2	5	ft bgs	--	--	--	--	--	--	--	33	350	--	--	--
I4-W-S	11/27/2007	0	2	ft bgs	--	--	--	--	--	--	--	4.8	57	--	--	--
I4-W-W	11/13/2007	2	5	ft bgs	--	--	--	--	--	--	--	22	43	--	--	--
I5-Floor	11/13/2007	3	3	ft bgs	--	--	--	--	--	--	--	20	77	--	--	--
I5-W-N (R)	11/28/2007	0	2	ft bgs	--	--	--	--	--	--	--	20	120	--	--	--
I6-Floor	11/13/2007	2	2	ft bgs	--	--	--	--	--	--	--	14	180	--	--	--
I6-W-W	11/13/2007	0	2	ft bgs	--	--	--	--	--	--	--	14	99	--	--	--
I7-Floor	11/14/2007	2	2	ft bgs	--	--	--	--	--	--	--	32	210	--	--	--
I7-W-S	11/14/2007	0	2	ft bgs	--	--	--	--	--	--	--	21	150	--	--	--
I7-W-W	11/14/2007	0	2	ft bgs	--	--	--	--	--	--	--	34	290	--	--	--
I8-Floor	11/28/2007	2	2	ft bgs	--	--	--	--	--	--	--	37	350	--	--	--
I8-W-S	11/28/2007	0	2	ft bgs	--	--	--	--	--	--	--	20	180	--	--	--
I8-W-W	11/28/2007	0	2	ft bgs	--	--	--	--	--	--	--	11	110	--	--	--
I9-Floor	11/28/2007	2	2	ft bgs	--	--	--	--	--	--	--	20	210	--	--	--
I9-W-N	11/28/2007	0	2	ft bgs	--	--	--	--	--	--	--	17	180	--	--	--
I-Floor-1	12/14/2007	8	8	ft bgs	< 0.0051	0.025	< 0.01	0.049	< 0.0051	0.015	< 0.0051	--	--	--	--	--
IVOC-Floor -2	12/14/2007	8	8	ft bgs	< 0.005	0.009	< 0.01	0.036	< 0.005	0.013	< 0.005	--	--	--	--	--
MW-2	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	<3.4	17	--	--	--
MW-18	5/15/2005	2	5	ft bgs	--	--	--	--	--	--	--	52	250	--	--	--
MW-18	5/15/2005	5	8	ft bgs	--	--	--	--	--	--	--	31	8.4	--	--	--
MW-19	5/15/2005	2	4	ft bgs	--	--	--	--	--	--	--	41	320	--	--	--
MW-19	5/15/2005	6	9	ft bgs	--	--	--	--	--	--	--	5	27	--	--	--
SB-1	8/25/1999	0.5	1.5	ft bgs	--	--	0.039	--	--	0.014	--	9	72	29	53	0.4
SB-1	8/25/1999	4.5	6.5	ft bgs	--	--	0.035	--	--	0.11	--	2.4	7.8	< 5.00	33	< 0.300
SB-2	8/25/1999	0.5	1.5	ft bgs	--	--	0.041	--	--	< 0.005	--	28	160	7.1	23	< 0.300
SB-2	8/25/1999	3.5	5.5	ft bgs	--	--	0.032	--	--	< 0.005	--	--	--	--	--	--
SB-2	8/25/1999	3.5	5.5	ft bgs	--	--	32	--	--	< 5.00	--	3.1	12	11	15	< 0.300
SB-3	8/25/1999	3.5	5.5	ft bgs	--	--	0.027	--	--	< 0.005	--	21	92	5	33	< 0.300
SB-4	8/25/1999	1	2	ft bgs	--	--	0.015	--	--	< 0.005	--	11	16	12	45	< 0.300
SB-4	8/25/1999	4	6	ft bgs	--	--	0.016	--	--	< 0.005	--	8.6	11	7	24	< 0.300
SB-4	8/25/1999	6	8	ft bgs	--	--	--	--	--	--	--	3.5	6.9	< 5.00	13	< 0.300
SB-5	8/25/1999	0.5	1.5	ft bgs	--	--	0.047	--	--	< 0.005	--	< 2.00	< 5.00	< 5.00	9.9	< 0.300
SB-5	8/25/1999	3.5	5.5	ft bgs	--	--	0.055	--	--	0.035	--	10	31	22	14	< 0.300

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Colonial Terminals, Plant #2

Savannah, Georgia

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SB-6	8/25/1999	1	1.5	ft bgs	--	--	0.045	--	--	0.0074	--	4	60	9	48	< 0.300
SB-6	8/25/1999	3.5	5.5	ft bgs	--	--	0.082	--	--	0.012	--	6.4	67	32	18	< 0.300
SB-7	8/25/1999	0.5	1.5	ft bgs	--	--	< 0.01	--	--	< 0.005	--	2.3	23	< 5.00	7.2	< 0.300
SB-7	8/25/1999	3.5	5.5	ft bgs	--	--	0.048	--	--	< 0.005	--	22	68	9.3	37	< 0.300
SB-8	8/25/1999	0.5	1.5	ft bgs	--	--	0.019	--	--	< 0.005	--	89	230	19	62	< 0.300
SB-8	8/25/1999	3.5	5.5	ft bgs	--	--	0.017	--	--	< 0.005	--	15	19	20	18	< 0.300
SB-9	8/25/1999	0.5	1.5	ft bgs	--	--	0.015	--	--	< 0.005	--	13	430	14	42	< 0.300
SB-9	8/25/1999	3.5	5.5	ft bgs	--	--	0.015	--	--	< 0.005	--	33	410	14	48	< 0.300
SB-20	10/1/2001	0	2	ft bgs	< 0.0069	< 0.0069	< 0.0069	< 0.0069	< 0.0069	< 0.0069	< 0.014	8	160	1.7	--	--
SB-20	10/1/2001	3	5	ft bgs	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	66	3400	12	50	--
SB-20	10/1/2001	6	8	ft bgs	--	--	--	--	--	--	--	2.2	11	< 2.20	13	--
SB-21	10/1/2001	0	2	ft bgs	< 0.0058	< 0.0058	< 0.0058	0.0044 E	< 0.0058	< 0.0058	< 0.012	--	--	--	--	--
SB-21	10/1/2001	3	5	ft bgs	< 0.0064	< 0.0064	< 0.0064	< 0.0064	< 0.0064	< 0.0064	< 0.013	< 5.70	--	< 1.20	--	--
SB-22	11/15/2001	0	1.5	ft bgs	--	--	--	--	--	--	--	34	390	3.3	120	0.7
SB-23	10/15/2001	0	2	ft bgs	--	--	--	--	--	--	--	< 5.90	36	< 1.00	12	--
SB-26	10/15/2001	0	2	ft bgs	--	--	--	--	--	--	--	15	770	--	63	--
SB-27	10/15/2001	3	5	ft bgs	--	--	--	--	--	--	--	5.7	50	< 1.20	--	--
SB-27	10/15/2001	6	8	ft bgs	--	--	--	--	--	--	--	4.8	--	--	--	--
SB-28	10/15/2001	3	5	ft bgs	--	--	--	--	--	--	--	850	2000	51	88	--
SB-28	10/15/2001	6	8	ft bgs	--	--	--	--	--	--	--	300	150	< 2.10	36	--
SB-29	10/1/2001	0	2	ft bgs	--	--	< 0.0055	--	--	0.02	--	21	--	2.9	--	--
SB-29	10/1/2001	3	5	ft bgs	--	--	< 0.0065	--	--	0.3	--	23	--	< 2.20	--	--
SB-30	10/1/2001	3	5	ft bgs	< 0.0044	0.0034 E	< 0.0044	0.55 E	< 0.0044	0.008	< 0.0087	--	--	< 0.990	--	--
SB-30	10/1/2001	6	8	ft bgs	--	--	--	--	--	--	--	--	--	--	--	--
SB-31	11/15/2001	0	2	ft bgs	--	--	--	--	--	--	--	11	190	1.8	87	--
SB-32	11/15/2001	0	2	ft bgs	--	--	--	--	--	--	--	3.9	410	< 1.10	--	--
SB-32	11/15/2001	3	5	ft bgs	--	--	--	--	--	--	--	< 3.90	9.2	< 1.10	12	--
SB-33	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	99	--	--	--	--
SB-34	9/15/2002	0	2	ft bgs	--	--	--	--	--	--	--	6.9	68	< 2.50	--	--
SB-37	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	140	8600	--	--	--
SB-38	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	65	960	--	--	--
SB-38	9/15/2002	5	6.5	ft bgs	--	--	--	--	--	--	--	220	3700	--	--	--
SB-40	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	48	1100	--	--	--
SB-41	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	24	1700	--	--	--
SB-41	9/15/2002	5	7	ft bgs	--	--	--	--	--	--	--	67	27	--	--	--
SB-42	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	20	15	--	--	--
SB-42	9/15/2002	5.5	7	ft bgs	--	--	--	--	--	--	--	11	8.6	--	--	--
SB-43	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	5.4	--	--	--	--
SB-43	9/15/2002	6	8	ft bgs	--	--	--	--	--	--	--	4.9	--	--	--	--
SB-44	9/15/2002	6	8	ft bgs	--	--	--	--	--	--	--	310	--	--	--	--
SB-45	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	9.6	140	--	--	--
SB-45	9/15/2002	6	8	ft bgs	--	--	--	--	--	--	--	< 0.970	2.8	--	--	--
SB-46	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	2.4	14	--	--	--

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SB-46	9/15/2002	6	8	ft bgs	--	--	--	--	--	--	--	7.2	8	--	--	--
SB-47	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	34	--	--	--
SB-47	9/15/2002	6	8	ft bgs	--	--	--	--	--	--	--	--	6.1	--	--	--
SB-48	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	21	230	--	--	--
SB-48	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	6.8	95	--	--	--
SB-49	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	37	18	--	--	--
SB-50	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	66	630	--	--	--
SB-50	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	5.7	44	--	--	--
SB-52	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	54	840	--	--	--
SB-52	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	12	28	--	--	--
SB-53	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	< 1.00	5.5	--	--	--
SB-53	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	< 1.10	5.1	--	--	--
SB-54	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	4.2	12	--	--	--
SB-54	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	3.8	13	--	--	--
SB-55	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	50	1500	--	--	--
SB-55	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	22	1400	--	--	--
SB-56	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	19	270	--	--	--
SB-56	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	270	3200	--	--	--
SB-57	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	1.4	9	--	--	--
SB-57	9/15/2003	5	7	ft bgs	--	--	--	--	--	--	--	1.1	4.6	--	--	--
SB-58	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	1	3.3	--	--	--
SB-58	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	1.7	5.6	--	--	--
SB-59	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	31	230	--	--	--
SB-59	9/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	1.5	7.5	--	--	--
SB-60	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	75	580	--	--	--
SB-60	9/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	4.8	5.9	--	--	--
SB-61	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	96	95	--	--	--
SB-61	9/15/2003	5.5	7	ft bgs	--	--	--	--	--	--	--	5.9	20	--	--	--
SB-62	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	8.3	180	--	--	--
SB-63	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	< 1.00	2.9	--	--	--
SB-64	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	3.1	8.2	--	--	--
SB-65	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	4	11	--	--	--
SB-66	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	5.4	94	--	--	--
SB-67	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	6.4	53	--	--	--
SB-68	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	7.8	17	--	--	--
SB-68	11/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	7.5	10	--	--	--
SB-69	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	28	620	--	--	--
SB-69	11/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	13	11	--	--	--
SB-70	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	< 3.30	< 2.80	--	--	--
SB-70	11/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	8.8	11	--	--	--
SB-71	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	< 3.70	8.2	--	--	--
SB-72	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	12	5.2	--	--	--
SB-72	11/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	59	18	--	--	--

Table 3 - Summary of Soil Analytical Data
Colonial Terminals, Plant #2
Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units	1,1-DCE mg/kg	cis-1,2-DCE mg/kg	MeCl mg/kg	PCE mg/kg	trans-1,2-DCE mg/kg	TCE mg/kg	Vinyl Chloride mg/kg	Arsenic mg/kg	Lead mg/kg	Antimony mg/kg	Barium mg/kg	Beryllium mg/kg	
SB-73	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	15	250	--	--	--	
SB-74	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	21	19	--	--	--	
SB-74	11/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	8.2	16	--	--	--	
SL-BF-1	12/11/2007	1	1	ft bgs	--	--	--	--	--	--	--	7.7	50	--	--	--	
SL-BF-1	12/11/2007	4	4	ft bgs	--	--	--	--	--	--	--	1.7	9.7	--	--	--	
SL-BF-2	12/11/2007	1	1	ft bgs	--	--	--	--	--	--	--	22	200	--	--	--	
SL-BF-2	12/11/2007	4	4	ft bgs	--	--	--	--	--	--	--	3.6	14	--	--	--	
SL-BF-3	12/11/2007	1	1	ft bgs	--	--	--	--	--	--	--	2.5	25	--	--	--	
SL-BF-3	12/11/2007	4	4	ft bgs	--	--	--	--	--	--	--	1.7	5.1	--	--	--	
Station 12+00	4/15/2000	6	8	ft bgs	--	--	--	--	--	--	--	619	3390	30.4	11.2	<1.34	
Station 13+50	8/15/2000	5.5	8	ft bgs	--	--	--	--	--	--	--	45.6	19	<5.0	--	--	
Station 15+00	4/11/2000	6	8	ft bgs	< 0.0045	< 0.0045	< 0.045	< 0.0045	< 0.0045	< 0.0045	< 0.0045	10.3	68.9	<2.94	10.8	<1.59	
Station 15+00	4/11/2000	10.5	10.5	ft bgs	< 0.0045	< 0.0045	< 0.045	< 0.0045	< 0.0045	< 0.0045	< 0.0045	--	--	--	--	--	
Station 15+00	4/11/2000	13	13	ft bgs	< 0.0048	< 0.0048	< 0.048	< 0.0048	< 0.0048	< 0.0048	< 0.0048	--	--	--	--	--	
Station 15+00	4/11/2000	15.5	15.5	ft bgs	< 0.0047	< 0.0047	< 0.047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	--	--	--	--	--	
Station 15+00	4/11/2000	18	18	ft bgs	< 0.0045	< 0.0045	< 0.045	< 0.0045	< 0.0045	< 0.0045	< 0.0045	--	--	--	--	--	
Station 16+50	8/15/2000	5.5	8	ft bgs	--	--	--	--	--	--	--	<4.99	<4.99	<4.99	--	--	
Station 18+00	4/12/2000	6	8	ft bgs	< 0.0042	< 0.0042	< 0.042	< 0.0042	< 0.0042	< 0.0042	< 0.0042	34.9	1200	<4.89	176	<2.19	
Station 18+00	4/12/2000	10.5	10.5	ft bgs	< 0.0046	< 0.0046	< 0.046	< 0.0046	< 0.0046	< 0.0046	< 0.0046	--	--	--	--	--	
Station 18+00	4/12/2000	13	13	ft bgs	< 0.005	< 0.005	< 0.05	< 0.005	< 0.005	< 0.005	< 0.005	--	--	--	--	--	
Station 18+00	4/12/2000	15.5	15.5	ft bgs	< 0.0049	< 0.0049	< 0.049	< 0.0049	< 0.0049	< 0.0049	< 0.0049	--	--	--	--	--	
Station 19+50	8/15/2000	5.5	8	ft bgs	--	--	--	--	--	--	--	81.5	732	9.83	--	--	
Station 21+00	4/15/2000	6	8	ft bgs	--	--	--	--	--	--	--	306	3000	<4.69	38.6	<1.73	
TW-10	12/14/2005	5	7	ft bgs	< 0.002	0.005	--	2.11	< 0.002	0.018	< 0.002	--	--	--	--	--	
TW-11	12/14/2005	5	7	ft bgs	0.026	0.003	--	0.54	< 0.002	0.011	< 0.002	--	--	--	--	--	
TW-12	3/20/2006	5	7	ft bgs	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0052	--	--	--	--	--	
TW-13	3/21/2006	5	7	ft bgs	0.0069	0.11	< 0.0059	0.14	< 0.0059	0.025	< 0.0059	--	--	--	--	--	
TW-14	3/21/2006	5	7	ft bgs	< 0.0054	< 0.0054	< 0.054	< 0.0054	< 0.0054	< 0.0054	< 0.0054	--	--	--	--	--	
TW-15	3/21/2006	5	7	ft bgs	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0061	--	--	--	--	--	
TW-16	3/21/2006	5	7	ft bgs	< 0.0053	< 0.0053	< 0.0053	< 0.0053	0.025	< 0.0053	0.022	< 0.0053	--	--	--	--	--
TW-17	3/21/2006	5	7	ft bgs	< 0.0055	0.018	< 0.0055	0.012	< 0.0055	< 0.0055	< 0.0055	--	--	--	--	--	
TW-18	3/21/2006	5	7	ft bgs	< 0.0057	< 0.0057	< 0.0057	< 0.0057	< 0.0057	< 0.0057	< 0.0057	--	--	--	--	--	
TW-19	3/22/2006	5	7	ft bgs	< 0.0049	< 0.0049	< 0.049	< 0.0049	< 0.0049	< 0.0049	< 0.0049	--	--	--	--	--	
TW-20	3/22/2006	5	7	ft bgs	3.8	< 0.0051	0.029	0.0071	< 0.0051	0.0054	< 0.0051	--	--	--	--	--	
TW-21	3/23/2006	5	7	ft bgs	< 0.0051	0.052	< 0.0051	0.011	< 0.0051	0.064	< 0.0051	--	--	--	--	--	
TW-22	3/23/2006	5	7	ft bgs	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	--	--	--	--	--	
TW-23	3/23/2006	5	7	ft bgs	< 0.0048	< 0.0048	< 0.0048	< 0.0048	0.021	< 0.0048	0.011	< 0.0048	--	--	--	--	--
TW-24	3/23/2006	5	7	ft bgs	< 0.0053	0.053	< 0.0053	0.26	< 0.0053	0.12	< 0.0053	--	--	--	--	--	
TW-25	5/25/2006	5	7	ft bgs	< 0.0044	0.0081	< 0.0044	0.052	< 0.0044	< 0.18	< 0.0044	--	--	--	--	--	
TW-26	5/25/2006	5	7	ft bgs	< 0.0062	< 0.0062	< 0.0062	< 0.0062	< 0.0062	< 0.0062	< 0.0062	--	--	--	--	--	
TW-27	5/25/2006	5	7	ft bgs	< 0.0051	< 0.0051	< 0.0051	< 0.0051	< 0.0051	< 0.0051	< 0.0051	--	--	--	--	--	
TW-29	4/23/2007	4	5	ft bgs	< 0.2	< 0.2	< 0.2	< 0.2	4.4	< 0.2	0.32	< 0.2	--	--	--	--	--
TW-30	4/24/2007	3	4	ft bgs	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	--	--	--	--	--	

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Colonial Terminals, Plant #2
Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units	1,1-DCE mg/kg	cis-1,2-DCE mg/kg	MeCl mg/kg	PCE mg/kg	trans-1,2-DCE mg/kg	TCE mg/kg	Vinyl Chloride mg/kg	Arsenic mg/kg	Lead mg/kg	Antimony mg/kg	Barium mg/kg	Beryllium mg/kg
TW-31	4/24/2007	4	5	ft bgs	< 0.23	0.54	< 0.23	2	< 0.23	0.65	< 0.23	--	--	--	--	--
TW-32	4/24/2007	3	4	ft bgs	< 0.0051	< 0.0051	< 0.0051	0.02	< 0.0051	< 0.0051	< 0.0051	--	--	--	--	--
TW-5	12/14/2005	5	7	ft bgs	< 0.002	< 0.002	--	< 0.002	< 0.002	< 0.002	< 0.002	--	--	--	--	--
TW-6	12/14/2005	5	7	ft bgs	< 0.002	0.002	--	0.004	< 0.002	0.002	< 0.002	--	--	--	--	--
TW-7	12/14/2005	5	7	ft bgs	0.006	0.048	--	0.074	< 0.002	0.027	< 0.002	--	--	--	--	--
TW-8	12/14/2005	5	7	ft bgs	0.008	0.026	--	0.057	< 0.002	0.02	< 0.002	--	--	--	--	--
TW-9	12/14/2005	5	7	ft bgs	0.01	< 0.002	--	0.035	< 0.002	< 0.002	< 0.002	--	--	--	--	--
A-SB-1	11/14/2006	0	2	ft bgs	--	--	--	--	--	--	--	88	390	--	--	--
A-SB-1	11/14/2006	2	5	ft bgs	--	--	--	--	--	--	--	7.7	290	--	--	--
A-SB-5	11/14/2006	0	2	ft bgs	--	--	--	--	--	--	--	37	550	--	--	--
A-SB-5	11/14/2006	2	5	ft bgs	--	--	--	--	--	--	--	36	240	--	--	--
A-SB-6	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	35	600	--	--	--
B-SB-1	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	5.9	74	--	--	--
B-SB-2	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	19	260	--	--	--
B-SB-3	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	23	640	--	--	--
B-SB-3 DUP	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	4.5	14	--	--	--
B-SB-3	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	13	17	--	--	--
B-SB-3 DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	4.5	14	--	--	--
B-SB-8	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	9.3	120	--	--	--
B-SB-8	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	33	17	--	--	--
B-SB-8 DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	8.3	16	--	--	--
B-SB-9	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	37	440	--	--	--
B-SB-10	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	13	140	--	--	--
B-SB-12	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	17	89	--	--	--
B-SB-13	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	29	200	--	--	--
B-SB-13	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	14	150	--	--	--
B-SB-13DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	20	390	--	--	--
B-SB-18	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	64	720	--	--	--
B-SB-18	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	19	200	--	--	--
B-SB-20	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	51	240	--	--	--
B-SB-23	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	80	1,500	--	--	--
B-SB-23DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	95	2,100	--	--	--
B-SB-27	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	48	530	--	--	--
B-SB-28	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	250	1,000	--	--	--
B-SB-28DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	160	750	--	--	--
B-SB-38	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	17	1,300	--	--	--
B-SB-38 DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	110	680	--	--	--
B-SB-42	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	14	150	--	--	--
B-SB-44	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	<3.7	21	--	--	--
B-SB-48	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	260	13,000	--	--	--
B-SB-48 DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	600	17,000	--	--	--
B-SB-52	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	15	700	--	--	--
B-SB-53	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	11	160	--	--	--

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Colonial Terminals, Plant #2

Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units	1,1-DCE mg/kg	cis-1,2-DCE mg/kg	MeCl mg/kg	PCE mg/kg	trans-1,2-DCE mg/kg	TCE mg/kg	Vinyl Chloride mg/kg	Arsenic mg/kg	Lead mg/kg	Antimony mg/kg	Barium mg/kg	Beryllium mg/kg
B-SB-53	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	160	1,200	--	--	--
B-SB-53 DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	690	5,600	--	--	--
C-SB-1	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	32	180	--	--	--
C-SB-1	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	160	94	--	--	--
C-SB-1	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	230	1,800	--	--	--
C-SB-3	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	110	800	--	--	--
C-SB-4	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	7.5	35	--	--	--
C-SB-4	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	130	1,800	--	--	--
C-SB-4	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	18	160	--	--	--
C-SB-5	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	3.9	12	--	--	--
C-SB-5	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	5.1	69	--	--	--
C-SB-5	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	9.7	150	--	--	--
C-SB-6	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	9.5	75	--	--	--
C-SB-6	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	3.6	36	--	--	--
C-SB-6	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	<3.1	35	--	--	--
D-SB-2	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	62	720	--	--	--
D-SB-8	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	76	630	--	--	--
E-SB-1	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	7.3	100	--	--	--
E-SB-1	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	54	660	--	--	--
E-SB-1	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	5.5	29	--	--	--
E-SB-3	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	<3.6	11	--	--	--
E-SB-4	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	27	460	--	--	--
E-SB-4	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	37	540	--	--	--
E-SB-4	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	<3.9	24	--	--	--
F-SB-1	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	26	380	--	--	--
F-SB-1	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	120	1,000	--	--	--
F-SB-7	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	25	230	--	--	--
F-SB-7	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	22	650	--	--	--
F-SB-8	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	20	160	--	--	--
F-SB-8	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	11	310	--	--	--
F-SB-10	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	26	270	--	--	--
F-SB-10	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	81	1,500	--	--	--
F-SB-13	11/14/2006	5	8	ft bgs	--	--	--	--	--	--	--	64	370	--	--	--
F-SB-14	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	46	440	--	--	--
F-SB-15	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	21	440	--	--	--
F-SB-16	11/14/2006	5	8	ft bgs	--	--	--	--	--	--	--	21	100	--	--	--
F-SB-18	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	46	1,100	--	--	--
F-SB-20	11/14/2006	0	2	ft bgs	--	--	--	--	--	--	--	15	230	--	--	--
F-SB-20	11/14/2006	2	5	ft bgs	--	--	--	--	--	--	--	63	840	--	--	--
G-SB-1	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	3.9	17	--	--	--
G-SB-3	11/14/2006	5	8	ft bgs	--	--	--	--	--	--	--	3.8	15	--	--	--
G-SB-4	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	120	2,100	--	--	--
G-SB-5	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	<3.4	10	--	--	--

Table 3 - Summary of Soil Analytical Data

Colonial Terminals, Plant #2

Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units	1,1-DCE mg/kg	cis-1,2-DCE mg/kg	MeCl mg/kg	PCE mg/kg	trans-1,2-DCE mg/kg	TCE mg/kg	Vinyl Chloride mg/kg	Arsenic mg/kg	Lead mg/kg	Antimony mg/kg	Barium mg/kg	Beryllium mg/kg
G-SB-5	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	12	15	--	--	--
G-SB-6	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	<3.4	12	--	--	--
G-SB-7	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	62	830	--	--	--
G-SB-8	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	140	460	--	--	--
G-SB-9	11/14/2006	2	5	ft bgs	--	--	--	--	--	--	--	240	340	--	--	--
G-SB-10	11/14/2006	2	5	ft bgs	--	--	--	--	--	--	--	30	34	--	--	--
H-SB-1	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	<3.2	--	--	--	--
H-SB-5	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	3.5	--	--	--	--
H-SB-6	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	15	160	--	--	--
H-SB-7	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	20	250	--	--	--
I-SB-1	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	63.6	12	--	--	--
I-SB-2	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	6	67	--	--	--
I-SB-3	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	16	120	--	--	--
I-SB-3	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	29	260	--	--	--
I-SB-4	10/5/2006	2	4	ft bgs	--	--	--	--	--	--	--	6.2	38	--	--	--
I-SB-5	10/5/2006	2	4	ft bgs	--	--	--	--	--	--	--	25	260	--	--	--
I-SB-8	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	15	660	--	--	--
I-SB-9	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	18	140	--	--	--
I-SB-9	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	4.9	11	--	--	--
I-SB-10	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	14	170	--	--	--
I-SB-10	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	15	42	--	--	--

Notes:

Sample was collected from below the water table

mg/kg -- Milligrams per kilogram (parts per million)

ft bgs -- Feet below ground surface

< Analyte was not detected at the laboratory reporting limit indicated

-- Analyte was not sampled for

Table 3 - Summary of Soil Analytical Data

Colonial Terminals, Plant #2

Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units	Cadmium mg/kg	Chromium mg/kg	Copper mg/kg	Mercury mg/kg	Nickel mg/kg	Silver mg/kg	Thallium mg/kg	Zinc mg/kg	2,4-Dinitrotoluene mg/kg
1020SW	11/6/2007	0	5	ft bgs	--	--	--	--	--	--	--	--	--
1021SW	11/6/2007	0	5	ft bgs	--	--	--	--	--	--	--	--	--
1022W-R	12/13/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--
1042-W	11/27/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
1054W	12/11/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
1058W-S-R	12/12/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
1065W	12/11/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
1066W	10/25/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
1072-W	11/27/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
1079W	10/29/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
1081W	10/25/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
1086W-R	11/29/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
1095W	10/30/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
A1-Floor	11/16/2007	6	6	ft bgs	--	--	--	--	--	--	--	--	--
A1-W-N (R)	11/28/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
A2-Floor	11/16/2007	8	8	ft bgs	--	--	--	--	--	--	--	--	--
A3-Floor	11/19/2007	5	5	ft bgs	--	--	--	--	--	--	--	--	--
A4-Floor	11/20/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--
A4-Wall South	11/19/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
A5-Floor	11/20/2007	5	5	ft bgs	--	--	--	--	--	--	--	--	--
A5-W-S	11/27/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
Area D Bottom-Center	11/9/2010	2	5	ft bgs	--	--	--	--	--	--	--	--	--
Area D Bottom-NE	11/9/2010	2	5	ft bgs	--	--	--	--	--	--	--	--	--
Area D Bottom-NW	11/9/2010	2	5	ft bgs	--	--	--	--	--	--	--	--	--
Area D Bottom-SE	11/9/2010	2	5	ft bgs	--	--	--	--	--	--	--	--	--
Area D Bottom-SW	11/9/2010	2	5	ft bgs	--	--	--	--	--	--	--	--	--
Area D SW-East	11/9/2010	0	2	ft bgs	--	--	--	--	--	--	--	--	--
Area D SW-North	11/11/2010	0	2	ft bgs	--	--	--	--	--	--	--	--	--
Area D SW-South	11/9/2010	0	2	ft bgs	--	--	--	--	--	--	--	--	--
Area D SW-West	11/9/2010	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B2-SUP-WS1	12/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B2-SUP-WS2	12/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B2-SUP-WS3	12/5/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B2-SUP-WS4	12/5/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B2-SUP-WS5-R	12/12/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B2-SUP-WW	12/5/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B3-SUP-WS	12/5/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B3-SUP-WW	12/5/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
C-Floor	11/17/2007	5.5	5.5	ft bgs	--	--	--	--	--	--	--	--	--
C-W-E	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--
C-W-N	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--
C-W-S	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--
C-W-W (R)	12/12/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--

Table 3 - Summary of Soil Analytical Data

Colonial Terminals, Plant #2

Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units	Cadmium mg/kg	Chromium mg/kg	Copper mg/kg	Mercury mg/kg	Nickel mg/kg	Silver mg/kg	Thallium mg/kg	Zinc mg/kg	2,4-Dinitrotoluene mg/kg
D-1-Floor	11/2/2007	2.5	2.5	ft bgs	--	--	--	--	--	--	--	--	--
D-1-Floor-2	11/3/2007	2.5	2.5	ft bgs	--	--	--	--	--	--	--	--	--
D-1-Floor-3	11/3/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--
D-2-Floor	11/4/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--
D2R-W-E	11/17/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
D-2-SW-E	11/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
D-2-SW-S	11/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
D-3-Floor	11/4/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--
D-3-SW-N	11/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
D-3-SW-S	11/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
D-3-SW-W	11/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
D-Berm-2	11/3/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
D-Berm-W-S	11/17/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
D-HA-2	6/16/2010	0	2	ft bgs	--	--	--	--	--	--	--	--	--
D-HA-3	6/16/2010	0	2	ft bgs	--	--	--	--	--	--	--	--	--
E-Floor	11/17/2007	5.5	5.5	ft bgs	--	--	--	--	--	--	--	--	--
E-W-E	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--
E-W-N	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--
E-W-S	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--
E-W-W	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--
F SUP NW	11/9/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
F SUP SW	11/9/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
F1-Floor	12/6/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--
F2-Floor	12/6/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--
F3-Floor 1	12/6/2007	5	5	ft bgs	--	--	--	--	--	--	--	--	--
F3-Floor 2	12/6/2007	6	6	ft bgs	--	--	--	--	--	--	--	--	--
F3-W-E	12/6/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--
F4-Floor	12/6/2007	8	8	ft bgs	--	--	--	--	--	--	--	--	--
F4-W-E	12/6/2007	5	8	ft bgs	--	--	--	--	--	--	--	--	--
F5-Floor	12/17/2007	8	8	ft bgs	--	--	--	--	--	--	--	--	--
F5-Floor 3	12/17/2007	5	5	ft bgs	--	--	--	--	--	--	--	--	--
F5-Floor-2	12/14/2007	5	5	ft bgs	--	--	--	--	--	--	--	--	--
F5-W-S	12/19/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
F5-W-S	12/19/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--
F5-W-S	12/19/2007	5	8	ft bgs	--	--	--	--	--	--	--	--	--
F6 Floor 1	12/19/2007	3	3	ft bgs	--	--	--	--	--	--	--	--	--
F6 Floor 2	12/19/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--
F6-W-W	12/19/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
F-Floor	11/6/2007	5	5	ft bgs	--	--	--	--	--	--	--	--	--
G2NE	10/29/2007	0	3	ft bgs	--	--	--	--	--	--	--	--	--
G4 - Floor	11/6/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--
G4-W-S	11/15/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
G5-Floor	11/15/2007	5	5	ft bgs	--	--	--	--	--	--	--	--	--

Table 3 - Summary of Soil Analytical Data
Colonial Terminals, Plant #2
Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units	Cadmium mg/kg	Chromium mg/kg	Copper mg/kg	Mercury mg/kg	Nickel mg/kg	Silver mg/kg	Thallium mg/kg	Zinc mg/kg	2,4-Dinitrotoluene mg/kg
G5-W-E (R)	11/28/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--
G5-W-N	11/15/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--
G5-W-S	11/15/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--
G-Floor	10/30/2007	3	3	ft bgs	--	--	--	--	--	--	--	--	--
G-N2-Floor	11/1/2007	3	3	ft bgs	--	--	--	--	--	--	--	--	--
G-N-Floor	10/31/2007	3	3	ft bgs	--	--	--	--	--	--	--	--	--
G-NW-SW	11/6/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
GP-01-05	8/17/2005	15	20	ft bgs	--	--	--	--	--	--	--	--	--
GP-01-05	8/17/2005	25	30	ft bgs	--	--	--	--	--	--	--	--	--
GP-02-05	8/17/2005	10	15	ft bgs	--	--	--	--	--	--	--	--	--
GP-02-05	8/17/2005	20	25	ft bgs	--	--	--	--	--	--	--	--	--
GP-03-05	8/17/2005	15	20	ft bgs	--	--	--	--	--	--	--	--	--
GP-03-05	8/17/2005	20	25	ft bgs	--	--	--	--	--	--	--	--	--
GP-04-05	8/17/2005	10	15	ft bgs	--	--	--	--	--	--	--	--	--
GP-04-05	8/17/2005	15	20	ft bgs	--	--	--	--	--	--	--	--	--
GP-05-05	8/18/2005	10	15	ft bgs	--	--	--	--	--	--	--	--	--
GP-05-05	8/18/2005	15	20	ft bgs	--	--	--	--	--	--	--	--	--
GP-06-05	8/18/2005	10	15	ft bgs	--	--	--	--	--	--	--	--	--
GP-06-05	8/18/2005	15	20	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-01	4/23/2007	4	5	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-02	4/23/2007	2	3	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-03	4/24/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-04	4/24/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-05	4/24/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-06	4/25/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-07	4/26/2007	2	3	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-08	8/15/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-09	8/15/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-10	8/15/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-11	8/15/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-12	8/15/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-13	8/15/2007	2	3	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-14	8/15/2007	2	3	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-15	8/15/2007	2	3	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-16	8/15/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-17	8/16/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-18	8/16/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-19	8/16/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-20	8/16/2007	2	3	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-21	8/16/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--
GP-07-22	8/16/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--
G-W-N	12/11/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
HA-07-02	10/22/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--

Table 3 - Summary of Soil Analytical Data

Colonial Terminals, Plant #2

Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units	Cadmium mg/kg	Chromium mg/kg	Copper mg/kg	Mercury mg/kg	Nickel mg/kg	Silver mg/kg	Thallium mg/kg	Zinc mg/kg	2,4-Dinitrotoluene mg/kg
HA-07-04	10/22/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--
HA-07-06	10/23/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--
HA-07-08	11/4/2007	4	6	ft bgs	--	--	--	--	--	--	--	--	--
I16	12/17/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
I1-Floor	11/12/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--
I1-SW	11/12/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
I2-Floor	11/12/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--
I3-Floor	11/13/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--
I3-W-W	11/13/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
I4-Floor	11/13/2007	5	5	ft bgs	--	--	--	--	--	--	--	--	--
I4-W-N	11/13/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--
I4-W-S	11/27/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
I4-W-W	11/13/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--
I5-Floor	11/13/2007	3	3	ft bgs	--	--	--	--	--	--	--	--	--
I5-W-N (R)	11/28/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
I6-Floor	11/13/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--
I6-W-W	11/13/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
I7-Floor	11/14/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--
I7-W-S	11/14/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
I7-W-W	11/14/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
I8-Floor	11/28/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--
I8-W-S	11/28/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
I8-W-W	11/28/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
I9-Floor	11/28/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--
I9-W-N	11/28/2007	0	2	ft bgs	--	--	--	--	--	--	--	--	--
I-Floor-1	12/14/2007	8	8	ft bgs	--	--	--	--	--	--	--	--	--
IVOC-Floor -2	12/14/2007	8	8	ft bgs	--	--	--	--	--	--	--	--	--
MW-2	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
MW-18	5/15/2005	2	5	ft bgs	--	--	--	--	--	--	--	--	--
MW-18	5/15/2005	5	8	ft bgs	--	--	--	--	--	--	--	--	--
MW-19	5/15/2005	2	4	ft bgs	--	--	--	--	--	--	--	--	--
MW-19	5/15/2005	6	9	ft bgs	--	--	--	--	--	--	--	--	--
SB-1	8/25/1999	0.5	1.5	ft bgs	1.5	21	29	< 0.500	< 1.00	< 5.00	--	110	< 1700
SB-1	8/25/1999	4.5	6.5	ft bgs	0.69	5.2	6.9	< 0.500	1.2	< 5.00	--	< 100	< 330
SB-2	8/25/1999	0.5	1.5	ft bgs	1.7	15	38	< 0.500	3.9	< 5.00	--	< 100	< 330
SB-2	8/25/1999	3.5	5.5	ft bgs	--	--	--	--	--	--	--	--	--
SB-2	8/25/1999	3.5	5.5	ft bgs	1.2	11	18	< 0.500	2.5	< 5.00	--	< 100	< 330
SB-3	8/25/1999	3.5	5.5	ft bgs	0.52	< 5.00	870	< 0.500	< 1.00	< 5.00	--	< 100	< 330
SB-4	8/25/1999	1	2	ft bgs	2.5	24	< 5.00	< 0.500	3.9	< 5.00	--	< 100	< 330
SB-4	8/25/1999	4	6	ft bgs	1.1	11	27	< 0.500	2.3	< 5.00	--	< 100	< 330
SB-4	8/25/1999	6	8	ft bgs	< 0.500	< 5.00	38	--	< 1.00	< 5.00	--	--	--
SB-5	8/25/1999	0.5	1.5	ft bgs	< 0.500	< 5.00	< 5.00	< 0.500	< 1.00	< 5.00	--	< 100	< 330
SB-5	8/25/1999	3.5	5.5	ft bgs	0.77	8.2	5.9	< 0.500	1.4	< 5.00	--	< 100	< 330

Table 3 - Summary of Soil Analytical Data

Colonial Terminals, Plant #2

Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units	Cadmium mg/kg	Chromium mg/kg	Copper mg/kg	Mercury mg/kg	Nickel mg/kg	Silver mg/kg	Thallium mg/kg	Zinc mg/kg	2,4-Dinitrotoluene mg/kg
SB-6	8/25/1999	1	1.5	ft bgs	1.3	8.7	17	< 0.500	3	< 5.00	--	< 100	< 1700
SB-6	8/25/1999	3.5	5.5	ft bgs	< 0.500	5.5	9.2	< 0.500	< 1.00	< 5.00	--	< 100	< 330
SB-7	8/25/1999	0.5	1.5	ft bgs	< 0.500	< 5.00	9.5	< 0.500	< 1.00	< 5.00	--	< 100	< 330
SB-7	8/25/1999	3.5	5.5	ft bgs	0.56	< 5.00	12	< 0.500	< 1.00	< 5.00	--	< 100	460
SB-8	8/25/1999	0.5	1.5	ft bgs	1.9	9.6	42	0.52	< 1.00	< 5.00	--	< 100	< 330
SB-8	8/25/1999	3.5	5.5	ft bgs	3.6	27	26	< 0.500	4.5	< 5.00	--	< 100	< 330
SB-9	8/25/1999	0.5	1.5	ft bgs	2.3	69	300	2.2	7.5	< 5.00	--	260	< 330
SB-9	8/25/1999	3.5	5.5	ft bgs	1.5	24	120	1.7	5.1	< 5.00	--	120	< 330
SB-20	10/1/2001	0	2	ft bgs	< 0.570	11	38	0.21	< 4.60	--	--	90	--
SB-20	10/1/2001	3	5	ft bgs	--	--	140	6.7	< 4.80	--	--	310	--
SB-20	10/1/2001	6	8	ft bgs	--	--	3.8	< 0.0240	--	--	--	400	--
SB-21	10/1/2001	0	2	ft bgs	--	--	--	--	--	--	--	--	--
SB-21	10/1/2001	3	5	ft bgs	< 0.600	--	--	--	--	--	--	--	--
SB-22	11/15/2001	0	1.5	ft bgs	0.51	25	190	0.39	25	< 1.00	0.29	320	--
SB-23	10/15/2001	0	2	ft bgs	--	2.9	5.1	0.24	< 4.10	--	--	--	< 380
SB-26	10/15/2001	0	2	ft bgs	--	--	65	0.94	--	--	--	97	--
SB-27	10/15/2001	3	5	ft bgs	--	23	41	0.037	--	< 1.20	--	46	--
SB-27	10/15/2001	6	8	ft bgs	--	15	37	--	--	--	--	43	--
SB-28	10/15/2001	3	5	ft bgs	--	--	530	7.8	6.3	1.2	--	1400	< 380
SB-28	10/15/2001	6	8	ft bgs	--	--	400	0.058	< 4.30	--	--	230	< 380
SB-29	10/1/2001	0	2	ft bgs	< 0.480	16	--	--	--	--	--	--	--
SB-29	10/1/2001	3	5	ft bgs	< 0.540	4.6	--	--	--	--	--	--	--
SB-30	10/1/2001	3	5	ft bgs	< 0.490	--	59	--	--	--	--	--	--
SB-30	10/1/2001	6	8	ft bgs	--	--	39	--	--	--	--	--	--
SB-31	11/15/2001	0	2	ft bgs	--	9.6	71	1.2	< 4.00	< 0.990	--	--	--
SB-32	11/15/2001	0	2	ft bgs	--	--	--	0.17	--	--	--	--	--
SB-32	11/15/2001	3	5	ft bgs	--	--	3.5	0.085	--	--	--	12	--
SB-33	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-34	9/15/2002	0	2	ft bgs	< 0.620	8.4	12	--	< 5.00	--	--	74	--
SB-37	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-38	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-38	9/15/2002	5	6.5	ft bgs	--	--	--	--	--	--	--	--	--
SB-40	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-41	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-41	9/15/2002	5	7	ft bgs	--	--	--	--	--	--	--	--	--
SB-42	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-42	9/15/2002	5.5	7	ft bgs	--	--	--	--	--	--	--	--	--
SB-43	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-43	9/15/2002	6	8	ft bgs	--	--	--	--	--	--	--	--	--
SB-44	9/15/2002	6	8	ft bgs	--	--	--	--	--	--	--	--	--
SB-45	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-45	9/15/2002	6	8	ft bgs	--	--	--	--	--	--	--	--	--
SB-46	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	--

Table 3 - Summary of Soil Analytical Data

Colonial Terminals, Plant #2

Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units	Cadmium mg/kg	Chromium mg/kg	Copper mg/kg	Mercury mg/kg	Nickel mg/kg	Silver mg/kg	Thallium mg/kg	Zinc mg/kg	2,4-Dinitrotoluene mg/kg
SB-46	9/15/2002	6	8	ft bgs	--	--	--	--	--	--	--	--	--
SB-47	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-47	9/15/2002	6	8	ft bgs	--	--	--	--	--	--	--	--	--
SB-48	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	--	--
SB-48	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-49	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-50	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	--	--
SB-50	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-52	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	--	--
SB-52	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	--	--
SB-53	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	--	--
SB-53	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	--	--
SB-54	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	--	--
SB-54	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	--	--
SB-55	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	--	--
SB-55	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	--	--
SB-56	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	--	--
SB-56	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	--	--
SB-57	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	--	--
SB-57	9/15/2003	5	7	ft bgs	--	--	--	--	--	--	--	--	--
SB-58	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	--	--
SB-58	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	--	--
SB-59	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-59	9/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	--	--
SB-60	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-60	9/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	--	--
SB-61	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-61	9/15/2003	5.5	7	ft bgs	--	--	--	--	--	--	--	--	--
SB-62	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-63	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-64	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-65	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-66	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-67	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-68	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-68	11/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	--	--
SB-69	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-69	11/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	--	--
SB-70	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-70	11/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	--	--
SB-71	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-72	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-72	11/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	--	--

Table 3 - Summary of Soil Analytical Data

Colonial Terminals, Plant #2

Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units	Cadmium mg/kg	Chromium mg/kg	Copper mg/kg	Mercury mg/kg	Nickel mg/kg	Silver mg/kg	Thallium mg/kg	Zinc mg/kg	2,4-Dinitrotoluene mg/kg
SB-73	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-74	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--
SB-74	11/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	--	--
SL-BF-1	12/11/2007	1	1	ft bgs	--	--	--	--	--	--	--	--	--
SL-BF-1	12/11/2007	4	4	ft bgs	--	--	--	--	--	--	--	--	--
SL-BF-2	12/11/2007	1	1	ft bgs	--	--	--	--	--	--	--	--	--
SL-BF-2	12/11/2007	4	4	ft bgs	--	--	--	--	--	--	--	--	--
SL-BF-3	12/11/2007	1	1	ft bgs	--	--	--	--	--	--	--	--	--
SL-BF-3	12/11/2007	4	4	ft bgs	--	--	--	--	--	--	--	--	--
Station 12+00	4/15/2000	6	8	ft bgs	<1.34	8.74	43.3	6.18	<2.68	<1.34	--	34.2	--
Station 13+50	8/15/2000	5.5	8	ft bgs	--	--	260	0.22	--	<2.5	<5.0	68.3	--
Station 15+00	4/11/2000	6	8	ft bgs	<1.59	8.38	24	2.2	17.8	<1.59	--	17.8	--
Station 15+00	4/11/2000	10.5	10.5	ft bgs	--	--	--	--	--	--	--	--	--
Station 15+00	4/11/2000	13	13	ft bgs	--	--	--	--	--	--	--	--	--
Station 15+00	4/11/2000	15.5	15.5	ft bgs	--	--	--	--	--	--	--	--	--
Station 15+00	4/11/2000	18	18	ft bgs	--	--	--	--	--	--	--	--	--
Station 16+50	8/15/2000	5.5	8	ft bgs	--	--	6.09	<1.0	--	<2.49	<4.99	14.5	--
Station 18+00	4/12/2000	6	8	ft bgs	<2.19	41.8	637	15.4	16.1	2.47	--	664	--
Station 18+00	4/12/2000	10.5	10.5	ft bgs	--	--	--	--	--	--	--	--	--
Station 18+00	4/12/2000	13	13	ft bgs	--	--	--	--	--	--	--	--	--
Station 18+00	4/12/2000	15.5	15.5	ft bgs	--	--	--	--	--	--	--	--	--
Station 19+50	8/15/2000	5.5	8	ft bgs	--	--	1910	0.13	--	<2.49	<4.99	1230	--
Station 21+00	4/15/2000	6	8	ft bgs	4.95	6.75	1380	4.11	7.37	6.21	--	3400	--
TW-10	12/14/2005	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-11	12/14/2005	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-12	3/20/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-13	3/21/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-14	3/21/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-15	3/21/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-16	3/21/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-17	3/21/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-18	3/21/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-19	3/22/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-20	3/22/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-21	3/23/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-22	3/23/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-23	3/23/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-24	3/23/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-25	5/25/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-26	5/25/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-27	5/25/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-29	4/23/2007	4	5	ft bgs	--	--	--	--	--	--	--	--	--
TW-30	4/24/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--

Table 3 - Summary of Soil Analytical Data

Colonial Terminals, Plant #2

Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units	Cadmium mg/kg	Chromium mg/kg	Copper mg/kg	Mercury mg/kg	Nickel mg/kg	Silver mg/kg	Thallium mg/kg	Zinc mg/kg	2,4-Dinitrotoluene mg/kg
TW-31	4/24/2007	4	5	ft bgs	--	--	--	--	--	--	--	--	--
TW-32	4/24/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--
TW-5	12/14/2005	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-6	12/14/2005	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-7	12/14/2005	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-8	12/14/2005	5	7	ft bgs	--	--	--	--	--	--	--	--	--
TW-9	12/14/2005	5	7	ft bgs	--	--	--	--	--	--	--	--	--
A-SB-1	11/14/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
A-SB-1	11/14/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
A-SB-5	11/14/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
A-SB-5	11/14/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
A-SB-6	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-1	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-2	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-3	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-3 DUP	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-3	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-3 DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-8	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-8	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-8 DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-9	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-10	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-12	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-13	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-13	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-13DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-18	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-18	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-20	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-23	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-23DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-27	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-28	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-28DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-38	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-38 DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-42	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-44	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-48	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-48 DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-52	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-53	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--

Table 3 - Summary of Soil Analytical Data
Colonial Terminals, Plant #2
Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units	Cadmium mg/kg	Chromium mg/kg	Copper mg/kg	Mercury mg/kg	Nickel mg/kg	Silver mg/kg	Thallium mg/kg	Zinc mg/kg	2,4-Dinitrotoluene mg/kg
B-SB-53	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
B-SB-53 DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
C-SB-1	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
C-SB-1	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
C-SB-1	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--
C-SB-3	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--
C-SB-4	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
C-SB-4	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
C-SB-4	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--
C-SB-5	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
C-SB-5	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
C-SB-5	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--
C-SB-6	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
C-SB-6	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
C-SB-6	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--
D-SB-2	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
D-SB-8	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
E-SB-1	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
E-SB-1	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
E-SB-1	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--
E-SB-3	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--
E-SB-4	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
E-SB-4	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
E-SB-4	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--
F-SB-1	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
F-SB-1	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
F-SB-7	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
F-SB-7	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
F-SB-8	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
F-SB-8	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
F-SB-10	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
F-SB-10	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
F-SB-13	11/14/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--
F-SB-14	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
F-SB-15	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
F-SB-16	11/14/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--
F-SB-18	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
F-SB-20	11/14/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
F-SB-20	11/14/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
G-SB-1	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
G-SB-3	11/14/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--
G-SB-4	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
G-SB-5	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--

Table 3 - Summary of Soil Analytical Data

Colonial Terminals, Plant #2

Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units	Cadmium mg/kg	Chromium mg/kg	Copper mg/kg	Mercury mg/kg	Nickel mg/kg	Silver mg/kg	Thallium mg/kg	Zinc mg/kg	2,4-Dinitrotoluene mg/kg
G-SB-5	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
G-SB-6	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
G-SB-7	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
G-SB-8	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
G-SB-9	11/14/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
G-SB-10	11/14/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
H-SB-1	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
H-SB-5	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
H-SB-6	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
H-SB-7	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
I-SB-1	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
I-SB-2	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
I-SB-3	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
I-SB-3	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
I-SB-4	10/5/2006	2	4	ft bgs	--	--	--	--	--	--	--	--	--
I-SB-5	10/5/2006	2	4	ft bgs	--	--	--	--	--	--	--	--	--
I-SB-8	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
I-SB-9	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
I-SB-9	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--
I-SB-10	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--	--
I-SB-10	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--

Notes:

Sample was collected from below the water table

mg/kg -- Milligrams per kilogram (parts per million)

ft bgs -- Feet below ground surface

< Analyte was not detected at the laboratory reporting limit indicated

-- Analyte was not sampled for

**Table 4 - Summary of Groundwater Analytical Data
Colonial Terminals, Plant #2
Savannah, Georgia**

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 Colonial Terminals, Plant #2
 Savannah, Georgia

Sample ID	Analyte Units Fraction	1,1-DCE ug/l Total	cis-1,2-DCE ug/l Total	trans-1,2-DCE ug/l Total	Methylene Chloride ug/l Total	PCE ug/l Total	TCE ug/l Total	Vinyl Chloride ug/l Total	Antimony mg/l Total	Arsenic mg/l Dissolved	Arsenic mg/l Total	Barium mg/l Total	Beryllium mg/l Total	Cadmium mg/l Total	Calcium mg/l Dissolved	Calcium mg/l Total	Chromium (total) mg/l Total	Copper mg/l Total	Iron mg/l Dissolved
MW-3	8/1/1998	--	--	--	<5	--	43	--	<0.006	--	0.078	<0.5	<0.003	<0.005	--	--	<0.05	<0.05	--
MW-3	8/1/1998	--	--	--	<5	--	34	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	2/5/2005	<5	5	<5	--	100	37	<2	--	--	--	--	--	--	--	--	--	--	--
MW-3	11/1/2007	<1	1	<1	<5	180	27	<1	--	--	--	--	--	--	--	--	--	--	--
MW-3	11/4/2007	<1	<1	<1	<5	66	6.4	<1	--	--	--	--	--	--	--	--	--	--	--
MW-3	11/11/2007	<1	<1	<1	<5	30	4.3	<1	--	--	--	--	--	--	--	--	--	--	--
MW-3	8/1/2008	--	--	--	--	--	--	--	--	--	0.32	--	--	--	--	190	--	--	--
MW-3	8/13/2008	<1	1.1	<1	<5	114	13.9	<1	--	--	--	--	--	--	--	--	--	--	--
MW-3	9/1/2009	<1	2.8	<1	<5	103	23.8	<1	--	0.175	0.214	--	--	--	133	158	--	--	<0.023
MW-3	8/30/2010	0.48	17	0.45	<5	323	242	0.47	--	--	0.262	--	--	--	--	29.8	--	--	--
MW-4	8/1/1998	--	--	--	17	--	9.1	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	2/5/2005	980	<5	<5	--	87	46	<2	--	--	--	--	--	--	--	--	--	--	--
MW-6	10/1/2001	--	--	--	<10	--	180	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	9/2/2002	--	--	--	--	--	270	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	10/4/2004	16	90	58 J	<5	130	240	50 J	--	--	--	--	--	--	--	--	--	--	--
MW-6	2/5/2005	9	35	<5	--	110	140	3	--	--	--	--	--	--	--	--	--	--	--
MW-6R	8/12/2008	4.5	11.6	<1	<5	58	60.5	0.57	--	--	0.0383	--	--	--	--	9.71	--	--	--
MW-6R	9/1/2009	<1	0.77	<1	<5	2.4	2	<1	--	--	0.0068 B	--	--	--	--	34.9	--	--	--
MW-6R	8/31/2010	<1	0.5	<1	<5	2.3	1.6	<1	--	--	0.0059	--	--	--	--	23.8	--	--	--
MW-7	10/1/2001	--	--	--	<10	--	180	--	--	--	0.069	<0.01	<0.004	--	--	--	0.029	--	--
MW-7	11/1/2001	--	--	--	--	--	--	--	--	<0.01	--	--	--	--	--	--	--	--	--
MW-7	11/19/2001	<5	<5	<5	<5	<5	<5	<10	--	--	--	--	--	--	--	--	--	--	--
MW-7	9/1/2002	--	--	--	--	--	--	--	--	--	0.09	--	--	--	--	--	--	--	--
MW-7	9/2/2002	--	--	--	--	--	270	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	9/30/2003	<5	32 J	<5	<5	74 J	<530	12 J	--	--	--	--	--	--	--	--	--	--	--
MW-7	11/1/2003	--	--	--	--	--	--	<0.006	--	<0.05	0.03	<0.004	<0.005	--	--	<0.01	0.05	--	--
MW-8	10/1/2001	--	--	--	--	--	<5	--	--	<0.01	--	--	--	--	--	--	--	--	--
MW-8	11/1/2001	--	--	--	--	--	--	--	--	<0.01	--	--	--	--	--	<0.02	--	--	--
MW-8	11/19/2001	26	21	<12	<12	290	410	<25	--	--	--	--	--	--	--	--	--	--	--
MW-8	2/5/2005	6	11	<5	--	83	100	<5	--	--	--	--	--	--	--	--	--	--	--
MW-8	5/20/2008	1.7	2.3	<1	<5	22.8	25.2	0.57	--	--	<0.01	--	--	--	--	358	--	--	--
MW-8	9/1/2009	0.82	1.4	<1	<5	12.2	15.6	<1	--	--	--	--	--	--	--	--	--	--	--
MW-8	8/31/2010	0.48	0.99	<1	<5	9.3	8.4	<1	--	--	--	--	--	--	--	--	--	--	--
MW-9	10/1/2001	--	--	--	--	--	--	--	--	--	--	--	<0.005	--	--	--	<0.02	--	--
MW-9	11/1/2001	--	--	--	--	--	410	--	--	<0.01	--	--	--	--	--	--	--	--	--
MW-9	9/19/2002	--	--	--	--	--	170	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	11/1/2003	<5	<5	<5	<5	<5	<5	<5	<0.006	--	0.46	0.11	<0.004	<0.005	--	<0.01	<0.02	--	--
MW-9	2/1/2005	--	--	--	--	--	--	--	--	0.28	--	--	--	--	--	--	--	--	--
MW-9D	11/1/2001	11	<5	<5	<5	6.8	<5	<10	--	--	<0.01	0.044	0.044	--	--	--	<0.02	--	--
MW-9D	9/29/2003	1300	10000	500	180	55000	6700	350	--	--	--	--	--	--	--	--	--	--	--
MW-9D	9/30/2003	10	26 J	<5	<5	32	5.7	35 J	--	--	--	--	--	--	--	--	--	--	--
MW-9D	10/1/2003	--	--	--	--	--	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-9D	11/1/2003	--	--	--	--	--	--	<0.006	--	<0.05	0.02	<0.004	<0.005	--	<0.01	0.05	--	--	--
MW-9D	2/5/2005	10	7	<5	--	55	13	<2	--	--	--	--	--	--	--	--	--	--	--
MW-9D	10/5/2006	--	--	--	--	--	--	--	--	<0.01	--	--	--	--	--	--	--	--	--
MW-9D	8/12/2008	15.7	34	<2	9.6	211	31.7	6.6	--	--	0.0064 B	--	--	--	--	487	<0.6	--	--
MW-9D	9/1/2009	<1	27.5	9.6	<5	275	26.9	5	--	--	--	--	--	--	--	--	--	--	--
MW-9D	9/2/2009	9.6	27.5	<5	<25	275	26.9	5	--	<0.0054	--	--	0.0044 B	--	499	<0.002	--	--	--
MW-9D	9/1/2010	10.9	50.5	<5	<25	265	36.9	6.6	--	<0.002	--	--	0.0041	--	481	<0.001	--	--	--

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 Colonial Terminals, Plant #2
 Savannah, Georgia

Sample ID	Analyte Units Fraction	1,1-DCE ug/l Total	cis-1,2-DCE ug/l Total	trans-1,2-DCE ug/l Total	Methylene Chloride ug/l Total	PCE ug/l Total	TCE ug/l Total	Vinyl Chloride ug/l Total	Antimony mg/l Total	Arsenic mg/l Dissolved	Arsenic mg/l Total	Barium mg/l Total	Beryllium mg/l Total	Cadmium mg/l Total	Calcium mg/l Dissolved	Calcium mg/l Total	Chromium (total) mg/l Total	Copper mg/l Total	Iron mg/l Dissolved
MW-10	10/1/2001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.005	--	--	
MW-10	11/1/2001	--	--	--	--	--	--	--	--	--	--	<0.005	--	--	--	0.51	--	--	
MW-10	9/1/2002	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	9/29/2003	<5	<5	<5	<5	<5	<5	<5	--	--	--	--	--	--	--	--	--	--	
MW-10	10/1/2003	--	--	--	--	--	<1	--	<0.006	--	<0.05	0.05	<0.004	<0.005	--	--	<0.01	0.13	--
MW-11	11/1/2001	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.005	--	--	
MW-11	9/1/2002	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-11	9/29/2003	1300	10000	500	180	55000	6700	350	--	--	--	--	--	--	--	--	--	--	
MW-11	5/20/2008	--	--	--	--	--	--	--	--	--	<0.01	0.0375 B	--	0.0029 B	--	22.2	<0.01	--	--
MW-11	9/2/2009	--	--	--	--	--	--	--	--	<0.0054	--	--	0.0028 B	--	26.4	0.0053 B	--	--	
MW-11D	2/22/2005	<5	<5	<5	--	<5	<5	<2	--	--	--	--	--	--	--	--	--	--	
MW-11R	2/1/2005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-11R	2/22/2005	870	13000	40	--	43000	6500	650	--	--	--	--	--	--	--	--	--	--	
MW-11R	9/16/2005	690	4300	<0.14	--	20000	4200	380	--	--	--	--	--	--	--	--	--	--	
MW-11R	9/22/2005	98.3	1740	16.3	--	9980	1490	79.8	--	--	--	--	--	--	--	--	--	--	
MW-11R	10/27/2005	668	9450	109	--	20000	5930	317	--	--	--	--	--	--	--	--	--	--	
MW-11R	5/18/2007	440	7000	<200	<1000	29000	4100	<200	--	<0.01	0.041	--	<0.005	--	20	<0.01	--	--	
MW-11R	6/6/2007	340	6400	<200	--	25000	3000	<200	--	--	--	--	--	--	--	--	--	--	
MW-11R	6/19/2007	210	4800	<200	<1000	17000	1800	<200	--	--	--	--	--	--	--	--	--	--	
MW-11R	7/3/2007	<50	1900	<50	<250	4900	690	<50	--	--	--	--	--	--	--	--	--	--	
MW-11R	7/16/2007	<25	1200	51	<25	4700	750	<1.02	--	<0.01	0.036	--	<0.005	--	18	<0.01	--	--	
MW-11R	8/15/2007	<25	650	<25	<120	2800	400	<25	--	--	--	--	--	--	--	--	--	--	
MW-11R	9/2/2009	<1	4290	693	<5	17200	2420	176	--	--	--	--	--	--	--	--	--	--	
MW-11R	9/1/2010	<250	5570	<250	<1300	18200	2900	218	--	<0.002	--	--	<0.0025	--	21.8	0.0049	--	--	
MW-12	9/1/2002	--	--	--	--	--	--	--	--	<0.01	--	--	--	--	--	--	--	--	
MW-12	9/2/2002	--	--	--	--	--	6400	--	--	--	--	--	--	--	--	--	--	--	
MW-12	11/1/2003	--	--	--	--	--	--	<0.006	--	0.19	<0.01	<0.004	<0.005	--	--	<0.01	0.11	--	
MW-12	2/1/2005	--	--	--	--	--	--	--	--	0.18	--	--	--	--	--	--	--	--	
MW-12	2/1/2005	--	--	--	--	--	--	--	--	0.19	--	--	--	--	--	--	--	--	
MW-12	2/22/2005	80	92	<5	--	29000	1100	10	--	--	--	--	--	--	--	--	--	--	
MW-12	10/24/2007	54	51	<10	<50	1100	45	<1	--	--	--	--	--	--	--	--	--	--	
MW-12	11/1/2007	<50	17	<10	44	2000	35	<10	--	0.066	0.055	--	<0.005	--	260	<0.01	--	--	
MW-12	11/3/2007	<5	<5	<5	<25	510	7.8	<5	--	--	--	--	--	--	--	--	--	--	
MW-12	11/4/2007	--	--	--	--	--	--	--	0.04	0.12	--	<0.01	--	390	0.063	--	--		
MW-12	11/12/2007	<5	5.6	<5	<25	970	12	<5	--	0.075	0.034	--	<0.005	--	130	0.03	--	--	
MW-12	5/20/2008	<10	4.9	<10	<50	490	10.5	<10	--	0.0393	--	--	--	--	--	177	--	--	
MW-12D	8/11/2008	1.4	19	<0.45	3.5	123	10.8	<1	--	--	--	--	--	--	--	--	--	--	
MW-12D	9/2/2009	<5	1.8 J	<5	10.6 J	249	6	<5	--	--	--	--	--	--	--	--	--	--	
MW-12D	8/30/2010	<2	1.4	<2	4.2	142	3.8	<2	--	--	--	--	--	--	--	--	--	--	
MW-12D	8/31/2010	--	--	--	--	--	--	--	0.088	--	--	--	--	--	--	--	--	--	
MW-12R	8/31/2010	<1000	<1000	<1000	<5000	71700	1960	<1000	--	0.0881	--	--	--	--	--	26.8	--	--	
MW-13	9/1/2002	--	--	--	--	--	--	--	--	0.17	--	--	--	--	--	--	--	--	
MW-13	9/2/2002	--	--	--	--	--	170	--	--	--	--	--	--	--	--	--	--	--	
MW-13	9/29/2003	5.2	2.2	<5	<5	32	88	13 J	--	--	--	--	--	--	--	--	--	--	
MW-13	11/1/2003	--	--	--	--	--	--	<0.006	--	<0.05	<0.01	<0.004	<0.005	--	--	<0.01	0.05	--	
MW-13	2/5/2005	<5	<5	<5	--	26	56	2	--	--	--	--	--	--	--	--	--	--	
MW-14	9/1/2002	--	--	--	--	--	--	--	<0.01	--	--	--	--	--	--	--	--	--	
MW-14	9/2/2002	--	--	--	--	--	180	--	--	--	--	--	--	--	--	--	--	--	
MW-16	2/5/2005	<5	<5	<5	--	<5	<5	<2	--	--	--	--	--	--	--	--	--	--	
MW-16	5/20/2008	<1	<1	<1	<5	<1	<1	<1	--	--	--	--	--	--	--	25	--	--	
MW-16	9/2/2009	<1	<1	<1	<5	<1	<1	<1	--	0.0067 B	--	--	<0.001	--	24	<0.002	--	--	
MW-16	9/1/2010	<1	<1	<1	<5	<1	<1	<1	--	--	--	--	--	--	--	26.9	--	--	

Table 4 - Summary of Groundwater Analytical Data

Colonial Terminals, Plant #2

Savannah, Georgia

Sample ID	Analyte Units Fraction	1,1-DCE ug/l Total	cis-1,2-DCE ug/l Total	trans-1,2-DCE ug/l Total	Methylene Chloride ug/l Total	PCE ug/l Total	TCE ug/l Total	Vinyl Chloride ug/l Total	Antimony mg/l Total	Arsenic mg/l Dissolved	Arsenic mg/l Total	Barium mg/l Total	Beryllium mg/l Total	Cadmium mg/l Total	Calcium mg/l Dissolved	Calcium mg/l Total	Chromium (total) mg/l Total	Copper mg/l Total	Iron mg/l Dissolved
MW-17	2/1/2005	--	--	--	--	--	--	--	--	<0.05	--	--	--	--	--	--	--	--	--
MW-17	2/5/2005	<5	<5	<5	--	<5	<5	<2	--	--	--	--	--	--	--	--	--	--	--
MW-18	5/1/2005	23	22	<5	--	<5	7	5	--	--	<0.05	--	--	--	--	--	--	6.7	--
MW-18	6/1/2005	--	--	--	--	--	--	--	--	--	<0.05	--	--	--	--	--	--	--	--
MW-18	7/1/2005	--	--	--	--	--	--	--	--	--	<0.05	--	--	--	--	--	--	--	--
MW-18	8/1/2005	--	--	--	--	--	--	--	--	--	<0.05	--	--	--	--	--	--	--	--
MW-18	10/5/2006	--	--	--	--	--	--	--	--	--	0.01	--	--	--	--	--	--	--	--
MW-18	5/20/2008	13	29.2	<5	<25	183	28.3	3	--	--	0.0054 B	0.0225 B	--	0.003 B	--	456	<0.01	--	--
MW-18	9/2/2009	62.6	50.5	0.54 J	3.2 J	38.1	24	10.7	--	--	0.0072 B	--	--	0.0522	--	--	0.0425	--	--
MW-18	9/1/2010	58.4	72.2	<1	3.6	80.6	34.9	8.4	--	--	0.0032	--	--	0.0513	--	205	0.0417	--	--
MW-19	5/1/2005	<2	<5	<5	--	<5	<5	<2	--	--	<0.05	--	--	--	--	--	--	--	--
MW-19	6/1/2005	--	--	--	--	--	--	--	--	--	<0.05	--	--	--	--	--	--	--	--
MW-19	7/1/2005	--	--	--	--	--	--	--	--	--	<0.05	--	--	--	--	--	--	--	--
MW-19	8/1/2005	--	--	--	--	--	--	--	--	--	<0.05	--	--	--	--	--	--	--	--
MW-19	10/6/2006	--	--	--	--	--	--	--	--	--	<0.01	--	--	--	--	--	--	--	--
MW-19	5/20/2008	<1	<1	<1	<5	<1	<1	<1	--	--	<0.01	0.0105 B	--	0.0095	--	103	0.0544	--	--
MW-19	9/2/2009	<1	<1	<1	<5	<1	<1	<1	--	--	<0.0054	--	--	0.0299	--	288	0.189	--	--
MW-19	9/1/2010	<1	<1	<1	<5	<1	<1	<1	--	--	<0.01	--	--	0.0292	--	323	0.198	--	--
MW-20	10/24/2007	<1	<1	<1	<5	<1	<1	<1	--	--	--	--	--	--	--	--	--	--	--
MW-20	5/20/2008	--	--	--	--	--	--	--	--	--	<0.01	--	--	--	--	--	--	--	--
MW-20	9/1/2009	--	--	--	--	--	--	--	--	--	<0.0054	--	--	--	--	--	--	--	--
MW-20	9/2/2009	<1	<1	<1	<5	0.83 J	<1	<1	--	--	--	--	--	--	--	--	--	--	--
MW-20	8/31/2010	<1	<1	<1	<5	<1	<1	<1	--	--	<0.002	--	--	--	--	--	--	--	--
MW-21	5/21/2008	--	--	--	--	--	--	--	--	--	0.579	--	--	--	--	--	--	--	--
MW-21	9/3/2009	--	--	--	--	--	--	--	--	--	0.562	--	--	--	--	--	--	--	--
MW-21	9/1/2010	--	--	--	--	--	--	--	--	--	0.379	--	--	--	--	--	--	--	--
MW-22	5/21/2008	--	--	--	--	--	--	--	--	--	0.325	--	--	--	--	--	--	--	--
MW-22	9/3/2009	--	--	--	--	--	--	--	--	--	0.531	--	--	--	--	--	--	--	--
MW-22	9/1/2010	--	--	--	--	--	--	--	--	--	0.247	--	--	--	--	--	--	--	--
MW-23	5/21/2008	--	--	--	--	--	--	--	--	--	0.0613	--	--	--	--	--	--	--	--
MW-23	9/3/2009	--	--	--	--	--	--	--	--	--	0.106	--	--	--	--	--	--	--	--
MW-24	5/20/2008	76.8	35.7	<1	2.6	31.7	14.1	9.4	--	--	--	--	--	--	--	--	--	--	--
MW-24	5/21/2008	--	--	--	--	--	--	--	--	--	0.0042 B	0.0096 B	--	0.0227	--	--	0.0032 B	--	--
MW-24	9/3/2009	43.8	42	<1	1.1 J	97.9	28.5	7	--	--	<0.0054	--	--	--	--	--	--	--	--
MW-24	9/1/2010	39.7	53.4	<1	<5	85.2	27.4	11.5	--	--	<0.002	--	--	--	--	--	--	--	--
MW-25	5/21/2008	2190	194	<200	<1000	13300	3070	<200	--	--	0.0073 B	0.138 B	--	0.0076	--	134	0.0012 B	--	--
MW-25	9/3/2009	803	93.9 J	<200	<1000	18800	7970	<200	--	--	<0.0054	--	--	--	--	76.2	--	--	--
MW-25	9/2/2010	2810	193	<100	<500	12400	946	<100	--	220	0.26	--	--	--	--	282	307	--	0.0922
MW-26	5/20/2008	509	175	<100	111	9110	3880	<100	--	--	<0.01	0.0162 B	--	0.0043 B	--	478	--	--	--
MW-26	9/2/2009	264	<1	<1	<5	9.6	5.7	<1	--	--	<0.0054	--	--	--	--	20.3	--	--	--
MW-26	9/2/2010	773	77.4	<5	12.8	14600	4340	8	--	--	<0.002	--	--	--	--	70.4	--	--	--
MW-27	5/20/2008	--	--	--	--	--	--	--	--	--	2.5	--	--	--	--	--	--	--	--
MW-27	9/3/2009	--	--	--	--	--	--	--	--	--	5.95	--	--	--	--	--	--	--	--
MW-27	9/1/2010	--	--	--	--	--	--	--	--	--	4.81	--	--	--	--	--	--	--	--
MW-28	5/21/2008	--	--	--	--	--	--	--	--	--	0.0521	--	--	--	--	--	--	--	--
MW-28	9/3/2009	--	--	--	--	--	--	--	--	--	0.106	--	--	--	--	--	--	--	--
MW-28	9/1/2010	--	--	--	--	--	--	--	--	--	0.197	--	--	--	--	--	--	--	--
MW-29	8/12/2008	2	8.9	<1	3.5	10.6	4.8	<1	--	--	<0.01	--	--	<0.005	--	227	<0.01	--	--
MW-29	9/2/2009	0.65 J	19	1.9	<5	33.1	11.4	<1	--	--	<0.0054	--	--	<0.001	--	--	0.0029 B	--	--
MW-29	9/1/2010	<1	3.1	<1	<5	6.8	2.1	<1	--	--	0.0025	--	--	<0.001	--	--	0.0014	--	--
MW-30	8/12/2008	264	6930	<100	294	8330	3110	676	--	--	--</								

**Table 4 - Summary of Groundwater Analytical Data
Colonial Terminals, Plant #2
Savannah, Georgia**

Table 4 - Summary of Groundwater Analytical Data

Colonial Terminals, Plant #2

Savannah, Georgia

Sample ID	Analyte Units Fraction	1,1-DCE ug/l Total	cis-1,2-DCE ug/l Total	trans-1,2-DCE ug/l Total	Methylene Chloride ug/l Total	PCE ug/l Total	TCE ug/l Total	Vinyl Chloride ug/l Total	Antimony mg/l Total	Arsenic mg/l Dissolved	Arsenic mg/l Total	Barium mg/l Total	Beryllium mg/l Total	Cadmium mg/l Total	Calcium mg/l Dissolved	Calcium mg/l Total	Chromium (total) mg/l Total	Copper mg/l Total	Iron mg/l Dissolved
TW-21	3/23/2006	16	210	<10	<50	830	860	<10	--	--	--	--	--	--	--	--	--	--	--
TW-22	3/23/2006	36	200	<10	<50	940	1100	14	--	--	--	--	--	--	--	--	--	--	--
TW-23	3/23/2006	<100	6200	<100	<500	8000	8100	1100	--	--	--	--	--	--	--	--	--	--	--
TW-24	3/23/2006	18	1200	<10	<50	1200	9000	35	--	--	--	--	--	--	--	--	--	--	--
TW-25	5/26/2006	<50	250	<50	<250	23000	210	<50	--	--	--	--	--	--	--	--	--	--	--
TW-25	8/15/2007	<200	<200	<200	<1	31000	370	<200	--	--	--	--	--	--	--	--	--	--	--
TW-25	5/20/2008	--	--	--	--	--	--	--	--	--	--	--	--	--	--	62.6	--	--	--
TW-25	5/21/2008	<500	301	<500	<2500	27100	350	<500	--	--	--	--	--	--	--	--	--	--	--
TW-25	9/1/2009	<100	279	<100	<500	17200	361	<100	--	--	<0.0054	--	--	<0.001	--	--	0.0045 B	--	--
TW-25	8/31/2010	<100	161	<100	<500	8840	212	<100	--	--	--	--	--	--	--	59.4	--	--	--
TW-26	5/26/2006	7.8	13	<1	<5	<5	<5	<1	--	--	--	--	--	--	--	--	--	--	--
TW-27	5/26/2006	<1	<1	<1	<5	6.9	<1	<1	--	--	--	--	--	--	--	--	--	--	--
TW-27	8/15/2007	<1	<1	<1	<5	2.9	<1	<1	--	--	--	--	--	--	--	--	--	--	--
TW-27	5/20/2008	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.6	--	--	--
TW-27	5/21/2008	<1	<1	<1	<5	3.6	<1	<1	--	--	--	--	--	--	--	--	--	--	--
TW-27	9/1/2009	<1	0.89 J	<1	<5	35.1	2	<1	--	--	--	--	--	--	--	--	--	--	--
TW-27	8/31/2010	<1	<1	<1	<5	2.6	<1	<1	--	--	--	--	--	--	--	--	--	--	--
TW-28	5/26/2006	3	6.8	<1	<5	9.7	3.6	1.2	--	--	--	--	--	--	--	--	--	--	--
TW-29	4/25/2007	96	6100	<250	<250	4000	2800	410	--	--	--	--	--	--	--	--	--	--	--
TW-29	5/20/2008	--	--	--	--	--	--	--	--	--	--	--	--	--	--	387	--	--	--
TW-29	5/21/2008	47.4	4360	<50	<250	990	1490	269	--	--	--	--	--	--	--	--	--	--	--
TW-29	9/1/2009	--	--	--	--	--	--	--	--	--	<0.0054	--	--	--	--	43.5	--	--	--
TW-29	9/28/2009	131	6650	25.8	31.3	52300	9190	461	--	--	--	--	--	--	--	--	--	--	--
TW-29	8/31/2010	166	3610	<500	<2500	40200	8160	616	--	--	--	--	--	--	--	39.1	39.7	--	23.1
TW-30	4/25/2007	<1	2.1	<1	<5	6.4	5	<1	--	--	--	--	--	--	--	--	--	--	--
TW-30	8/16/2007	<1	<1	<1	<5	1.4	1.7	<1	--	--	--	--	--	--	--	--	--	--	--
TW-31	4/25/2007	<1	64	<1	<5	6.5	7.4	25	--	--	--	--	--	--	--	--	--	--	--
TW-32	4/25/2007	<20	74	<20	<1	2300	51	<20	--	--	--	--	--	--	--	--	--	--	--

Notes:

ug/L Micrograms per liter

mg/L Milligrams per liter

< Analyte was not detected at the laboratory detection limit indicated

-- Analyte was not sampled for

B - Analyte was detected in the method blank

J - Estimated concentration

Table 4 - Summary of Groundwater Analytical Data
 Colonial Terminals, Plant #2
 Savannah, Georgia

Sample ID	Analyte Units Fraction	Iron mg/l Total	Lead mg/l Dissolved	Lead mg/l Total	Mercury mg/l Total	Nickel mg/l Total	Selenium mg/l Total	Silver mg/l Total	Thallium mg/l Total	Zinc mg/l Total	pH s.u. Total	Sulfate mg/l Total	TDS mg/l Total
GP-01-05 / TW-01	8/17/2005	--	--	--	--	--	--	--	--	--	--	--	--
GP-01-05 / TW-01	9/22/2005	--	--	--	--	--	--	--	--	--	--	--	--
GP-01-05 / TW-01	10/27/2005	--	--	--	--	--	--	--	--	--	--	--	--
GP-01-05 / TW-01	5/18/2007	--	--	<0.005	--	--	<0.01	<0.01	--	--	--	98	380
GP-01-05 / TW-01	6/19/2007	--	--	--	--	--	--	--	--	--	--	--	--
GP-01-05 / TW-01	7/16/2007	--	--	<0.005	--	--	<0.01	<0.01	--	--	--	100	310
GP-01-05 / TW-01	8/15/2007	--	--	--	--	--	--	--	--	--	--	--	--
GP-02-05 / TW-02	8/17/2005	--	--	--	--	--	--	--	--	--	--	--	--
GP-02-05 / TW-02	9/22/2005	--	--	--	--	--	--	--	--	--	--	--	--
GP-02-05 / TW-02	10/27/2005	--	--	--	--	--	--	--	--	--	--	--	--
GP-02-05 / TW-02	5/18/2007	--	--	--	--	--	--	--	--	--	--	--	--
GP-02-05 / TW-02	6/19/2007	--	--	--	--	--	--	--	--	--	--	--	--
GP-02-05 / TW-02	7/16/2007	--	--	--	--	--	--	--	--	--	--	--	--
GP-02-05 / TW-02	8/15/2007	--	--	--	--	--	--	--	--	--	--	--	--
GP-03-05 / TW-03	8/17/2005	--	--	--	--	--	--	--	--	--	--	--	--
GP-03-05 / TW-03	9/22/2005	--	--	--	--	--	--	--	--	--	--	--	--
GP-03-05 / TW-03	10/27/2005	--	--	--	--	--	--	--	--	--	--	--	--
GP-03-05 / TW-03	5/18/2007	--	--	4.9	--	--	<0.01	<0.01	--	--	--	380	1200
GP-03-05 / TW-03	6/19/2007	--	--	--	--	--	--	--	--	--	--	--	--
GP-03-05 / TW-03	7/16/2007	--	--	<0.005	--	--	<0.01	<0.01	--	--	--	220	340
GP-03-05 / TW-03	8/15/2007	--	--	--	--	--	--	--	--	--	--	--	--
GP-04-05 / TW-04	8/17/2005	--	--	--	--	--	--	--	--	--	--	--	--
GP-04-05 / TW-04	9/22/2005	--	--	--	--	--	--	--	--	--	--	--	--
GP-04-05 / TW-04	10/27/2005	--	--	--	--	--	--	--	--	--	--	--	--
GP-04-05 / TW-04	5/18/2007	--	--	<0.005	--	--	<0.01	<0.01	--	--	--	97	260
GP-04-05 / TW-04	6/19/2007	--	--	--	--	--	--	--	--	--	--	--	--
GP-04-05 / TW-04	7/16/2007	--	--	<0.005	--	--	<0.01	<0.01	--	--	--	97	220
GP-04-05 / TW-04	8/15/2007	--	--	--	--	--	--	--	--	--	--	--	--
GP-05-05	8/18/2005	--	--	--	--	--	--	--	--	--	--	--	--
GP-06-05	8/18/2005	--	--	--	--	--	--	--	--	--	--	--	--
GW-1	8/30/2001	--	--	0.0269	<0.0005	0.104	--	<0.01	<0.02	5.38	--	--	--
MW-1	8/1/1998	--	--	<0.01	<0.002	<0.01	--	<0.05	--	<1	--	--	--
MW-1	9/1/2002	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	9/2/2002	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	11/1/2003	--	--	<0.015	<0.005	<0.02	--	<0.01	<0.02	0.01	--	--	--
MW-1	2/5/2005	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	11/1/2007	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	11/4/2007	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	11/12/2007	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	8/13/2008	--	--	<0.005	--	--	--	--	--	--	--	--	--
MW-1	9/1/2009	8.85	--	<0.002	--	--	--	--	--	6	17.2	--	--
MW-1	8/30/2010	5.17	--	<0.001	--	--	--	--	--	6.37	5.4	--	--
MW-2	8/1/1998	--	--	<0.01	<0.002	<0.01	--	<0.05	--	<1	--	--	--
MW-2	9/1/2002	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	9/2/2002	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	11/1/2003	--	--	<0.015	<0.005	<0.02	--	<0.01	<0.02	0.59	--	--	--
MW-2	2/5/2005	--	--	--	--	--	--	--	--	--	--	--	--

Table 4 - Summary of Groundwater Analytical Data
 Colonial Terminals, Plant #2
 Savannah, Georgia

Sample ID	Analyte Units Fraction	Iron mg/l Total	Lead mg/l Dissolved	Lead mg/l Total	Mercury mg/l Total	Nickel mg/l Total	Selenium mg/l Total	Silver mg/l Total	Thallium mg/l Total	Zinc mg/l Total	pH s.u. Total	Sulfate mg/l Total	TDS mg/l Total
MW-3	8/1/1998	--	--	<0.01	<0.002	<0.018	--	<0.05	--	<1	--	--	--
MW-3	8/1/1998	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	2/5/2005	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	11/1/2007	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	11/4/2007	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	11/11/2007	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	8/1/2008	<0.3	--	0.0021 B	--	--	--	--	--	--	5.1	--	--
MW-3	8/13/2008	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	9/1/2009	0.167 B	<0.002	<0.002	--	--	--	--	--	--	5.8	1730	--
MW-3	8/30/2010	0.195	--	0.002	--	--	--	--	--	--	5.91	336	--
MW-4	8/1/1998	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	2/5/2005	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	10/1/2001	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	9/2/2002	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	10/4/2004	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	2/5/2005	--	--	--	--	--	--	--	--	--	--	--	--
MW-6R	8/12/2008	<0.3	--	<0.005	--	--	--	--	--	--	5.5	--	--
MW-6R	9/1/2009	0.0276 B	--	<0.002	--	--	--	--	--	--	5.4	1070	--
MW-6R	8/31/2010	0.139	--	<0.001	--	--	--	--	--	--	5.08	1120	--
MW-7	10/1/2001	--	--	<0.005	--	--	--	--	--	0.17	--	--	--
MW-7	11/1/2001	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	11/19/2001	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	9/1/2002	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	9/2/2002	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	9/30/2003	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	11/1/2003	--	--	<0.015	<0.005	<0.02	--	<0.01	<0.02	<0.01	--	--	--
MW-8	10/1/2001	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	11/1/2001	--	--	--	--	--	--	--	--	--	0.26	--	--
MW-8	11/19/2001	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	2/5/2005	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	5/20/2008	6.49	--	B	--	--	--	--	--	--	5.2	241	--
MW-8	9/1/2009	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	8/31/2010	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	10/1/2001	--	--	<0.005	--	--	--	--	--	--	0.061	--	--
MW-9	11/1/2001	--	--	<0.02	--	--	--	--	--	--	0.26	--	--
MW-9	9/19/2002	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	11/1/2003	--	--	<0.015	<0.005	<0.02	--	<0.01	<0.2	--	--	--	--
MW-9	2/1/2005	--	--	--	--	--	--	--	--	--	--	--	--
MW-9D	11/1/2001	--	--	<0.005	--	<0.04	--	--	--	0.4	--	--	--
MW-9D	9/29/2003	--	--	--	--	--	--	--	--	--	--	--	--
MW-9D	9/30/2003	--	--	--	--	--	--	--	--	--	--	--	--
MW-9D	10/1/2003	--	--	--	--	--	--	--	--	--	--	--	--
MW-9D	11/1/2003	--	--	<0.015	<0.005	<0.02	--	<0.01	<0.02	0.39	--	--	--
MW-9D	2/5/2005	--	--	--	--	--	--	--	--	--	--	--	--
MW-9D	10/5/2006	--	--	<0.015	--	--	--	--	--	--	--	--	--
MW-9D	8/12/2008	--	--	0.005	--	--	--	--	--	--	5.9	--	--
MW-9D	9/1/2009	--	--	--	--	--	--	--	--	--	--	--	--
MW-9D	9/2/2009	<0.023	--	<0.002	--	--	<0.0034	--	--	--	6	784	3010
MW-9D	9/1/2010	<0.035	--	<0.001	--	--	<0.002	--	--	--	6.51	933	2560

Table 4 - Summary of Groundwater Analytical Data
 Colonial Terminals, Plant #2
 Savannah, Georgia

Sample ID	Analyte Units Fraction	Iron mg/l Total	Lead mg/l Dissolved	Lead mg/l Total	Mercury mg/l Total	Nickel mg/l Total	Selenium mg/l Total	Silver mg/l Total	Thallium mg/l Total	Zinc mg/l Total	pH s.u. Total	Sulfate mg/l Total	TDS mg/l Total
MW-10	10/1/2001	--	--	<0.005	<0.005	--	--	--	--	0.066	--	--	--
MW-10	11/1/2001	--	--	<0.005	--	--	--	--	--	1.9	--	--	--
MW-10	9/1/2002	--	--	--	--	--	--	--	--	0.4	--	--	--
MW-10	9/29/2003	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	10/1/2003	--	--	<0.015	<0.005	<0.02	--	<0.01	<0.02	0.48	--	--	--
MW-11	11/1/2001	--	--	<0.005	<0.005	--	--	--	--	1.9	--	--	--
MW-11	9/1/2002	--	--	--	--	--	--	--	--	1.7	--	--	--
MW-11	9/29/2003	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	5/20/2008	<0.3	--	<0.005	--	--	<0.01	--	--	--	4.3	89.7	323
MW-11	9/2/2009	<0.023	--	<0.002	--	--	0.0042 B	--	--	--	5.3	213	1150
MW-11D	2/22/2005	--	--	--	--	--	--	--	--	--	--	--	--
MW-11R	2/1/2005	--	--	<0.015	--	--	--	--	--	--	--	--	--
MW-11R	2/22/2005	--	--	--	--	--	--	--	--	--	--	--	--
MW-11R	9/16/2005	--	--	--	--	--	--	--	--	--	--	--	--
MW-11R	9/22/2005	--	--	--	--	--	--	--	--	--	--	--	--
MW-11R	10/27/2005	--	--	--	--	--	--	--	--	--	--	--	--
MW-11R	5/18/2007	--	--	<0.005	--	--	<0.01	<0.01	--	--	--	68	320
MW-11R	6/6/2007	--	--	--	--	--	--	--	--	--	--	--	--
MW-11R	6/19/2007	--	--	--	--	--	--	--	--	--	--	--	--
MW-11R	7/3/2007	--	--	--	--	--	--	--	--	--	--	--	--
MW-11R	7/16/2007	--	--	0.0078	--	--	<0.01	<0.01	--	--	--	82	250
MW-11R	8/15/2007	--	--	--	--	--	--	--	--	--	--	--	--
MW-11R	9/2/2009	--	--	--	--	--	--	--	--	--	--	--	--
MW-11R	9/1/2010	<0.035	--	<0.001	--	--	<0.002	--	--	--	5.32	--	1050
MW-12	9/1/2002	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	9/2/2002	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	11/1/2003	--	--	<0.015	<0.005	<0.02	--	<0.01	<0.02	0.23	--	--	--
MW-12	2/1/2005	--	--	--	--	--	--	--	--	<0.18	--	--	--
MW-12	2/1/2005	--	--	<0.15	--	--	--	--	--	--	--	--	--
MW-12	2/22/2005	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	10/24/2007	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	11/1/2007	1.6	--	<0.005	--	--	<0.01	--	--	--	--	240	1000
MW-12	11/3/2007	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	11/4/2007	1.3	--	0.011	--	--	<0.04	--	--	--	--	1000	130000
MW-12	11/12/2007	<0.05	--	<0.005	--	--	<0.01	--	--	--	--	740	12000
MW-12	5/20/2008	<0.3	--	0.0025 B	--	--	--	--	--	--	5.8	1030	--
MW-12D	8/11/2008	--	--	--	--	--	--	--	--	--	--	--	--
MW-12D	9/2/2009	--	--	--	--	--	--	--	--	--	--	--	--
MW-12D	8/30/2010	--	--	--	--	--	--	--	--	--	--	--	--
MW-12D	8/31/2010	--	--	--	--	--	--	--	--	--	--	--	--
MW-12R	8/31/2010	<0.035	--	<0.001	--	--	--	--	--	--	5.61	--	--
MW-13	9/1/2002	--	--	<0.005	--	--	--	--	--	--	--	--	--
MW-13	9/2/2002	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	9/29/2003	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	11/1/2003	--	--	<0.15	<0.005	<0.02	--	<0.01	<0.02	<0.01	--	--	--
MW-13	2/5/2005	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	9/1/2002	--	--	--	<0.005	--	--	--	--	--	--	--	--
MW-14	9/2/2002	--	--	--	--	--	--	--	--	--	--	--	--
MW-16	2/5/2005	--	--	--	--	--	--	--	--	--	--	--	--
MW-16	5/20/2008	22.4	--	--	--	--	--	--	--	--	5.9	31.2	--
MW-16	9/2/2009	22.3	--	<0.002	--	--	0.0041 B	--	--	--	5.9	17.2	234
MW-16	9/1/2010	23.1	--	--	--	--	--	--	--	--	6.36	18.9	--

Table 4 - Summary of Groundwater Analytical Data
 Colonial Terminals, Plant #2
 Savannah, Georgia

Sample ID	Analyte Units Fraction	Iron mg/l Total	Lead mg/l Dissolved	Lead mg/l Total	Mercury mg/l Total	Nickel mg/l Total	Selenium mg/l Total	Silver mg/l Total	Thallium mg/l Total	Zinc mg/l Total	pH s.u. Total	Sulfate mg/l Total	TDS mg/l Total
MW-17	2/1/2005	--	--	--	--	--	--	--	--	--	--	--	--
MW-17	2/5/2005	--	--	--	--	--	--	--	--	--	--	--	--
MW-18	5/1/2005	--	--	<0.015	--	--	--	--	--	12	--	--	--
MW-18	6/1/2005	--	--	<0.015	--	--	--	--	--	--	--	--	--
MW-18	7/1/2005	--	--	<0.015	--	--	--	--	--	--	--	--	--
MW-18	8/1/2005	--	--	<0.015	--	--	--	--	--	--	--	--	--
MW-18	10/5/2006	--	--	<0.015	--	--	--	--	--	--	--	--	--
MW-18	5/20/2008	<300	--	0.0047 B	--	--	<0.01	--	--	--	5.9	1100	2320
MW-18	9/2/2009	--	--	<0.002	--	--	<0.0034	--	--	--	3.3	4080	5430
MW-18	9/1/2010	20.7	--	<0.01	--	--	<0.002	--	--	--	3.16	3670	4320
MW-19	5/1/2005	--	--	<0.015	--	--	--	--	--	--	--	--	--
MW-19	6/1/2005	--	--	<0.015	--	--	--	--	--	--	--	--	--
MW-19	7/1/2005	--	--	<0.015	--	--	--	--	--	--	--	--	--
MW-19	8/1/2005	--	--	<0.015	--	--	--	--	--	--	--	--	--
MW-19	10/6/2006	--	--	<0.015	--	--	--	--	--	--	--	--	--
MW-19	5/20/2008	972	--	<0.005	--	--	0.0071 B	--	--	--	3.2	2330	4820
MW-19	9/2/2009	133	--	<0.002	--	--	0.009 B	--	--	--	10.5	8060	7640
MW-19	9/1/2010	134	--	<0.001	--	--	<0.01	--	--	--	2.78	6080	7820
MW-20	10/24/2007	--	--	--	--	--	--	--	--	--	--	--	--
MW-20	5/20/2008	--	--	<0.0021	--	--	--	--	--	--	--	--	--
MW-20	9/1/2009	--	--	<0.002	--	--	--	--	--	--	--	--	--
MW-20	9/2/2009	--	--	--	--	--	--	--	--	--	--	--	--
MW-20	8/31/2010	--	--	<0.001	--	--	--	--	--	--	--	--	--
MW-21	5/21/2008	--	--	<0.05	--	--	--	--	--	--	--	--	--
MW-21	9/3/2009	--	--	<0.002	--	--	--	--	--	--	--	--	--
MW-21	9/1/2010	--	--	0.0077	--	--	--	--	--	--	--	--	--
MW-22	5/21/2008	--	--	0.116	--	--	--	--	--	--	--	--	--
MW-22	9/3/2009	--	--	<0.002	--	--	--	--	--	--	--	--	--
MW-22	9/1/2010	--	--	0.0249	--	--	--	--	--	--	--	--	--
MW-23	5/21/2008	--	--	0.0532	--	--	--	--	--	--	--	--	--
MW-23	9/3/2009	--	--	<0.002	--	--	--	--	--	--	--	--	--
MW-24	5/20/2008	--	--	--	--	--	--	--	--	--	--	--	--
MW-24	5/21/2008	--	--	0.0023 B	--	--	<0.01	--	--	--	--	--	3180
MW-24	9/3/2009	--	--	<0.002	--	--	--	--	--	--	--	--	--
MW-24	9/1/2010	--	--	<0.001	--	--	--	--	--	--	--	--	--
MW-25	5/21/2008	0.493	--	0.0058	--	--	<0.01	--	--	--	5.1	756	1570
MW-25	9/3/2009	0.125 B	--	<0.002	--	--	--	--	--	--	3.9	1050	--
MW-25	9/2/2010	2	0.937	1.36	--	--	--	--	--	--	7.05	1030	--
MW-26	5/20/2008	--	--	0.0033 B	--	--	<0.01	--	--	--	4.3	--	1690
MW-26	9/2/2009	0.152 B	--	<0.002	--	--	--	--	--	--	5.2	207	--
MW-26	9/2/2010	0.1	--	<0.001	--	--	--	--	--	--	3.89	1240	--
MW-27	5/20/2008	--	--	0.0085	--	--	--	--	--	--	--	--	--
MW-27	9/3/2009	--	--	0.0184	--	--	--	--	--	--	--	--	--
MW-27	9/1/2010	--	--	0.0151	--	--	--	--	--	--	--	--	--
MW-28	5/21/2008	--	--	0.0031 B	--	--	--	--	--	--	--	--	--
MW-28	9/3/2009	--	--	<0.002	--	--	--	--	--	--	--	--	--
MW-28	9/1/2010	--	--	0.0233	--	--	--	--	--	--	--	--	--
MW-29	8/12/2008	<0.3	--	<0.005	--	--	<0.01	--	--	--	5.5	76.2	320
MW-29	9/2/2009	--	--	<0.002	--	--	<0.002	--	--	--	--	149	718
MW-29	9/1/2010	--	--	<0.001	--	--	<0.002	--	--	--	--	97.6	588
MW-30	8/12/2008	0.407	--	--	--	--	--	--	--	--	5.1	--	--
MW-30	9/3/2009	0.18 B	--	--	--	--	--	--	--	--	5.4	79.4	--
MW-30	8/31/2010	<0.035	--	--	--	--	--	--	--	--	5.5	44.3	--

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 Colonial Terminals, Plant #2
 Savannah, Georgia

Sample ID	Analyte Units Fraction	Iron mg/l Total	Lead mg/l Dissolved	Lead mg/l Total	Mercury mg/l Total	Nickel mg/l Total	Selenium mg/l Total	Silver mg/l Total	Thallium mg/l Total	Zinc mg/l Total	pH s.u. Total	Sulfate mg/l Total	TDS mg/l Total
MW-31	8/11/2008	--	--	--	--	--	--	--	--	--	--	--	--
MW-31	9/2/2009	--	--	--	--	--	--	--	--	--	--	--	--
MW-31	8/31/2010	--	--	--	--	--	--	--	--	--	--	--	--
MW-32	8/12/2008	--	--	--	--	--	--	--	--	--	--	--	--
MW-32	8/13/2008	231	--	--	--	--	--	--	--	--	4	--	--
MW-32	9/3/2009	37.9	--	--	--	--	--	--	--	--	3.9	539	--
MW-32	9/1/2010	41.5	--	--	--	--	--	--	--	--	3.81	654	--
MW-33	8/11/2008	--	--	--	--	--	--	--	--	--	--	--	--
MW-33	8/12/2008	--	--	--	--	--	--	--	--	--	--	--	--
MW-33	9/2/2009	--	--	--	--	--	--	--	--	--	--	--	--
MW-33	8/31/2010	--	--	--	--	--	--	--	--	--	--	--	--
MW-34	8/11/2008	0.589	--	<0.005	--	--	--	--	--	--	5.6	--	--
MW-34	8/31/2010	--	--	0.0021	--	--	--	--	--	--	--	--	--
MW-35	8/11/2008	--	--	--	--	--	--	--	--	--	--	--	--
MW-35	9/1/2009	--	--	--	--	--	--	--	--	--	--	--	--
MW-35	8/31/2010	--	--	--	--	--	--	--	--	--	--	--	--
MW-36D	8/11/2008	--	--	--	--	--	--	--	--	--	--	--	--
MW-36D	9/1/2009	--	--	--	--	--	--	--	--	--	--	--	--
MW-36D	8/31/2010	--	--	--	--	--	--	--	--	--	--	--	--
PT-W1	11/12/2007	1.4	--	<0.005	--	--	<0.01	--	--	--	--	1200	19000
PT-W2	11/12/2007	1.2	--	<0.005	--	--	<0.01	--	--	--	--	440	1300
PT-W3	11/12/2007	--	--	--	--	--	--	--	--	--	--	520	--
PT-W4	11/12/2007	--	--	--	--	--	--	--	--	--	--	630	--
TW-5	12/15/2005	--	--	--	--	--	--	--	--	--	--	--	--
TW-6	12/15/2005	--	--	--	--	--	--	--	--	--	--	--	--
TW-6	3/7/2006	--	--	--	--	--	--	--	--	--	--	--	--
TW-7	12/15/2005	--	--	--	--	--	--	--	--	--	--	--	--
TW-7	3/7/2006	--	--	--	--	--	--	--	--	--	--	--	--
TW-7	3/20/2006	--	--	--	--	--	--	--	--	--	--	--	--
TW-8	12/15/2005	--	--	--	--	--	--	--	--	--	--	--	--
TW-8	3/7/2006	--	--	--	--	--	--	--	--	--	--	--	--
TW-9	12/15/2005	--	--	--	--	--	--	--	--	--	--	--	--
TW-9	8/11/2008	--	--	0.0035 B	--	--	0.0068 B	--	--	--	--	0.691	1.4
TW-9	9/1/2009	--	--	0.0054	--	--	0.0103 B	--	--	--	--	1360	3200
TW-9	9/2/2009	--	--	--	--	--	--	--	--	--	--	--	--
TW-9	8/30/2010	--	--	0.0057	--	--	0.0042	--	--	--	--	1600	3260
TW-10	12/15/2005	--	--	--	--	--	--	--	--	--	--	--	--
TW-11	12/15/2005	--	--	--	--	--	--	--	--	--	--	--	--
TW-12	3/20/2006	--	--	--	--	--	--	--	--	--	--	--	--
TW-12	8/12/2008	--	--	--	--	--	--	--	--	--	--	--	--
TW-12	9/2/2009	--	--	--	--	--	--	--	--	--	--	--	--
TW-12	9/1/2010	--	--	--	--	--	--	--	--	--	--	--	--
TW-13	3/20/2006	--	--	--	--	--	--	--	--	--	--	--	--
TW-13	8/12/2008	--	--	--	--	--	--	--	--	--	--	--	--
TW-13	9/2/2009	--	--	--	--	--	--	--	--	--	--	--	--
TW-13	8/31/2010	--	--	--	--	--	--	--	--	--	--	--	--
TW-14	3/21/2006	--	--	--	--	--	--	--	--	--	--	--	--
TW-15	3/21/2006	--	--	--	--	--	--	--	--	--	--	--	--
TW-16	3/21/2006	--	--	--	--	--	--	--	--	--	--	--	--
TW-17	3/21/2006	--	--	--	--	--	--	--	--	--	--	--	--
TW-18	3/21/2006	--	--	--	--	--	--	--	--	--	--	--	--
TW-19	3/22/2006	--	--	--	--	--	--	--	--	--	--	--	--
TW-20	3/22/2006	--	--	--	--	--	--	--	--	--	--	--	--

Table 4 - Summary of Groundwater Analytical Data
 Colonial Terminals, Plant #2
 Savannah, Georgia

Sample ID	Analyte Units Fraction	Iron mg/l Total	Lead mg/l Dissolved	Lead mg/l Total	Mercury mg/l Total	Nickel mg/l Total	Selenium mg/l Total	Silver mg/l Total	Thallium mg/l Total	Zinc mg/l Total	pH s.u. Total	Sulfate mg/l Total	TDS mg/l Total
TW-21	3/23/2006	--	--	--	--	--	--	--	--	--	--	--	--
TW-22	3/23/2006	--	--	--	--	--	--	--	--	--	--	--	--
TW-23	3/23/2006	--	--	--	--	--	--	--	--	--	--	--	--
TW-24	3/23/2006	--	--	--	--	--	--	--	--	--	--	--	--
TW-25	5/26/2006	--	--	--	--	--	--	--	--	--	--	--	--
TW-25	8/15/2007	--	--	--	--	--	--	--	--	--	--	--	--
TW-25	5/20/2008	<300	--	--	--	--	--	--	--	--	5.8	152	--
TW-25	5/21/2008	--	--	--	--	--	--	--	--	--	--	--	--
TW-25	9/1/2009	--	--	<0.002	--	--	0.0045 B	<0.01	--	--	4	152	404
TW-25	8/31/2010	0.205	--	--	--	--	--	--	--	--	5.8	153	--
TW-26	5/26/2006	--	--	--	--	--	--	--	--	--	--	--	--
TW-27	5/26/2006	--	--	--	--	--	--	--	--	--	--	--	--
TW-27	8/15/2007	--	--	--	--	--	--	--	--	--	--	--	--
TW-27	5/20/2008	0.0218 B	--	--	--	--	--	--	--	--	4.3	50.1	--
TW-27	5/21/2008	--	--	--	--	--	--	--	--	--	--	--	--
TW-27	9/1/2009	--	--	--	--	--	--	--	--	--	--	--	--
TW-27	8/31/2010	--	--	--	--	--	--	--	--	--	--	--	--
TW-28	5/26/2006	--	--	--	--	--	--	--	--	--	--	--	--
TW-29	4/25/2007	--	--	--	--	--	--	--	--	--	--	--	--
TW-29	5/20/2008	23	--	--	--	--	--	--	--	--	5.4	88.2	--
TW-29	5/21/2008	--	--	--	--	--	--	--	--	--	--	--	--
TW-29	9/1/2009	2.8	--	<0.002	--	--	--	--	--	--	5.4	85.9	--
TW-29	9/28/2009	--	--	--	--	--	--	--	--	--	--	--	--
TW-29	8/31/2010	84	--	--	--	--	--	--	--	--	5.65	129	--
TW-30	4/25/2007	--	--	--	--	--	--	--	--	--	--	--	--
TW-30	8/16/2007	--	--	--	--	--	--	--	--	--	--	--	--
TW-31	4/25/2007	--	--	--	--	--	--	--	--	--	--	--	--
TW-32	4/25/2007	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

ug/L Micrograms per liter

mg/L Milligrams per liter

< Analyte was not detected at the laboratory detection limit indicated

-- Analyte was not sampled for

B - Analyte was detected in the method blank

J - Estimated concentration

Table 5 - Summary of Surface Water Analytical Data
Colonial Terminals, Plant #2
Savannah, Georgia

Sample ID	Date Sampled	1,1-DCE	cis 1,2-DCE	trans 1,2-DCE	Methylene Chloride	PCE	TCE	Vinyl Chloride	Arsenic	Chromium	Lead
	<i>Georgia ISWQS¹:</i>	7,100	--	--	590	3.3	30	2.4	36	50	8.1
SW-1	4/25/2007	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	--	--	--
	8/16/2007	< 1.0	< 1.0	< 1.0	< 5.0	6.4	< 1.0	< 1.0	--	--	--
	10/24/2007	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	--	--	--
	9/17/2010	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0
SW-2	4/25/2007	< 1.0	1.2	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	--	--	--
	8/16/2007	< 1.0	< 1.0	< 1.0	< 5.0	8.5	1.4	< 1.0	--	--	--
	10/24/2007	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	--	--	--
	9/17/2010	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0
SW-3	4/25/2007	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	--	--	--
	8/16/2007	< 1.0	< 1.0	< 1.0	< 5.0	2.0	< 1.0	< 1.0	--	--	--
	10/24/2007	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	--	--	--
	9/17/2010	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0

Notes

(1) Georgia In-Stream Water Quality Standards (Georgia EPD, 2011)

Analytical results are in micrograms per liter (ug/L)

Concentrations in bold denote an exceedence of the Georgia ISWQS

< Analyte was not detected at the laboratory detection limit indicated

-- Analyte was not sampled for

Table 6 - Summary of Type 4 Risk Reduction Standards
Colonial Terminals, Plant #2
Savannah, Georgia

Detected Regulated Substance	Maximum Concentration Surface Soil (0-2') (mg/kg)	Maximum Concentration Subsurface Soil (2-10') (mg/kg)	Surface Soil (0-2') RRS (mg/kg)	Source	Subsurface Soil (2-10') RRS (mg/kg)	Source
1,1-Dichloroethene	0	3.8	250	Commercial/Industrial Worker	940	Construction Worker
cis-1,2-Dichloroethene	0	0.66	1,200	Construction Worker	2,400	Construction Worker
trans-1,2-Dichloroethene	0	0	240	Commercial/Industrial Worker	880	Construction Worker
Methylene Chloride	0.047	32	1,600	Commercial/Industrial Worker	3,600	Construction Worker
Tetrachloroethene	0	400	150	Commercial/Industrial Worker	550	Construction Worker
Trichloroethene	0.02	19	7.1	Commercial/Industrial Worker	26	Construction Worker
Vinyl Chloride	0	0.0086	5.1	Commercial/Industrial Worker	300	Construction Worker
2,4-Dinitrotoluene	0	460	180	Commercial/Industrial Worker	2,400	Construction Worker
Antimony	29	51	250	Construction Worker	480	Construction Worker
Arsenic	230	850	38	Commercial/Industrial Worker	360	Construction Worker
Barium	120	176	120,000	Construction Worker	230,000	Construction Worker
Beryllium	0.7	0	1,200	Construction Worker	2,400	Construction Worker
Cadmium	2.5	4.95	620	Construction Worker	1,200	Construction Worker
Chromium (total)	69	41.8	1,200	Commercial/Industrial Worker	1,200	Utility Worker
Copper	300	1,910	25,000	Construction Worker	48,000	Construction Worker
Lead	1,500	17,000	930	Commercial/Industrial Worker	4,800	Construction Worker
Mercury	2.2	15.4	62	Construction Worker	120	Construction Worker
Nickel	25	17.8	12,000	Construction Worker	24,000	Construction Worker
Silver	0	6.21	3,100	Construction Worker	6,000	Construction Worker
Thallium	0.29	0	10	Construction Worker	12	Construction Worker
Zinc	320	3,400	190,000	Construction Worker	360,000	Construction Worker

Notes:

mg/kg Milligrams per kilogram

Blue highlighting indicates that the maximum concentration exceeds the RRS.

Table 7 - Summary of Surface Soil Data and Exceedances of Type 4 RRS
Colonial Terminals, Plant #2
Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units	1,1-DCE mg/kg 250	cis-1,2-DCE mg/kg 1200	MeCl mg/kg 1600	PCE mg/kg 150	trans-1,2-DCE mg/kg 240	TCE mg/kg 7.1	Vinyl Chloride mg/kg 5.1	Arsenic mg/kg 38	Lead mg/kg 930	Antimony mg/kg 250	Barium mg/kg 120,000	Beryllium mg/kg 1,200	Cadmium mg/kg 620
1042-W	11/27/2007	0	2	ft bgs	--	--	--	--	--	--	--	22	230	--	--	--	--
1054W	12/11/2007	0	2	ft bgs	--	--	--	--	--	--	--	34	350	--	--	--	--
1058W-S-R	12/12/2007	0	2	ft bgs	--	--	--	--	--	--	--	9	56	--	--	--	--
1065W	12/11/2007	0	2	ft bgs	--	--	--	--	--	--	--	19	160	--	--	--	--
1066W	10/25/2007	0	2	ft bgs	--	--	--	--	--	--	--	2.3	51	--	--	--	--
1072-W	11/27/2007	0	2	ft bgs	--	--	--	--	--	--	--	6.2	57	--	--	--	--
1079W	10/29/2007	0	2	ft bgs	--	--	--	--	--	--	--	9.3	82	--	--	--	--
1081W	10/25/2007	0	2	ft bgs	--	--	--	--	--	--	--	23	180	--	--	--	--
1086W-R	11/29/2007	0	2	ft bgs	--	--	--	--	--	--	--	25	120	--	--	--	--
1095W	10/30/2007	0	2	ft bgs	--	--	--	--	--	--	--	15	140	--	--	--	--
A1-W-N (R)	11/28/2007	0	2	ft bgs	--	--	--	--	--	--	--	4.7	31	--	--	--	--
A4-Wall South	11/19/2007	0	2	ft bgs	--	--	--	--	--	--	--	7	560	--	--	--	--
A5-W-S	11/27/2007	0	2	ft bgs	--	--	--	--	--	--	--	25	430	--	--	--	--
Area D SW-East	11/9/2010	0	2	ft bgs	--	--	--	--	--	--	--	2.14	5.64	--	--	--	--
Area D SW-North	11/11/2010	0	2	ft bgs	--	--	--	--	--	--	--	3.42	38.5	--	--	--	--
Area D SW-South	11/9/2010	0	2	ft bgs	--	--	--	--	--	--	--	< 2.12	3.2	--	--	--	--
Area D SW-West	11/9/2010	0	2	ft bgs	--	--	--	--	--	--	--	< 9.43	< 4.71	--	--	--	--
B2-SUP-WS1	12/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	11	220	--	--	--	--
B2-SUP-WS2	12/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	7.9	55	--	--	--	--
B2-SUP-WS3	12/5/2007	0	2	ft bgs	--	--	--	--	--	--	--	18	170	--	--	--	--
B2-SUP-WS4	12/5/2007	0	2	ft bgs	--	--	--	--	--	--	--	23	330	--	--	--	--
B2-SUP-WS5-R	12/12/2007	0	2	ft bgs	--	--	--	--	--	--	--	17	130	--	--	--	--
B2-SUP-WW	12/5/2007	0	2	ft bgs	--	--	--	--	--	--	--	31	310	--	--	--	--
B3-SUP-WS	12/5/2007	0	2	ft bgs	--	--	--	--	--	--	--	5.9	200	--	--	--	--
B3-SUP-WW	12/5/2007	0	2	ft bgs	--	--	--	--	--	--	--	8.4	100	--	--	--	--
D2R-W-E	11/17/2007	0	2	ft bgs	--	--	--	--	--	--	--	18	160	--	--	--	--
D-2-SW-E	11/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	230	110	--	--	--	--
D-2-SW-S	11/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	13	140	--	--	--	--
D-3-SW-N	11/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	22	180	--	--	--	--
D-3-SW-S	11/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	16	170	--	--	--	--
D-3-SW-W	11/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	6	92	--	--	--	--
D-Berm-2	11/3/2007	0	2	ft bgs	--	--	--	--	--	--	--	25	330	--	--	--	--
D-Berm-W-S	11/17/2007	0	2	ft bgs	--	--	--	--	--	--	--	31	300	--	--	--	--
D-HA-2	6/16/2010	0	2	ft bgs	--	--	--	--	--	--	--	17.4	107	--	--	--	--
D-HA-3	6/16/2010	0	2	ft bgs	--	--	--	--	--	--	--	6.7	52.1	--	--	--	--
F SUP NW	11/9/2007	0	2	ft bgs	--	--	--	--	--	--	--	24	410	--	--	--	--
F SUP SW	11/9/2007	0	2	ft bgs	--	--	--	--	--	--	--	13	150	--	--	--	--
F5-W-S	12/19/2007	0	2	ft bgs	--	--	--	--	--	--	--	6.5	74	--	--	--	--
F6-W-W	12/19/2007	0	2	ft bgs	--	--	--	--	--	--	--	30	240	--	--	--	--
G4-W-S	11/15/2007	0	2	ft bgs	--	--	--	--	--	--	--	24	370	--	--	--	--
G-NW-SW	11/6/2007	0	2	ft bgs	--	--	--	--	--	--	--	38	640	--	--	--	--
G-W-N	12/11/2007	0	2	ft bgs	--	--	--	--	--	--	--	29	540	--	--	--	--
I16	12/17/2007	0	2	ft bgs	--	--	--	--	--	--	--	37	330	--	--	--	--
I1-SW	11/12/2007	0	2	ft bgs	--	--	--	--	--	--	--	15	150	--	--	--	--

Table 7 - Summary of Surface Soil Data and Exceedances of Type 4 RRS
Colonial Terminals, Plant #2
Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units	1,1-DCE mg/kg 250	cis-1,2-DCE mg/kg 1200	MeCl mg/kg 1600	PCE mg/kg 150	trans-1,2-DCE mg/kg 240	TCE mg/kg 7.1	Vinyl Chloride mg/kg 5.1	Arsenic mg/kg 38	Lead mg/kg 930	Antimony mg/kg 250	Barium mg/kg 120,000	Beryllium mg/kg 1,200	Cadmium mg/kg 620
I3-W-W	11/13/2007	0	2	ft bgs	--	--	--	--	--	--	--	23	220	--	--	--	--
I4-W-S	11/27/2007	0	2	ft bgs	--	--	--	--	--	--	--	4.8	57	--	--	--	--
I5-W-N (R)	11/28/2007	0	2	ft bgs	--	--	--	--	--	--	--	20	120	--	--	--	--
I6-W-W	11/13/2007	0	2	ft bgs	--	--	--	--	--	--	--	14	99	--	--	--	--
I7-W-S	11/14/2007	0	2	ft bgs	--	--	--	--	--	--	--	21	150	--	--	--	--
I7-W-W	11/14/2007	0	2	ft bgs	--	--	--	--	--	--	--	34	290	--	--	--	--
I8-W-S	11/28/2007	0	2	ft bgs	--	--	--	--	--	--	--	20	180	--	--	--	--
I8-W-W	11/28/2007	0	2	ft bgs	--	--	--	--	--	--	--	11	110	--	--	--	--
I9-W-N	11/28/2007	0	2	ft bgs	--	--	--	--	--	--	--	17	180	--	--	--	--
SB-1	8/25/1999	0.5	1.5	ft bgs	--	--	0.039	--	--	0.014	--	9	72	29	53	0.4	1.5
SB-2	8/25/1999	0.5	1.5	ft bgs	--	--	0.041	--	--	< 0.005	--	28	160	7.1	23	< 0.300	1.7
SB-4	8/25/1999	1	2	ft bgs	--	--	0.015	--	--	< 0.005	--	11	16	12	45	< 0.300	2.5
SB-5	8/25/1999	0.5	1.5	ft bgs	--	--	0.047	--	--	< 0.005	--	< 2.00	< 5.00	< 5.00	9.9	< 0.300	< 0.500
SB-6	8/25/1999	1	1.5	ft bgs	--	--	0.045	--	--	0.0074	--	4	60	9	48	< 0.300	1.3
SB-7	8/25/1999	0.5	1.5	ft bgs	--	--	< 0.01	--	--	< 0.005	--	2.3	23	< 5.00	7.2	< 0.300	< 0.500
SB-8	8/25/1999	0.5	1.5	ft bgs	--	--	0.019	--	--	< 0.005	--	89	230	19	62	< 0.300	1.9
SB-9	8/25/1999	0.5	1.5	ft bgs	--	--	0.015	--	--	< 0.005	--	13	430	14	42	< 0.300	2.3
SB-20	10/1/2001	0	2	ft bgs	< 0.0069	< 0.0069	< 0.0069	< 0.0069	< 0.0069	< 0.0069	< 0.014	8	160	1.7	--	--	< 0.570
SB-21	10/1/2001	0	2	ft bgs	< 0.0058	< 0.0058	< 0.0058	0.0044 E	< 0.0058	< 0.0058	< 0.012	--	--	--	--	--	--
SB-22	11/15/2001	0	1.5	ft bgs	--	--	--	--	--	--	--	34	390	3.3	120	0.7	0.51
SB-23	10/15/2001	0	2	ft bgs	--	--	--	--	--	--	--	< 5.90	36	< 1.00	12	--	--
SB-26	10/15/2001	0	2	ft bgs	--	--	--	--	--	--	--	15	770	--	63	--	--
SB-29	10/1/2001	0	2	ft bgs	--	--	< 0.0055	--	--	0.02	--	21	--	2.9	--	--	< 0.480
SB-31	11/15/2001	0	2	ft bgs	--	--	--	--	--	--	--	11	190	1.8	87	--	--
SB-32	11/15/2001	0	2	ft bgs	--	--	--	--	--	--	--	3.9	410	< 1.10	--	--	--
SB-34	9/15/2002	0	2	ft bgs	--	--	--	--	--	--	--	6.9	68	< 2.50	--	--	< 0.620
SB-48	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	21	230	--	--	--	--
SB-50	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	66	630	--	--	--	--
SB-52	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	54	840	--	--	--	--
SB-53	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	< 1.00	5.5	--	--	--	--
SB-54	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	4.2	12	--	--	--	--
SB-55	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	50	1500	--	--	--	--
SB-56	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	19	270	--	--	--	--
SB-57	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	1.4	9	--	--	--	--
SB-58	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	1	3.3	--	--	--	--
SL-BF-1	12/11/2007	1	1	ft bgs	--	--	--	--	--	--	--	7.7	50	--	--	--	--
SL-BF-2	12/11/2007	1	1	ft bgs	--	--	--	--	--	--	--	22	200	--	--	--	--
SL-BF-3	12/11/2007	1	1	ft bgs	--	--	--	--	--	--	--	2.5	25	--	--	--	--
A-SB-1	11/14/2006	0	2	ft bgs	--	--	--	--	--	--	--	88	390	--	--	--	--
A-SB-5	11/14/2006	0	2	ft bgs	--	--	--	--	--	--	--	37	550	--	--	--	--
B-SB-1	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	5.9	74	--	--	--	--
B-SB-10	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	13	140	--	--	--	--
B-SB-12	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	17	89	--	--	--	--
B-SB-13	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	29	200	--	--	--	--

Table 7 - Summary of Surface Soil Data and Exceedances of Type 4 RRS
Colonial Terminals, Plant #2
Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units	1,1-DCE mg/kg 250	cis-1,2-DCE mg/kg 1200	MeCl mg/kg 1600	PCE mg/kg 150	trans-1,2-DCE mg/kg 240	TCE mg/kg 7.1	Vinyl Chloride mg/kg 5.1	Arsenic mg/kg 38	Lead mg/kg 930	Antimony mg/kg 250	Barium mg/kg 120,000	Beryllium mg/kg 1,200	Cadmium mg/kg 620
B-SB-18	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	64	720	--	--	--	--
B-SB-2	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	19	260	--	--	--	--
B-SB-20	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	51	240	--	--	--	--
B-SB-27	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	48	530	--	--	--	--
B-SB-3	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	23	640	--	--	--	--
B-SB-3 DUP	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	4.5	14	--	--	--	--
B-SB-42	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	14	150	--	--	--	--
B-SB-44	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	<3.7	21	--	--	--	--
B-SB-52	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	15	700	--	--	--	--
B-SB-53	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	11	160	--	--	--	--
B-SB-8	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	9.3	120	--	--	--	--
B-SB-9	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	37	440	--	--	--	--
C-SB-1	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	32	180	--	--	--	--
C-SB-4	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	7.5	35	--	--	--	--
C-SB-5	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	3.9	12	--	--	--	--
C-SB-6	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	9.5	75	--	--	--	--
D-SB-2	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	62	720	--	--	--	--
D-SB-8	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	76	630	--	--	--	--
E-SB-1	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	7.3	100	--	--	--	--
E-SB-4	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	27	460	--	--	--	--
F-SB-1	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	26	380	--	--	--	--
F-SB-7	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	25	230	--	--	--	--
F-SB-8	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	20	160	--	--	--	--
F-SB-9	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	28	440	--	--	--	--
F-SB-10	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	26	270	--	--	--	--
F-SB-20	11/14/2006	0	2	ft bgs	--	--	--	--	--	--	--	15	230	--	--	--	--
G-SB-5	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	<3.4	10	--	--	--	--
H-SB-1	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	<3.2	--	--	--	--	--
H-SB-5	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	3.5	--	--	--	--	--
H-SB-6	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	15	160	--	--	--	--
H-SB-7	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	20	250	--	--	--	--
I-SB-10	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	14	170	--	--	--	--
I-SB-3	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	16	120	--	--	--	--
I-SB-9	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	18	140	--	--	--	--
MW-2	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	<3.4	17	--	--	--	--

Notes:

(1) Type 4 Risk Reduction Standards for Surface Soil (ENVIRON, 2012)

Concentration exceeds the Type 4 RRS (ENVIRON, 2012)

mg/kg -- Milligrams per kilogram (parts per million)

ft bgs -- Feet below ground surface

< Analyte was not detected at the laboratory reporting limit indicated

-- Analyte was not sampled for

Table 7 - Summary of Surface Soil Data and Exceedances of Type 4 RRS
Colonial Terminals, Plant #2
Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units Type 4 RRS ¹	Chromium	Copper	Mercury	Nickel	Silver	Thallium	Zinc	2,4-Dinitrotoluene
					mg/kg 1200	mg/kg 25000	mg/kg 62	mg/kg 12000	mg/kg 3100	mg/kg 10	mg/kg 190000	mg/kg 180
1042-W	11/27/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
1054W	12/11/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
1058W-S-R	12/12/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
1065W	12/11/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
1066W	10/25/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
1072-W	11/27/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
1079W	10/29/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
1081W	10/25/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
1086W-R	11/29/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
1095W	10/30/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
A1-W-N (R)	11/28/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
A4-Wall South	11/19/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
A5-W-S	11/27/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
Area D SW-East	11/9/2010	0	2	ft bgs	--	--	--	--	--	--	--	--
Area D SW-North	11/11/2010	0	2	ft bgs	--	--	--	--	--	--	--	--
Area D SW-South	11/9/2010	0	2	ft bgs	--	--	--	--	--	--	--	--
Area D SW-West	11/9/2010	0	2	ft bgs	--	--	--	--	--	--	--	--
B2-SUP-WS1	12/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
B2-SUP-WS2	12/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
B2-SUP-WS3	12/5/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
B2-SUP-WS4	12/5/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
B2-SUP-WS5-R	12/12/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
B2-SUP-WW	12/5/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
B3-SUP-WS	12/5/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
B3-SUP-WW	12/5/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
D2R-W-E	11/17/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
D-2-SW-E	11/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
D-2-SW-S	11/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
D-3-SW-N	11/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
D-3-SW-S	11/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
D-3-SW-W	11/4/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
D-Berm-2	11/3/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
D-Berm-W-S	11/17/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
D-HA-2	6/16/2010	0	2	ft bgs	--	--	--	--	--	--	--	--
D-HA-3	6/16/2010	0	2	ft bgs	--	--	--	--	--	--	--	--
F SUP NW	11/9/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
F SUP SW	11/9/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
F5-W-S	12/19/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
F6-W-W	12/19/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
G4-W-S	11/15/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
G-NW-SW	11/6/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
G-W-N	12/11/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
I16	12/17/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
I1-SW	11/12/2007	0	2	ft bgs	--	--	--	--	--	--	--	--

Table 7 - Summary of Surface Soil Data and Exceedances of Type 4 RRS
Colonial Terminals, Plant #2
Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units Type 4 RRS ¹	Chromium	Copper	Mercury	Nickel	Silver	Thallium	Zinc	2,4-Dinitrotoluene
					mg/kg 1200	mg/kg 25000	mg/kg 62	mg/kg 12000	mg/kg 3100	mg/kg 10	mg/kg 190000	mg/kg 180
I3-W-W	11/13/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
I4-W-S	11/27/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
I5-W-N (R)	11/28/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
I6-W-W	11/13/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
I7-W-S	11/14/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
I7-W-W	11/14/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
I8-W-S	11/28/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
I8-W-W	11/28/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
I9-W-N	11/28/2007	0	2	ft bgs	--	--	--	--	--	--	--	--
SB-1	8/25/1999	0.5	1.5	ft bgs	21	29	< 0.500	< 1.00	< 5.00	--	110	< 1700
SB-2	8/25/1999	0.5	1.5	ft bgs	15	38	< 0.500	3.9	< 5.00	--	< 100	< 330
SB-4	8/25/1999	1	2	ft bgs	24	< 5.00	< 0.500	3.9	< 5.00	--	< 100	< 330
SB-5	8/25/1999	0.5	1.5	ft bgs	< 5.00	< 5.00	< 0.500	< 1.00	< 5.00	--	< 100	< 330
SB-6	8/25/1999	1	1.5	ft bgs	8.7	17	< 0.500	3	< 5.00	--	< 100	< 1700
SB-7	8/25/1999	0.5	1.5	ft bgs	< 5.00	9.5	< 0.500	< 1.00	< 5.00	--	< 100	< 330
SB-8	8/25/1999	0.5	1.5	ft bgs	9.6	42	0.52	< 1.00	< 5.00	--	< 100	< 330
SB-9	8/25/1999	0.5	1.5	ft bgs	69	300	2.2	7.5	< 5.00	--	260	< 330
SB-20	10/1/2001	0	2	ft bgs	11	38	0.21	< 4.60	--	--	90	--
SB-21	10/1/2001	0	2	ft bgs	--	--	--	--	--	--	--	--
SB-22	11/15/2001	0	1.5	ft bgs	25	190	0.39	25	< 1.00	0.29	320	--
SB-23	10/15/2001	0	2	ft bgs	2.9	5.1	0.24	< 4.10	--	--	--	< 380
SB-26	10/15/2001	0	2	ft bgs	--	65	0.94	--	--	--	97	--
SB-29	10/1/2001	0	2	ft bgs	16	--	--	--	--	--	--	--
SB-31	11/15/2001	0	2	ft bgs	9.6	71	1.2	< 4.00	< 0.990	--	--	--
SB-32	11/15/2001	0	2	ft bgs	--	--	0.17	--	--	--	--	--
SB-34	9/15/2002	0	2	ft bgs	8.4	12	--	< 5.00	--	--	74	--
SB-48	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	--
SB-50	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	--
SB-52	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	--
SB-53	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	--
SB-54	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	--
SB-55	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	--
SB-56	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	--
SB-57	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	--
SB-58	9/15/2003	0	2	ft bgs	--	--	--	--	--	--	--	--
SL-BF-1	12/11/2007	1	1	ft bgs	--	--	--	--	--	--	--	--
SL-BF-2	12/11/2007	1	1	ft bgs	--	--	--	--	--	--	--	--
SL-BF-3	12/11/2007	1	1	ft bgs	--	--	--	--	--	--	--	--
A-SB-1	11/14/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
A-SB-5	11/14/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
B-SB-1	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
B-SB-10	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
B-SB-12	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
B-SB-13	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--

Table 7 - Summary of Surface Soil Data and Exceedances of Type 4 RRS
Colonial Terminals, Plant #2
Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units Type 4 RRS ¹	Chromium	Copper	Mercury	Nickel	Silver	Thallium	Zinc	2,4-Dinitrotoluene
					mg/kg 1200	mg/kg 25000	mg/kg 62	mg/kg 12000	mg/kg 3100	mg/kg 10	mg/kg 190000	mg/kg 180
B-SB-18	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
B-SB-2	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
B-SB-20	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
B-SB-27	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
B-SB-3	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
B-SB-3 DUP	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
B-SB-42	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
B-SB-44	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
B-SB-52	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
B-SB-53	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
B-SB-8	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
B-SB-9	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
C-SB-1	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
C-SB-4	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
C-SB-5	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
C-SB-6	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
D-SB-2	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
D-SB-8	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
E-SB-1	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
E-SB-4	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
F-SB-1	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
F-SB-7	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
F-SB-8	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
F-SB-9	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
F-SB-10	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
F-SB-20	11/14/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
G-SB-5	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
H-SB-1	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
H-SB-5	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
H-SB-6	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
H-SB-7	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
I-SB-10	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
I-SB-3	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
I-SB-9	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--
MW-2	10/5/2006	0	2	ft bgs	--	--	--	--	--	--	--	--

Notes:

(1) Type 4 Risk Reduction Standards for Surface Soil (ENVIRON, 2012)

Concentration exceeds the Type 4 RRS (ENVIRON, 2012)

mg/kg -- Milligrams per kilogram (parts per million)

ft bgs -- Feet below ground surface

< Analyte was not detected at the laboratory reporting limit indicated

-- Analyte was not sampled for

Table 8 - Summary of Subsurface Soil Data and Exceedances of Type 4 RRS
Colonial Terminals, Plant #2
Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units Type 4 RRS ¹	1,1-DCE mg/kg 940	cis-1,2-DCE mg/kg 2,400	MeCl mg/kg 3,600	PCE mg/kg 550	trans-1,2-DCE mg/kg 880	TCE mg/kg 26	Vinyl Chloride mg/kg 300	Arsenic mg/kg 360	Lead mg/kg 4,800	Antimony mg/kg 480	Barium mg/kg 230,000
1020SW	11/6/2007	0	5	ft bgs	--	--	--	--	--	--	--	96	520	--	--
1021SW	11/6/2007	0	5	ft bgs	--	--	--	--	--	--	--	100	1500	--	--
1022W-R	12/13/2007	2	5	ft bgs	--	--	--	--	--	--	--	50	630	--	--
A1-Floor	11/16/2007	6	6	ft bgs	--	--	--	--	--	--	--	100	82	--	--
A2-Floor	11/16/2007	8	8	ft bgs	--	--	--	--	--	--	--	85	41	--	--
A3-Floor	11/19/2007	5	5	ft bgs	--	--	--	--	--	--	--	120	550	--	--
A4-Floor	11/20/2007	2	2	ft bgs	--	--	--	--	--	--	--	69	1000	--	--
A5-Floor	11/20/2007	5	5	ft bgs	--	--	--	--	--	--	--	280	670	--	--
Area D Bottom-Center	11/9/2010	2	5	ft bgs	--	--	--	--	--	--	--	75.2	69	--	--
Area D Bottom-NE	11/9/2010	2	5	ft bgs	--	--	--	--	--	--	--	31.4	72.9	--	--
Area D Bottom-NW	11/9/2010	2	5	ft bgs	--	--	--	--	--	--	--	65.6	60	--	--
Area D Bottom-SE	11/9/2010	2	5	ft bgs	--	--	--	--	--	--	--	32	70.4	--	--
Area D Bottom-SW	11/9/2010	2	5	ft bgs	--	--	--	--	--	--	--	67.9	55.6	--	--
C-Floor	11/17/2007	5.5	5.5	ft bgs	--	--	--	--	--	--	--	55	250	--	--
C-W-E	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	7.1	98	--	--
C-W-N	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	42	420	--	--
C-W-S	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	120	1300	--	--
C-W-W (R)	12/12/2007	2	5	ft bgs	--	--	--	--	--	--	--	20	13	--	--
D-1-Floor	11/2/2007	2.5	2.5	ft bgs	--	--	--	--	--	--	--	94	670	--	--
D-1-Floor-2	11/3/2007	2.5	2.5	ft bgs	--	--	--	--	--	--	--	100	810	--	--
D-1-Floor-3	11/3/2007	2	2	ft bgs	--	--	--	--	--	--	--	8.1	14	--	--
D-2-Floor	11/4/2007	2	2	ft bgs	--	--	--	--	--	--	--	92	95	--	--
D-3-Floor	11/4/2007	2	2	ft bgs	--	--	--	--	--	--	--	56	280	--	--
E-Floor	11/17/2007	5.5	5.5	ft bgs	--	--	--	--	--	--	--	18	260	--	--
E-W-E	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	4.3	10	--	--
E-W-N	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	65	1400	--	--
E-W-S	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	18	280	--	--
E-W-W	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	14	210	--	--
F1-Floor	12/6/2007	2	2	ft bgs	--	--	--	--	--	--	--	31	670	--	--
F2-Floor	12/6/2007	2	2	ft bgs	--	--	--	--	--	--	--	38	560	--	--
F3-Floor 1	12/6/2007	5	5	ft bgs	--	--	--	--	--	--	--	62	21	--	--
F3-Floor 2	12/6/2007	6	6	ft bgs	--	--	--	--	--	--	--	7.3	17	--	--
F3-W-E	12/6/2007	2	5	ft bgs	--	--	--	--	--	--	--	73	1000	--	--
F4-Floor	12/6/2007	8	8	ft bgs	--	--	--	--	--	--	--	5.6	11	--	--
F4-W-E	12/6/2007	5	8	ft bgs	--	--	--	--	--	--	--	21	30	--	--
F5-Floor	12/17/2007	8	8	ft bgs	--	--	--	--	--	--	--	9.7	14	--	--
F5-Floor 3	12/17/2007	5	5	ft bgs	--	--	--	--	--	--	--	3.9	14	--	--
F5-Floor-2	12/14/2007	5	5	ft bgs	--	--	--	--	--	--	--	6.2	82	--	--
F5-W-S	12/19/2007	2	5	ft bgs	--	--	--	--	--	--	--	74	1000	--	--
F5-W-S	12/19/2007	5	8	ft bgs	--	--	--	--	--	--	--	8.3	90	--	--
F6 Floor 1	12/19/2007	3	3	ft bgs	--	--	--	--	--	--	--	46	990	--	--
F6 Floor 2	12/19/2007	2	2	ft bgs	--	--	--	--	--	--	--	33	370	--	--

Table 8 - Summary of Subsurface Soil Data and Exceedances of Type 4 RRS
Colonial Terminals, Plant #2
Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units Type 4 RRS ¹	1,1-DCE mg/kg 940	cis-1,2-DCE mg/kg 2,400	MeCl mg/kg 3,600	PCE mg/kg 550	trans-1,2-DCE mg/kg 880	TCE mg/kg 26	Vinyl Chloride mg/kg 300	Arsenic mg/kg 360	Lead mg/kg 4,800	Antimony mg/kg 480	Barium mg/kg 230,000
F-Floor	11/6/2007	5	5	ft bgs	--	--	--	--	--	--	--	31	690	--	--
G2NE	10/29/2007	0	3	ft bgs	--	--	--	--	--	--	--	96	2100	--	--
G4 - Floor	11/6/2007	2	2	ft bgs	--	--	--	--	--	--	--	27	64	--	--
G5-Floor	11/15/2007	5	5	ft bgs	--	--	--	--	--	--	--	56	110	--	--
G5-W-E (R)	11/28/2007	2	5	ft bgs	--	--	--	--	--	--	--	18	77	--	--
G5-W-N	11/15/2007	2	5	ft bgs	--	--	--	--	--	--	--	43	25	--	--
G5-W-S	11/15/2007	2	5	ft bgs	--	--	--	--	--	--	--	34	76	--	--
G-Floor	10/30/2007	3	3	ft bgs	--	--	--	--	--	--	--	96	1000	--	--
G-N2-Floor	11/1/2007	3	3	ft bgs	--	--	--	--	--	--	--	43	1300	--	--
G-N-Floor	10/31/2007	3	3	ft bgs	--	--	--	--	--	--	--	100	1400	--	--
GP-07-01	4/23/2007	4	5	ft bgs	< 0.25	< 0.25	< 0.25	2.7	< 0.25	0.27	< 0.25	--	--	--	--
GP-07-02	4/23/2007	2	3	ft bgs	< 0.25	< 0.25	< 0.25	8.3	< 0.25	0.47	< 0.25	--	--	--	--
GP-07-03	4/24/2007	3	4	ft bgs	< 0.0053	< 0.0053	0.011	< 0.0053	< 0.0053	< 0.0053	< 0.0053	--	--	--	--
GP-07-04	4/24/2007	3	4	ft bgs	< 2.2	< 2.2	< 2.2	400	< 2.2	19	< 2.2	--	--	--	--
GP-07-05	4/24/2007	3	4	ft bgs	< 0.21	< 0.21	< 0.211	4.9	< 0.21	< 0.21	< 0.21	--	--	--	--
GP-07-06	4/25/2007	3	4	ft bgs	< 0.35	0.66	< 0.35	0.35	< 0.35	6.3	< 0.35	--	--	--	--
GP-07-07	4/26/2007	2	3	ft bgs	< 0.0062	< 0.0062	< 0.0062	< 0.0062	< 0.0062	< 0.0062	< 0.0062	--	--	--	--
GP-07-08	8/15/2007	3	4	ft bgs	< 0.0054	< 0.0054	< 0.011	< 0.0054	< 0.0054	< 0.0054	< 0.0054	--	--	--	--
GP-07-09	8/15/2007	3	4	ft bgs	< 0.0051	< 0.0051	< 0.01	< 0.0051	< 0.0051	< 0.0051	< 0.0051	--	--	--	--
GP-07-10	8/15/2007	3	4	ft bgs	< 0.0047	0.037	< 0.0094	0.33	< 0.0047	0.018	< 0.0047	--	--	--	--
GP-07-11	8/15/2007	3	4	ft bgs	< 0.0041	0.022	< 0.0082	0.22	< 0.0041	0.0058	< 0.0041	--	--	--	--
GP-07-12	8/15/2007	3	4	ft bgs	< 0.0053	< 0.0053	< 0.011	0.031	< 0.0053	< 0.0053	< 0.0053	--	--	--	--
GP-07-13	8/15/2007	2	3	ft bgs	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	0.38	< 0.005	--	--	--	--
GP-07-14	8/15/2007	2	3	ft bgs	< 0.0074	< 0.0074	< 0.015	0.034	< 0.0074	< 0.0074	< 0.0074	--	--	--	--
GP-07-15	8/15/2007	2	3	ft bgs	< 0.0046	< 0.0046	< 0.0092	< 0.0046	< 0.0046	< 0.0046	< 0.0046	--	--	--	--
GP-07-16	8/15/2007	3	4	ft bgs	< 0.0042	< 0.0042	< 0.0084	0.27	< 0.0042	0.0091	< 0.0042	--	--	--	--
GP-07-17	8/16/2007	3	4	ft bgs	< 0.18	< 0.18	< 0.9	1.8	< 0.18	< 0.18	< 0.18	--	--	--	--
GP-07-18	8/16/2007	3	4	ft bgs	< 0.0043	0.0092	< 0.0086	< 0.0043	< 0.0043	< 0.0043	0.0086	--	--	--	--
GP-07-19	8/16/2007	3	4	ft bgs	< 0.19	< 0.19	< 0.95	3.1	< 0.19	0.57	< 0.19	--	--	--	--
GP-07-20	8/16/2007	2	3	ft bgs	< 0.18	< 0.18	< 0.9	5	< 0.18	0.92	< 0.18	--	--	--	--
GP-07-21	8/16/2007	3	4	ft bgs	< 0.0043	< 0.0043	< 0.0086	< 0.0043	< 0.0043	< 0.0043	< 0.0043	--	--	--	--
GP-07-22	8/16/2007	3	4	ft bgs	< 0.19	< 0.19	< 0.95	1.5	< 0.19	< 0.19	< 0.19	--	--	--	--
HA-07-02	10/22/2007	3	4	ft bgs	< 0.0073	< 0.0073	< 0.015	< 0.0073	< 0.0073	< 0.0073	< 0.0073	--	--	--	--
HA-07-04	10/22/2007	3	4	ft bgs	< 0.0066	< 0.0066	< 0.013	< 0.0066	< 0.0066	< 0.0066	< 0.0066	--	--	--	--
HA-07-06	10/23/2007	3	4	ft bgs	< 0.0049	0.0082	< 0.0098	0.066	< 0.0049	0.016	< 0.0049	--	--	--	--
HA-07-08	11/4/2007	4	6	ft bgs	< 0.0037	0.005	< 0.0074	0.011	< 0.0037	0.018	< 0.0037	--	--	--	--
I1-Floor	11/12/2007	2	2	ft bgs	--	--	--	--	--	--	--	5.7	45	--	--
I2-Floor	11/12/2007	2	2	ft bgs	--	--	--	--	--	--	--	25	220	--	--
I3-Floor	11/13/2007	2	2	ft bgs	--	--	--	--	--	--	--	24	210	--	--
I4-Floor	11/13/2007	5	5	ft bgs	--	--	--	--	--	--	--	200	700	--	--
I4-W-N	11/13/2007	2	5	ft bgs	--	--	--	--	--	--	--	33	350	--	--
I4-W-W	11/13/2007	2	5	ft bgs	--	--	--	--	--	--	--	22	43	--	--

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Colonial Terminals, Plant #2
Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units Type 4 RRS ¹	1,1-DCE mg/kg 940	cis-1,2-DCE mg/kg 2,400	MeCl mg/kg 3,600	PCE mg/kg 550	trans-1,2-DCE mg/kg 880	TCE mg/kg 26	Vinyl Chloride mg/kg 300	Arsenic mg/kg 360	Lead mg/kg 4,800	Antimony mg/kg 480	Barium mg/kg 230,000
I5-Floor	11/13/2007	3	3	ft bgs	--	--	--	--	--	--	--	20	77	--	--
I6-Floor	11/13/2007	2	2	ft bgs	--	--	--	--	--	--	--	14	180	--	--
I7-Floor	11/14/2007	2	2	ft bgs	--	--	--	--	--	--	--	32	210	--	--
I8-Floor	11/28/2007	2	2	ft bgs	--	--	--	--	--	--	--	37	350	--	--
I9-Floor	11/28/2007	2	2	ft bgs	--	--	--	--	--	--	--	20	210	--	--
I-Floor-1	12/14/2007	8	8	ft bgs	< 0.0051	0.025	< 0.01	0.049	< 0.0051	0.015	< 0.0051	--	--	--	--
IVOC-Floor -2	12/14/2007	8	8	ft bgs	< 0.005	0.009	< 0.01	0.036	< 0.005	0.013	< 0.005	--	--	--	--
MW-18	5/15/2005	2	5	ft bgs	--	--	--	--	--	--	--	52	250	--	--
MW-18	5/15/2005	5	8	ft bgs	--	--	--	--	--	--	--	31	8.4	--	--
MW-19	5/15/2005	2	4	ft bgs	--	--	--	--	--	--	--	41	320	--	--
MW-19	5/15/2005	6	9	ft bgs	--	--	--	--	--	--	--	5	27	--	--
SB-1	8/25/1999	4.5	6.5	ft bgs	--	--	0.035	--	--	0.11	--	2.4	7.8	< 5.00	33
SB-2	8/25/1999	3.5	5.5	ft bgs	--	--	0.032	--	--	< 0.005	--	--	--	--	--
SB-2	8/25/1999	3.5	5.5	ft bgs	--	--	32	--	--	< 5.00	--	3.1	12	11	15
SB-3	8/25/1999	3.5	5.5	ft bgs	--	--	0.027	--	--	< 0.005	--	21	92	5	33
SB-4	8/25/1999	4	6	ft bgs	--	--	0.016	--	--	< 0.005	--	8.6	11	7	24
SB-4	8/25/1999	6	8	ft bgs	--	--	--	--	--	--	--	3.5	6.9	< 5.00	13
SB-5	8/25/1999	3.5	5.5	ft bgs	--	--	0.055	--	--	0.035	--	10	31	22	14
SB-6	8/25/1999	3.5	5.5	ft bgs	--	--	0.082	--	--	0.012	--	6.4	67	32	18
SB-7	8/25/1999	3.5	5.5	ft bgs	--	--	0.048	--	--	< 0.005	--	22	68	9.3	37
SB-8	8/25/1999	3.5	5.5	ft bgs	--	--	0.017	--	--	< 0.005	--	15	19	20	18
SB-9	8/25/1999	3.5	5.5	ft bgs	--	--	0.015	--	--	< 0.005	--	33	410	14	48
SB-20	10/1/2001	3	5	ft bgs	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	66	3400	12	50
SB-20	10/1/2001	6	8	ft bgs	--	--	--	--	--	--	--	2.2	11	< 2.20	13
SB-21	10/1/2001	3	5	ft bgs	< 0.0064	< 0.0064	< 0.0064	< 0.0064	< 0.0064	< 0.0064	< 0.013	< 5.70	--	< 1.20	--
SB-27	10/15/2001	3	5	ft bgs	--	--	--	--	--	--	--	5.7	50	< 1.20	--
SB-27	10/15/2001	6	8	ft bgs	--	--	--	--	--	--	--	4.8	--	--	--
SB-28	10/15/2001	3	5	ft bgs	--	--	--	--	--	--	--	850	2000	51	88
SB-28	10/15/2001	6	8	ft bgs	--	--	--	--	--	--	--	300	150	< 2.10	36
SB-29	10/1/2001	3	5	ft bgs	--	--	< 0.0065	--	--	0.3	--	23	--	< 2.20	--
SB-30	10/1/2001	3	5	ft bgs	< 0.0044	0.0034 E	< 0.0044	0.55 E	< 0.0044	0.008	< 0.0087	--	--	< 0.990	--
SB-30	10/1/2001	6	8	ft bgs	--	--	--	--	--	--	--	--	--	--	--
SB-32	11/15/2001	3	5	ft bgs	--	--	--	--	--	--	--	< 3.90	9.2	< 1.10	12
SB-33	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	99	--	--	--
SB-37	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	140	8600	--	--
SB-38	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	65	960	--	--
SB-38	9/15/2002	5	6.5	ft bgs	--	--	--	--	--	--	--	220	3700	--	--
SB-40	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	48	1100	--	--
SB-41	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	24	1700	--	--
SB-41	9/15/2002	5	7	ft bgs	--	--	--	--	--	--	--	67	27	--	--
SB-42	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	20	15	--	--
SB-42	9/15/2002	5.5	7	ft bgs	--	--	--	--	--	--	--	11	8.6	--	--

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SB-43	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	5.4	--	--	--
SB-43	9/15/2002	6	8	ft bgs	--	--	--	--	--	--	--	4.9	--	--	--
SB-44	9/15/2002	6	8	ft bgs	--	--	--	--	--	--	--	310	--	--	--
SB-45	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	9.6	140	--	--
SB-45	9/15/2002	6	8	ft bgs	--	--	--	--	--	--	--	< 0.970	2.8	--	--
SB-46	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	2.4	14	--	--
SB-46	9/15/2002	6	8	ft bgs	--	--	--	--	--	--	--	7.2	8	--	--
SB-47	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	34	--	--
SB-47	9/15/2002	6	8	ft bgs	--	--	--	--	--	--	--	--	6.1	--	--
SB-48	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	6.8	95	--
SB-49	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	37	18	--
SB-50	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	5.7	44	--
SB-52	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	--	12	28	--
SB-53	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	--	< 1.10	5.1	--
SB-54	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	--	3.8	13	--
SB-55	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	--	22	1400	--
SB-56	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	--	270	3200	--
SB-57	9/15/2003	5	7	ft bgs	--	--	--	--	--	--	--	--	1.1	4.6	--
SB-58	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	--	1.7	5.6	--
SB-59	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	31	230	--
SB-59	9/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	--	1.5	7.5	--
SB-60	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	75	580	--
SB-60	9/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	--	4.8	5.9	--
SB-61	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	96	95	--
SB-61	9/15/2003	5.5	7	ft bgs	--	--	--	--	--	--	--	--	5.9	20	--
SB-62	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	8.3	180	--
SB-63	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	< 1.00	2.9	--
SB-64	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	3.1	8.2	--
SB-65	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	4	11	--
SB-66	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	5.4	94	--
SB-67	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	6.4	53	--
SB-68	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	7.8	17	--
SB-68	11/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	--	7.5	10	--
SB-69	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	28	620	--
SB-69	11/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	--	13	11	--
SB-70	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	< 3.30	< 2.80	--
SB-70	11/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	--	8.8	11	--
SB-71	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	< 3.70	8.2	--
SB-72	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	12	5.2	--
SB-72	11/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	--	59	18	--
SB-73	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	15	250	--
SB-74	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	21	19	--

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SB-74	11/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	8.2	16	--	--
SL-BF-1	12/11/2007	4	4	ft bgs	--	--	--	--	--	--	--	1.7	9.7	--	--
SL-BF-2	12/11/2007	4	4	ft bgs	--	--	--	--	--	--	--	3.6	14	--	--
SL-BF-3	12/11/2007	4	4	ft bgs	--	--	--	--	--	--	--	1.7	5.1	--	--
Station 12+00	4/15/2000	6	8	ft bgs	--	--	--	--	--	--	--	619	3390	30.4	11.2
Station 13+50	8/15/2000	5.5	8	ft bgs	--	--	--	--	--	--	--	45.6	19	<5.0	NA
Station 15+00	4/11/2000	6	8	ft bgs	< 0.0045	< 0.0045	< 0.045	< 0.0045	< 0.0045	< 0.0045	< 0.0045	10.3	68.9	<2.94	10.8
Station 16+50	8/15/2000	5.5	8	ft bgs	--	--	--	--	--	--	--	<4.99	<4.99	<4.99	NA
Station 18+00	4/12/2000	6	8	ft bgs	< 0.0042	< 0.0042	< 0.042	< 0.0042	< 0.0042	< 0.0042	< 0.0042	34.9	1200	<4.89	176
Station 19+50	8/15/2000	5.5	8	ft bgs	--	--	--	--	--	--	--	81.5	732	9.83	NA
Station 21+00	4/15/2000	6	8	ft bgs	--	--	--	--	--	--	--	306	3000	<4.69	38.6
TW-10	12/14/2005	5	7	ft bgs	< 0.002	0.005	NA	2.11	< 0.002	0.018	< 0.002	--	--	--	--
TW-11	12/14/2005	5	7	ft bgs	0.026	0.003	NA	0.54	< 0.002	0.011	< 0.002	--	--	--	--
TW-12	3/20/2006	5	7	ft bgs	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0052	--	--	--	--
TW-13	3/21/2006	5	7	ft bgs	0.0069	0.11	< 0.0059	0.14	< 0.0059	0.025	< 0.0059	--	--	--	--
TW-14	3/21/2006	5	7	ft bgs	< 0.0054	< 0.0054	< 0.054	< 0.0054	< 0.0054	< 0.0054	< 0.0054	--	--	--	--
TW-15	3/21/2006	5	7	ft bgs	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0061	--	--	--	--
TW-16	3/21/2006	5	7	ft bgs	< 0.0053	< 0.0053	< 0.0053	0.025	< 0.0053	0.022	< 0.0053	--	--	--	--
TW-17	3/21/2006	5	7	ft bgs	< 0.0055	0.018	< 0.0055	0.012	< 0.0055	< 0.0055	< 0.0055	--	--	--	--
TW-18	3/21/2006	5	7	ft bgs	< 0.0057	< 0.0057	< 0.0057	< 0.0057	< 0.0057	< 0.0057	< 0.0057	--	--	--	--
TW-19	3/22/2006	5	7	ft bgs	< 0.0049	< 0.0049	< 0.049	< 0.0049	< 0.0049	< 0.0049	< 0.0049	--	--	--	--
TW-20	3/22/2006	5	7	ft bgs	3.8	< 0.0051	0.029	0.0071	< 0.0051	0.0054	< 0.0051	--	--	--	--
TW-21	3/23/2006	5	7	ft bgs	< 0.0051	0.052	< 0.0051	0.011	< 0.0051	0.064	< 0.0051	--	--	--	--
TW-22	3/23/2006	5	7	ft bgs	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	--	--	--	--
TW-23	3/23/2006	5	7	ft bgs	< 0.0048	< 0.0048	< 0.0048	0.021	< 0.0048	0.011	< 0.0048	--	--	--	--
TW-24	3/23/2006	5	7	ft bgs	< 0.0053	0.053	< 0.0053	0.26	< 0.0053	0.12	< 0.0053	--	--	--	--
TW-25	5/25/2006	5	7	ft bgs	< 0.0044	0.0081	< 0.0044	0.052	< 0.0044	< 0.18	< 0.0044	--	--	--	--
TW-26	5/25/2006	5	7	ft bgs	< 0.0062	< 0.0062	< 0.0062	< 0.0062	< 0.0062	< 0.0062	< 0.0062	--	--	--	--
TW-27	5/25/2006	5	7	ft bgs	< 0.0051	< 0.0051	< 0.0051	< 0.0051	< 0.0051	< 0.0051	< 0.0051	--	--	--	--
TW-29	4/23/2007	4	5	ft bgs	< 0.2	< 0.2	< 0.2	4.4	< 0.2	0.32	< 0.2	--	--	--	--
TW-30	4/24/2007	3	4	ft bgs	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	--	--	--	--
TW-31	4/24/2007	4	5	ft bgs	< 0.23	0.54	< 0.23	2	< 0.23	0.65	< 0.23	--	--	--	--
TW-32	4/24/2007	3	4	ft bgs	< 0.0051	< 0.0051	< 0.0051	0.02	< 0.0051	< 0.0051	< 0.0051	--	--	--	--
TW-5	12/14/2005	5	7	ft bgs	< 0.002	< 0.002	NA	< 0.002	< 0.002	< 0.002	< 0.002	--	--	--	--
TW-6	12/14/2005	5	7	ft bgs	< 0.002	0.002	NA	0.004	< 0.002	0.002	< 0.002	--	--	--	--
TW-7	12/14/2005	5	7	ft bgs	0.006	0.048	NA	0.074	< 0.002	0.027	< 0.002	--	--	--	--
TW-8	12/14/2005	5	7	ft bgs	0.008	0.026	NA	0.057	< 0.002	0.02	< 0.002	--	--	--	--
TW-9	12/14/2005	5	7	ft bgs	0.01	< 0.002	NA	0.035	< 0.002	< 0.002	< 0.002	--	--	--	--
A-SB-1	11/14/2006	2	5	ft bgs	--	--	--	--	--	--	--	7.7	290	--	--
A-SB-5	11/14/2006	2	5	ft bgs	--	--	--	--	--	--	--	36	240	--	--
A-SB-6	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	35	600	--	--
B-SB-3	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	13	17	--	--

Table 8 - Summary of Subsurface Soil Data and Exceedances of Type 4 RRS
Colonial Terminals, Plant #2
Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units Type 4 RRS ¹	1,1-DCE mg/kg 940	cis-1,2-DCE mg/kg 2,400	MeCl mg/kg 3,600	PCE mg/kg 550	trans-1,2-DCE mg/kg 880	TCE mg/kg 26	Vinyl Chloride mg/kg 300	Arsenic mg/kg 360	Lead mg/kg 4,800	Antimony mg/kg 480	Barium mg/kg 230,000
B-SB-3 DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	4.5	14	--	--
B-SB-8	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	33	17	--	--
B-SB-8 DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	8.3	16	--	--
B-SB-13	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	14	150	--	--
B-SB-13DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	20	390	--	--
B-SB-18	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	19	200	--	--
B-SB-23	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	80	1,500	--	--
B-SB-23DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	95	2,100	--	--
B-SB-28	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	250	1,000	--	--
B-SB-28DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	160	750	--	--
B-SB-38	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	17	1,300	--	--
B-SB-38 DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	110	680	--	--
B-SB-48	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	260	13,000	--	--
B-SB-48 DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	600	17,000	--	--
B-SB-53	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	160	1,200	--	--
B-SB-53 DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	690	5,600	--	--
C-SB-1	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	160	94	--	--
C-SB-1	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	230	1,800	--	--
C-SB-3	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	110	800	--	--
C-SB-4	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	130	1,800	--	--
C-SB-4	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	18	160	--	--
C-SB-5	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	5.1	69	--	--
C-SB-5	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	9.7	150	--	--
C-SB-6	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	3.6	36	--	--
C-SB-6	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	<3.1	35	--	--
E-SB-1	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	54	660	--	--
E-SB-1	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	5.5	29	--	--
E-SB-3	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	<3.6	11	--	--
E-SB-4	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	37	540	--	--
E-SB-4	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	<3.9	24	--	--
F-SB-1	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	120	1,000	--	--
F-SB-7	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	22	650	--	--
F-SB-8	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	11	310	--	--
F-SB-10	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	81	1,500	--	--
F-SB-13	11/14/2006	5	8	ft bgs	--	--	--	--	--	--	--	64	370	--	--
F-SB-14	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	46	440	--	--
F-SB-15	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	21	440	--	--
F-SB-16	11/14/2006	5	8	ft bgs	--	--	--	--	--	--	--	21	100	--	--
F-SB-18	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	46	1,100	--	--
F-SB-20	11/14/2006	2	5	ft bgs	--	--	--	--	--	--	--	63	840	--	--
G-SB-1	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	3.9	17	--	--
G-SB-3	11/14/2006	5	8	ft bgs	--	--	--	--	--	--	--	3.8	15	--	--

Table 8 - Summary of Subsurface Soil Data and Exceedances of Type 4 RRS

Colonial Terminals, Plant #2

Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units Type 4 RRS ¹	1,1-DCE mg/kg 940	cis-1,2-DCE mg/kg 2,400	MeCl mg/kg 3,600	PCE mg/kg 550	trans-1,2-DCE mg/kg 880	TCE mg/kg 26	Vinyl Chloride mg/kg 300	Arsenic mg/kg 360	Lead mg/kg 4,800	Antimony mg/kg 480	Barium mg/kg 230,000
G-SB-4	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	120	2,100	--	--
G-SB-5	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	12	15	--	--
G-SB-6	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	<3.4	12	--	--
G-SB-7	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	62	830	--	--
G-SB-8	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	140	460	--	--
G-SB-9	11/14/2006	2	5	ft bgs	--	--	--	--	--	--	--	240	340	--	--
G-SB-10	11/14/2006	2	5	ft bgs	--	--	--	--	--	--	--	30	34	--	--
I-SB-1	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	63.6	12	--	--
I-SB-2	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	6	67	--	--
I-SB-3	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	29	260	--	--
I-SB-4	10/5/2006	2	4	ft bgs	--	--	--	--	--	--	--	6.2	38	--	--
I-SB-5	10/5/2006	2	4	ft bgs	--	--	--	--	--	--	--	25	260	--	--
I-SB-8	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	15	660	--	--
I-SB-9	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	4.9	11	--	--
I-SB-10	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	15	42	--	--

Notes:

(1) Type 4 Risk Reduction Standards for Surface Soil (ENVIRON, 2012)

Subsurface soil samples from below 10 ft bgs are not included

Concentration exceeds the Type 4 RRS (ENVIRON, 2012)

mg/kg -- Milligrams per kilogram (parts per million)

ft bgs -- Feet below ground surface

< Analyte was not detected at the laboratory reporting limit indicated

-- Analyte was not sampled for

Table 8 - Summary of Subsurface Soil Data and Exceedances of Type 4 RRS

Colonial Terminals, Plant #2

Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units Type 4 RRS ¹	Beryllium mg/kg 2,400	Cadmium mg/kg 1,200	Chromium mg/kg 1,200	Copper mg/kg 48,000	Mercury mg/kg 120	Nickel mg/kg 24,000	Silver mg/kg 6,000	Thallium mg/kg 12	Zinc mg/kg 360,000	2,4-Dinitrotoluene mg/kg 2,400
1020SW	11/6/2007	0	5	ft bgs	--	--	--	--	--	--	--	--	--	--
1021SW	11/6/2007	0	5	ft bgs	--	--	--	--	--	--	--	--	--	--
1022W-R	12/13/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
A1-Floor	11/16/2007	6	6	ft bgs	--	--	--	--	--	--	--	--	--	--
A2-Floor	11/16/2007	8	8	ft bgs	--	--	--	--	--	--	--	--	--	--
A3-Floor	11/19/2007	5	5	ft bgs	--	--	--	--	--	--	--	--	--	--
A4-Floor	11/20/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--	--
A5-Floor	11/20/2007	5	5	ft bgs	--	--	--	--	--	--	--	--	--	--
Area D Bottom-Center	11/9/2010	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
Area D Bottom-NE	11/9/2010	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
Area D Bottom-NW	11/9/2010	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
Area D Bottom-SE	11/9/2010	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
Area D Bottom-SW	11/9/2010	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
C-Floor	11/17/2007	5.5	5.5	ft bgs	--	--	--	--	--	--	--	--	--	--
C-W-E	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
C-W-N	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
C-W-S	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
C-W-W (R)	12/12/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
D-1-Floor	11/2/2007	2.5	2.5	ft bgs	--	--	--	--	--	--	--	--	--	--
D-1-Floor-2	11/3/2007	2.5	2.5	ft bgs	--	--	--	--	--	--	--	--	--	--
D-1-Floor-3	11/3/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--	--
D-2-Floor	11/4/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--	--
D-3-Floor	11/4/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--	--
E-Floor	11/17/2007	5.5	5.5	ft bgs	--	--	--	--	--	--	--	--	--	--
E-W-E	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
E-W-N	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
E-W-S	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
E-W-W	11/17/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
F1-Floor	12/6/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--	--
F2-Floor	12/6/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--	--
F3-Floor 1	12/6/2007	5	5	ft bgs	--	--	--	--	--	--	--	--	--	--
F3-Floor 2	12/6/2007	6	6	ft bgs	--	--	--	--	--	--	--	--	--	--
F3-W-E	12/6/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
F4-Floor	12/6/2007	8	8	ft bgs	--	--	--	--	--	--	--	--	--	--
F4-W-E	12/6/2007	5	8	ft bgs	--	--	--	--	--	--	--	--	--	--
F5-Floor	12/17/2007	8	8	ft bgs	--	--	--	--	--	--	--	--	--	--
F5-Floor 3	12/17/2007	5	5	ft bgs	--	--	--	--	--	--	--	--	--	--
F5-Floor-2	12/14/2007	5	5	ft bgs	--	--	--	--	--	--	--	--	--	--
F5-W-S	12/19/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
F5-W-S	12/19/2007	5	8	ft bgs	--	--	--	--	--	--	--	--	--	--
F6 Floor 1	12/19/2007	3	3	ft bgs	--	--	--	--	--	--	--	--	--	--
F6 Floor 2	12/19/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--	--

Table 8 - Summary of Subsurface Soil Data and Exceedances of Type 4 RRS

Colonial Terminals, Plant #2

Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units Type 4 RRS ¹	Beryllium mg/kg 2,400	Cadmium mg/kg 1,200	Chromium mg/kg 1,200	Copper mg/kg 48,000	Mercury mg/kg 120	Nickel mg/kg 24,000	Silver mg/kg 6,000	Thallium mg/kg 12	Zinc mg/kg 360,000	2,4-Dinitrotoluene mg/kg 2,400
F-Floor	11/6/2007	5	5	ft bgs	--	--	--	--	--	--	--	--	--	--
G2NE	10/29/2007	0	3	ft bgs	--	--	--	--	--	--	--	--	--	--
G4 - Floor	11/6/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--	--
G5-Floor	11/15/2007	5	5	ft bgs	--	--	--	--	--	--	--	--	--	--
G5-W-E (R)	11/28/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
G5-W-N	11/15/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
G5-W-S	11/15/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
G-Floor	10/30/2007	3	3	ft bgs	--	--	--	--	--	--	--	--	--	--
G-N2-Floor	11/1/2007	3	3	ft bgs	--	--	--	--	--	--	--	--	--	--
G-N-Floor	10/31/2007	3	3	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-01	4/23/2007	4	5	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-02	4/23/2007	2	3	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-03	4/24/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-04	4/24/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-05	4/24/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-06	4/25/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-07	4/26/2007	2	3	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-08	8/15/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-09	8/15/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-10	8/15/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-11	8/15/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-12	8/15/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-13	8/15/2007	2	3	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-14	8/15/2007	2	3	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-15	8/15/2007	2	3	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-16	8/15/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-17	8/16/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-18	8/16/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-19	8/16/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-20	8/16/2007	2	3	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-21	8/16/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--	--
GP-07-22	8/16/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--	--
HA-07-02	10/22/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--	--
HA-07-04	10/22/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--	--
HA-07-06	10/23/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--	--
HA-07-08	11/4/2007	4	6	ft bgs	--	--	--	--	--	--	--	--	--	--
I1-Floor	11/12/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--	--
I2-Floor	11/12/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--	--
I3-Floor	11/13/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--	--
I4-Floor	11/13/2007	5	5	ft bgs	--	--	--	--	--	--	--	--	--	--
I4-W-N	11/13/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
I4-W-W	11/13/2007	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--

Table 8 - Summary of Subsurface Soil Data and Exceedances of Type 4 RRS
Colonial Terminals, Plant #2
Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units Type 4 RRS ¹	Beryllium mg/kg 2,400	Cadmium mg/kg 1,200	Chromium mg/kg 1,200	Copper mg/kg 48,000	Mercury mg/kg 120	Nickel mg/kg 24,000	Silver mg/kg 6,000	Thallium mg/kg 12	Zinc mg/kg 360,000	2,4-Dinitrotoluene mg/kg 2,400
I5-Floor	11/13/2007	3	3	ft bgs	--	--	--	--	--	--	--	--	--	--
I6-Floor	11/13/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--	--
I7-Floor	11/14/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--	--
I8-Floor	11/28/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--	--
I9-Floor	11/28/2007	2	2	ft bgs	--	--	--	--	--	--	--	--	--	--
I-Floor-1	12/14/2007	8	8	ft bgs	--	--	--	--	--	--	--	--	--	--
IVOC-Floor -2	12/14/2007	8	8	ft bgs	--	--	--	--	--	--	--	--	--	--
MW-18	5/15/2005	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
MW-18	5/15/2005	5	8	ft bgs	--	--	--	--	--	--	--	--	--	--
MW-19	5/15/2005	2	4	ft bgs	--	--	--	--	--	--	--	--	--	--
MW-19	5/15/2005	6	9	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-1	8/25/1999	4.5	6.5	ft bgs	< 0.300	0.69	5.2	6.9	< 0.500	1.2	< 5.00	--	< 100	< 330
SB-2	8/25/1999	3.5	5.5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-2	8/25/1999	3.5	5.5	ft bgs	< 0.300	1.2	11	18	< 0.500	2.5	< 5.00	--	< 100	< 330
SB-3	8/25/1999	3.5	5.5	ft bgs	< 0.300	0.52	< 5.00	870	< 0.500	< 1.00	< 5.00	--	< 100	< 330
SB-4	8/25/1999	4	6	ft bgs	< 0.300	1.1	11	27	< 0.500	2.3	< 5.00	--	< 100	< 330
SB-4	8/25/1999	6	8	ft bgs	< 0.300	< 0.500	< 5.00	38	--	< 1.00	< 5.00	--	--	--
SB-5	8/25/1999	3.5	5.5	ft bgs	< 0.300	0.77	8.2	5.9	< 0.500	1.4	< 5.00	--	< 100	< 330
SB-6	8/25/1999	3.5	5.5	ft bgs	< 0.300	< 0.500	5.5	9.2	< 0.500	< 1.00	< 5.00	--	< 100	< 330
SB-7	8/25/1999	3.5	5.5	ft bgs	< 0.300	0.56	< 5.00	12	< 0.500	< 1.00	< 5.00	--	< 100	460
SB-8	8/25/1999	3.5	5.5	ft bgs	< 0.300	3.6	27	26	< 0.500	4.5	< 5.00	--	< 100	< 330
SB-9	8/25/1999	3.5	5.5	ft bgs	< 0.300	1.5	24	120	1.7	5.1	< 5.00	--	120	< 330
SB-20	10/1/2001	3	5	ft bgs	--	--	--	140	6.7	< 4.80	--	--	310	--
SB-20	10/1/2001	6	8	ft bgs	--	--	--	3.8	< 0.0240	--	--	--	400	--
SB-21	10/1/2001	3	5	ft bgs	--	< 0.600	--	--	--	--	--	--	--	--
SB-27	10/15/2001	3	5	ft bgs	--	--	23	41	0.037	--	< 1.20	--	46	--
SB-27	10/15/2001	6	8	ft bgs	--	--	15	37	--	--	--	--	43	--
SB-28	10/15/2001	3	5	ft bgs	--	--	--	530	7.8	6.3	1.2	--	1400	< 380
SB-28	10/15/2001	6	8	ft bgs	--	--	--	400	0.058	< 4.30	--	--	230	< 380
SB-29	10/1/2001	3	5	ft bgs	--	< 0.540	4.6	--	--	--	--	--	--	--
SB-30	10/1/2001	3	5	ft bgs	--	< 0.490	--	59	--	--	--	--	--	--
SB-30	10/1/2001	6	8	ft bgs	--	--	--	39	--	--	--	--	--	--
SB-32	11/15/2001	3	5	ft bgs	--	--	--	3.5	0.085	--	--	--	12	--
SB-33	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-37	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-38	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-38	9/15/2002	5	6.5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-40	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-41	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-41	9/15/2002	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-42	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-42	9/15/2002	5.5	7	ft bgs	--	--	--	--	--	--	--	--	--	--

Table 8 - Summary of Subsurface Soil Data and Exceedances of Type 4 RRS

Colonial Terminals, Plant #2

Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units Type 4 RRS ¹	Beryllium mg/kg 2,400	Cadmium mg/kg 1,200	Chromium mg/kg 1,200	Copper mg/kg 48,000	Mercury mg/kg 120	Nickel mg/kg 24,000	Silver mg/kg 6,000	Thallium mg/kg 12	Zinc mg/kg 360,000	2,4-Dinitrotoluene mg/kg 2,400
SB-43	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-43	9/15/2002	6	8	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-44	9/15/2002	6	8	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-45	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-45	9/15/2002	6	8	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-46	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-46	9/15/2002	6	8	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-47	9/15/2002	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-47	9/15/2002	6	8	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-48	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-49	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-50	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-52	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-53	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-54	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-55	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-56	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-57	9/15/2003	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-58	9/15/2003	4	6	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-59	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-59	9/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-60	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-60	9/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-61	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-61	9/15/2003	5.5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-62	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-63	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-64	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-65	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-66	9/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-67	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-68	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-68	11/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-69	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-69	11/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-70	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-70	11/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-71	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-72	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-72	11/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-73	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--
SB-74	11/15/2003	3	5	ft bgs	--	--	--	--	--	--	--	--	--	--

Table 8 - Summary of Subsurface Soil Data and Exceedances of Type 4 RRS

Colonial Terminals, Plant #2

Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units Type 4 RRS ¹	Beryllium mg/kg 2,400	Cadmium mg/kg 1,200	Chromium mg/kg 1,200	Copper mg/kg 48,000	Mercury mg/kg 120	Nickel mg/kg 24,000	Silver mg/kg 6,000	Thallium mg/kg 12	Zinc mg/kg 360,000	2,4-Dinitrotoluene mg/kg 2,400
SB-74	11/15/2003	6	8	ft bgs	--	--	--	--	--	--	--	--	--	--
SL-BF-1	12/11/2007	4	4	ft bgs	--	--	--	--	--	--	--	--	--	--
SL-BF-2	12/11/2007	4	4	ft bgs	--	--	--	--	--	--	--	--	--	--
SL-BF-3	12/11/2007	4	4	ft bgs	--	--	--	--	--	--	--	--	--	--
Station 12+00	4/15/2000	6	8	ft bgs	<1.34	<1.34	8.74	43.3	6.18	<2.68	<1.34	NA	34.2	--
Station 13+50	8/15/2000	5.5	8	ft bgs	NA	NA	NA	260	0.22	NA	<2.5	<5.0	68.3	--
Station 15+00	4/11/2000	6	8	ft bgs	<1.59	<1.59	8.38	24	2.2	17.8	<1.59	NA	17.8	--
Station 16+50	8/15/2000	5.5	8	ft bgs	NA	NA	NA	6.09	<1.0	NA	<2.49	<4.99	14.5	--
Station 18+00	4/12/2000	6	8	ft bgs	<2.19	<2.19	41.8	637	15.4	16.1	2.47	NA	664	--
Station 19+50	8/15/2000	5.5	8	ft bgs	NA	NA	NA	1910	0.13	NA	<2.49	<4.99	1230	--
Station 21+00	4/15/2000	6	8	ft bgs	<1.73	4.95	6.75	1380	4.11	7.37	6.21	NA	3400	--
TW-10	12/14/2005	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-11	12/14/2005	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-12	3/20/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-13	3/21/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-14	3/21/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-15	3/21/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-16	3/21/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-17	3/21/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-18	3/21/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-19	3/22/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-20	3/22/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-21	3/23/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-22	3/23/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-23	3/23/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-24	3/23/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-25	5/25/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-26	5/25/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-27	5/25/2006	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-29	4/23/2007	4	5	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-30	4/24/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-31	4/24/2007	4	5	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-32	4/24/2007	3	4	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-5	12/14/2005	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-6	12/14/2005	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-7	12/14/2005	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-8	12/14/2005	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
TW-9	12/14/2005	5	7	ft bgs	--	--	--	--	--	--	--	--	--	--
A-SB-1	11/14/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
A-SB-5	11/14/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
A-SB-6	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
B-SB-3	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--

Table 8 - Summary of Subsurface Soil Data and Exceedances of Type 4 RRS

Colonial Terminals, Plant #2

Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units Type 4 RRS ¹	Beryllium mg/kg 2,400	Cadmium mg/kg 1,200	Chromium mg/kg 1,200	Copper mg/kg 48,000	Mercury mg/kg 120	Nickel mg/kg 24,000	Silver mg/kg 6,000	Thallium mg/kg 12	Zinc mg/kg 360,000	2,4-Dinitrotoluene mg/kg 2,400
B-SB-3 DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
B-SB-8	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
B-SB-8 DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
B-SB-13	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
B-SB-13DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
B-SB-18	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
B-SB-23	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
B-SB-23DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
B-SB-28	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
B-SB-28DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
B-SB-38	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
B-SB-38 DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
B-SB-48	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
B-SB-48 DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
B-SB-53	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
B-SB-53 DUP	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
C-SB-1	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
C-SB-1	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--	--
C-SB-3	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--	--
C-SB-4	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
C-SB-4	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--	--
C-SB-5	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
C-SB-5	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--	--
C-SB-6	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
C-SB-6	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--	--
E-SB-1	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
E-SB-1	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--	--
E-SB-3	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--	--
E-SB-4	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
E-SB-4	10/5/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--	--
F-SB-1	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
F-SB-7	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
F-SB-8	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
F-SB-10	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
F-SB-13	11/14/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--	--
F-SB-14	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
F-SB-15	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
F-SB-16	11/14/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--	--
F-SB-18	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
F-SB-20	11/14/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
G-SB-1	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
G-SB-3	11/14/2006	5	8	ft bgs	--	--	--	--	--	--	--	--	--	--

Table 8 - Summary of Subsurface Soil Data and Exceedances of Type 4 RRS

Colonial Terminals, Plant #2

Savannah, Georgia

Sample ID	Sample Date	Min Depth	Max Depth	Analyte Units Type 4 RRS ¹	Beryllium mg/kg 2,400	Cadmium mg/kg 1,200	Chromium mg/kg 1,200	Copper mg/kg 48,000	Mercury mg/kg 120	Nickel mg/kg 24,000	Silver mg/kg 6,000	Thallium mg/kg 12	Zinc mg/kg 360,000	2,4-Dinitrotoluene mg/kg 2,400
G-SB-4	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
G-SB-5	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
G-SB-6	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
G-SB-7	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
G-SB-8	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
G-SB-9	11/14/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
G-SB-10	11/14/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
I-SB-1	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
I-SB-2	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
I-SB-3	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
I-SB-4	10/5/2006	2	4	ft bgs	--	--	--	--	--	--	--	--	--	--
I-SB-5	10/5/2006	2	4	ft bgs	--	--	--	--	--	--	--	--	--	--
I-SB-8	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
I-SB-9	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--
I-SB-10	10/5/2006	2	5	ft bgs	--	--	--	--	--	--	--	--	--	--

Notes:

(1) Type 4 Risk Reduction Standards for Surface Soil (ENVIRON, 2012)

Subsurface soil samples from below 10 ft bgs are not included

Concentration exceeds the Type 4 RRS (ENVIRON, 2012)

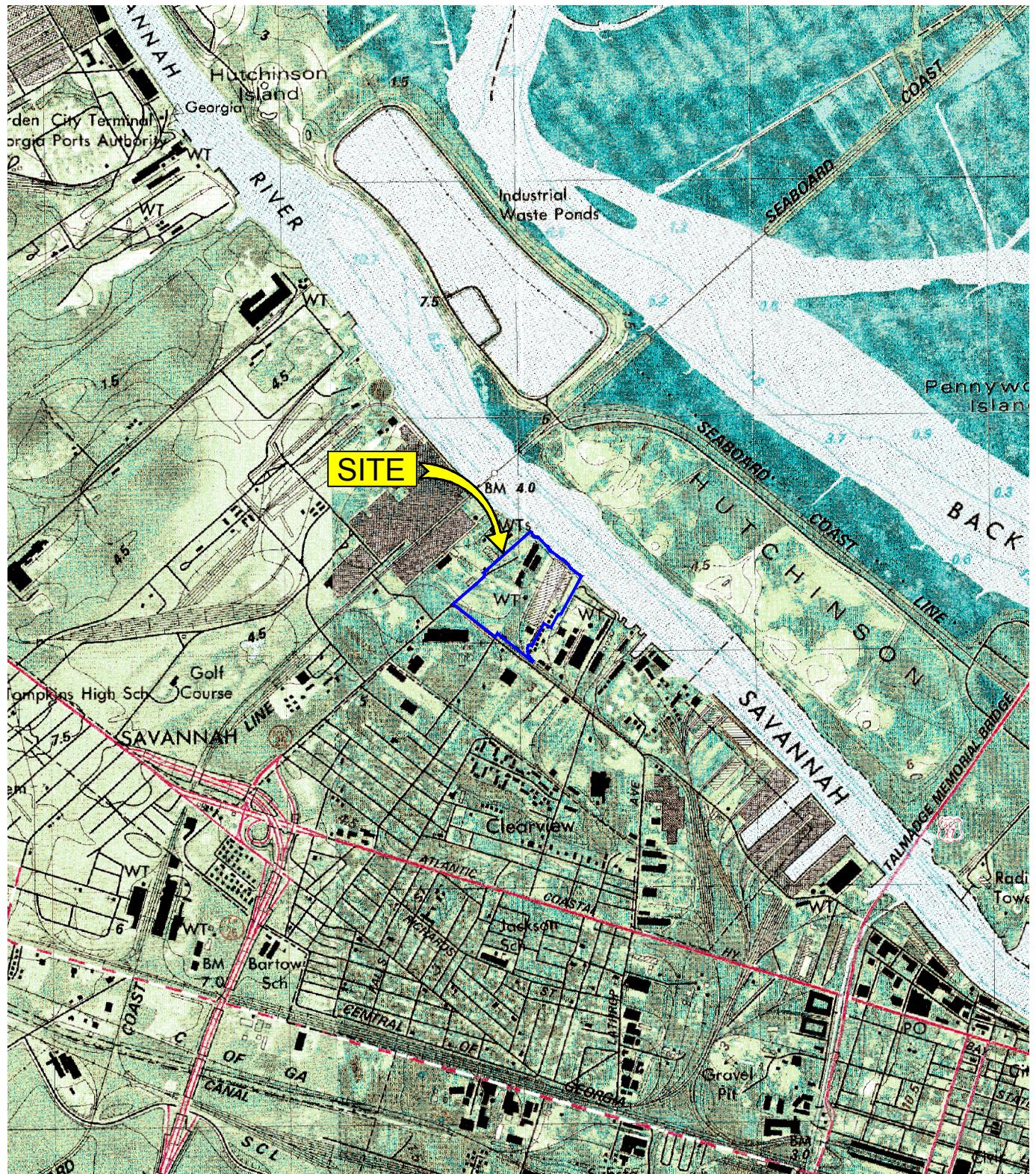
mg/kg -- Milligrams per kilogram (parts per million)

ft bgs -- Feet below ground surface

< Analyte was not detected at the laboratory reporting limit indicated

-- Analyte was not sampled for

Figures



1
2000 0 2000 4000 6000 FEET
1/2
0
CONTOUR INTERVAL 1.5 METERS

SOURCE: U.S.G.S. 7.5 minute series (topographic)
Savannah, Georgia Quadrangle, 1978,
Garden City, Georgia Quadrangle, 1980.



LEGEND
— APPROXIMATE SITE BOUNDARY



ENVIRON

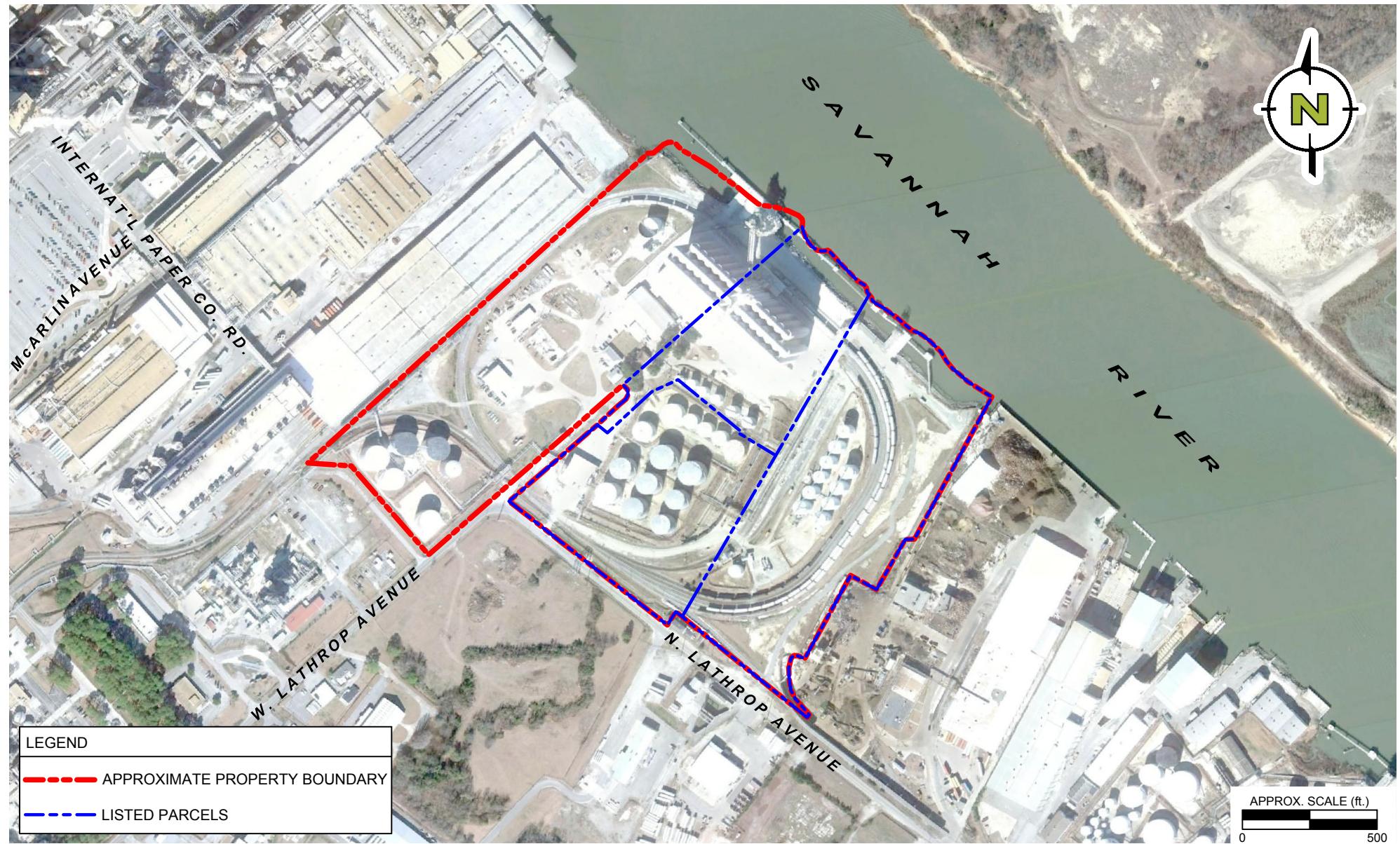
DRAFTED BY: ELS

DATE: 9/17/12

SITE LOCATION MAP
COLONIAL TERMINALS, INC.
373 NORTH LANTHROP AVENUE
SAVANNAH, GEORGIA

FIGURE
1

07-30114B



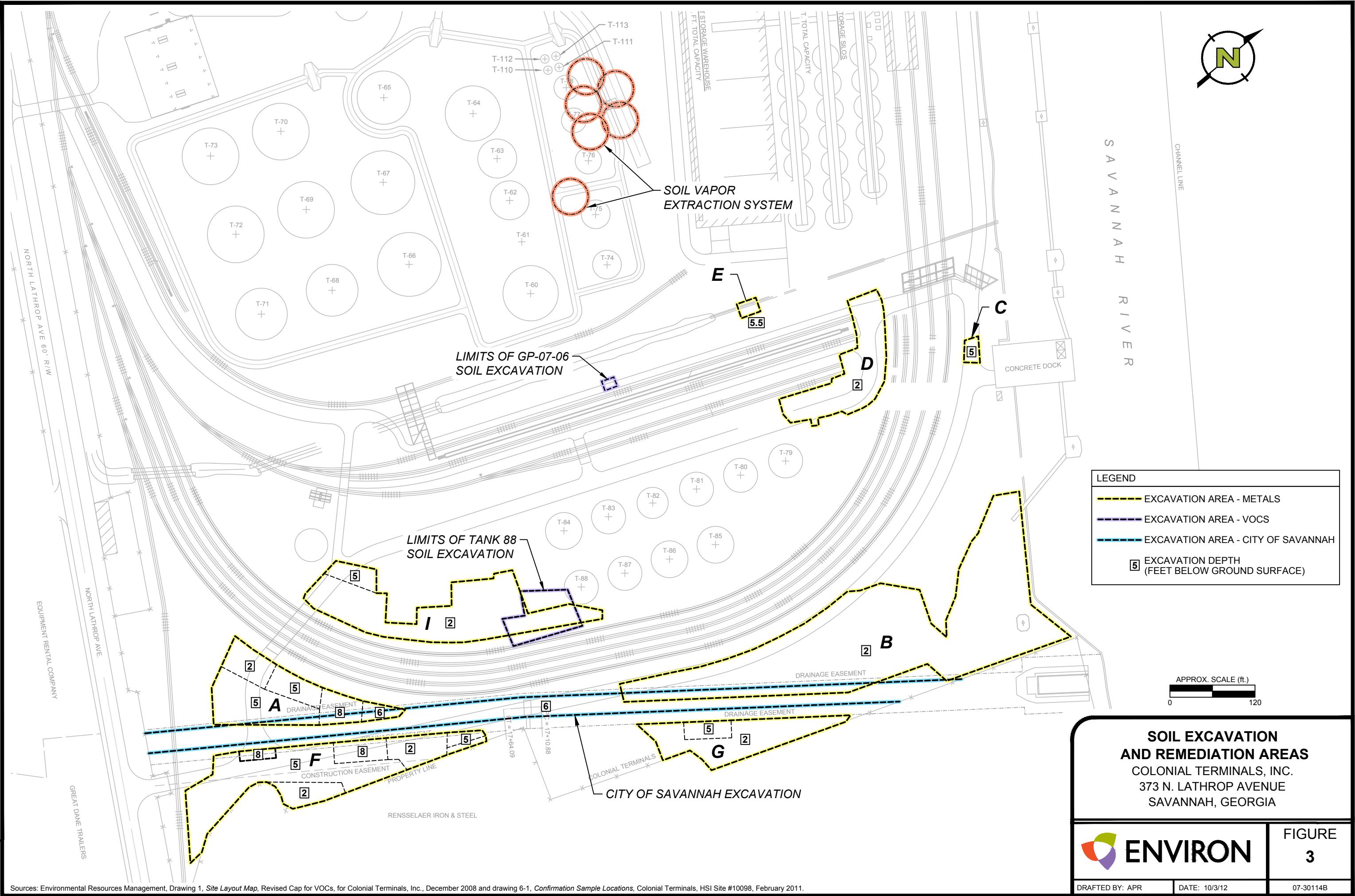
DRAFTED BY: CAD

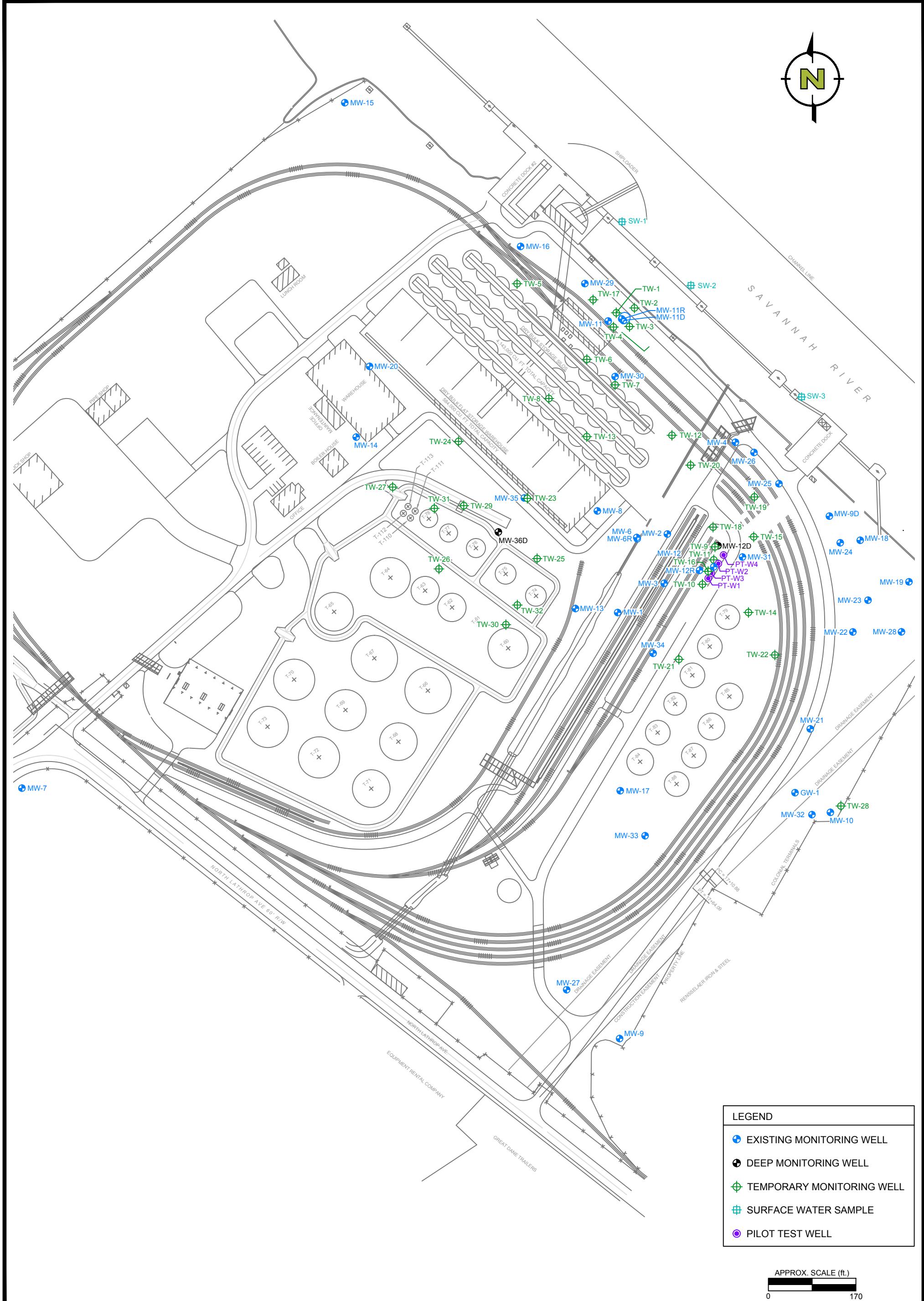
DATE: 10/1/12

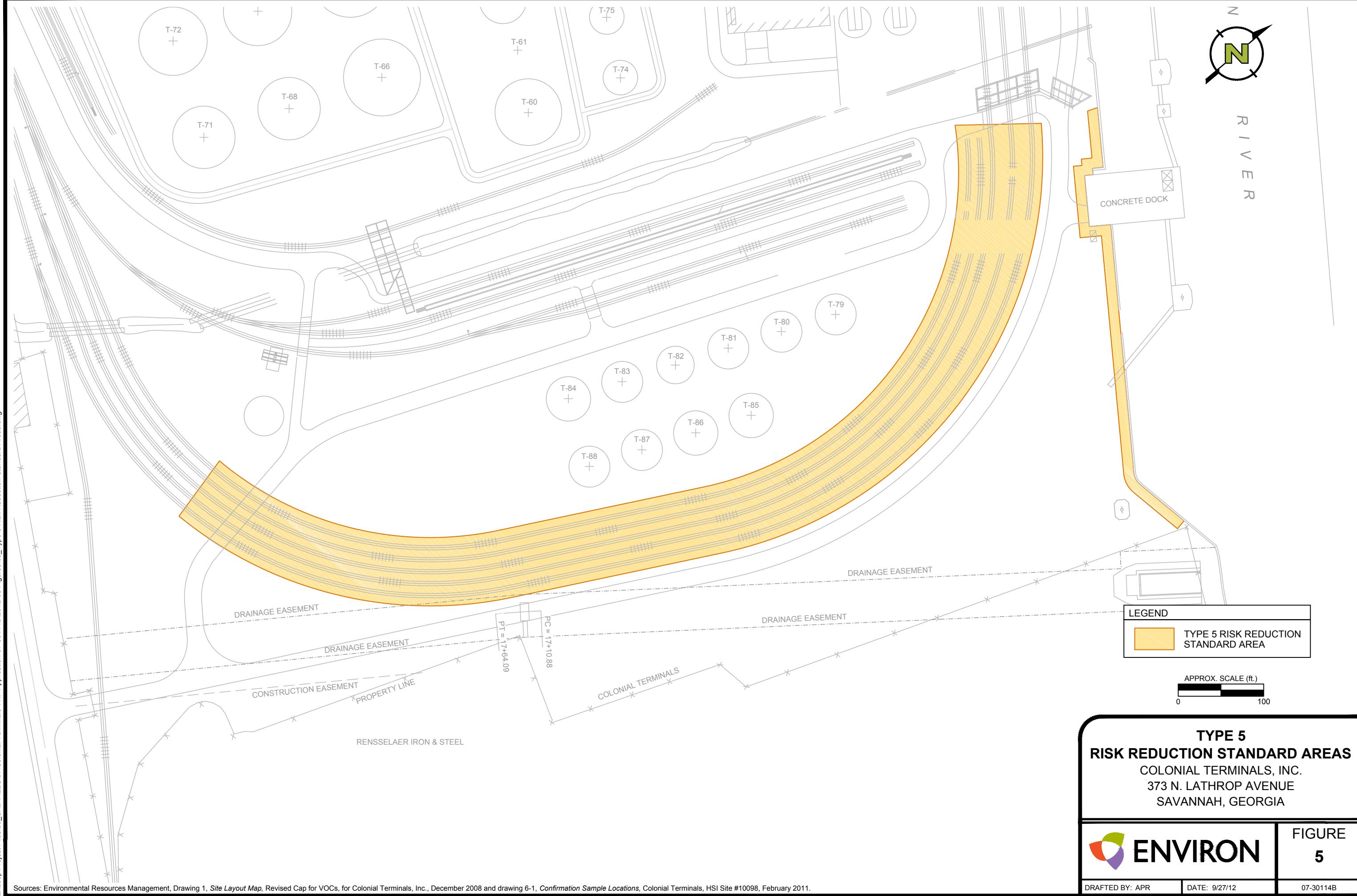
SITE LAYOUT
COLONIAL TERMINALS, INC.
373 NORTH LATHROP AVENUE
SAVANNAH, GEORGIA

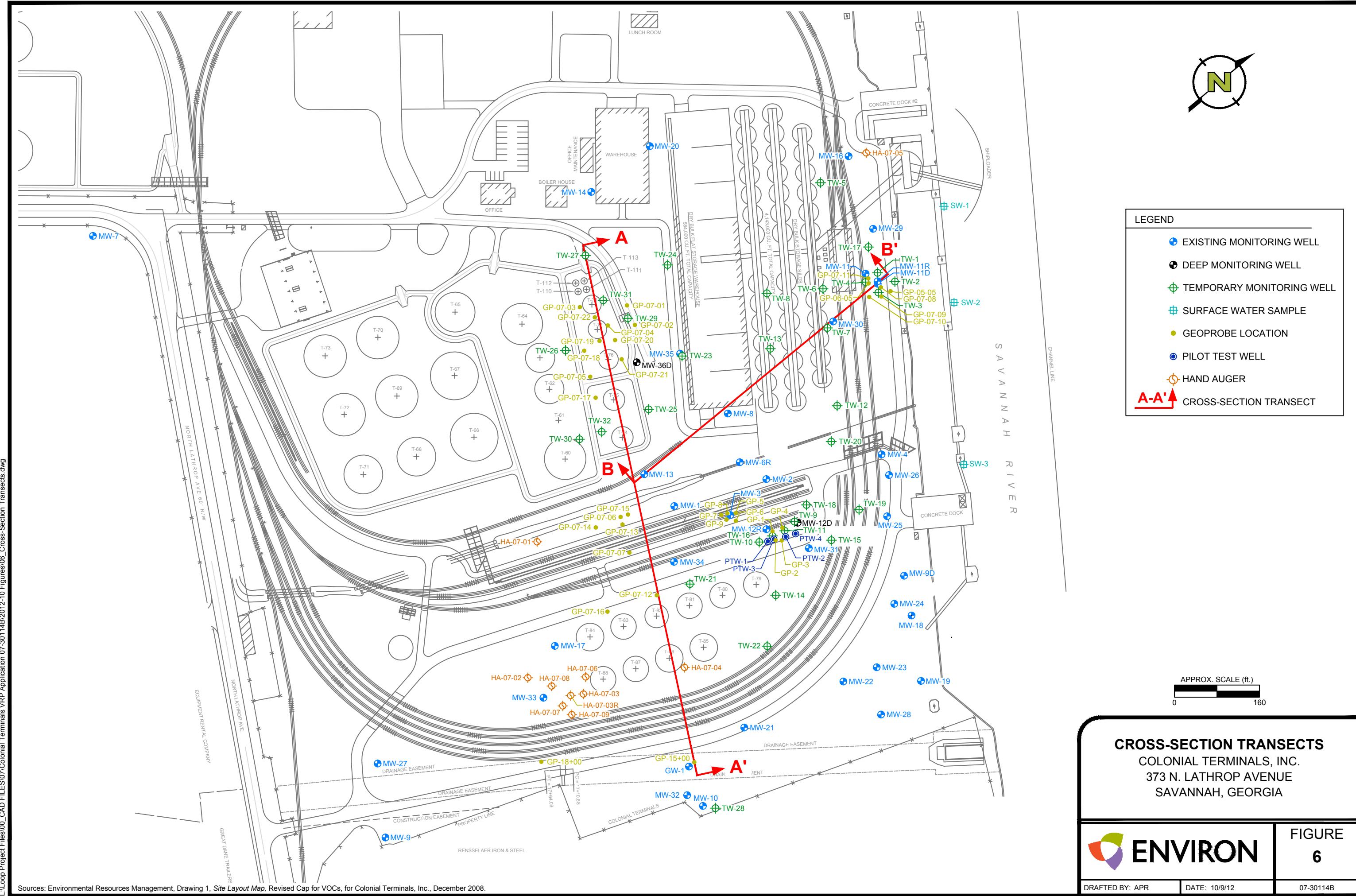
FIGURE
2

07-30114B







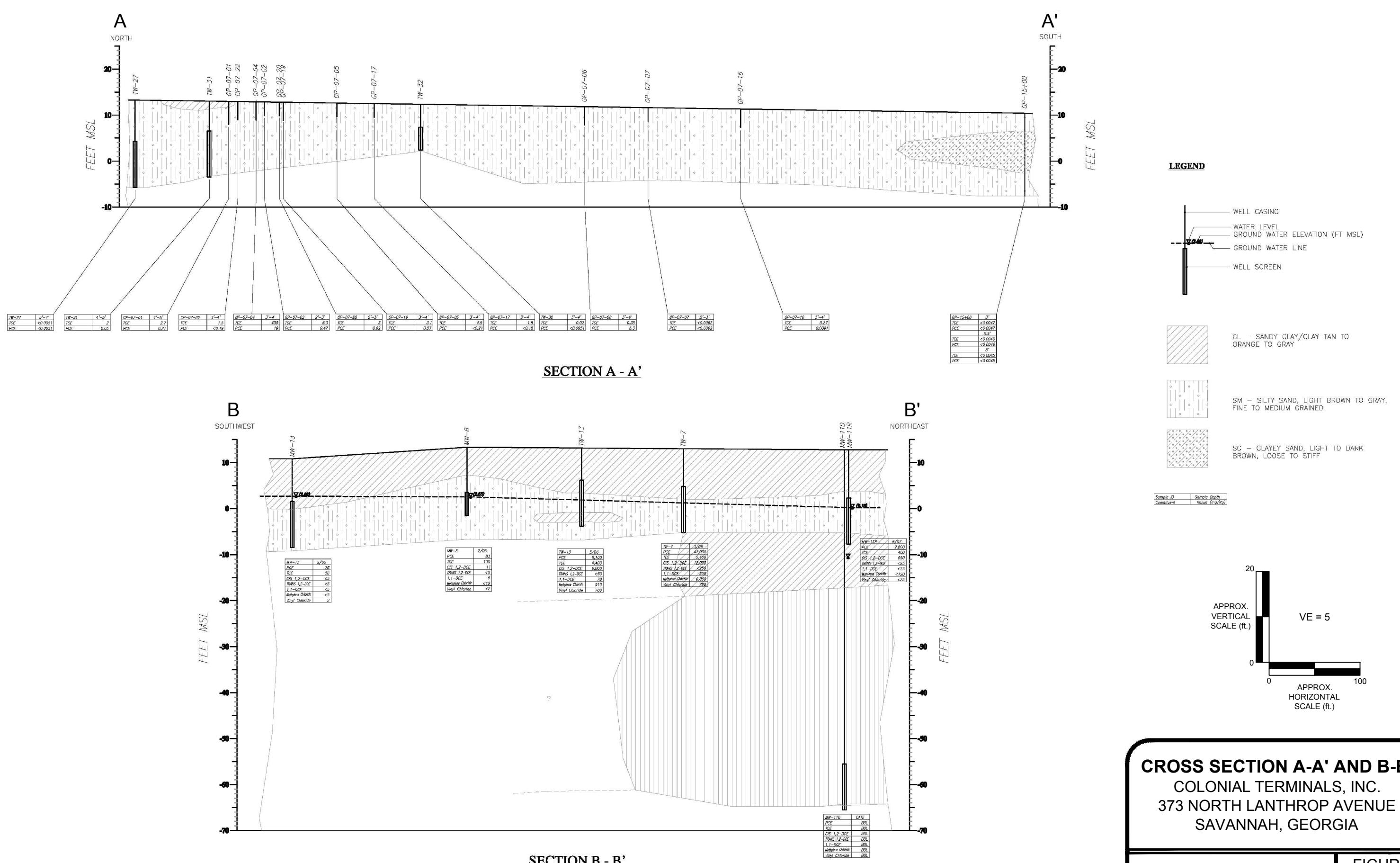


Sources: Environmental Resources Management, Drawing 1, *Site Layout Map*, Revised Cap for VOCs, for Colonial Terminals, Inc., December 2004.

DRAFTED BY: APR

DATE: 10/9/12

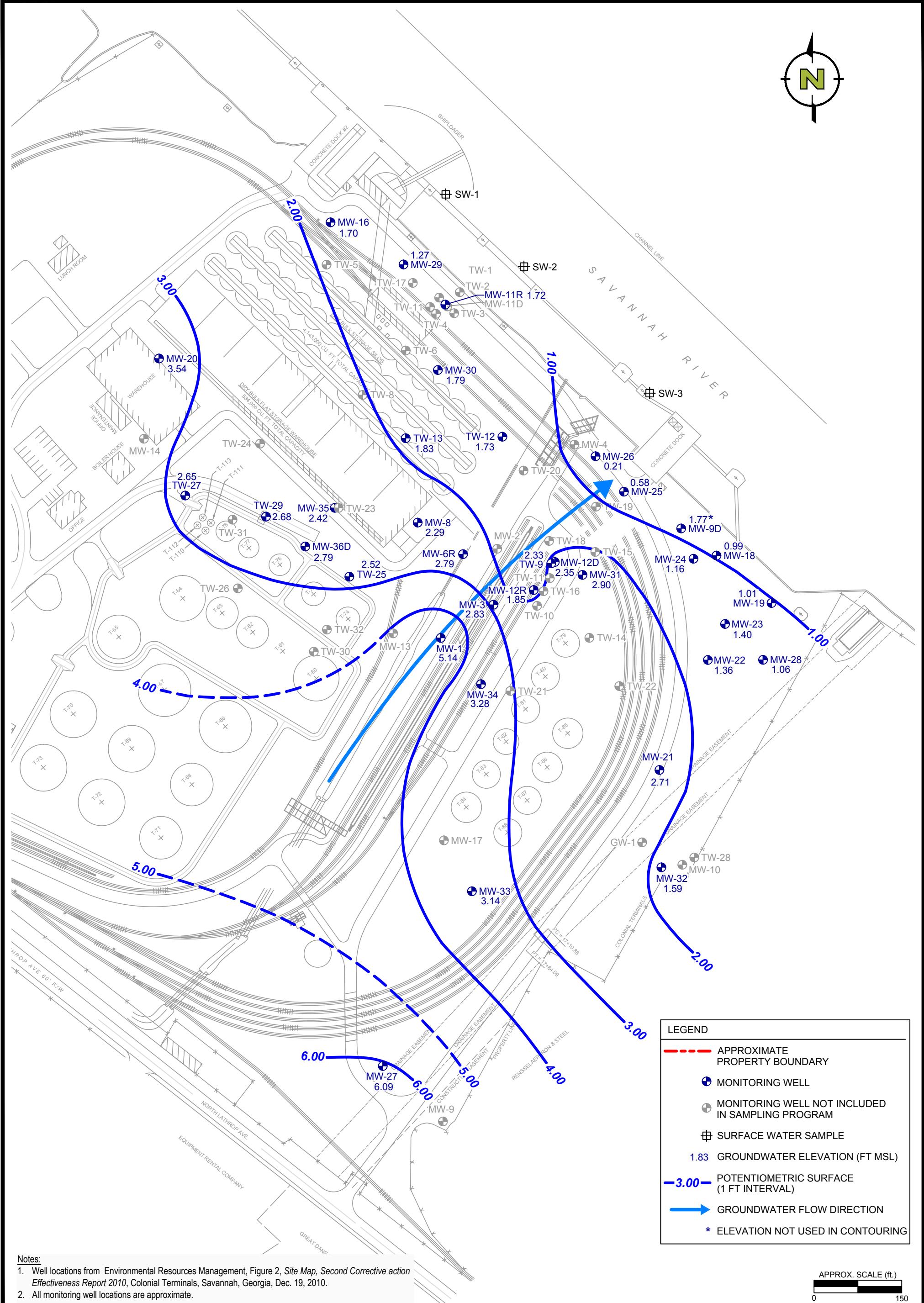
07-30114B

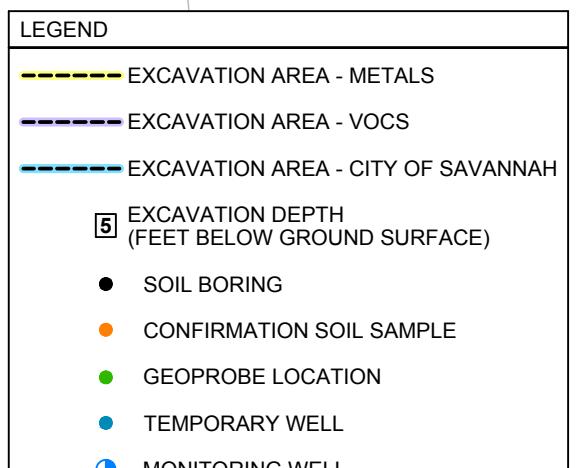
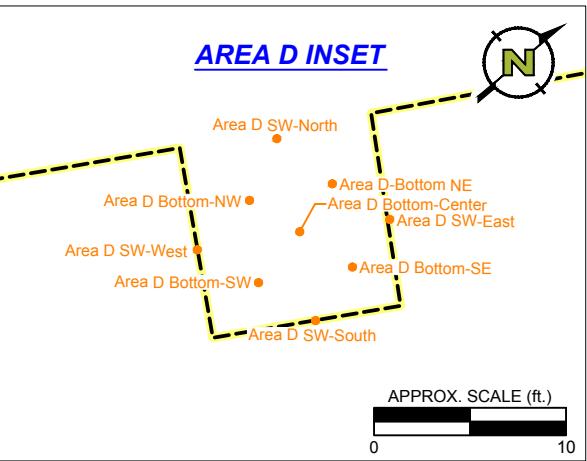
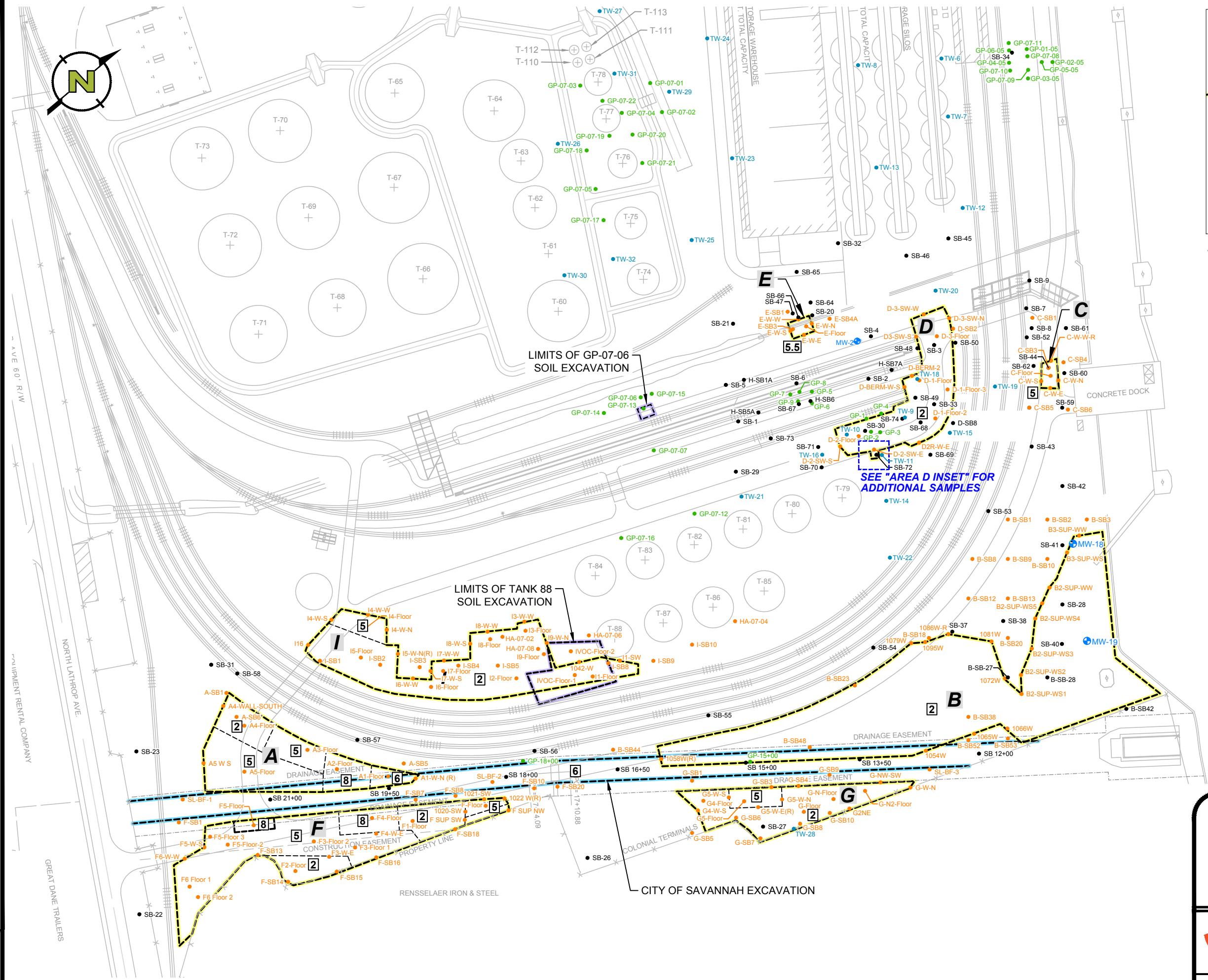


CROSS SECTION A-A' AND B-B'
COLONIAL TERMINALS, INC.
373 NORTH LANTHROP AVENUE
SAVANNAH, GEORGIA



FIGURE 7





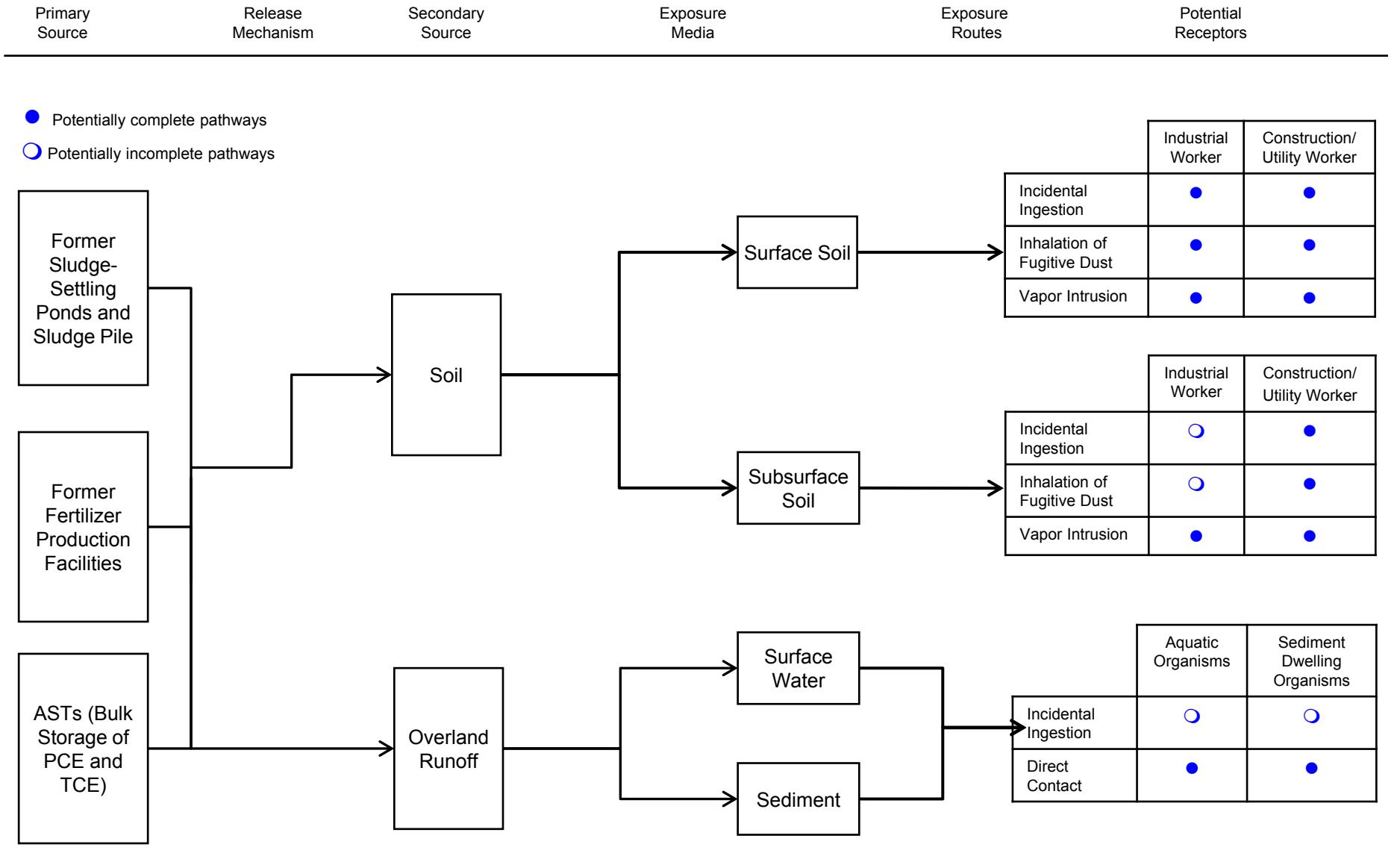
APPROX. SCALE (ft.)
0 120

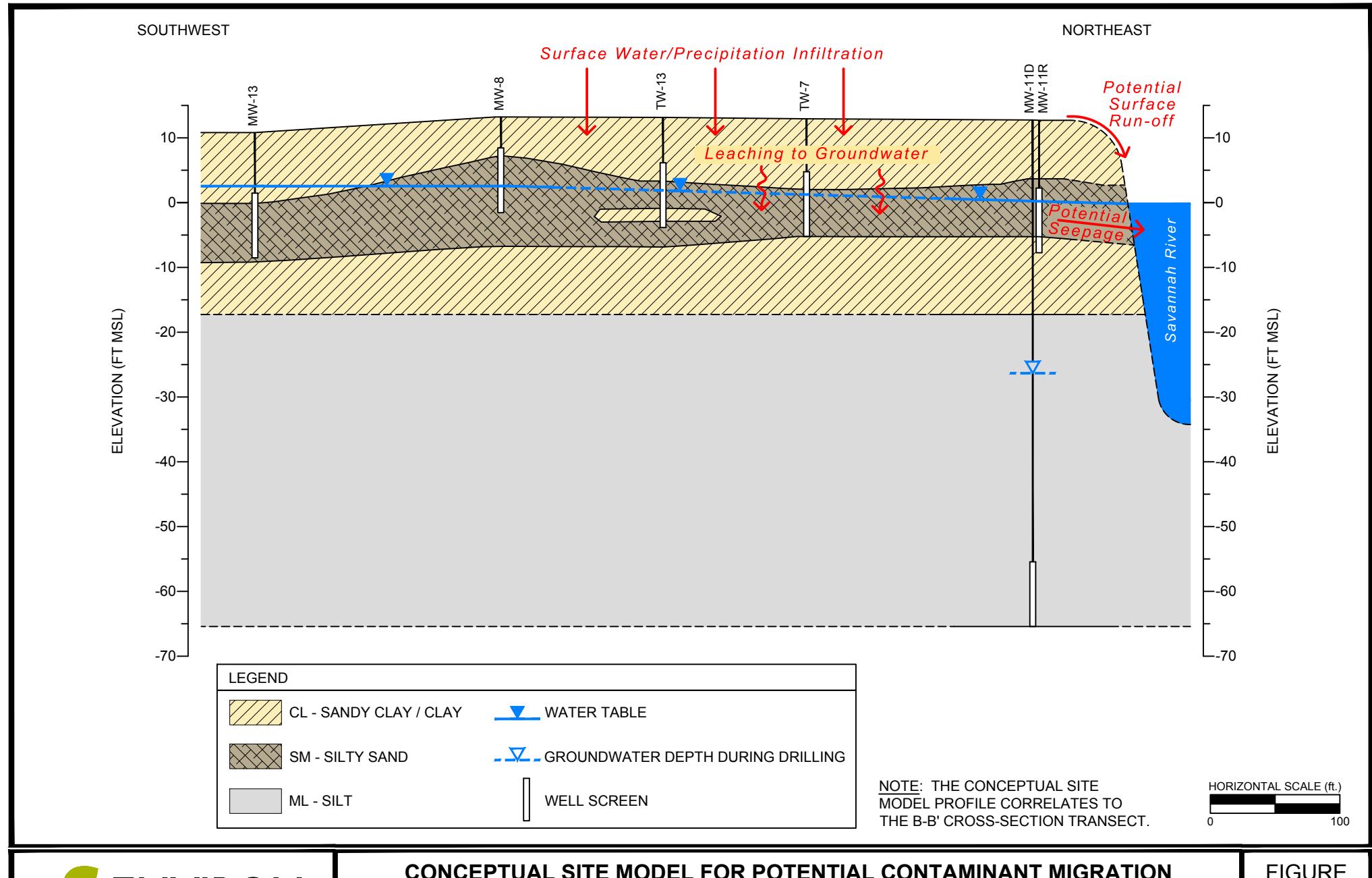
SOIL SAMPLE LOCATIONS

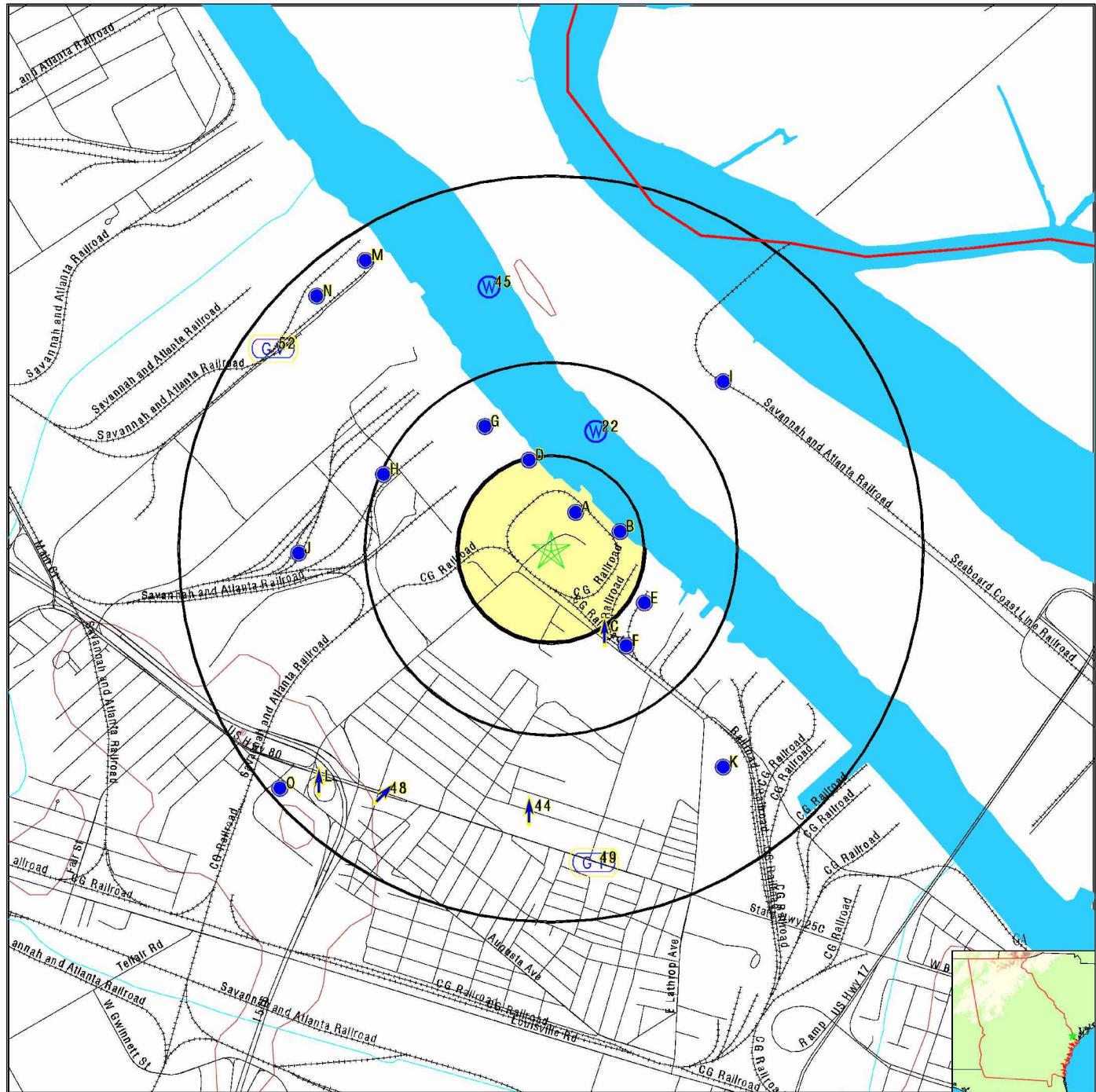
COLONIAL TERMINALS, INC.
373 N. LATHROP AVENUE
SAVANNAH, GEORGIA



FIGURE
9







County Boundary

Major Roads

Contour Lines

Earthquake epicenter, Richter 5 or greater

Water Wells

Public Water Supply Wells

Cluster of Multiple Icons

Groundwater Flow Direction

Indeterminate Groundwater Flow at Location

Groundwater Flow Varies at Location

Wildlife Areas

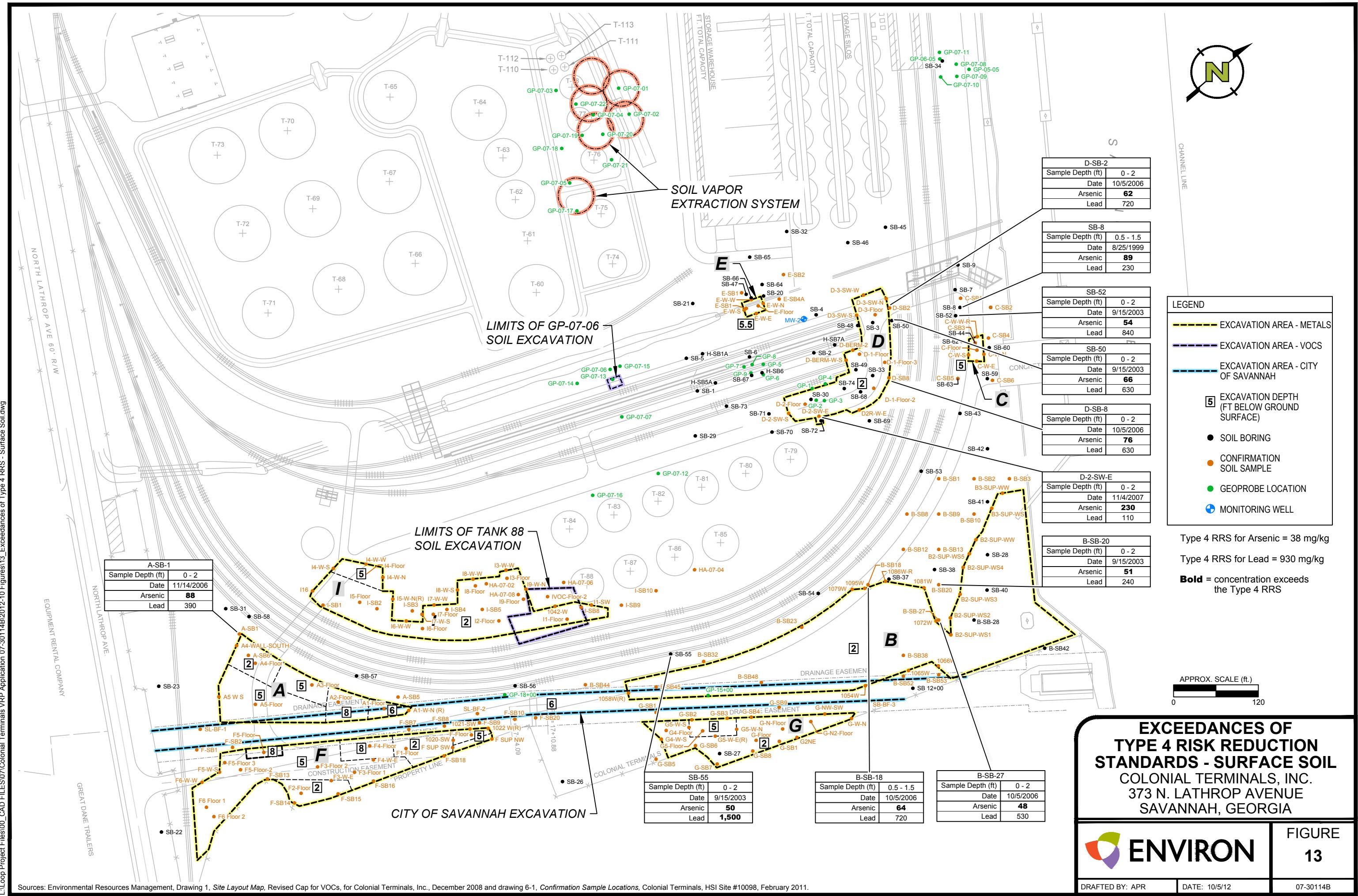


0 1/4 1/2 1 Miles

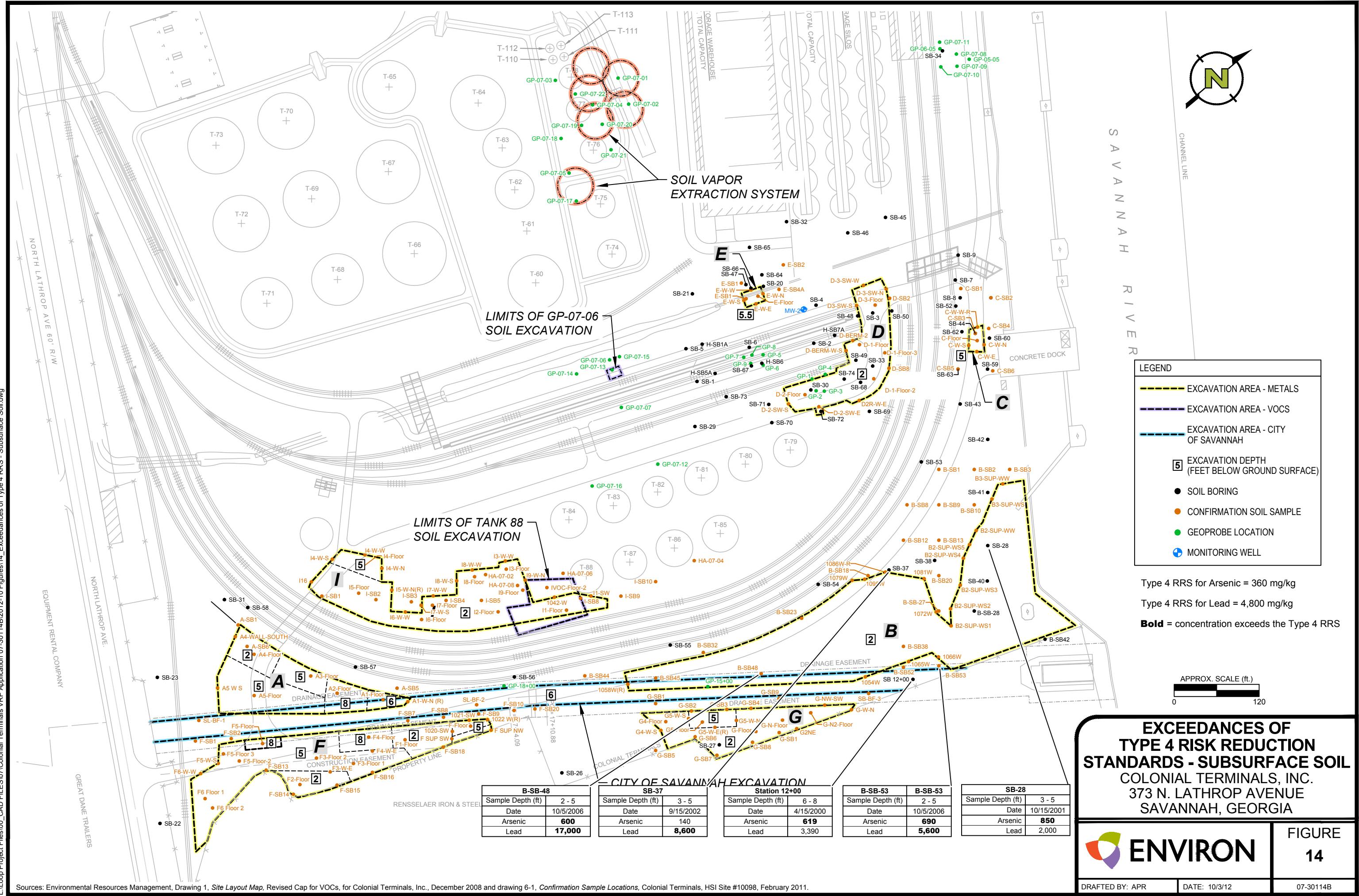
DRAWING AND DATA SOURCE: ENVIRONMENTAL RESOURCES MANAGEMENT, INC. (SEPTEMBER 2012).

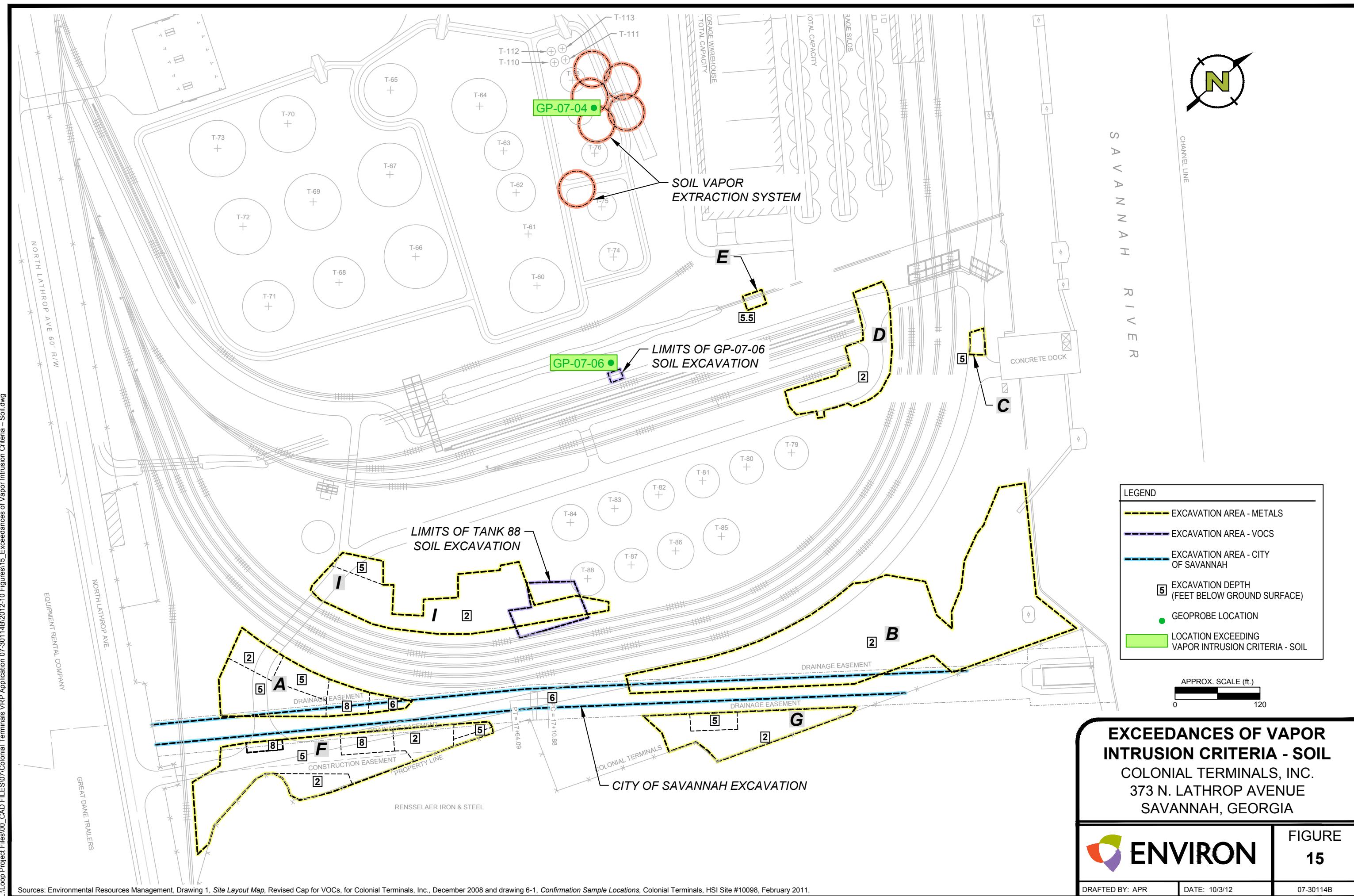


ENVIRON



Sources: Environmental Resources Management, Drawing 1, Site Layout Map, Revised Cap for VOCs, for Colonial Terminals, Inc., December 2008 and drawing 6-1, Confirmation Sample Locations, Colonial Terminals, HSI Site #10098, February 2011.





:\VLoop\Project Files\00_CAD FILES\07\Colonial Terminals VRP Application 07-30-114B\2012-10 Figures\15_Exceedances of Vapor Intrusion Criteria – Soil dvg

Attachment A
VRP Application Form and Checklist

Voluntary Investigation and Remediation Plan Application Form and Checklist

VRP APPLICANT INFORMATION

COMPANY NAME	Colonial Terminals, Inc.				
CONTACT PERSON/TITLE	James R Baker				
ADDRESS	P.O. Box 576, Savannah, Georgia 31402				
PHONE	912-443-6553	FAX		E-MAIL	JBaker@colonialgroupinc.com

GEORGIA CERTIFIED PROFESSIONAL GEOLOGIST OR PROFESSIONAL ENGINEER OVERSEEING CLEANUP

NAME	Juliette Rose			GA PE/PG NUMBER	33954
COMPANY	ENVIRON International Corporation				
ADDRESS	1600 Parkwood Circle, Suite 310. Atlanta, Georgia 30039				
PHONE	770-874-5010	FAX	770-874-5011	E-MAIL	jirose@environcorp.com

APPLICANT'S CERTIFICATION

In order to be considered a qualifying property for the VRP:

- (1) The property must have a release of regulated substances into the environment;
- (2) The property shall not be:
 - (A) Listed on the federal National Priorities List pursuant to the federal Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601.
 - (B) Currently undergoing response activities required by an order of the regional administrator of the federal Environmental Protection Agency; or
 - (C) A facility required to have a permit under Code Section 12-8-66.
- (3) Qualifying the property under this part would not violate the terms and conditions under which the division operates and administers remedial programs by delegation or similar authorization from the United States Environmental Protection Agency.
- (4) Any lien filed under subsection (e) of Code Section 12-8-96 or subsection (b) of Code Section 12-13-12 against the property shall be satisfied or settled and released by the director pursuant to Code Section 12-8-94 or Code Section 12-13-6.

In order to be considered a participant under the VRP:

- (1) The participant must be the property owner of the voluntary remediation property or have express permission to enter another's property to perform corrective action.
- (2) The participant must not be in violation of any order, judgment, statute, rule, or regulation subject to the enforcement authority of the director.

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

I also certify that this property is eligible for the Voluntary Remediation Program (VRP) as defined in Code Section 12-8-105 and I am eligible as a participant as defined in Code Section 12-8-106.

APPLICANT'S SIGNATURE			
APPLICANT'S NAME/TITLE (PRINT)	James R. Baker, EHS Manager	DATE	11/9/2012

QUALIFYING PROPERTY INFORMATION (For additional qualifying properties, please refer to the last page of application form)			
HAZARDOUS SITE INVENTORY INFORMATION (if applicable)			
HSI Number	10098	Date HSI Site listed	6/29/1994
HSI Facility Name	Colonial Terminals, Plant #2	NAICS CODE	42271, 49319
PROPERTY INFORMATION			
TAX PARCEL ID	1-0549-01-002, 1-0549-01-002A, 01-550-02-004	PROPERTY SIZE (ACRES)	34.6
PROPERTY ADDRESS	373 North Lathrop Avenue		
CITY	Savannah	COUNTY	Chatham
STATE	Georgia	ZIPCODE	31402
LATITUDE (decimal format)	32.099236	LONGITUDE (decimal format)	-81.119314
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	Colonial Terminals, Inc.	PHONE #	912-233-4489
MAILING ADDRESS	P.O. Box 576		
CITY	Savannah	STATE/ZIPCODE	Georgia, 31402
ITEM #	DESCRIPTION OF REQUIREMENT	Location in VRP (i.e. pg., Table #, Figure #, etc.)	For EPD Comment Only (Leave Blank)
1.	\$5,000 APPLICATION FEE IN THE FORM OF A CHECK PAYABLE TO THE GEORGIA DEPARTMENT OF NATURAL RESOURCES. (PLEASE LIST CHECK DATE AND CHECK NUMBER IN COLUMN TITLED "LOCATION IN VRP." PLEASE DO NOT INCLUDE A SCANNED COPY OF CHECK IN ELECTRONIC COPY OF APPLICATION.)	11/9/2012 Check #10908	
2.	WARRANTY DEED(S) FOR QUALIFYING PROPERTY.	Appendix A	
3.	TAX PLAT OR OTHER FIGURE INCLUDING QUALIFYING PROPERTY BOUNDARIES, ABUTTING PROPERTIES, AND TAX PARCEL IDENTIFICATION NUMBER(S).	Appendix A	
4.	ONE (1) PAPER COPY AND TWO (2) COMPACT DISC (CD) COPIES OF THE VOLUNTARY REMEDIATION PLAN IN A SEARCHABLE PORTABLE DOCUMENT FORMAT (PDF).	Attached	
5.	The VRP participant's initial plan and application must include, using all reasonably available current information to the extent known at the time of application, a graphic three-dimensional preliminary conceptual site model (CSM) including a preliminary remediation plan with a table of delineation standards, brief supporting text, charts, and figures (no more than 10 pages, total) that illustrates the site's surface and subsurface setting, the known or suspected source(s) of contamination, how contamination might move within the environment, the potential human health and ecological receptors, and the complete or incomplete exposure pathways that may exist at the site; the preliminary CSM must be updated as the investigation and remediation progresses and an up-to-date CSM must be included in each semi-annual status report submitted to the director by the participant; a PROJECTED MILESTONE SCHEDULE for investigation and remediation of the site, and	CSM – Figures 10 and 11 Delineation Criteria – Table 2 Text, Charts, Figures – Attached	

	<p>after enrollment as a participant, must update the schedule in each semi-annual status report to the director describing implementation of the plan during the preceding period. A Gantt chart format is preferred for the milestone schedule.</p> <p>The following four (4) generic milestones are required in all initial plans with the results reported in the participant's next applicable semi-annual reports to the director. The director may extend the time for or waive these or other milestones in the participant's plan where the director determines, based on a showing by the participant, that a longer time period is reasonably necessary:</p>	Projected Milestone Schedule – Appendix F	
5.a.	Within the first 12 months after enrollment, the participant must complete horizontal delineation of the release and associated constituents of concern on property where access is available at the time of enrollment;	Appendix F	
5.b.	Within the first 24 months after enrollment, the participant must complete horizontal delineation of the release and associated constituents of concern extending onto property for which access was not available at the time of enrollment;	Appendix F	
5.c.	Within 30 months after enrollment, the participant must update the site CSM to include vertical delineation, finalize the remediation plan and provide a preliminary cost estimate for implementation of remediation and associated continuing actions; and	Appendix F	
5.d.	Within 60 months after enrollment, the participant must submit the compliance status report required under the VRP, including the requisite certifications.	Appendix F	
6.	<p>SIGNED AND SEALED PE/PG CERTIFICATION AND SUPPORTING DOCUMENTATION:</p> <p>"I certify under penalty of law that this report and all attachments were prepared by me or under my direct supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, etseq.). I am a professional engineer/professional geologist who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors/Georgia State Board of Registration for Professional Geologists and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances.</p> <p>Furthermore, to document my direct oversight of the Voluntary Remediation Plan development, implementation of corrective action, and long term monitoring, I have attached a monthly summary of hours invoiced and description of services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division.</p> <p>The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."</p>		

Juliette Rose #33954

Printed Name and GA PE/PG Number

11/12/2012

Date

Juliette Rose
Signature and Stamp



Appendix A
Legal Description and Warranty Deed



Tax Parcel Location Map



Colonial Terminals, Inc. (HSI No. 10098)
Savannah, Georgia

Appendix A
Entire Site



Owner: COLONIAL TERMINALS INC

PIN: 1-0549-01-002

Property Address: 373 N LATHROP AVE

Zoning: I-H

Flood Zone: X

Aldermanic Code: 0
Other Municipality

8

Commissioner Code: [Dr. Priscilla D. Thomas](#)

Phone: 912-236-0459

Voting Precinct: 8-7 C

Elementary School: PORT WENTWORTH ELEMENTARY

Middle School: MERCER

High School: Groves

Zip Code: 31402-0576

Neighborhood Code: 9900

Calculated Acreage: 17.30636043

Land Value: 3188400

Building Value: 12626700

Real-estate Value: 15815100

Sale Price:

Sale Month: 10

Sale Day: 06

Sale Year: 2006

Legal Description: PT OF LOTS 3,5&7 WATER WORKS T

Property Card: [Click Here](#)

Tax Parcel: 1-0549-01-002

Colonial Terminals, Inc. (HSI No. 10098)
Savannah, Georgia



Appendix A
Parcel -002



Owner: COLONIAL TERMINALS INC

PIN: 1-0549-01-002A

Property Address: 373 N LATHROP AVE

Zoning: I-H

Flood Zone: X

Aldermanic Code: 0
Other Municipality

8

Commissioner Code: [Dr. Priscilla D. Thomas](#)

Phone: 912-236-0459

Voting Precinct: 8-7 C

Elementary School: PORT WENTWORTH ELEMENTARY

Middle School: MERCER

High School: Groves

Zip Code: 31402-0576

Neighborhood Code: 9900

Calculated Acreage: 8.25946936

Land Value: 519200

Building Value: 297500

Real-estate Value: 816700

Sale Price:

Sale Month: 10

Sale Day: 06

Sale Year: 2006

Legal Description: LOT B RECOMBINATION OF PIERPON

Property Card: [Click Here](#)

Tax Parcel: 1-0549-01-002A



Colonial Terminals, Inc. (HSI No. 10098)
Savannah, Georgia

Appendix A
Parcel -002A



Owner: COLONIAL TERMINALS INC

PIN: 1-0550 -02-004

Property Address: 373 N LATHROP AVE

Zoning: I-H

Flood Zone: AE

Aldermanic Code: 0
Other Municipality

8

Commissioner Code: [Dr. Priscilla D. Thomas](#)

Phone: 912-236-0459

Voting Precinct: 8-7 C

Elementary School: PORT WENTWORTH ELEMENTARY

Middle School: MERCER

High School: Groves

Zip Code: 31402-0576

Neighborhood Code: 17500

Calculated Acreage: 10.80430816

Land Value: 482400

Building Value: 1685100

Real-estate Value: 2167500

Sale Price:

Sale Month: 10

Sale Day: 06

Sale Year: 2006

Legal Description: LOT A RECOMBINATION OF PIERPON

Property Card: [Click Here](#)

Tax Parcel: 1-0550-02-004

Colonial Terminals, Inc. (HSI No. 10098)
Savannah, Georgia



Appendix A
Parcel -004

THIS WARRANTY DEED, made on the 19th day of April, 1977, between PIERPONT-CORBETT BOX COMPANY, INC., a Georgia corporation, hereinafter referred to as Grantor, and COLONIAL LAND COMPANY, also a Georgia corporation, hereinafter referred to as Grantee;

W I T N E S S E T H :

Grantor, for and in consideration of the sum of Ten (\$10.00) Dollars and other good and valuable considerations, to it paid at and before the signing and sealing of these presents, the receipt whereof is hereby acknowledged, has granted, bargained, sold, aliened, conveyed and confirmed, and by these presents does grant, bargain, sell, alien, convey and confirm unto Grantee, its successors and assigns, those parcels of land situate, lying and being in the County of Chatham, State of Georgia, and more fully described in the legal description attached hereto as Exhibit "A" and which is expressly made a part hereof, and also all of Grantor's right, title and interest in and to that certain irrevocable easement over, under, across and through the portion of river bottom and inter-tidal area lying between the bluff line (high water line) of the Savannah River and the channel line of the Savannah River adjacent to the parcels of land described in Exhibit "A" granted by instrument dated August 16, 1976, from the State Properties Commission, for and on behalf of the State of Georgia to Grantor, recorded in the Office of the Secretary of State of Georgia on August 27, 1976, and recorded in the Office of the Clerk of the Superior Court of Chatham County, Georgia, in Deed Book 107-R, folio 865.

To have and to hold the premises, with all and singular the rights, members and appurtenances thereof, to the same belonging, or in anywise appertaining, and also all buildings, sheds, fences and all other building improvements now located upon the above-described land, to the only proper use and benefit of Grantee, its successors and assigns, in fee simple, subject only to the exceptions to title noted in Exhibit "B", which is attached hereto and expressly made a part hereof.

And Grantor, its successors and assigns, shall and will (subject only to the aforesaid exceptions to title noted in Exhibit "B") warrant and forever defend by virtue of these presents, the bargained premises unto Grantee, its successors and assigns, and against Grantor, its successors and assigns and all and every other person or persons.

IN WITNESS WHEREOF, the Grantor has executed this Warranty Deed under seal on the day and year first above written.

PIERPONT-CORBETT BOX COMPANY, INC.

Signed, sealed and delivered in the presence of:

By: Mary J. Thomas
President

James L. Kamm
Unofficial Witness

Mary J. Thomas
Notary Public, Chatham County,
Georgia

Attest: Waddilla Curtis
Secretary

[Corporate Seal]



[Notary's Seal]

MARY J. THOMAS
Notary Public, Chatham County, Ga.
My Commission Expires Mar. 11, 1977

Chatham County, Georgia
Real Estate Transfer Tax
Paid \$100.00 Date 4/29/77
Alma H. Rawls
Fees Clerk of Superior Court

EXHIBIT "A"

704

PROPERTY DESCRIPTION

PARCEL ONE

ALL that certain lot, tract or parcel of land situate, lying and being in Chatham County, Georgia, containing 22.57 acres and lying between Butler Avenue and the Savannah River as shown on a plat of a 22.57 acre portion of the property of Pierpont-Corbett Box Company located North of North Lathrop Avenue prepared by Hussey, Gay, Bell & McWhorter, Inc., Consulting Engineers, dated December 20, 1976, which has been recorded in Plat Record Book AA, Folio 171, in the Office of the Clerk of the Superior Court of Chatham County, Georgia, and being more particularly described as follows: Beginning at a concrete monument located where the Western right-of-way line of West Lathrop Avenue intersects the Northern right-of-way line of Butler Avenue; thence North $40^{\circ}46'40''$ West along the said Northern right-of-way line of Butler Avenue 558.33 feet to a concrete monument; thence North $48^{\circ}17'10''$ East 1575.51 feet to a point (hereinafter sometimes referred to as Point "A"); thence North $75^{\circ}43'$ East 72.45 feet to a point; thence South $63^{\circ}23'50''$ East 30.41 feet to a point; thence South $52^{\circ}13'$ East 100.05 feet to a point; thence South $52^{\circ}47'20''$ East 200.04 feet to a point; thence South $61^{\circ}03'30''$ East 80.62 feet to a point; thence South $71^{\circ}22'50''$ East 73.38 feet to a point; thence South $51^{\circ}53'50''$ East 79.95 feet to a point (hereinafter sometimes referred to as Point "B"; thence South $47^{\circ}50'40''$ West 1127.89 feet to an old concrete monument; thence South $48^{\circ}20'20''$ West 335.42 feet to a concrete monument located on the Northern right-of-way of North Lathrop Avenue; continuing thence South $48^{\circ}20'20''$ West 30.60 feet to an old concrete monument; thence North $51^{\circ}57'40''$ West 25.41 feet to a point on the Western right-of-way line of West Lathrop Avenue; thence South $48^{\circ}20'20''$ West along said Western right-of-way line of West Lathrop Avenue 325.90 feet to a point of beginning.

AND ALSO, all right, title and interest in and to the land lying between the Western boundary line of the above-described 22.57 acre tract of land extended from the aforesaid Point "A" North $48^{\circ}17'10''$ East to the mean low water line of the Savannah River and the Eastern boundary line of the above-described tract of land extended from the aforesaid Point "B" North $47^{\circ}50'40''$ East to the mean low water mark line of the Savannah River.

Said property as a whole being bounded generally as follows: On the North by the mean low water line of the Savannah River, on the East by the common boundary line between the 22.57 acre tract of land described above and the 7.53 acre tract of land also owned by Pierpont-Corbett Box Company, Inc. and conveyed contemporaneously herewith to Colonial Land Company (Parcel Two below) and a 30-foot wide county road right-of-way, on the South by Butler Avenue and on the West by the common boundary line between the aforesaid 22.57 acre tract of land and lands of Union Camp Corporation.

The above-described property being the same property conveyed to Pierpont-Corbett Box Company, Inc. by the Pierpont Manufacturing Company (formerly known as Pierpont Manufacturing Company of Georgia and Florida) by deed dated March 30, 1964 and recorded in the Office of the Clerk of the Superior Court of Chatham County, Georgia, in Deed Book 85-Z, Folio 151.

PARCEL TWO

ALL that certain lot, tract or parcel of land situate, lying and being in Chatham County, Georgia, containing 7.53 acres and lying between North Lathrop Avenue and the Savannah River as shown on a plat of a 7.53 acre portion of the property of Pierpont-Corbett Box Company located North of North Lathrop Avenue prepared by Hussey, Gay, Bell & McWhorter, Inc., Consulting Engineers, dated December 20, 1976, which has been recorded in Plat Record Book AA, Folio 172, in the Office of the Clerk of the Superior Court of Chatham County, Georgia, and being more particularly described as follows: Commencing at a point where the Eastern right-of-way line of West Lathrop Avenue extended intersects the Northern right-of-way line of North Lathrop Avenue; thence North 48°20'20" East 299.41 feet to a concrete monument; thence North 47°50'40" East 180.65 feet to a concrete monument; thence North 42°09'20" West 30 feet to an old concrete monument; thence North 47°50'40" East 947.37 feet to a point (hereinafter sometimes referred to as Point "B") on the Bluff line or approximate mean high water line of the Savannah River; thence 32°32'10" East 46.30 feet to a point; thence South 31°02'30" East 53.14 feet to a point; thence South 65°24'50" East 51.66 feet to a point; thence South 55°24'50" East 50.16 feet to a point; thence South 48°33' East 50.04 feet to a point; thence South 46°16' East 50.16 feet to a point; thence South 46°53'20" East 29.03 feet to a point; thence South 14°16'30" East 17.36 feet to a point

(hereinafter sometimes referred to as Point "C"); thence South 29°54'40" West 6 feet to an old concrete monument; continuing thence South 29°54'40" West 630.60 feet to a point; thence North 59°54'40" West 150.15 feet to a concrete monument; thence North 29°20'20" East 13.40 feet to a railroad iron; thence North 52°03'40" West 268.69 feet to a railroad iron; thence South 66°22'20" West 97.75 feet to a concrete monument; thence South 45°34'20" West 233.22 feet to a concrete monument; thence North 52°14'40" West 52 feet to a concrete monument; thence South 47°46'20" West 421.35 feet to an old concrete monument located on the Northern right-of-way line on North Lathrop Avenue; thence North 52°07'40" West along the said Northern right-of-way line of North Lathrop Avenue 22.55 feet to the point of beginning.

AND ALSO, all right, title and interest in and to the land lying between the Western boundary line of the above-described 7.53 acre tract of land extended from the aforesaid Point "B" North 47°50'40" East to the mean low water line of the Savannah River and the Eastern boundary line of the above-described tract of land extended from the aforesaid Point "C" North 29°54'40" East to the mean low water line of the Savannah River.

Said property as a whole being irregular in shape and being bounded generally as follows: On the North by the mean low water line of the Savannah River, on the East by the common boundary line between the 7.53 acre tract of land described above and lands formerly of Swift Agricultural Chemicals Corporation now owned by Colonial Land Company, on the East and South by the common boundary line between the 7.53 acre tract of land described above and lands of Colonial Oil Industries, Inc., on the South by North Lathrop Avenue and on the West by a 30-foot wide county road right-of-way and the common boundary line between the 7.53 acre tract of land described above and the 22.57 acre tract of land also owned by Pierpont-Corbett Box Company, Inc. and conveyed contemporaneously herewith to Colonial Land Company (Parcel One above).

Being the same property conveyed to Pierpont-Corbett Box Company, Inc. by the Savannah Port Authority by deed dated July 1, 1976 and recorded in said Clerk's Office in Deed Book 107-A, Folio 802.

EXHIBIT "B"

EXCEPTIONS TO TITLE

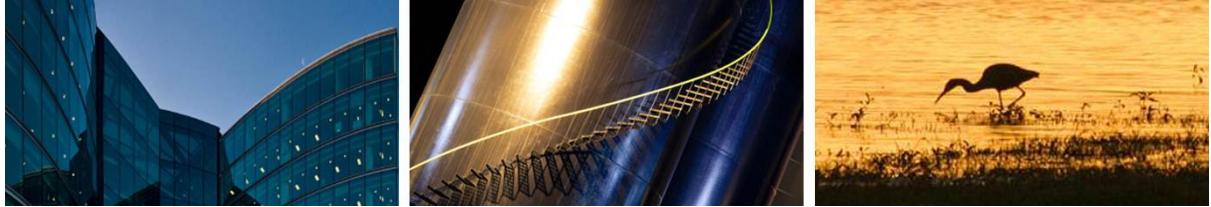
1. Ad valorem taxes for 1977 and subsequent years.
2. Easements granted to the Mayor and Aldermen of the City of Savannah to install, maintain and operate a water pipeline under and across a portion of the property as shown in Plat Record Book "C", folio 31, in the Office of the Clerk of the Superior Court of Chatham County, Georgia, granted by instruments dated May 9, 1948; June 11, 1948; and August 4, 1948, and recorded in Deed Books 47-B, folio 257; 47-D, folio 258; and 47-M, folio 485, respectively, in said Clerk's Office.
3. Right-of-way easements granted to Seaboard Airline Railroad Company for railroad tracks and any other proper and appropriate railroad purposes across a portion of the property described in instruments dated August 1, 1954 and December 21, 1954, recorded in Deed Books 60-R, folio 5 and 61-H, folio 437, respectively, in said Clerk's Office and as shown on plat recorded in Plat Book F, folio 307, in said Clerk's Office.
4. Easements granted to South Atlantic Gas Company for the construction and maintenance of an underground gas transmission system granted by instrument dated August 30, 1957, recorded in Deed Book 67-U, folio 189, in said Clerk's Office, and as shown on plat recorded in Plat Record Book "H", at folio 325, said Clerk's Office.
5. Easement granted to South Atlantic Gas Company for the construction and maintenance of an underground gas transmission system under, upon and along a five foot wide strip as shown on the plat recorded in said Clerk's Office in Plat Record Book "P", folio 63, as granted by instrument dated April 9, 1964, and recorded in Deed Book 85-X, folio 103, in said Clerk's Office.
6. Right, title or interest of the State of Georgia, if any, in and to the area between the high and low water lines of the Savannah River lying adjacent to the property.

Filed For Record At... 2:58 P.M. On The
20 Day Of April 1977
Recorded In Record Book 108-K Folio 743...
On The 20 Day Of April 1977....

CLERK, SUPERIOR COURT, CHATHAM CO. GA

Appendix B

River Dilution Calculations



**Appendix B – River Dilution Calculations
Voluntary Remediation Plan and Application
Colonial Terminals, Plant #2**

Prepared for:
Colonial Terminals, Inc.
Savannah, Georgia

Prepared by:
ENVIRON International Corporation

November 2012

Project Number:
07-30114B

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Acronyms and Abbreviations

11DCE	1,1-Dichloroethylene
cDCE	cis-1,2-Dichloroethylene
ft amsl	Feet Above Mean Sea Level
ISWQS	In-Stream Water Quality Standards
PCE	Tetrachloroethylene
TCE	Trichloroethylene
VC	Vinyl Chloride
VOC	Volatile Organic Compound
VRP	Voluntary Remediation Program

1 Introduction

The Colonial Terminals, Plant #2 (Colonial) property is located on the bank of the tidally-influenced Savannah River. In the Revised Corrective Action Plan for Volatile Organic Compounds (VOCs; ERM, 2009), a mass balance model was developed to estimate whether regulated substances detected in the groundwater in immediate proximity to the Savannah River will naturally attenuate to concentrations that do not pose a risk to ecological or human receptors. A river dilution calculation was conducted, the results of which indicated that concentrations in the river would not exceed the Georgia In-Stream Water Quality Standards (ISWQS). However, modeling was not conducted for other potentially significant regulated substances that have been detected in the groundwater at the site.

As part of the Voluntary Remediation Program (VRP) Application for the Colonial Terminals, Plant #2 site, ENVIRON has provided updated river dilution calculations for the regulated substances that exceeded Type 4 risk reduction standards during the most recent groundwater sampling event (i.e., surface water-detected constituents cis-1,2-dichlorethylene [cDCE]; tetrachloroethylene [PCE]; and trichloroethylene [TCE], and modeled constituents 1,1-dichloroethylene [11DCE]; vinyl chloride [VC]; arsenic; and lead). The following sections present the methodology, parameters, and results of these calculations.

2 Methodology

Based on the groundwater monitoring results provided in Second Corrective Action Effectiveness Report for Groundwater 2010 (ERM, 2011), the plume of VOCs and/or metals in the shallow aquifer along the Savannah River extends approximately from monitoring well location MW-16 to well MW-19. Based on the location of shallow monitoring wells along the river, the width of the plume was divided into six segments (S1 through S6) for the purpose of this assessment (**Figure B-1**). The width of each segment is summarized in **Table 1** below.

Table 1. Summary of Plume Segment along the Savannah River		
Segment	Ends of Segment	Width of Segment (ft)
S1	MW-16 to MW-29	140
S2	MW-29 to MW-11R	98
S3	MW-11R to MW-26	357
S4	MW-26 to MW-25	77
S5	MW-25 to MW-18	189
S6	MW-18 to MW-19	126

The flow of groundwater through each segment (Q_{gn}) and into the Savannah River was calculated as follows:

$$Q_{gn} = k \times i \times W_n \times d$$

where:

k is the hydraulic conductivity of the aquifer;

i is the hydraulic gradient;

W_n is the width of segment n; and,

d is the thickness of the aquifer.

The mass flux of constituents to the Savannah River through each segment (M_n) was then calculated as:

$$M_n = C_{gn} \times Q_{gn}$$

where: C_{gn} is the constituent concentration in groundwater along segment n.

According to the Mass Conservation Law, the diluted constituent concentration in the Savannah River downstream of the site (C_s) can be calculated using the following equation:

$$C_s = \frac{C_u \times Q_u + \sum_{n=1}^6 M_n}{Q_u + \sum_{n=1}^6 Q_{gn}}$$

where:

C_u is the constituent concentration in Savannah River upstream of the site; and,
 Q_u is the flow volume in Savannah River upstream of the site.

When C_u is assumed to be 0 (i.e., no constituent concentrations in surface water upstream of the site), the equation can be re-written as:

$$C_s = \frac{\sum_{n=1}^6 M_n}{Q_u + \sum_{n=1}^6 Q_{gn}}$$

3 Parameter Values Determination

3.1 Hydraulic Gradient (i)

To evaluate the hydraulic gradient, ERM used data loggers (“trolls”) to continuously record groundwater elevations in MW-12R, MW-09D, and the Savannah River from October 7 through October 21, 2011. The base elevations of the trolls are listed in **Table 2**. The field measurements and converted water levels are provided in **Attachment B-1**.

Table 2. Base of Troll Elevations for October 2011 Water Elevation Measurement			
	TOC Elevation (ft amsl)	Length to Bottom of Troll (ft)	Elevation to Base of Troll (ft amsl)
Savannah River	14.57	29.30	-14.73
MW-09D	11.97	19.80	-7.83
MW-12R	11.80	14.63	-2.83

The 71-hour filtering method, which has the ability to remove the daily and semi-daily lunar and solar harmonics from 71 consecutive hourly water level observations that are tidally affected (Serfes, 1991; and Marquis and Smith, 1994), was used to calculate mean groundwater elevations for each location. This method consists of calculating a set of moving averages using a filtering interval of 24 consecutive hourly groundwater elevation measurements. Multiple sequences of moving averages are calculated to achieve a single mean elevation for the median time of 72 hours (i.e., hour 36) as follows:

Let the consecutive hourly groundwater elevation observations be $h(1), h(2), h(3), \dots, h(71)$:

the first sequence of means (X_j) is

$$X_j = \frac{\sum_{l=0}^{23} h_{j+l}}{24}, \text{ where } j = 1, 2, 3, \dots, 48;$$

the second sequence of means (Y_k) is

$$Y_k = \frac{\sum_{j=0}^{23} X_{k+j}}{24}, \text{ where } k = 1, 2, 3, \dots, 25;$$

and the mean elevation (M_e) at hour 36 is

$$M_e = \frac{\sum_{k=1}^{25} Y_k}{25}$$

For this evaluation, the water elevation data from each location were separated into four 72-hour periods. The calculated mean water elevations and hydraulic gradients are presented in **Table 3** and illustrate that groundwater is flowing from the shallow aquifer into the Savannah River with an average gradient of 0.0015 feet/foot. The average hydraulic gradient for the deep surficial aquifer is -0.0130 feet/foot from MW-09D to the Savannah River and is indicative of

recharge to the aquifer from the river. As such, the river dilution calculation was conducted for the shallow aquifer only.

Table 3. Mean Water Elevations and Hydraulic Gradients

71-hr Period	Mean Water Elevations (ft amsl)			Hydraulic Gradient (feet/foot)	
	Savannah River	MW-12R	MW-09D	MW-12R to Savannah River	MW-09D to Savannah River
First	2.119	1.782	1.184	-0.0011	-0.0170
Second	1.865	2.274	1.186	0.0014	-0.0123
Third	0.964	1.934	0.381	0.0032	-0.0106
Fourth	1.160	1.952	0.497	0.0026	-0.0121
Average Gradient				0.0015	-0.0130

3.2 Discharge Concentration (C_{gn})

ENVIRON used the analytical results from the 2010 annual groundwater and surface water sampling event (ERM, 2011) to determine the discharge concentration (i.e., the concentration of the constituent that can potentially be discharged from the groundwater to the river) for each segment. Using the assumption that constituent concentrations vary linearly between the two ends of each segment, the discharge concentration for each segment is the average concentration from both ends of the segment. For the purpose of these calculations, non-detect concentrations were assumed to be half the detection limit. A summary of the discharge concentration for each constituent is provided in **Table 4**.

Table 4. Computed Groundwater Concentration for Each Segment

Constituent	Discharge Concentration (ug/L)					
	S1	S2	S3	S4	S5	S6
PCE	3.7	9103	16,400	13,500	6,240	40.6
TCE	1.3	1451	3,620	2,643	490	17.7
cis-1,2-DCE	1.8	2787	2,824	135.2	132.6	36.4
1,1-DCE	0.5	62.8	449	1,792	1,434	29.5
VC	0.5	109	113	29	29	4.5
Arsenic	1.25	1.75	1.0	130.5	131.6	4.1
Lead	0.25	0.5	0.5	680	683	2.75

3.3 Flow Volume in the Savannah River (Q_u)

To be conservative, the 7-day, 10-year average flow (7Q10) of the Savannah River was used as the flow volume upstream of the site. Specifically, the 7Q10 calculation provided for the United States Geologic Service's (USGS's) Savannah River station near Clyo, Georgia (6,700 ft³/second for the period April 1961 through March 1974), was used for the purpose of this assessment.

3.4 Additional Parameter Values

The hydraulic conductivity (k ; 9.56 ft/day) and aquifer thickness (d ; 15 ft) from the Revised Corrective Action Plan for Volatile Organic Compounds (ERM, 2009) were used.

4 Results

Based on the methodology and parameter values discussed in Sections 2 and 3, the diluted constituent concentrations in the Savannah River that are a result of the discharge of the shallow surficial aquifer at the site were calculated for chlorinated VOCs (PCE, TCE, cis-1,2-DCE, 1,1-DCE, and VC) and selected metals (arsenic and lead). As discussed in Section 3.1, the negative average hydraulic gradient for the deep surficial aquifer to the Savannah River indicates that recharge to the aquifer from the river is occurring and, as such, no constituents from that aquifer are expected to impact the river.

The calculation sheets are provided in **Attachment B-2**, and a summary of the modeled concentrations in the Savannah River is provided in **Table 5** below, along with the Georgia ISWQS for each constituent.

Table 5. Diluted Constituent Concentration in the Savannah River

Constituent	Concentration (ug/L)	Georgia ISWQS (ug/L) ¹
Arsenic	1.34E-05	150
Lead	6.76E-05	1.2
1,1-Dichloroethylene	2.15E-04	7,100
cis-1,2-Dichloroethylene	4.91E-04	N/A
Tetrachloroethylene	3.33E-03	3.3
Trichloroethylene	6.44E-04	30
Vinyl Chloride	2.21E-05	2.4

Notes:

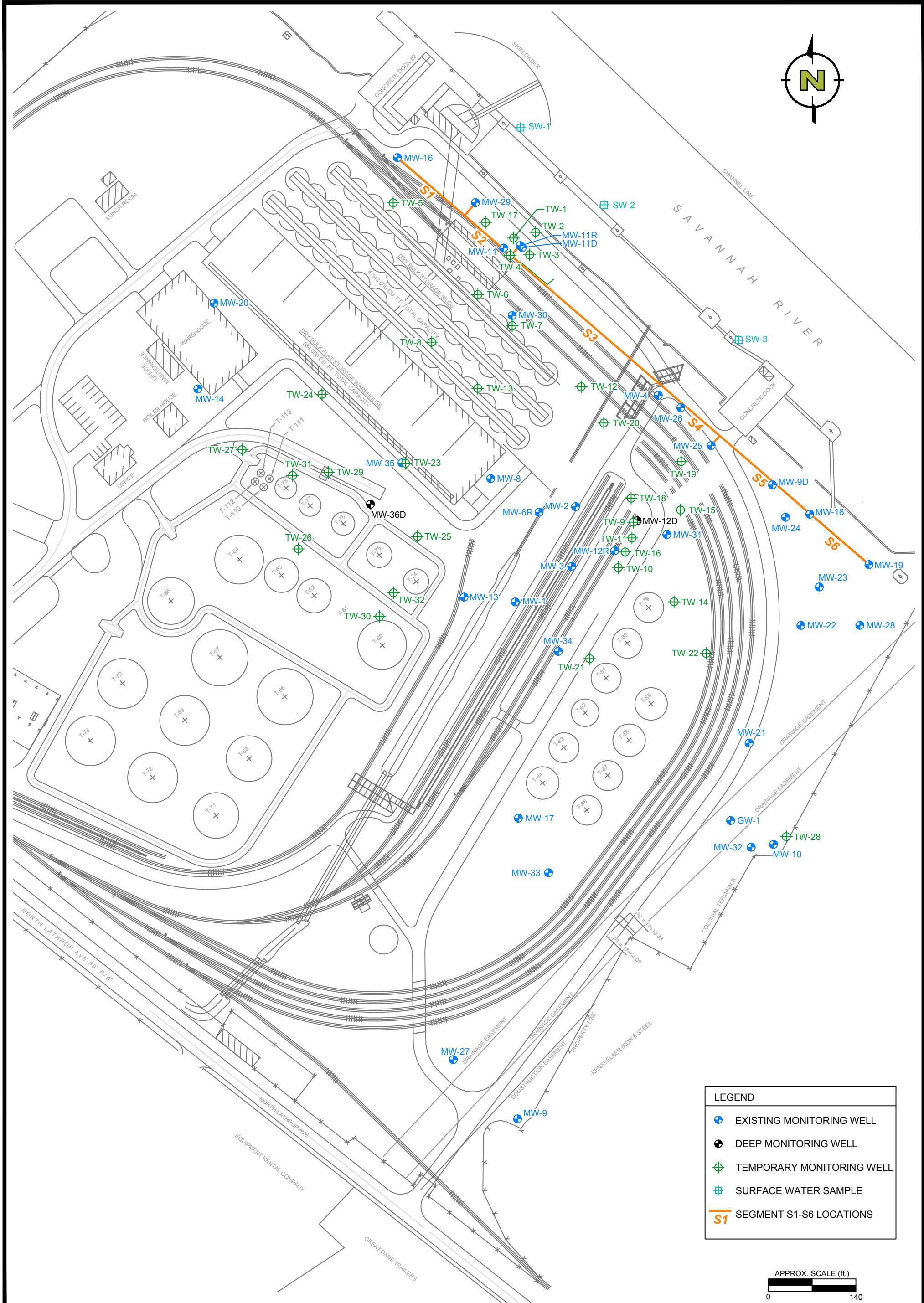
1) Georgia In-Stream Water Quality Standards (Rule 391-3-6-.03)

These results represent conservative estimates of concentrations in the Savannah River that might result from groundwater discharge at the site (biodegradation in the groundwater was not taken into account in these estimates). Further, the results indicate that these concentrations are significantly less than the Georgia ISWQS (i.e., more than three orders of magnitude)..

5 References

- ERM (2009). "Revised Corrective Action Plan for Volatile Organic Compounds."
- ERM (2011). "Second Corrective Action Effectiveness Report for Groundwater 2010."
- Serfes, M.E. (1991). "Determining the Mean Hydraulic Gradient of Ground Water Affected by Tidal Fluctuations." *Ground Water* 29(4): 549-555.
- Marquis, S.A. Jr., and Smith, E.A. (1994). "Assessment of Ground-Water Flow and Chemical Transport in a Tidally Influenced Aquifer Using Geostatistical Filtering and Hydrocarbon Fingerprinting." *Ground Water* 32(2): 190-199.

Appendix B Figures



AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH



GROUNDWATER MONITORING WELL AND SEGMENT LOCATIONS

COLONIAL TERMINALS, INC.
373 N. LATHROP AVENUE
SAVANNAH, GEORGIA

FIGURE
B-1

Attachment B-1
Summary of Water Levels and Elevations

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/7/2011 14:00	6.95	4.22	14.42	-0.88	1.39	-0.31
10/7/2011 14:15	7.10	4.21	14.82	-0.73	1.38	0.09
10/7/2011 14:30	7.28	4.21	15.29	-0.56	1.38	0.56
10/7/2011 14:45	7.47	4.21	15.74	-0.36	1.38	1.01
10/7/2011 15:00	7.68	4.21	16.21	-0.15	1.38	1.48
10/7/2011 15:15	7.92	4.21	16.69	0.09	1.38	1.96
10/7/2011 15:30	8.16	4.22	17.09	0.33	1.39	2.36
10/7/2011 15:45	8.40	4.23	17.56	0.57	1.40	2.83
10/7/2011 16:00	8.65	4.24	17.98	0.82	1.41	3.25
10/7/2011 16:15	8.89	4.25	18.30	1.06	1.42	3.57
10/7/2011 16:30	9.11	4.27	18.58	1.28	1.44	3.85
10/7/2011 16:45	9.31	4.28	18.88	1.48	1.45	4.15
10/7/2011 17:00	9.49	4.30	19.01	1.66	1.47	4.28
10/7/2011 17:15	9.67	4.33	19.21	1.84	1.50	4.48
10/7/2011 17:30	9.82	4.35	19.40	1.99	1.52	4.67
10/7/2011 17:45	9.96	4.33	19.49	2.13	1.50	4.76
10/7/2011 18:00	10.09	4.31	19.63	2.26	1.48	4.90
10/7/2011 18:15	10.21	4.36	19.68	2.38	1.53	4.95
10/7/2011 18:30	10.32	4.41	19.79	2.49	1.58	5.06
10/7/2011 18:45	10.40	4.44	19.84	2.57	1.61	5.11
10/7/2011 19:00	10.48	4.47	19.85	2.65	1.64	5.12
10/7/2011 19:15	10.54	4.51	19.78	2.71	1.68	5.05
10/7/2011 19:30	10.56	4.53	19.66	2.73	1.70	4.93
10/7/2011 19:45	10.59	4.55	19.61	2.76	1.72	4.88
10/7/2011 20:00	10.59	4.57	19.53	2.76	1.74	4.80
10/7/2011 20:15	10.58	4.59	19.36	2.75	1.76	4.63
10/7/2011 20:30	10.55	4.63	19.19	2.72	1.80	4.46
10/7/2011 20:45	10.49	4.65	18.92	2.66	1.82	4.19
10/7/2011 21:00	10.41	4.66	18.62	2.58	1.83	3.89
10/7/2011 21:15	10.31	4.67	18.25	2.48	1.84	3.52
10/7/2011 21:30	10.17	4.68	17.79	2.34	1.85	3.06
10/7/2011 21:45	10.01	4.69	17.37	2.18	1.86	2.64
10/7/2011 22:00	9.82	4.69	16.90	1.99	1.86	2.17
10/7/2011 22:15	9.58	4.69	16.39	1.75	1.86	1.66
10/7/2011 22:30	9.32	4.68	15.74	1.49	1.85	1.01
10/7/2011 22:45	9.05	4.67	15.34	1.22	1.84	0.61
10/7/2011 23:00	8.77	4.66	14.86	0.94	1.83	0.13
10/7/2011 23:15	8.50	4.64	14.48	0.67	1.81	-0.25
10/7/2011 23:30	8.24	4.62	13.89	0.41	1.79	-0.84
10/7/2011 23:45	7.98	4.60	13.65	0.15	1.77	-1.08

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/8/2011 0:00	7.74	4.57	13.34	-0.09	1.74	-1.39
10/8/2011 0:15	7.50	4.54	13.03	-0.33	1.71	-1.70
10/8/2011 0:30	7.29	4.50	12.81	-0.54	1.67	-1.92
10/8/2011 0:45	7.10	4.47	12.70	-0.73	1.64	-2.03
10/8/2011 1:00	6.96	4.43	12.79	-0.87	1.60	-1.94
10/8/2011 1:15	6.85	4.41	12.81	-0.98	1.58	-1.92
10/8/2011 1:30	6.79	4.38	13.01	-1.04	1.55	-1.72
10/8/2011 1:45	6.78	4.35	13.42	-1.05	1.52	-1.31
10/8/2011 2:00	6.83	4.33	13.41	-1.00	1.50	-1.32
10/8/2011 2:15	6.89	4.32	14.05	-0.94	1.49	-0.68
10/8/2011 2:30	7.00	4.30	14.37	-0.83	1.47	-0.36
10/8/2011 2:45	7.16	4.30	14.85	-0.67	1.47	0.12
10/8/2011 3:00	7.35	4.30	15.27	-0.48	1.47	0.54
10/8/2011 3:15	7.54	4.29	15.75	-0.30	1.46	1.02
10/8/2011 3:30	7.74	4.29	16.22	-0.09	1.46	1.49
10/8/2011 3:45	7.97	4.29	16.60	0.14	1.46	1.87
10/8/2011 4:00	8.19	4.29	17.11	0.36	1.46	2.38
10/8/2011 4:15	8.44	4.30	17.58	0.61	1.47	2.85
10/8/2011 4:30	8.68	4.31	17.92	0.85	1.48	3.19
10/8/2011 4:45	8.92	4.32	18.20	1.09	1.49	3.47
10/8/2011 5:00	9.14	4.36	18.50	1.31	1.53	3.77
10/8/2011 5:15	9.35	4.37	18.88	1.52	1.54	4.15
10/8/2011 5:30	9.54	4.40	19.02	1.71	1.57	4.29
10/8/2011 5:45	9.71	4.42	19.16	1.88	1.59	4.43
10/8/2011 6:00	9.85	4.44	19.27	2.02	1.61	4.54
10/8/2011 6:15	9.98	4.45	19.39	2.15	1.62	4.66
10/8/2011 6:30	10.09	4.47	19.47	2.26	1.64	4.74
10/8/2011 6:45	10.19	4.49	19.57	2.36	1.66	4.84
10/8/2011 7:00	10.29	4.51	19.59	2.46	1.68	4.86
10/8/2011 7:15	10.38	4.54	19.58	2.55	1.71	4.85
10/8/2011 7:30	10.43	4.56	19.48	2.60	1.73	4.75
10/8/2011 7:45	10.47	4.59	19.47	2.64	1.76	4.74
10/8/2011 8:00	10.50	4.61	19.37	2.67	1.78	4.64
10/8/2011 8:15	10.50	4.63	19.30	2.67	1.80	4.57
10/8/2011 8:30	10.49	4.65	19.16	2.66	1.82	4.43
10/8/2011 8:45	10.46	4.66	18.98	2.63	1.83	4.25
10/8/2011 9:00	10.42	4.68	18.69	2.59	1.85	3.96
10/8/2011 9:15	10.35	4.69	18.38	2.52	1.86	3.65
10/8/2011 9:30	10.24	4.70	18.08	2.41	1.87	3.35
10/8/2011 9:45	10.10	4.71	17.64	2.27	1.88	2.91

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/8/2011 10:00	9.94	4.71	17.32	2.11	1.88	2.59
10/8/2011 10:15	9.76	4.71	16.90	1.93	1.88	2.17
10/8/2011 10:30	9.55	4.71	16.45	1.72	1.88	1.72
10/8/2011 10:45	9.32	4.70	16.01	1.49	1.87	1.28
10/8/2011 11:00	9.09	4.70	15.57	1.26	1.87	0.84
10/8/2011 11:15	8.84	4.68	15.13	1.01	1.85	0.40
10/8/2011 11:30	8.58	4.66	14.70	0.75	1.83	-0.03
10/8/2011 11:45	8.34	4.64	14.30	0.51	1.81	-0.43
10/8/2011 12:00	8.09	4.62	13.88	0.26	1.79	-0.85
10/8/2011 12:15	7.85	4.60	13.58	0.02	1.77	-1.15
10/8/2011 12:30	7.63	4.57	13.31	-0.20	1.74	-1.42
10/8/2011 12:45	7.42	4.54	13.13	-0.41	1.71	-1.60
10/8/2011 13:00	7.26	4.52	13.13	-0.58	1.69	-1.60
10/8/2011 13:15	7.13	4.49	13.08	-0.70	1.66	-1.65
10/8/2011 13:30	7.03	4.47	13.06	-0.80	1.64	-1.67
10/8/2011 13:45	6.95	4.45	13.15	-0.88	1.62	-1.58
10/8/2011 14:00	6.92	4.43	13.40	-0.91	1.60	-1.33
10/8/2011 14:15	6.93	4.40	13.56	-0.90	1.57	-1.17
10/8/2011 14:30	6.96	4.39	13.81	-0.87	1.56	-0.93
10/8/2011 14:45	7.02	4.37	14.03	-0.81	1.54	-0.70
10/8/2011 15:00	7.10	4.36	14.33	-0.73	1.53	-0.40
10/8/2011 15:15	7.21	4.35	14.72	-0.62	1.52	-0.01
10/8/2011 15:30	7.35	4.34	15.11	-0.48	1.51	0.38
10/8/2011 15:45	7.50	4.33	15.56	-0.33	1.50	0.83
10/8/2011 16:00	7.69	4.32	16.03	-0.14	1.49	1.30
10/8/2011 16:15	7.90	4.32	16.43	0.07	1.49	1.70
10/8/2011 16:30	8.12	4.32	16.95	0.29	1.49	2.22
10/8/2011 16:45	8.36	4.33	17.33	0.53	1.50	2.60
10/8/2011 17:00	8.60	4.34	17.73	0.77	1.51	3.00
10/8/2011 17:15	8.83	4.35	18.07	1.00	1.52	3.34
10/8/2011 17:30	9.05	4.37	18.40	1.22	1.54	3.67
10/8/2011 17:45	9.27	4.39	18.65	1.44	1.56	3.92
10/8/2011 18:00	9.46	4.41	18.85	1.63	1.58	4.12
10/8/2011 18:15	9.64	4.43	19.10	1.81	1.60	4.37
10/8/2011 18:30	9.81	4.45	19.30	1.98	1.62	4.57
10/8/2011 18:45	9.97	4.48	19.48	2.14	1.65	4.75
10/8/2011 19:00	10.12	4.50	19.62	2.29	1.67	4.89
10/8/2011 19:15	10.26	4.54	19.73	2.43	1.71	5.00
10/8/2011 19:30	10.38	4.56	19.81	2.55	1.73	5.08
10/8/2011 19:45	10.48	4.59	19.82	2.65	1.76	5.09

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/8/2011 20:00	10.55	4.62	19.77	2.72	1.79	5.04
10/8/2011 20:15	10.60	4.64	19.78	2.77	1.81	5.05
10/8/2011 20:30	10.64	4.67	19.66	2.81	1.84	4.93
10/8/2011 20:45	10.67	4.70	19.63	2.84	1.87	4.90
10/8/2011 21:00	10.69	4.72	19.54	2.86	1.89	4.81
10/8/2011 21:15	10.69	4.74	19.39	2.86	1.91	4.66
10/8/2011 21:30	10.65	4.76	19.10	2.82	1.93	4.37
10/8/2011 21:45	10.58	4.78	18.75	2.75	1.95	4.02
10/8/2011 22:00	10.48	4.80	18.42	2.65	1.97	3.69
10/8/2011 22:15	10.36	4.81	18.09	2.53	1.98	3.36
10/8/2011 22:30	10.21	4.82	17.63	2.38	1.99	2.90
10/8/2011 22:45	10.02	4.83	17.17	2.19	2.00	2.44
10/8/2011 23:00	9.80	4.83	16.70	1.97	2.00	1.97
10/8/2011 23:15	9.57	4.83	16.22	1.74	2.00	1.49
10/8/2011 23:30	9.31	4.82	15.73	1.48	1.99	1.00
10/8/2011 23:45	9.05	4.81	15.23	1.22	1.98	0.50
10/9/2011 0:00	8.78	4.79	14.75	0.95	1.96	0.02
10/9/2011 0:15	8.50	4.77	14.34	0.67	1.94	-0.39
10/9/2011 0:30	8.24	4.75	13.95	0.41	1.92	-0.78
10/9/2011 0:45	7.99	4.72	13.62	0.16	1.89	-1.11
10/9/2011 1:00	7.76	4.70	13.37	-0.08	1.87	-1.36
10/9/2011 1:15	7.54	4.67	13.14	-0.29	1.84	-1.59
10/9/2011 1:30	7.33	4.63	12.96	-0.50	1.80	-1.78
10/9/2011 1:45	7.16	4.60	12.90	-0.67	1.77	-1.83
10/9/2011 2:00	7.04	4.57	12.93	-0.80	1.74	-1.80
10/9/2011 2:15	6.94	4.54	12.95	-0.89	1.71	-1.78
10/9/2011 2:30	6.88	4.51	13.08	-0.95	1.68	-1.65
10/9/2011 2:45	6.86	4.48	13.34	-0.97	1.65	-1.39
10/9/2011 3:00	6.88	4.46	13.56	-0.95	1.63	-1.17
10/9/2011 3:15	6.95	4.44	14.04	-0.88	1.61	-0.69
10/9/2011 3:30	7.08	4.43	14.49	-0.75	1.60	-0.24
10/9/2011 3:45	7.23	4.41	14.92	-0.60	1.58	0.19
10/9/2011 4:00	7.40	4.40	15.40	-0.43	1.57	0.67
10/9/2011 4:15	7.61	4.39	15.94	-0.22	1.56	1.21
10/9/2011 4:30	7.85	4.39	16.45	0.02	1.56	1.72
10/9/2011 4:45	8.11	4.39	16.97	0.28	1.56	2.24
10/9/2011 5:00	8.37	4.39	17.49	0.54	1.56	2.76
10/9/2011 5:15	8.64	4.41	17.96	0.81	1.58	3.23
10/9/2011 5:30	8.92	4.42	18.37	1.09	1.59	3.64
10/9/2011 5:45	9.18	4.43	18.78	1.35	1.60	4.05

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/9/2011 6:00	9.42	4.45	19.09	1.59	1.62	4.36
10/9/2011 6:15	9.65	4.48	19.28	1.82	1.65	4.55
10/9/2011 6:30	9.85	4.50	19.44	2.02	1.67	4.71
10/9/2011 6:45	10.03	4.53	19.64	2.20	1.70	4.91
10/9/2011 7:00	10.18	4.55	19.85	2.35	1.72	5.12
10/9/2011 7:15	10.33	4.58	19.91	2.50	1.75	5.18
10/9/2011 7:30	10.45	4.61	20.02	2.62	1.78	5.29
10/9/2011 7:45	10.57	4.64	20.07	2.74	1.81	5.34
10/9/2011 8:00	10.67	4.66	20.07	2.84	1.83	5.34
10/9/2011 8:15	10.75	4.69	20.00	2.92	1.86	5.27
10/9/2011 8:30	10.80	4.72	20.00	2.97	1.89	5.27
10/9/2011 8:45	10.85	4.75	20.05	3.02	1.92	5.32
10/9/2011 9:00	10.89	4.78	19.91	3.06	1.95	5.18
10/9/2011 9:15	10.89	4.80	19.56	3.06	1.97	4.83
10/9/2011 9:30	10.85	4.82	19.40	3.02	1.99	4.67
10/9/2011 9:45	10.79	4.84	19.17	2.96	2.01	4.44
10/9/2011 10:00	10.72	4.87	18.90	2.89	2.04	4.17
10/9/2011 10:15	10.63	4.89	18.61	2.80	2.06	3.88
10/9/2011 10:30	10.51	4.90	18.30	2.68	2.07	3.57
10/9/2011 10:45	10.37	4.91	17.86	2.54	2.08	3.13
10/9/2011 11:00	10.18	4.91	17.38	2.35	2.08	2.65
10/9/2011 11:15	9.96	4.91	16.91	2.13	2.08	2.18
10/9/2011 11:30	9.73	4.91	16.53	1.90	2.08	1.80
10/9/2011 11:45	9.49	4.91	15.77	1.66	2.08	1.04
10/9/2011 12:00	9.25	4.90	15.58	1.42	2.07	0.84
10/9/2011 12:15	9.00	4.88	15.25	1.17	2.05	0.52
10/9/2011 12:30	8.75	4.86	14.87	0.92	2.03	0.14
10/9/2011 12:45	8.53	4.84	14.61	0.70	2.01	-0.12
10/9/2011 13:00	8.31	4.82	14.24	0.48	1.99	-0.49
10/9/2011 13:15	8.10	4.80	14.01	0.27	1.97	-0.72
10/9/2011 13:30	7.91	4.77	13.79	0.08	1.94	-0.94
10/9/2011 13:45	7.74	4.75	13.63	-0.09	1.92	-1.10
10/9/2011 14:00	7.58	4.72	13.50	-0.25	1.89	-1.23
10/9/2011 14:15	7.44	4.69	13.43	-0.39	1.86	-1.30
10/9/2011 14:30	7.32	4.65	13.46	-0.51	1.82	-1.27
10/9/2011 14:45	7.24	4.62	13.48	-0.59	1.79	-1.25
10/9/2011 15:00	7.19	4.60	13.60	-0.64	1.77	-1.13
10/9/2011 15:15	7.18	4.57	13.90	-0.65	1.74	-0.83
10/9/2011 15:30	7.22	4.55	14.20	-0.61	1.72	-0.53
10/9/2011 15:45	7.29	4.53	14.50	-0.54	1.70	-0.23

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/9/2011 16:00	7.39	4.51	14.90	-0.44	1.68	0.17
10/9/2011 16:15	7.53	4.50	15.24	-0.30	1.67	0.51
10/9/2011 16:30	7.68	4.49	15.62	-0.15	1.66	0.89
10/9/2011 16:45	7.86	4.49	16.06	0.03	1.66	1.33
10/9/2011 17:00	8.05	4.49	16.55	0.22	1.66	1.82
10/9/2011 17:15	8.28	4.49	17.11	0.45	1.66	2.38
10/9/2011 17:30	8.53	4.49	17.63	0.70	1.66	2.90
10/9/2011 17:45	8.80	4.50	18.10	0.97	1.67	3.37
10/9/2011 18:00	9.06	4.51	18.46	1.23	1.68	3.73
10/9/2011 18:15	9.31	4.53	18.85	1.48	1.70	4.12
10/9/2011 18:30	9.54	4.54	19.14	1.71	1.71	4.41
10/9/2011 18:45	9.77	4.57	19.27	1.94	1.74	4.54
10/9/2011 19:00	9.95	4.60	19.52	2.12	1.77	4.79
10/9/2011 19:15	10.12	4.62	19.68	2.29	1.79	4.95
10/9/2011 19:30	10.29	4.65	19.89	2.46	1.82	5.16
10/9/2011 19:45	10.47	4.69	20.06	2.64	1.86	5.33
10/9/2011 20:00	10.61	4.72	20.07	2.78	1.89	5.34
10/9/2011 20:15	10.71	4.75	20.12	2.88	1.92	5.39
10/9/2011 20:30	10.81	4.79	20.16	2.98	1.96	5.43
10/9/2011 20:45	10.90	4.82	20.23	3.07	1.99	5.50
10/9/2011 21:00	10.99	4.85	20.30	3.16	2.02	5.57
10/9/2011 21:15	11.06	4.88	20.30	3.23	2.05	5.57
10/9/2011 21:30	11.12	4.91	20.10	3.29	2.08	5.37
10/9/2011 21:45	11.12	4.94	19.93	3.29	2.11	5.20
10/9/2011 22:00	11.10	4.97	19.83	3.27	2.14	5.10
10/9/2011 22:15	11.09	4.99	19.78	3.26	2.16	5.05
10/9/2011 22:30	11.06	5.01	19.60	3.23	2.18	4.87
10/9/2011 22:45	11.02	5.03	19.42	3.19	2.20	4.69
10/9/2011 23:00	10.96	5.05	19.09	3.13	2.22	4.36
10/9/2011 23:15	10.86	5.06	18.69	3.03	2.23	3.96
10/9/2011 23:30	10.70	5.08	18.21	2.87	2.25	3.48
10/9/2011 23:45	10.51	5.08	17.73	2.68	2.25	3.00
10/10/2011 0:00	10.29	5.08	17.26	2.46	2.25	2.53
10/10/2011 0:15	10.05	5.09	16.79	2.22	2.26	2.06
10/10/2011 0:30	9.82	5.08	16.47	1.99	2.25	1.74
10/10/2011 0:45	9.58	5.07	15.97	1.75	2.24	1.24
10/10/2011 1:00	9.33	5.06	15.51	1.50	2.23	0.78
10/10/2011 1:15	9.07	5.04	15.10	1.24	2.21	0.37
10/10/2011 1:30	8.79	5.01	14.68	0.96	2.18	-0.05
10/10/2011 1:45	8.53	4.99	14.23	0.70	2.16	-0.50

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/10/2011 2:00	8.28	4.97	13.85	0.45	2.14	-0.88
10/10/2011 2:15	8.02	4.93	13.53	0.19	2.10	-1.20
10/10/2011 2:30	7.79	4.90	13.36	-0.04	2.07	-1.37
10/10/2011 2:45	7.59	4.86	13.28	-0.24	2.03	-1.45
10/10/2011 3:00	7.46	4.83	13.41	-0.38	2.00	-1.32
10/10/2011 3:15	7.38	4.80	13.63	-0.45	1.97	-1.10
10/10/2011 3:30	7.37	4.77	14.08	-0.46	1.94	-0.65
10/10/2011 3:45	7.43	4.74	14.59	-0.40	1.91	-0.14
10/10/2011 4:00	7.55	4.71	14.99	-0.28	1.88	0.26
10/10/2011 4:15	7.69	4.69	15.35	-0.14	1.86	0.62
10/10/2011 4:30	7.85	4.68	15.69	0.02	1.85	0.96
10/10/2011 4:45	8.04	4.67	16.32	0.21	1.84	1.59
10/10/2011 5:00	8.25	4.66	16.80	0.42	1.83	2.07
10/10/2011 5:15	8.50	4.66	17.28	0.67	1.83	2.55
10/10/2011 5:30	8.77	4.66	17.93	0.94	1.83	3.20
10/10/2011 5:45	9.06	4.66	18.53	1.23	1.83	3.80
10/10/2011 6:00	9.37	4.68	19.01	1.54	1.85	4.28
10/10/2011 6:15	9.64	4.69	19.25	1.81	1.86	4.52
10/10/2011 6:30	9.87	4.71	19.49	2.04	1.88	4.76
10/10/2011 6:45	10.09	4.74	19.70	2.26	1.91	4.97
10/10/2011 7:00	10.29	4.77	19.83	2.46	1.94	5.10
10/10/2011 7:15	10.47	4.80	20.04	2.64	1.97	5.31
10/10/2011 7:30	10.63	4.84	20.14	2.80	2.01	5.41
10/10/2011 7:45	10.77	4.87	20.29	2.94	2.04	5.56
10/10/2011 8:00	10.91	4.90	20.42	3.08	2.07	5.69
10/10/2011 8:15	11.02	4.93	20.51	3.19	2.10	5.78
10/10/2011 8:30	11.14	4.96	20.58	3.31	2.13	5.85
10/10/2011 8:45	11.26	5.00	20.73	3.43	2.17	6.00
10/10/2011 9:00	11.37	5.04	20.83	3.54	2.21	6.10
10/10/2011 9:15	11.47	5.07	20.84	3.64	2.24	6.11
10/10/2011 9:30	11.54	5.10	20.85	3.71	2.27	6.12
10/10/2011 9:45	11.61	5.14	20.84	3.78	2.31	6.11
10/10/2011 10:00	11.65	5.17	20.74	3.82	2.34	6.01
10/10/2011 10:15	11.66	5.20	20.55	3.83	2.37	5.82
10/10/2011 10:30	11.65	5.22	20.42	3.82	2.39	5.69
10/10/2011 10:45	11.62	5.25	20.23	3.79	2.42	5.50
10/10/2011 11:00	11.57	5.27	20.03	3.74	2.44	5.30
10/10/2011 11:15	11.51	5.30	19.79	3.68	2.47	5.06
10/10/2011 11:30	11.42	5.31	19.59	3.59	2.48	4.86
10/10/2011 11:45	11.33	5.32	19.27	3.50	2.49	4.54

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/10/2011 12:00	11.21	5.33	18.93	3.38	2.50	4.20
10/10/2011 12:15	11.04	5.34	18.52	3.21	2.51	3.79
10/10/2011 12:30	10.86	5.34	18.12	3.03	2.51	3.39
10/10/2011 12:45	10.65	5.33	17.65	2.82	2.50	2.92
10/10/2011 13:00	10.43	5.33	17.28	2.60	2.50	2.55
10/10/2011 13:15	10.21	5.32	16.93	2.38	2.49	2.20
10/10/2011 13:30	9.99	5.32	16.58	2.16	2.49	1.85
10/10/2011 13:45	9.77	5.30	16.26	1.94	2.47	1.53
10/10/2011 14:00	9.58	5.28	16.02	1.75	2.45	1.29
10/10/2011 14:15	9.38	5.26	15.82	1.55	2.43	1.09
10/10/2011 14:30	9.21	5.24	15.61	1.38	2.41	0.88
10/10/2011 14:45	9.04	5.22	15.37	1.21	2.39	0.64
10/10/2011 15:00	8.86	5.19	15.11	1.03	2.36	0.38
10/10/2011 15:15	8.70	5.16	14.97	0.87	2.33	0.24
10/10/2011 15:30	8.55	5.14	14.86	0.72	2.31	0.13
10/10/2011 15:45	8.44	5.11	14.88	0.61	2.28	0.15
10/10/2011 16:00	8.35	5.08	14.87	0.52	2.25	0.14
10/10/2011 16:15	8.29	5.05	15.08	0.46	2.22	0.35
10/10/2011 16:30	8.28	5.02	15.34	0.45	2.19	0.61
10/10/2011 16:45	8.31	5.00	15.59	0.48	2.17	0.86
10/10/2011 17:00	8.37	4.98	15.89	0.54	2.15	1.16
10/10/2011 17:15	8.46	4.95	16.24	0.63	2.12	1.51
10/10/2011 17:30	8.58	4.93	16.58	0.75	2.10	1.85
10/10/2011 17:45	8.72	4.92	16.94	0.89	2.09	2.21
10/10/2011 18:00	8.88	4.91	17.34	1.05	2.08	2.61
10/10/2011 18:15	9.08	4.90	17.74	1.25	2.07	3.01
10/10/2011 18:30	9.28	4.91	18.13	1.45	2.08	3.40
10/10/2011 18:45	9.49	4.92	18.52	1.66	2.09	3.79
10/10/2011 19:00	9.71	4.92	18.94	1.88	2.09	4.21
10/10/2011 19:15	9.94	4.94	19.23	2.11	2.11	4.50
10/10/2011 19:30	10.15	4.95	19.47	2.32	2.12	4.74
10/10/2011 19:45	10.35	4.98	19.66	2.52	2.15	4.93
10/10/2011 20:00	10.51	5.01	19.77	2.68	2.18	5.04
10/10/2011 20:15	10.65	5.04	19.84	2.82	2.21	5.11
10/10/2011 20:30	10.77	5.07	19.95	2.94	2.24	5.22
10/10/2011 20:45	10.89	5.09	20.14	3.06	2.26	5.41
10/10/2011 21:00	11.03	5.13	20.39	3.20	2.30	5.66
10/10/2011 21:15	11.19	5.17	20.63	3.36	2.34	5.90
10/10/2011 21:30	11.34	5.22	20.71	3.51	2.39	5.98
10/10/2011 21:45	11.45	5.25	20.67	3.62	2.42	5.94

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/10/2011 22:00	11.51	5.27	20.66	3.68	2.44	5.93
10/10/2011 22:15	11.56	5.30	20.56	3.73	2.47	5.83
10/10/2011 22:30	11.59	5.32	20.45	3.76	2.49	5.72
10/10/2011 22:45	11.59	5.35	20.26	3.76	2.52	5.53
10/10/2011 23:00	11.56	5.38	20.02	3.73	2.55	5.29
10/10/2011 23:15	11.49	5.40	19.75	3.66	2.57	5.02
10/10/2011 23:30	11.41	5.42	19.48	3.58	2.59	4.75
10/10/2011 23:45	11.30	5.43	19.18	3.47	2.60	4.45
10/11/2011 0:00	11.17	5.45	18.79	3.34	2.62	4.06
10/11/2011 0:15	11.02	5.46	18.40	3.19	2.63	3.67
10/11/2011 0:30	10.84	5.47	18.01	3.01	2.64	3.28
10/11/2011 0:45	10.64	5.47	17.61	2.81	2.64	2.88
10/11/2011 1:00	10.42	5.46	17.09	2.59	2.63	2.36
10/11/2011 1:15	10.16	5.45	16.57	2.33	2.62	1.84
10/11/2011 1:30	9.89	5.44	16.07	2.06	2.61	1.34
10/11/2011 1:45	9.60	5.43	15.58	1.77	2.60	0.85
10/11/2011 2:00	9.32	5.40	15.13	1.49	2.57	0.40
10/11/2011 2:15	9.03	5.38	14.74	1.20	2.55	0.01
10/11/2011 2:30	8.76	5.35	14.36	0.93	2.52	-0.37
10/11/2011 2:45	8.50	5.32	13.99	0.67	2.49	-0.74
10/11/2011 3:00	8.26	5.29	13.73	0.43	2.46	-1.00
10/11/2011 3:15	8.03	5.25	13.53	0.20	2.42	-1.20
10/11/2011 3:30	7.83	5.21	13.45	0.00	2.38	-1.28
10/11/2011 3:45	7.68	5.17	13.42	-0.15	2.34	-1.32
10/11/2011 4:00	7.56	5.14	13.50	-0.27	2.31	-1.23
10/11/2011 4:15	7.50	5.10	13.77	-0.33	2.27	-0.97
10/11/2011 4:30	7.49	5.06	14.11	-0.35	2.23	-0.62
10/11/2011 4:45	7.53	5.03	14.54	-0.30	2.20	-0.20
10/11/2011 5:00	7.64	5.00	14.97	-0.20	2.17	0.24
10/11/2011 5:15	7.78	4.97	15.50	-0.05	2.14	0.77
10/11/2011 5:30	7.96	4.94	16.06	0.13	2.11	1.33
10/11/2011 5:45	8.18	4.92	16.60	0.35	2.09	1.87
10/11/2011 6:00	8.43	4.92	17.11	0.60	2.09	2.38
10/11/2011 6:15	8.69	4.93	17.65	0.86	2.10	2.92
10/11/2011 6:30	8.97	4.93	18.16	1.14	2.10	3.43
10/11/2011 6:45	9.26	4.96	18.61	1.43	2.13	3.88
10/11/2011 7:00	9.54	4.97	19.02	1.71	2.14	4.29
10/11/2011 7:15	9.80	4.97	19.36	1.97	2.14	4.63
10/11/2011 7:30	10.04	4.98	19.61	2.21	2.15	4.88
10/11/2011 7:45	10.26	5.02	19.82	2.43	2.19	5.09

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/11/2011 8:00	10.45	5.06	19.97	2.62	2.23	5.24
10/11/2011 8:15	10.62	5.09	20.13	2.79	2.26	5.40
10/11/2011 8:30	10.78	5.13	20.25	2.95	2.30	5.52
10/11/2011 8:45	10.91	5.17	20.31	3.08	2.34	5.58
10/11/2011 9:00	11.03	5.20	20.44	3.20	2.37	5.71
10/11/2011 9:15	11.14	5.23	20.49	3.31	2.40	5.76
10/11/2011 9:30	11.23	5.25	20.32	3.40	2.42	5.59
10/11/2011 9:45	11.29	5.29	20.47	3.46	2.46	5.74
10/11/2011 10:00	11.33	5.32	20.28	3.50	2.49	5.55
10/11/2011 10:15	11.34	5.36	20.04	3.51	2.53	5.31
10/11/2011 10:30	11.33	5.38	19.85	3.50	2.55	5.12
10/11/2011 10:45	11.28	5.40	19.67	3.45	2.57	4.94
10/11/2011 11:00	11.20	5.42	19.36	3.37	2.59	4.63
10/11/2011 11:15	11.10	5.45	19.01	3.27	2.62	4.28
10/11/2011 11:30	10.99	5.47	18.72	3.16	2.64	3.99
10/11/2011 11:45	10.85	5.49	18.18	3.02	2.66	3.45
10/11/2011 12:00	10.68	5.51	17.85	2.85	2.68	3.12
10/11/2011 12:15	10.48	5.52	17.39	2.65	2.69	2.66
10/11/2011 12:30	10.25	5.53	16.84	2.42	2.70	2.11
10/11/2011 12:45	10.00	5.52	16.41	2.17	2.69	1.68
10/11/2011 13:00	9.73	5.50	15.88	1.90	2.67	1.15
10/11/2011 13:15	9.44	5.45	15.42	1.61	2.62	0.69
10/11/2011 13:30	9.16	5.37	14.92	1.33	2.54	0.19
10/11/2011 13:45	8.88	5.38	14.57	1.05	2.55	-0.16
10/11/2011 14:00	8.61	5.38	14.12	0.78	2.55	-0.61
10/11/2011 14:15	8.33	5.35	13.73	0.50	2.52	-1.00
10/11/2011 14:30	8.06	5.32	13.25	0.23	2.49	-1.49
10/11/2011 14:45	7.79	5.28	12.92	-0.04	2.45	-1.81
10/11/2011 15:00	7.54	5.25	12.70	-0.29	2.42	-2.03
10/11/2011 15:15	7.31	5.21	12.48	-0.52	2.38	-2.25
10/11/2011 15:30	7.12	5.16	12.37	-0.71	2.33	-2.36
10/11/2011 15:45	6.96	5.13	12.40	-0.87	2.30	-2.33
10/11/2011 16:00	6.85	5.09	12.56	-0.98	2.26	-2.17
10/11/2011 16:15	6.80	5.05	12.85	-1.03	2.22	-1.88
10/11/2011 16:30	6.81	5.02	13.22	-1.02	2.19	-1.51
10/11/2011 16:45	6.87	4.99	13.75	-0.96	2.16	-0.98
10/11/2011 17:00	6.98	4.96	14.07	-0.85	2.13	-0.66
10/11/2011 17:15	7.13	4.93	14.57	-0.70	2.10	-0.17
10/11/2011 17:30	7.32	4.90	15.12	-0.51	2.07	0.39
10/11/2011 17:45	7.53	4.88	15.69	-0.30	2.05	0.96

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/11/2011 18:00	7.77	4.87	16.17	-0.06	2.04	1.44
10/11/2011 18:15	8.01	4.81	16.72	0.18	1.98	1.99
10/11/2011 18:30	8.27	4.82	17.16	0.44	1.99	2.43
10/11/2011 18:45	8.54	4.80	17.62	0.71	1.97	2.89
10/11/2011 19:00	8.81	4.81	18.03	0.98	1.98	3.30
10/11/2011 19:15	9.07	4.83	18.44	1.24	2.00	3.71
10/11/2011 19:30	9.32	4.85	18.83	1.49	2.02	4.10
10/11/2011 19:45	9.57	4.88	19.11	1.74	2.05	4.38
10/11/2011 20:00	9.79	4.90	19.30	1.96	2.07	4.57
10/11/2011 20:15	9.98	4.93	19.45	2.15	2.10	4.72
10/11/2011 20:30	10.15	4.96	19.58	2.32	2.13	4.85
10/11/2011 20:45	10.30	4.99	19.67	2.47	2.16	4.94
10/11/2011 21:00	10.42	5.02	19.73	2.59	2.19	5.00
10/11/2011 21:15	10.52	5.04	19.80	2.69	2.21	5.07
10/11/2011 21:30	10.62	5.07	19.83	2.79	2.24	5.10
10/11/2011 21:45	10.70	5.10	19.81	2.87	2.27	5.08
10/11/2011 22:00	10.76	5.13	19.73	2.93	2.30	5.00
10/11/2011 22:15	10.80	5.16	19.63	2.97	2.33	4.90
10/11/2011 22:30	10.81	5.19	19.46	2.98	2.36	4.73
10/11/2011 22:45	10.80	5.23	19.24	2.97	2.40	4.51
10/11/2011 23:00	10.74	5.24	18.96	2.91	2.41	4.23
10/11/2011 23:15	10.68	5.27	18.74	2.85	2.44	4.01
10/11/2011 23:30	10.59	5.31	18.36	2.76	2.48	3.63
10/11/2011 23:45	10.45	5.31	17.93	2.62	2.48	3.20
10/12/2011 0:00	10.29	5.33	17.50	2.46	2.50	2.77
10/12/2011 0:15	10.09	5.35	17.01	2.26	2.52	2.28
10/12/2011 0:30	9.87	5.36	16.49	2.04	2.53	1.76
10/12/2011 0:45	9.60	5.35	15.88	1.77	2.52	1.15
10/12/2011 1:00	9.33	5.34	15.41	1.50	2.51	0.68
10/12/2011 1:15	9.06	5.35	14.80	1.23	2.52	0.07
10/12/2011 1:30	8.77	5.33	14.49	0.94	2.50	-0.24
10/12/2011 1:45	8.48	5.31	14.05	0.65	2.48	-0.68
10/12/2011 2:00	8.20	5.28	13.61	0.37	2.45	-1.12
10/12/2011 2:15	7.92	5.24	13.23	0.09	2.41	-1.50
10/12/2011 2:30	7.66	5.20	12.83	-0.17	2.37	-1.90
10/12/2011 2:45	7.41	5.17	12.56	-0.42	2.34	-2.17
10/12/2011 3:00	7.18	5.13	12.29	-0.65	2.30	-2.44
10/12/2011 3:15	6.97	5.09	12.13	-0.86	2.26	-2.60
10/12/2011 3:30	6.80	5.06	12.07	-1.03	2.23	-2.66
10/12/2011 3:45	6.66	5.02	12.11	-1.17	2.19	-2.62

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/12/2011 4:00	6.56	4.97	12.26	-1.27	2.14	-2.47
10/12/2011 4:15	6.51	4.93	12.55	-1.32	2.10	-2.18
10/12/2011 4:30	6.51	4.90	12.89	-1.32	2.07	-1.84
10/12/2011 4:45	6.58	4.87	13.32	-1.25	2.04	-1.42
10/12/2011 5:00	6.70	4.85	13.74	-1.13	2.02	-0.99
10/12/2011 5:15	6.86	4.83	14.37	-0.97	2.00	-0.36
10/12/2011 5:30	7.06	4.82	15.01	-0.77	1.99	0.28
10/12/2011 5:45	7.30	4.81	15.44	-0.53	1.98	0.71
10/12/2011 6:00	7.57	4.80	16.11	-0.26	1.97	1.38
10/12/2011 6:15	7.85	4.78	16.75	0.02	1.95	2.02
10/12/2011 6:30	8.15	4.78	17.27	0.32	1.95	2.54
10/12/2011 6:45	8.43	4.77	17.74	0.60	1.94	3.01
10/12/2011 7:00	8.71	4.77	18.20	0.88	1.94	3.47
10/12/2011 7:15	8.99	4.77	18.57	1.16	1.94	3.84
10/12/2011 7:30	9.26	4.79	18.95	1.43	1.96	4.22
10/12/2011 7:45	9.52	4.81	19.19	1.69	1.98	4.46
10/12/2011 8:00	9.74	4.84	19.39	1.91	2.01	4.66
10/12/2011 8:15	9.94	4.87	19.52	2.11	2.04	4.79
10/12/2011 8:30	10.10	4.91	19.61	2.27	2.08	4.88
10/12/2011 8:45	10.24	4.95	19.70	2.41	2.12	4.97
10/12/2011 9:00	10.37	4.99	19.78	2.54	2.16	5.05
10/12/2011 9:15	10.49	5.03	19.86	2.66	2.20	5.13
10/12/2011 9:30	10.59	5.06	19.90	2.76	2.23	5.17
10/12/2011 9:45	10.68	5.09	19.93	2.85	2.26	5.20
10/12/2011 10:00	10.76	5.13	19.88	2.93	2.30	5.15
10/12/2011 10:15	10.81	5.17	19.77	2.98	2.34	5.04
10/12/2011 10:30	10.83	5.21	19.63	3.00	2.38	4.90
10/12/2011 10:45	10.84	5.25	19.51	3.01	2.42	4.78
10/12/2011 11:00	10.82	5.30	19.38	2.99	2.47	4.65
10/12/2011 11:15	10.79	5.31	19.11	2.96	2.48	4.38
10/12/2011 11:30	10.73	5.27	18.81	2.90	2.44	4.08
10/12/2011 11:45	10.64	5.27	18.50	2.81	2.44	3.77
10/12/2011 12:00	10.52	5.30	18.14	2.69	2.47	3.41
10/12/2011 12:15	10.38	5.34	17.72	2.55	2.51	2.99
10/12/2011 12:30	10.20	5.35	17.25	2.37	2.52	2.52
10/12/2011 12:45	9.99	5.36	16.74	2.16	2.53	2.01
10/12/2011 13:00	9.75	5.37	16.25	1.92	2.54	1.52
10/12/2011 13:15	9.49	5.37	15.75	1.66	2.54	1.02
10/12/2011 13:30	9.22	5.36	15.24	1.39	2.53	0.51
10/12/2011 13:45	8.94	5.35	14.66	1.11	2.52	-0.07

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/12/2011 14:00	8.65	5.34	14.32	0.82	2.51	-0.41
10/12/2011 14:15	8.38	5.32	13.84	0.55	2.49	-0.90
10/12/2011 14:30	8.10	5.30	13.49	0.27	2.47	-1.24
10/12/2011 14:45	7.83	5.26	13.08	0.00	2.43	-1.65
10/12/2011 15:00	7.58	5.23	12.82	-0.25	2.40	-1.91
10/12/2011 15:15	7.34	5.19	12.54	-0.49	2.36	-2.19
10/12/2011 15:30	7.13	5.15	12.28	-0.71	2.32	-2.45
10/12/2011 15:45	6.93	5.11	12.13	-0.90	2.28	-2.60
10/12/2011 16:00	6.77	5.07	11.96	-1.07	2.24	-2.77
10/12/2011 16:15	6.64	5.03	12.11	-1.19	2.20	-2.62
10/12/2011 16:30	6.56	4.99	12.34	-1.27	2.16	-2.39
10/12/2011 16:45	6.53	4.96	12.72	-1.30	2.13	-2.01
10/12/2011 17:00	6.54	4.92	13.09	-1.29	2.09	-1.64
10/12/2011 17:15	6.61	4.89	13.47	-1.22	2.06	-1.26
10/12/2011 17:30	6.72	4.86	13.81	-1.11	2.03	-0.92
10/12/2011 17:45	6.88	4.84	14.41	-0.96	2.01	-0.32
10/12/2011 18:00	7.07	4.75	14.90	-0.76	1.92	0.17
10/12/2011 18:15	7.29	4.75	15.43	-0.54	1.92	0.70
10/12/2011 18:30	7.54	4.75	15.98	-0.30	1.92	1.25
10/12/2011 18:45	7.80	4.75	16.51	-0.03	1.92	1.78
10/12/2011 19:00	8.08	4.76	17.01	0.25	1.93	2.28
10/12/2011 19:15	8.35	4.77	17.43	0.52	1.94	2.70
10/12/2011 19:30	8.62	4.78	17.86	0.79	1.95	3.13
10/12/2011 19:45	8.87	4.79	18.24	1.04	1.96	3.51
10/12/2011 20:00	9.12	4.81	18.48	1.29	1.98	3.75
10/12/2011 20:15	9.33	4.83	18.83	1.50	2.00	4.10
10/12/2011 20:30	9.54	4.85	19.04	1.71	2.02	4.31
10/12/2011 20:45	9.73	4.87	19.22	1.90	2.04	4.49
10/12/2011 21:00	9.90	4.90	19.24	2.07	2.07	4.51
10/12/2011 21:15	10.04	4.93	19.39	2.21	2.10	4.66
10/12/2011 21:30	10.16	4.95	19.39	2.33	2.12	4.66
10/12/2011 21:45	10.25	4.98	19.40	2.42	2.15	4.67
10/12/2011 22:00	10.33	5.01	19.50	2.50	2.18	4.77
10/12/2011 22:15	10.40	5.04	19.46	2.57	2.21	4.73
10/12/2011 22:30	10.46	5.07	19.41	2.63	2.24	4.68
10/12/2011 22:45	10.49	5.09	19.29	2.66	2.26	4.56
10/12/2011 23:00	10.51	5.12	19.21	2.68	2.29	4.48
10/12/2011 23:15	10.49	5.15	18.96	2.66	2.32	4.23
10/12/2011 23:30	10.46	5.17	18.69	2.63	2.34	3.96
10/12/2011 23:45	10.40	5.20	18.40	2.57	2.37	3.67

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/13/2011 0:00	10.30	5.22	18.00	2.47	2.39	3.27
10/13/2011 0:15	10.17	5.24	17.55	2.34	2.41	2.82
10/13/2011 0:30	10.00	5.25	17.11	2.17	2.42	2.38
10/13/2011 0:45	9.78	5.26	16.57	1.95	2.43	1.84
10/13/2011 1:00	9.54	5.26	16.02	1.71	2.43	1.29
10/13/2011 1:15	9.27	5.26	15.43	1.44	2.43	0.70
10/13/2011 1:30	8.98	5.25	14.94	1.15	2.42	0.21
10/13/2011 1:45	8.70	5.24	14.53	0.87	2.41	-0.21
10/13/2011 2:00	8.40	5.28	13.99	0.57	2.45	-0.74
10/13/2011 2:15	8.12	5.21	13.59	0.29	2.38	-1.14
10/13/2011 2:30	7.85	5.18	13.17	0.02	2.35	-1.56
10/13/2011 2:45	7.58	5.14	12.81	-0.25	2.31	-1.93
10/13/2011 3:00	7.33	5.11	12.47	-0.50	2.28	-2.26
10/13/2011 3:15	7.10	5.08	12.16	-0.73	2.25	-2.57
10/13/2011 3:30	6.88	5.04	11.94	-0.95	2.21	-2.79
10/13/2011 3:45	6.69	5.01	11.94	-1.14	2.18	-2.79
10/13/2011 4:00	6.53	4.97	11.64	-1.30	2.14	-3.10
10/13/2011 4:15	6.40	4.94	11.69	-1.43	2.11	-3.04
10/13/2011 4:30	6.30	4.90	11.93	-1.53	2.07	-2.80
10/13/2011 4:45	6.27	4.88	12.20	-1.56	2.05	-2.53
10/13/2011 5:00	6.29	4.87	12.62	-1.54	2.04	-2.11
10/13/2011 5:15	6.37	4.84	13.08	-1.46	2.01	-1.65
10/13/2011 5:30	6.49	4.81	13.53	-1.35	1.98	-1.20
10/13/2011 5:45	6.64	4.78	14.06	-1.19	1.95	-0.67
10/13/2011 6:00	6.84	4.74	14.59	-0.99	1.91	-0.14
10/13/2011 6:15	7.06	4.72	15.19	-0.77	1.89	0.46
10/13/2011 6:30	7.32	4.71	15.72	-0.52	1.88	0.99
10/13/2011 6:45	7.59	4.70	16.34	-0.24	1.87	1.61
10/13/2011 7:00	7.88	4.70	16.94	0.05	1.87	2.21
10/13/2011 7:15	8.18	4.71	17.42	0.35	1.88	2.69
10/13/2011 7:30	8.48	4.72	17.86	0.65	1.89	3.13
10/13/2011 7:45	8.77	4.74	18.24	0.94	1.91	3.51
10/13/2011 8:00	9.04	4.76	18.66	1.21	1.93	3.93
10/13/2011 8:15	9.29	4.78	18.98	1.46	1.95	4.25
10/13/2011 8:30	9.52	4.81	19.18	1.69	1.98	4.45
10/13/2011 8:45	9.72	4.85	19.35	1.89	2.02	4.62
10/13/2011 9:00	9.90	4.88	19.44	2.07	2.05	4.71
10/13/2011 9:15	10.05	4.91	19.58	2.22	2.08	4.85
10/13/2011 9:30	10.18	4.94	19.65	2.35	2.11	4.92
10/13/2011 9:45	10.29	4.97	19.68	2.46	2.14	4.95

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/13/2011 10:00	10.39	5.00	19.78	2.56	2.17	5.05
10/13/2011 10:15	10.48	5.03	19.85	2.65	2.20	5.12
10/13/2011 10:30	10.56	5.06	19.62	2.73	2.23	4.89
10/13/2011 10:45	10.61	5.09	19.58	2.78	2.26	4.85
10/13/2011 11:00	10.64	5.03	19.43	2.81	2.20	4.70
10/13/2011 11:15	10.65	5.09	19.20	2.82	2.26	4.47
10/13/2011 11:30	10.63	5.13	19.19	2.80	2.30	4.46
10/13/2011 11:45	10.61	5.17	19.04	2.78	2.34	4.31
10/13/2011 12:00	10.56	5.23	18.77	2.73	2.40	4.04
10/13/2011 12:15	10.50	5.25	18.33	2.67	2.42	3.60
10/13/2011 12:30	10.39	5.27	17.84	2.56	2.44	3.11
10/13/2011 12:45	10.25	5.29	17.57	2.42	2.46	2.84
10/13/2011 13:00	10.09	5.30	17.19	2.26	2.47	2.46
10/13/2011 13:15	9.89	5.32	16.78	2.06	2.49	2.05
10/13/2011 13:30	9.65	5.33	16.24	1.82	2.50	1.51
10/13/2011 13:45	9.39	5.33	15.60	1.56	2.50	0.87
10/13/2011 14:00	9.13	5.32	15.11	1.30	2.49	0.38
10/13/2011 14:15	8.86	5.31	14.69	1.03	2.48	-0.04
10/13/2011 14:30	8.58	5.29	14.11	0.75	2.46	-0.63
10/13/2011 14:45	8.30	5.28	13.83	0.47	2.45	-0.90
10/13/2011 15:00	8.05	5.26	13.41	0.22	2.43	-1.32
10/13/2011 15:15	7.79	5.23	13.05	-0.04	2.40	-1.68
10/13/2011 15:30	7.54	5.20	12.75	-0.29	2.37	-1.98
10/13/2011 15:45	7.30	5.16	12.45	-0.53	2.33	-2.28
10/13/2011 16:00	7.09	5.13	12.21	-0.75	2.30	-2.52
10/13/2011 16:15	6.89	5.09	12.02	-0.94	2.26	-2.71
10/13/2011 16:30	6.72	5.06	11.94	-1.11	2.23	-2.79
10/13/2011 16:45	6.58	5.02	11.93	-1.25	2.19	-2.80
10/13/2011 17:00	6.47	4.99	12.06	-1.36	2.16	-2.67
10/13/2011 17:15	6.42	4.95	12.30	-1.41	2.12	-2.43
10/13/2011 17:30	6.42	4.92	12.67	-1.42	2.09	-2.06
10/13/2011 17:45	6.47	4.89	13.11	-1.36	2.06	-1.62
10/13/2011 18:00	6.58	4.87	13.58	-1.25	2.04	-1.15
10/13/2011 18:15	6.74	4.85	14.12	-1.09	2.02	-0.61
10/13/2011 18:30	6.94	4.83	14.66	-0.89	2.00	-0.07
10/13/2011 18:45	7.16	4.82	15.22	-0.67	1.99	0.49
10/13/2011 19:00	7.40	4.81	15.79	-0.43	1.98	1.06
10/13/2011 19:15	7.67	4.80	16.13	-0.16	1.97	1.40
10/13/2011 19:30	7.95	4.81	16.87	0.12	1.98	2.14
10/13/2011 19:45	8.23	4.81	17.38	0.40	1.98	2.65

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/13/2011 20:00	8.51	4.82	17.86	0.68	1.99	3.13
10/13/2011 20:15	8.77	4.74	18.20	0.94	1.91	3.47
10/13/2011 20:30	9.03	4.78	18.44	1.20	1.95	3.71
10/13/2011 20:45	9.27	4.82	18.75	1.44	1.99	4.02
10/13/2011 21:00	9.45	4.82	19.09	1.62	1.99	4.36
10/13/2011 21:15	9.64	4.83	19.19	1.81	2.00	4.46
10/13/2011 21:30	9.81	4.86	19.26	1.98	2.03	4.53
10/13/2011 21:45	9.95	4.88	19.37	2.12	2.05	4.64
10/13/2011 22:00	10.06	4.91	19.37	2.23	2.08	4.64
10/13/2011 22:15	10.16	4.94	19.36	2.33	2.11	4.63
10/13/2011 22:30	10.24	4.97	19.32	2.41	2.14	4.59
10/13/2011 22:45	10.30	5.00	19.25	2.47	2.17	4.52
10/13/2011 23:00	10.34	5.04	19.19	2.51	2.21	4.46
10/13/2011 23:15	10.34	5.05	19.06	2.51	2.22	4.33
10/13/2011 23:30	10.33	5.07	18.88	2.50	2.24	4.15
10/13/2011 23:45	10.31	5.09	18.66	2.48	2.26	3.93
10/14/2011 0:00	10.26	5.11	18.35	2.43	2.28	3.62
10/14/2011 0:15	10.18	5.13	17.99	2.35	2.30	3.26
10/14/2011 0:30	10.06	5.15	17.46	2.23	2.32	2.73
10/14/2011 0:45	9.90	5.16	17.24	2.07	2.33	2.51
10/14/2011 1:00	9.70	5.17	16.59	1.87	2.34	1.86
10/14/2011 1:15	9.47	5.18	16.01	1.64	2.35	1.28
10/14/2011 1:30	9.21	5.17	15.42	1.38	2.34	0.69
10/14/2011 1:45	8.92	5.17	14.86	1.09	2.34	0.13
10/14/2011 2:00	8.63	5.15	14.36	0.80	2.32	-0.37
10/14/2011 2:15	8.34	5.15	13.96	0.51	2.32	-0.77
10/14/2011 2:30	8.07	5.14	13.51	0.24	2.31	-1.22
10/14/2011 2:45	7.79	5.11	13.09	-0.04	2.28	-1.64
10/14/2011 3:00	7.52	5.09	12.55	-0.31	2.26	-2.18
10/14/2011 3:15	7.24	5.05	12.21	-0.59	2.22	-2.52
10/14/2011 3:30	6.98	5.02	11.80	-0.85	2.19	-2.93
10/14/2011 3:45	6.73	4.98	11.50	-1.10	2.15	-3.23
10/14/2011 4:00	6.49	4.95	11.36	-1.34	2.12	-3.37
10/14/2011 4:15	6.29	4.91	11.18	-1.54	2.08	-3.55
10/14/2011 4:30	6.14	4.88	11.23	-1.69	2.05	-3.50
10/14/2011 4:45	6.05	4.84	11.46	-1.78	2.01	-3.27
10/14/2011 5:00	6.02	4.80	11.79	-1.82	1.97	-2.94
10/14/2011 5:15	6.04	4.76	12.12	-1.79	1.93	-2.61
10/14/2011 5:30	6.12	4.73	12.65	-1.71	1.90	-2.08
10/14/2011 5:45	6.24	4.71	13.12	-1.59	1.88	-1.61

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/14/2011 6:00	6.39	4.70	13.78	-1.44	1.87	-0.95
10/14/2011 6:15	6.59	4.68	14.29	-1.24	1.85	-0.44
10/14/2011 6:30	6.81	4.66	14.67	-1.02	1.83	-0.06
10/14/2011 6:45	7.05	4.64	15.31	-0.78	1.81	0.58
10/14/2011 7:00	7.31	4.63	15.78	-0.52	1.80	1.05
10/14/2011 7:15	7.57	4.61	16.31	-0.26	1.78	1.58
10/14/2011 7:30	7.83	4.61	16.77	0.00	1.78	2.04
10/14/2011 7:45	8.11	4.62	17.23	0.28	1.79	2.50
10/14/2011 8:00	8.37	4.64	17.59	0.54	1.81	2.86
10/14/2011 8:15	8.62	4.65	17.96	0.79	1.82	3.23
10/14/2011 8:30	8.85	4.67	18.22	1.02	1.84	3.49
10/14/2011 8:45	9.07	4.70	18.52	1.24	1.87	3.79
10/14/2011 9:00	9.27	4.72	18.68	1.44	1.89	3.95
10/14/2011 9:15	9.44	4.75	18.80	1.61	1.92	4.07
10/14/2011 9:30	9.59	4.77	18.83	1.76	1.94	4.10
10/14/2011 9:45	9.70	4.79	18.92	1.87	1.96	4.19
10/14/2011 10:00	9.80	4.82	19.07	1.97	1.99	4.34
10/14/2011 10:15	9.89	4.84	19.03	2.06	2.01	4.30
10/14/2011 10:30	9.95	4.86	19.08	2.12	2.03	4.35
10/14/2011 10:45	10.01	4.88	18.91	2.18	2.05	4.18
10/14/2011 11:00	10.05	4.90	18.96	2.22	2.07	4.23
10/14/2011 11:15	10.08	4.92	18.90	2.25	2.09	4.17
10/14/2011 11:30	10.09	4.89	18.73	2.26	2.06	4.00
10/14/2011 11:45	10.08	4.90	18.67	2.25	2.07	3.94
10/14/2011 12:00	10.06	4.95	18.44	2.23	2.12	3.71
10/14/2011 12:15	10.04	5.00	18.26	2.21	2.17	3.53
10/14/2011 12:30	9.99	5.03	18.03	2.16	2.20	3.30
10/14/2011 12:45	9.92	5.06	17.67	2.09	2.23	2.94
10/14/2011 13:00	9.81	5.08	17.30	1.98	2.25	2.57
10/14/2011 13:15	9.67	5.10	16.88	1.84	2.27	2.15
10/14/2011 13:30	9.48	5.11	16.33	1.65	2.28	1.60
10/14/2011 13:45	9.26	5.11	15.87	1.43	2.28	1.14
10/14/2011 14:00	9.02	5.11	15.30	1.19	2.28	0.57
10/14/2011 14:15	8.76	5.11	14.77	0.93	2.28	0.04
10/14/2011 14:30	8.50	5.10	14.45	0.67	2.27	-0.28
10/14/2011 14:45	8.24	5.09	13.96	0.41	2.26	-0.77
10/14/2011 15:00	8.00	5.07	13.67	0.17	2.24	-1.06
10/14/2011 15:15	7.76	5.05	13.38	-0.07	2.22	-1.35
10/14/2011 15:30	7.54	5.03	13.06	-0.29	2.20	-1.67
10/14/2011 15:45	7.32	4.99	12.87	-0.51	2.16	-1.86

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/14/2011 16:00	7.12	4.96	12.61	-0.71	2.13	-2.12
10/14/2011 16:15	6.93	4.93	12.44	-0.90	2.10	-2.29
10/14/2011 16:30	6.76	4.89	12.16	-1.07	2.06	-2.57
10/14/2011 16:45	6.61	4.86	11.26	-1.22	2.03	-3.47
10/14/2011 17:00	6.48	4.82	11.99	-1.36	1.99	-2.74
10/14/2011 17:15	6.38	4.79	12.04	-1.46	1.96	-2.69
10/14/2011 17:30	6.30	4.76	12.09	-1.54	1.93	-2.64
10/14/2011 17:45	6.25	4.71	12.22	-1.58	1.88	-2.51
10/14/2011 18:00	6.23	4.66	12.44	-1.60	1.83	-2.29
10/14/2011 18:15	6.25	4.64	12.75	-1.58	1.81	-1.98
10/14/2011 18:30	6.32	4.57	13.23	-1.51	1.74	-1.50
10/14/2011 18:45	6.43	4.55	13.60	-1.40	1.72	-1.13
10/14/2011 19:00	6.59	4.54	14.10	-1.24	1.71	-0.63
10/14/2011 19:15	6.77	4.53	14.60	-1.06	1.70	-0.13
10/14/2011 19:30	7.00	4.53	15.12	-0.83	1.70	0.39
10/14/2011 19:45	7.23	4.53	15.61	-0.60	1.70	0.88
10/14/2011 20:00	7.49	4.53	15.96	-0.34	1.70	1.23
10/14/2011 20:15	7.75	4.53	16.60	-0.08	1.70	1.87
10/14/2011 20:30	8.01	4.54	17.05	0.18	1.71	2.32
10/14/2011 20:45	8.26	4.55	17.42	0.43	1.72	2.69
10/14/2011 21:00	8.51	4.57	17.80	0.68	1.74	3.07
10/14/2011 21:15	8.74	4.59	18.11	0.91	1.76	3.38
10/14/2011 21:30	8.94	4.61	18.34	1.11	1.78	3.61
10/14/2011 21:45	9.13	4.63	18.52	1.30	1.80	3.79
10/14/2011 22:00	9.31	4.65	18.68	1.48	1.82	3.95
10/14/2011 22:15	9.47	4.68	18.76	1.64	1.85	4.03
10/14/2011 22:30	9.60	4.71	18.78	1.77	1.88	4.05
10/14/2011 22:45	9.70	4.74	18.86	1.87	1.91	4.13
10/14/2011 23:00	9.78	4.76	18.83	1.95	1.93	4.10
10/14/2011 23:15	9.83	4.79	18.73	2.00	1.96	4.00
10/14/2011 23:30	9.87	4.81	18.59	2.04	1.98	3.86
10/14/2011 23:45	9.87	4.83	18.54	2.04	2.00	3.81
10/15/2011 0:00	9.86	4.85	18.28	2.03	2.02	3.55
10/15/2011 0:15	9.83	4.88	18.05	2.00	2.05	3.32
10/15/2011 0:30	9.78	4.89	17.86	1.95	2.06	3.13
10/15/2011 0:45	9.70	4.90	17.57	1.87	2.07	2.84
10/15/2011 1:00	9.58	4.91	17.14	1.75	2.08	2.41
10/15/2011 1:15	9.41	4.91	16.67	1.58	2.08	1.94
10/15/2011 1:30	9.22	4.93	16.22	1.39	2.10	1.49
10/15/2011 1:45	9.01	4.95	15.75	1.18	2.12	1.02

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/15/2011 2:00	8.78	4.94	15.27	0.95	2.11	0.54
10/15/2011 2:15	8.54	4.94	14.81	0.71	2.11	0.08
10/15/2011 2:30	8.29	4.93	14.26	0.46	2.10	-0.47
10/15/2011 2:45	8.04	4.92	13.94	0.21	2.09	-0.79
10/15/2011 3:00	7.79	4.90	13.53	-0.04	2.07	-1.20
10/15/2011 3:15	7.55	4.88	13.11	-0.28	2.05	-1.62
10/15/2011 3:30	7.32	4.85	12.78	-0.51	2.02	-1.95
10/15/2011 3:45	7.10	4.83	12.46	-0.73	2.00	-2.27
10/15/2011 4:00	6.89	4.80	12.17	-0.94	1.97	-2.56
10/15/2011 4:15	6.68	4.77	11.89	-1.15	1.94	-2.84
10/15/2011 4:30	6.50	4.76	11.77	-1.33	1.93	-2.96
10/15/2011 4:45	6.34	4.71	11.62	-1.49	1.88	-3.12
10/15/2011 5:00	6.19	4.66	11.52	-1.64	1.83	-3.21
10/15/2011 5:15	6.08	4.61	11.56	-1.76	1.78	-3.17
10/15/2011 5:30	6.00	4.58	11.74	-1.83	1.75	-2.99
10/15/2011 5:45	5.97	4.55	11.97	-1.87	1.72	-2.76
10/15/2011 6:00	5.98	4.52	12.27	-1.85	1.69	-2.46
10/15/2011 6:15	6.04	4.50	12.66	-1.79	1.67	-2.07
10/15/2011 6:30	6.14	4.48	13.08	-1.69	1.65	-1.65
10/15/2011 6:45	6.28	4.46	13.55	-1.55	1.63	-1.18
10/15/2011 7:00	6.46	4.45	14.04	-1.37	1.62	-0.69
10/15/2011 7:15	6.66	4.45	14.54	-1.17	1.62	-0.19
10/15/2011 7:30	6.89	4.45	15.05	-0.94	1.62	0.32
10/15/2011 7:45	7.13	4.45	15.56	-0.71	1.62	0.83
10/15/2011 8:00	7.37	4.44	16.06	-0.46	1.61	1.33
10/15/2011 8:15	7.64	4.45	16.52	-0.19	1.62	1.79
10/15/2011 8:30	7.90	4.45	17.02	0.07	1.62	2.29
10/15/2011 8:45	8.16	4.46	17.43	0.33	1.63	2.70
10/15/2011 9:00	8.42	4.48	17.74	0.59	1.65	3.01
10/15/2011 9:15	8.67	4.50	18.17	0.84	1.67	3.44
10/15/2011 9:30	8.91	4.52	18.47	1.08	1.69	3.74
10/15/2011 9:45	9.13	4.55	18.74	1.30	1.72	4.01
10/15/2011 10:00	9.33	4.58	18.90	1.50	1.75	4.17
10/15/2011 10:15	9.51	4.61	19.11	1.68	1.78	4.38
10/15/2011 10:30	9.65	4.64	19.13	1.82	1.81	4.40
10/15/2011 10:45	9.77	4.67	19.09	1.94	1.84	4.36
10/15/2011 11:00	9.87	4.70	19.13	2.04	1.87	4.40
10/15/2011 11:15	9.95	4.73	19.17	2.12	1.90	4.44
10/15/2011 11:30	10.02	4.76	19.18	2.19	1.93	4.45
10/15/2011 11:45	10.07	4.79	19.11	2.24	1.96	4.38

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/15/2011 12:00	10.11	4.82	19.04	2.28	1.99	4.31
10/15/2011 12:15	10.12	4.85	18.93	2.29	2.02	4.20
10/15/2011 12:30	10.13	4.87	18.88	2.30	2.04	4.15
10/15/2011 12:45	10.12	4.89	18.71	2.29	2.06	3.98
10/15/2011 13:00	10.09	4.92	18.51	2.26	2.09	3.78
10/15/2011 13:15	10.04	4.94	18.15	2.21	2.11	3.42
10/15/2011 13:30	9.96	4.96	17.87	2.13	2.13	3.14
10/15/2011 13:45	9.84	4.98	17.52	2.01	2.15	2.79
10/15/2011 14:00	9.69	5.00	17.06	1.86	2.17	2.33
10/15/2011 14:15	9.51	5.01	16.57	1.68	2.18	1.84
10/15/2011 14:30	9.29	5.01	16.08	1.46	2.18	1.35
10/15/2011 14:45	9.05	5.01	15.56	1.22	2.18	0.82
10/15/2011 15:00	8.80	5.01	15.06	0.97	2.18	0.33
10/15/2011 15:15	8.54	5.00	14.59	0.71	2.17	-0.14
10/15/2011 15:30	8.27	4.98	14.16	0.44	2.15	-0.57
10/15/2011 15:45	8.01	4.96	13.75	0.18	2.13	-0.98
10/15/2011 16:00	7.76	4.94	13.37	-0.08	2.11	-1.36
10/15/2011 16:15	7.51	4.91	13.05	-0.32	2.08	-1.68
10/15/2011 16:30	7.28	4.88	12.71	-0.55	2.05	-2.02
10/15/2011 16:45	7.06	4.85	12.43	-0.77	2.02	-2.30
10/15/2011 17:00	6.86	4.83	12.20	-0.97	2.00	-2.53
10/15/2011 17:15	6.67	4.79	12.04	-1.16	1.96	-2.69
10/15/2011 17:30	6.52	4.76	11.96	-1.31	1.93	-2.77
10/15/2011 17:45	6.38	4.73	11.90	-1.45	1.90	-2.83
10/15/2011 18:00	6.28	4.70	11.99	-1.55	1.87	-2.74
10/15/2011 18:15	6.23	4.67	12.19	-1.60	1.84	-2.54
10/15/2011 18:30	6.22	4.64	12.43	-1.61	1.81	-2.30
10/15/2011 18:45	6.25	4.61	12.76	-1.58	1.78	-1.97
10/15/2011 19:00	6.32	4.59	13.15	-1.51	1.76	-1.58
10/15/2011 19:15	6.44	4.57	13.59	-1.39	1.74	-1.14
10/15/2011 19:30	6.59	4.55	14.06	-1.24	1.72	-0.67
10/15/2011 19:45	6.77	4.53	14.57	-1.06	1.70	-0.16
10/15/2011 20:00	6.98	4.52	15.07	-0.85	1.69	0.33
10/15/2011 20:15	7.21	4.52	15.56	-0.62	1.69	0.83
10/15/2011 20:30	7.45	4.51	16.12	-0.38	1.68	1.39
10/15/2011 20:45	7.69	4.52	16.48	-0.14	1.69	1.75
10/15/2011 21:00	7.95	4.52	16.92	0.12	1.69	2.19
10/15/2011 21:15	8.19	4.53	17.30	0.36	1.70	2.57
10/15/2011 21:30	8.43	4.54	17.66	0.60	1.71	2.93
10/15/2011 21:45	8.66	4.56	17.94	0.83	1.73	3.21

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/15/2011 22:00	8.87	4.58	18.15	1.04	1.75	3.42
10/15/2011 22:15	9.06	4.60	18.44	1.23	1.77	3.71
10/15/2011 22:30	9.23	4.62	18.57	1.40	1.79	3.84
10/15/2011 22:45	9.38	4.64	18.65	1.55	1.81	3.92
10/15/2011 23:00	9.51	4.66	18.76	1.68	1.83	4.03
10/15/2011 23:15	9.62	4.68	18.79	1.79	1.85	4.06
10/15/2011 23:30	9.70	4.71	18.73	1.87	1.88	4.00
10/15/2011 23:45	9.75	4.73	18.62	1.92	1.90	3.89
10/16/2011 0:00	9.77	4.76	18.52	1.94	1.93	3.79
10/16/2011 0:15	9.78	4.77	18.42	1.95	1.94	3.69
10/16/2011 0:30	9.77	4.80	18.27	1.94	1.97	3.54
10/16/2011 0:45	9.75	4.81	18.05	1.92	1.98	3.32
10/16/2011 1:00	9.69	4.83	17.78	1.86	2.00	3.05
10/16/2011 1:15	9.60	4.84	17.42	1.77	2.01	2.69
10/16/2011 1:30	9.47	4.85	17.01	1.64	2.02	2.28
10/16/2011 1:45	9.31	4.85	16.51	1.48	2.02	1.78
10/16/2011 2:00	9.11	4.85	16.03	1.28	2.02	1.30
10/16/2011 2:15	8.88	4.86	15.53	1.05	2.03	0.80
10/16/2011 2:30	8.65	4.85	15.05	0.82	2.02	0.32
10/16/2011 2:45	8.40	4.85	14.62	0.57	2.02	-0.11
10/16/2011 3:00	8.15	4.84	14.18	0.32	2.01	-0.55
10/16/2011 3:15	7.91	4.82	13.83	0.08	1.99	-0.90
10/16/2011 3:30	7.68	4.81	13.45	-0.15	1.98	-1.29
10/16/2011 3:45	7.45	4.78	13.10	-0.38	1.95	-1.63
10/16/2011 4:00	7.23	4.76	12.76	-0.60	1.93	-1.98
10/16/2011 4:15	7.01	4.73	12.54	-0.82	1.90	-2.20
10/16/2011 4:30	6.80	4.70	12.20	-1.03	1.87	-2.53
10/16/2011 4:45	6.60	4.68	11.92	-1.23	1.85	-2.81
10/16/2011 5:00	6.42	4.64	11.69	-1.41	1.81	-3.04
10/16/2011 5:15	6.26	4.61	11.54	-1.57	1.78	-3.19
10/16/2011 5:30	6.12	4.58	11.54	-1.71	1.75	-3.19
10/16/2011 5:45	6.02	4.55	11.57	-1.81	1.72	-3.16
10/16/2011 6:00	5.96	4.52	11.82	-1.87	1.69	-2.91
10/16/2011 6:15	5.94	4.50	11.96	-1.89	1.67	-2.77
10/16/2011 6:30	5.97	4.47	12.34	-1.86	1.64	-2.39
10/16/2011 6:45	6.04	4.45	12.66	-1.79	1.62	-2.07
10/16/2011 7:00	6.14	4.44	13.09	-1.69	1.61	-1.64
10/16/2011 7:15	6.27	4.42	13.52	-1.56	1.59	-1.21
10/16/2011 7:30	6.44	4.41	14.02	-1.39	1.58	-0.71
10/16/2011 7:45	6.63	4.40	14.52	-1.20	1.57	-0.21

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/16/2011 8:00	6.86	4.39	15.09	-0.97	1.56	0.36
10/16/2011 8:15	7.09	4.39	15.49	-0.74	1.56	0.76
10/16/2011 8:30	7.34	4.39	16.02	-0.49	1.56	1.29
10/16/2011 8:45	7.60	4.40	16.53	-0.23	1.57	1.80
10/16/2011 9:00	7.85	4.40	16.90	0.02	1.57	2.17
10/16/2011 9:15	8.11	4.42	17.34	0.28	1.59	2.61
10/16/2011 9:30	8.37	4.43	17.67	0.54	1.60	2.94
10/16/2011 9:45	8.60	4.45	17.95	0.77	1.62	3.22
10/16/2011 10:00	8.83	4.47	18.34	1.00	1.64	3.61
10/16/2011 10:15	9.04	4.49	18.58	1.21	1.66	3.85
10/16/2011 10:30	9.25	4.52	18.68	1.42	1.69	3.95
10/16/2011 10:45	9.44	4.55	19.02	1.61	1.72	4.29
10/16/2011 11:00	9.59	4.57	19.07	1.76	1.74	4.34
10/16/2011 11:15	9.74	4.61	19.18	1.91	1.78	4.45
10/16/2011 11:30	9.86	4.64	19.36	2.03	1.81	4.63
10/16/2011 11:45	9.96	4.67	19.42	2.13	1.84	4.69
10/16/2011 12:00	10.05	4.70	19.39	2.22	1.87	4.66
10/16/2011 12:15	10.12	4.73	19.36	2.29	1.90	4.63
10/16/2011 12:30	10.17	4.76	19.34	2.34	1.93	4.61
10/16/2011 12:45	10.21	4.79	19.26	2.38	1.96	4.53
10/16/2011 13:00	10.24	4.82	19.15	2.41	1.99	4.42
10/16/2011 13:15	10.24	4.85	19.03	2.41	2.02	4.30
10/16/2011 13:30	10.24	4.88	18.87	2.41	2.05	4.14
10/16/2011 13:45	10.20	4.91	18.65	2.37	2.08	3.92
10/16/2011 14:00	10.15	4.93	18.39	2.32	2.10	3.66
10/16/2011 14:15	10.06	4.95	18.05	2.23	2.12	3.32
10/16/2011 14:30	9.93	4.96	17.65	2.10	2.13	2.92
10/16/2011 14:45	9.77	4.97	17.19	1.94	2.14	2.46
10/16/2011 15:00	9.58	4.98	16.67	1.75	2.15	1.94
10/16/2011 15:15	9.35	4.98	16.14	1.52	2.15	1.41
10/16/2011 15:30	9.09	4.98	15.58	1.26	2.15	0.85
10/16/2011 15:45	8.82	4.97	15.02	0.99	2.14	0.29
10/16/2011 16:00	8.55	4.96	14.64	0.72	2.13	-0.09
10/16/2011 16:15	8.27	4.94	14.04	0.44	2.11	-0.69
10/16/2011 16:30	8.00	4.93	13.65	0.17	2.10	-1.08
10/16/2011 16:45	7.74	4.91	13.32	-0.09	2.08	-1.41
10/16/2011 17:00	7.49	4.88	12.94	-0.34	2.05	-1.79
10/16/2011 17:15	7.25	4.85	12.63	-0.58	2.02	-2.10
10/16/2011 17:30	7.04	4.82	12.48	-0.79	1.99	-2.26
10/16/2011 17:45	6.84	4.80	12.20	-0.99	1.97	-2.53

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/16/2011 18:00	6.66	4.77	12.06	-1.17	1.94	-2.67
10/16/2011 18:15	6.51	4.74	12.01	-1.32	1.91	-2.72
10/16/2011 18:30	6.41	4.71	12.14	-1.42	1.88	-2.59
10/16/2011 18:45	6.35	4.68	12.33	-1.48	1.85	-2.40
10/16/2011 19:00	6.34	4.65	12.60	-1.49	1.82	-2.13
10/16/2011 19:15	6.38	4.63	12.97	-1.45	1.80	-1.76
10/16/2011 19:30	6.46	4.60	13.35	-1.37	1.77	-1.38
10/16/2011 19:45	6.57	4.58	13.78	-1.26	1.75	-0.95
10/16/2011 20:00	6.72	4.56	14.21	-1.11	1.73	-0.52
10/16/2011 20:15	6.89	4.55	14.67	-0.94	1.72	-0.06
10/16/2011 20:30	7.09	4.54	15.09	-0.74	1.71	0.36
10/16/2011 20:45	7.31	4.53	15.48	-0.52	1.70	0.75
10/16/2011 21:00	7.54	4.53	16.04	-0.29	1.70	1.31
10/16/2011 21:15	7.78	4.54	16.51	-0.05	1.71	1.78
10/16/2011 21:30	8.02	4.55	16.92	0.19	1.72	2.19
10/16/2011 21:45	8.25	4.55	17.31	0.42	1.72	2.58
10/16/2011 22:00	8.48	4.56	17.65	0.65	1.73	2.92
10/16/2011 22:15	8.70	4.58	17.92	0.87	1.75	3.19
10/16/2011 22:30	8.90	4.60	18.13	1.07	1.77	3.40
10/16/2011 22:45	9.08	4.62	18.33	1.25	1.79	3.60
10/16/2011 23:00	9.25	4.64	18.45	1.42	1.81	3.72
10/16/2011 23:15	9.38	4.66	18.54	1.55	1.83	3.81
10/16/2011 23:30	9.50	4.69	18.66	1.67	1.86	3.93
10/16/2011 23:45	9.61	4.71	18.70	1.78	1.88	3.97
10/17/2011 0:00	9.70	4.74	18.71	1.87	1.91	3.98
10/17/2011 0:15	9.76	4.76	18.66	1.93	1.93	3.93
10/17/2011 0:30	9.81	4.78	18.60	1.98	1.95	3.87
10/17/2011 0:45	9.83	4.81	18.50	2.00	1.98	3.77
10/17/2011 1:00	9.84	4.83	18.39	2.01	2.00	3.66
10/17/2011 1:15	9.82	4.85	18.21	1.99	2.02	3.48
10/17/2011 1:30	9.79	4.87	18.01	1.96	2.04	3.28
10/17/2011 1:45	9.73	4.89	17.73	1.90	2.06	3.00
10/17/2011 2:00	9.64	4.91	17.41	1.81	2.08	2.68
10/17/2011 2:15	9.52	4.92	17.03	1.69	2.09	2.30
10/17/2011 2:30	9.37	4.93	16.62	1.54	2.10	1.89
10/17/2011 2:45	9.20	4.94	16.16	1.37	2.11	1.43
10/17/2011 3:00	9.01	4.94	15.62	1.18	2.11	0.89
10/17/2011 3:15	8.80	4.94	15.33	0.97	2.11	0.60
10/17/2011 3:30	8.59	4.94	14.99	0.76	2.11	0.26
10/17/2011 3:45	8.36	4.93	14.58	0.53	2.10	-0.15

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/17/2011 4:00	8.13	4.91	14.17	0.30	2.08	-0.56
10/17/2011 4:15	7.90	4.90	13.82	0.07	2.07	-0.91
10/17/2011 4:30	7.69	4.88	13.45	-0.15	2.05	-1.28
10/17/2011 4:45	7.47	4.86	13.13	-0.36	2.03	-1.60
10/17/2011 5:00	7.27	4.84	12.97	-0.56	2.01	-1.76
10/17/2011 5:15	7.08	4.81	12.58	-0.75	1.98	-2.15
10/17/2011 5:30	6.90	4.78	12.35	-0.93	1.95	-2.38
10/17/2011 5:45	6.73	4.76	12.19	-1.10	1.93	-2.54
10/17/2011 6:00	6.58	4.73	12.16	-1.25	1.90	-2.57
10/17/2011 6:15	6.45	4.70	12.11	-1.38	1.87	-2.62
10/17/2011 6:30	6.37	4.67	12.20	-1.46	1.84	-2.53
10/17/2011 6:45	6.32	4.64	12.32	-1.51	1.81	-2.41
10/17/2011 7:00	6.31	4.62	12.62	-1.52	1.79	-2.11
10/17/2011 7:15	6.34	4.60	12.93	-1.49	1.77	-1.80
10/17/2011 7:30	6.41	4.57	13.36	-1.42	1.74	-1.37
10/17/2011 7:45	6.52	4.56	13.67	-1.31	1.73	-1.06
10/17/2011 8:00	6.66	4.54	14.07	-1.17	1.71	-0.66
10/17/2011 8:15	6.82	4.53	14.54	-1.01	1.70	-0.20
10/17/2011 8:30	7.01	4.52	14.99	-0.82	1.69	0.26
10/17/2011 8:45	7.21	4.52	15.49	-0.62	1.69	0.76
10/17/2011 9:00	7.44	4.52	15.93	-0.39	1.69	1.20
10/17/2011 9:15	7.68	4.52	16.41	-0.15	1.69	1.68
10/17/2011 9:30	7.91	4.52	16.81	0.08	1.69	2.08
10/17/2011 9:45	8.16	4.53	17.23	0.33	1.70	2.50
10/17/2011 10:00	8.40	4.55	17.57	0.57	1.72	2.84
10/17/2011 10:15	8.63	4.56	17.93	0.80	1.73	3.20
10/17/2011 10:30	8.85	4.58	18.23	1.02	1.75	3.50
10/17/2011 10:45	9.06	4.60	18.51	1.23	1.77	3.78
10/17/2011 11:00	9.27	4.63	18.73	1.44	1.80	4.00
10/17/2011 11:15	9.46	4.66	18.93	1.63	1.83	4.20
10/17/2011 11:30	9.63	4.69	19.10	1.80	1.86	4.37
10/17/2011 11:45	9.77	4.72	19.17	1.94	1.89	4.44
10/17/2011 12:00	9.89	4.75	19.19	2.06	1.92	4.46
10/17/2011 12:15	9.98	4.78	19.21	2.15	1.95	4.48
10/17/2011 12:30	10.06	4.81	19.22	2.23	1.98	4.49
10/17/2011 12:45	10.12	4.84	19.20	2.29	2.01	4.47
10/17/2011 13:00	10.17	4.87	19.16	2.34	2.04	4.43
10/17/2011 13:15	10.21	4.90	19.09	2.38	2.07	4.36
10/17/2011 13:30	10.23	4.93	18.96	2.40	2.10	4.23
10/17/2011 13:45	10.22	4.96	18.82	2.39	2.13	4.09

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/17/2011 14:00	10.20	4.98	18.61	2.37	2.15	3.88
10/17/2011 14:15	10.15	5.01	18.43	2.32	2.18	3.70
10/17/2011 14:30	10.08	5.03	18.13	2.25	2.20	3.40
10/17/2011 14:45	9.98	5.05	17.80	2.15	2.22	3.07
10/17/2011 15:00	9.86	5.06	17.41	2.03	2.23	2.68
10/17/2011 15:15	9.70	5.07	16.98	1.87	2.24	2.25
10/17/2011 15:30	9.51	5.08	16.55	1.68	2.25	1.82
10/17/2011 15:45	9.30	5.08	16.11	1.47	2.25	1.38
10/17/2011 16:00	9.06	5.07	15.66	1.23	2.24	0.93
10/17/2011 16:15	8.81	5.06	15.11	0.98	2.23	0.38
10/17/2011 16:30	8.55	5.04	14.70	0.72	2.21	-0.03
10/17/2011 16:45	8.30	5.01	14.25	0.47	2.18	-0.48
10/17/2011 17:00	8.05	4.99	13.88	0.22	2.16	-0.85
10/17/2011 17:15	7.81	4.96	13.50	-0.02	2.13	-1.23
10/17/2011 17:30	7.58	4.94	13.22	-0.25	2.11	-1.51
10/17/2011 17:45	7.37	4.91	12.91	-0.46	2.08	-1.82
10/17/2011 18:00	7.17	4.89	12.67	-0.66	2.06	-2.06
10/17/2011 18:15	6.97	4.85	12.45	-0.86	2.02	-2.28
10/17/2011 18:30	6.80	4.82	12.26	-1.03	1.99	-2.47
10/17/2011 18:45	6.65	4.79	12.22	-1.18	1.96	-2.51
10/17/2011 19:00	6.53	4.76	12.24	-1.30	1.93	-2.49
10/17/2011 19:15	6.45	4.72	12.39	-1.38	1.89	-2.34
10/17/2011 19:30	6.42	4.70	12.62	-1.41	1.87	-2.11
10/17/2011 19:45	6.43	4.67	12.86	-1.41	1.84	-1.88
10/17/2011 20:00	6.47	4.64	13.16	-1.36	1.81	-1.58
10/17/2011 20:15	6.55	4.62	13.51	-1.28	1.79	-1.22
10/17/2011 20:30	6.66	4.60	13.93	-1.17	1.77	-0.80
10/17/2011 20:45	6.81	4.59	14.31	-1.02	1.76	-0.42
10/17/2011 21:00	6.97	4.58	14.79	-0.86	1.75	0.06
10/17/2011 21:15	7.15	4.57	15.19	-0.68	1.74	0.46
10/17/2011 21:30	7.36	4.57	15.60	-0.47	1.74	0.87
10/17/2011 21:45	7.57	4.57	16.03	-0.26	1.74	1.30
10/17/2011 22:00	7.79	4.55	16.39	-0.04	1.72	1.66
10/17/2011 22:15	8.00	4.57	16.72	0.17	1.74	1.99
10/17/2011 22:30	8.21	4.58	17.02	0.38	1.75	2.29
10/17/2011 22:45	8.41	4.59	17.25	0.58	1.76	2.52
10/17/2011 23:00	8.59	4.61	17.57	0.76	1.78	2.84
10/17/2011 23:15	8.76	4.63	17.70	0.93	1.80	2.97
10/17/2011 23:30	8.92	4.65	17.88	1.09	1.82	3.15
10/17/2011 23:45	9.05	4.67	17.98	1.22	1.84	3.25

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/18/2011 0:00	9.17	4.69	18.12	1.34	1.86	3.39
10/18/2011 0:15	9.27	4.71	18.13	1.44	1.88	3.40
10/18/2011 0:30	9.36	4.73	18.16	1.53	1.90	3.43
10/18/2011 0:45	9.43	4.75	18.19	1.60	1.92	3.46
10/18/2011 1:00	9.50	4.78	18.21	1.67	1.95	3.48
10/18/2011 1:15	9.55	4.81	18.16	1.72	1.98	3.43
10/18/2011 1:30	9.58	4.83	18.01	1.75	2.00	3.28
10/18/2011 1:45	9.59	4.85	17.94	1.76	2.02	3.21
10/18/2011 2:00	9.58	4.86	17.83	1.75	2.03	3.10
10/18/2011 2:15	9.53	4.87	17.63	1.70	2.04	2.90
10/18/2011 2:30	9.48	4.88	17.46	1.65	2.05	2.73
10/18/2011 2:45	9.41	4.89	17.09	1.58	2.06	2.36
10/18/2011 3:00	9.31	4.90	16.78	1.48	2.07	2.05
10/18/2011 3:15	9.19	4.92	16.50	1.36	2.09	1.77
10/18/2011 3:30	9.04	4.91	16.01	1.21	2.08	1.28
10/18/2011 3:45	8.88	4.92	15.80	1.05	2.09	1.07
10/18/2011 4:00	8.71	4.92	15.52	0.88	2.09	0.79
10/18/2011 4:15	8.53	4.91	15.05	0.70	2.08	0.32
10/18/2011 4:30	8.33	4.90	14.68	0.50	2.07	-0.05
10/18/2011 4:45	8.13	4.89	14.31	0.30	2.06	-0.42
10/18/2011 5:00	7.91	4.89	13.98	0.08	2.06	-0.75
10/18/2011 5:15	7.71	4.87	13.66	-0.12	2.04	-1.07
10/18/2011 5:30	7.51	4.84	13.33	-0.32	2.01	-1.40
10/18/2011 5:45	7.32	4.82	13.01	-0.51	1.99	-1.72
10/18/2011 6:00	7.12	4.79	12.74	-0.71	1.96	-1.99
10/18/2011 6:15	6.94	4.77	12.49	-0.89	1.94	-2.24
10/18/2011 6:30	6.77	4.74	12.31	-1.06	1.91	-2.42
10/18/2011 6:45	6.62	4.72	12.19	-1.21	1.89	-2.54
10/18/2011 7:00	6.49	4.68	12.13	-1.34	1.85	-2.60
10/18/2011 7:15	6.39	4.65	12.17	-1.44	1.82	-2.56
10/18/2011 7:30	6.33	4.63	12.27	-1.51	1.80	-2.46
10/18/2011 7:45	6.30	4.62	12.47	-1.53	1.79	-2.26
10/18/2011 8:00	6.31	4.60	12.76	-1.52	1.77	-1.97
10/18/2011 8:15	6.36	4.58	13.07	-1.47	1.75	-1.66
10/18/2011 8:30	6.45	4.56	13.45	-1.38	1.73	-1.28
10/18/2011 8:45	6.57	4.54	13.89	-1.26	1.71	-0.84
10/18/2011 9:00	6.73	4.53	14.35	-1.10	1.70	-0.39
10/18/2011 9:15	6.91	4.52	14.81	-0.92	1.69	0.08
10/18/2011 9:30	7.11	4.52	15.28	-0.72	1.69	0.55
10/18/2011 9:45	7.34	4.52	15.76	-0.49	1.69	1.03

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/18/2011 10:00	7.58	4.52	16.20	-0.25	1.69	1.47
10/18/2011 10:15	7.83	4.54	16.62	0.00	1.71	1.89
10/18/2011 10:30	8.06	4.55	17.02	0.23	1.72	2.29
10/18/2011 10:45	8.30	4.57	17.39	0.47	1.74	2.66
10/18/2011 11:00	8.54	4.58	17.75	0.71	1.75	3.02
10/18/2011 11:15	8.77	4.60	18.08	0.94	1.77	3.35
10/18/2011 11:30	8.99	4.59	18.38	1.16	1.76	3.65
10/18/2011 11:45	9.20	4.56	18.66	1.37	1.73	3.93
10/18/2011 12:00	9.40	4.63	18.88	1.57	1.80	4.15
10/18/2011 12:15	9.59	4.69	19.06	1.76	1.86	4.33
10/18/2011 12:30	9.75	4.73	19.17	1.92	1.90	4.44
10/18/2011 12:45	9.88	4.76	19.28	2.05	1.93	4.55
10/18/2011 13:00	10.00	4.79	19.38	2.17	1.96	4.65
10/18/2011 13:15	10.10	4.84	19.28	2.27	2.01	4.55
10/18/2011 13:30	10.18	4.87	19.31	2.35	2.04	4.58
10/18/2011 13:45	10.25	4.91	19.50	2.42	2.08	4.77
10/18/2011 14:00	10.31	4.93	19.30	2.48	2.10	4.57
10/18/2011 14:15	10.34	4.96	19.29	2.51	2.13	4.56
10/18/2011 14:30	10.37	5.00	19.30	2.54	2.17	4.57
10/18/2011 14:45	10.37	5.02	19.11	2.54	2.19	4.38
10/18/2011 15:00	10.36	5.06	18.93	2.53	2.23	4.20
10/18/2011 15:15	10.33	5.07	18.70	2.50	2.24	3.97
10/18/2011 15:30	10.26	5.10	18.44	2.43	2.27	3.71
10/18/2011 15:45	10.17	5.11	18.03	2.34	2.28	3.30
10/18/2011 16:00	10.04	5.12	17.53	2.21	2.29	2.80
10/18/2011 16:15	9.86	5.13	17.10	2.03	2.30	2.37
10/18/2011 16:30	9.65	5.13	16.67	1.82	2.30	1.94
10/18/2011 16:45	9.41	5.12	16.11	1.58	2.29	1.38
10/18/2011 17:00	9.16	5.12	15.67	1.33	2.29	0.94
10/18/2011 17:15	8.91	5.11	15.17	1.08	2.28	0.44
10/18/2011 17:30	8.65	5.10	14.73	0.82	2.27	0.00
10/18/2011 17:45	8.40	5.08	14.29	0.57	2.25	-0.44
10/18/2011 18:00	8.15	5.06	14.00	0.32	2.23	-0.73
10/18/2011 18:15	7.93	5.04	13.68	0.10	2.21	-1.05
10/18/2011 18:30	7.70	5.02	13.37	-0.13	2.19	-1.36
10/18/2011 18:45	7.49	4.99	13.12	-0.34	2.16	-1.61
10/18/2011 19:00	7.30	4.96	12.92	-0.53	2.13	-1.81
10/18/2011 19:15	7.14	4.93	12.80	-0.69	2.10	-1.93
10/18/2011 19:30	7.00	4.90	12.80	-0.83	2.07	-1.94
10/18/2011 19:45	6.90	4.87	12.95	-0.93	2.04	-1.78

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/18/2011 20:00	6.85	4.85	12.83	-0.98	2.02	-1.90
10/18/2011 20:15	6.82	4.82	13.22	-1.01	1.99	-1.52
10/18/2011 20:30	6.84	4.80	13.45	-0.99	1.97	-1.28
10/18/2011 20:45	6.89	4.78	13.78	-0.94	1.95	-0.95
10/18/2011 21:00	6.98	4.76	14.06	-0.85	1.93	-0.67
10/18/2011 21:15	7.08	4.75	14.46	-0.76	1.92	-0.27
10/18/2011 21:30	7.19	4.69	14.78	-0.64	1.86	0.05
10/18/2011 21:45	7.33	4.66	15.08	-0.50	1.83	0.35
10/18/2011 22:00	7.48	4.66	15.53	-0.35	1.83	0.80
10/18/2011 22:15	7.66	4.67	15.82	-0.17	1.84	1.09
10/18/2011 22:30	7.84	4.68	16.18	0.01	1.85	1.45
10/18/2011 22:45	8.02	4.69	16.43	0.19	1.86	1.70
10/18/2011 23:00	8.21	4.69	16.88	0.38	1.86	2.15
10/18/2011 23:15	8.40	4.71	17.13	0.57	1.88	2.40
10/18/2011 23:30	8.59	4.73	17.40	0.76	1.90	2.67
10/18/2011 23:45	8.77	4.74	17.65	0.94	1.91	2.92
10/19/2011 0:00	8.93	4.76	17.82	1.10	1.93	3.09
10/19/2011 0:15	9.08	4.78	17.90	1.25	1.95	3.17
10/19/2011 0:30	9.20	4.80	18.05	1.37	1.97	3.32
10/19/2011 0:45	9.32	4.82	18.15	1.49	1.99	3.42
10/19/2011 1:00	9.43	4.85	18.21	1.60	2.02	3.48
10/19/2011 1:15	9.51	4.87	18.24	1.68	2.04	3.51
10/19/2011 1:30	9.59	4.90	18.40	1.76	2.07	3.67
10/19/2011 1:45	9.67	4.93	18.42	1.84	2.10	3.69
10/19/2011 2:00	9.74	4.95	18.39	1.91	2.12	3.66
10/19/2011 2:15	9.77	4.98	18.35	1.94	2.15	3.62
10/19/2011 2:30	9.80	5.00	18.33	1.97	2.17	3.60
10/19/2011 2:45	9.83	5.03	18.35	2.00	2.20	3.62
10/19/2011 3:00	9.84	5.05	18.24	2.01	2.22	3.51
10/19/2011 3:15	9.84	5.06	17.97	2.01	2.23	3.24
10/19/2011 3:30	9.81	5.09	17.95	1.98	2.26	3.22
10/19/2011 3:45	9.76	5.10	17.75	1.93	2.27	3.02
10/19/2011 4:00	9.69	5.12	17.35	1.86	2.29	2.62
10/19/2011 4:15	9.60	5.15	17.07	1.77	2.32	2.34
10/19/2011 4:30	9.48	5.16	16.79	1.65	2.33	2.06
10/19/2011 4:45	9.35	5.17	16.49	1.52	2.34	1.76
10/19/2011 5:00	9.19	5.15	16.07	1.36	2.32	1.34
10/19/2011 5:15	9.02	5.13	15.77	1.19	2.30	1.04
10/19/2011 5:30	8.83	5.10	15.39	1.00	2.27	0.66
10/19/2011 5:45	8.63	5.08	15.07	0.80	2.25	0.33

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/19/2011 6:00	8.43	5.07	14.60	0.60	2.24	-0.13
10/19/2011 6:15	8.22	5.05	14.31	0.39	2.22	-0.43
10/19/2011 6:30	8.01	5.05	13.85	0.18	2.22	-0.88
10/19/2011 6:45	7.79	5.04	12.16	-0.04	2.21	-2.57
10/19/2011 7:00	7.57	5.22	13.20	-0.26	2.39	-1.53
10/19/2011 7:15	7.35	5.03	12.88	-0.48	2.20	-1.85
10/19/2011 7:30	7.15	4.99	12.61	-0.68	2.16	-2.13
10/19/2011 7:45	6.97	4.96	12.44	-0.86	2.13	-2.29
10/19/2011 8:00	6.80	4.92	12.33	-1.03	2.09	-2.40
10/19/2011 8:15	6.66	4.89	12.30	-1.17	2.06	-2.43
10/19/2011 8:30	6.57	4.86	12.43	-1.27	2.03	-2.30
10/19/2011 8:45	6.52	4.84	12.74	-1.31	2.01	-1.99
10/19/2011 9:00	6.53	4.82	12.91	-1.31	1.99	-1.82
10/19/2011 9:15	6.56	4.79	13.20	-1.27	1.96	-1.53
10/19/2011 9:30	6.63	4.77	13.47	-1.20	1.94	-1.26
10/19/2011 9:45	6.73	4.75	13.86	-1.10	1.92	-0.87
10/19/2011 10:00	6.85	4.73	14.24	-0.98	1.90	-0.49
10/19/2011 10:15	6.99	4.72	14.67	-0.84	1.89	-0.06
10/19/2011 10:30	7.15	4.71	15.06	-0.68	1.88	0.33
10/19/2011 10:45	7.34	4.71	15.50	-0.49	1.88	0.77
10/19/2011 11:00	7.54	4.70	15.85	-0.29	1.87	1.12
10/19/2011 11:15	7.75	4.69	16.26	-0.09	1.86	1.53
10/19/2011 11:30	7.95	4.68	16.70	0.12	1.85	1.97
10/19/2011 11:45	8.16	4.68	16.85	0.33	1.85	2.12
10/19/2011 12:00	8.37	4.69	17.33	0.54	1.86	2.60
10/19/2011 12:15	8.58	4.71	17.63	0.75	1.88	2.90
10/19/2011 12:30	8.77	4.72	17.84	0.94	1.89	3.11
10/19/2011 12:45	8.97	4.70	18.21	1.14	1.87	3.48
10/19/2011 13:00	9.15	4.74	18.39	1.32	1.91	3.66
10/19/2011 13:15	9.31	4.77	18.57	1.48	1.94	3.84
10/19/2011 13:30	9.48	4.80	18.65	1.65	1.97	3.92
10/19/2011 13:45	9.62	4.83	18.81	1.79	2.00	4.08
10/19/2011 14:00	9.72	4.85	18.85	1.89	2.02	4.12
10/19/2011 14:15	9.80	4.87	18.89	1.97	2.04	4.16
10/19/2011 14:30	9.89	4.89	18.92	2.06	2.06	4.19
10/19/2011 14:45	9.94	4.91	18.85	2.11	2.08	4.12
10/19/2011 15:00	9.97	4.92	18.75	2.14	2.09	4.02
10/19/2011 15:15	9.98	4.92	18.68	2.15	2.09	3.95
10/19/2011 15:30	9.98	4.93	18.44	2.15	2.10	3.71
10/19/2011 15:45	9.96	4.94	18.34	2.13	2.11	3.61

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/19/2011 16:00	9.91	4.95	18.15	2.08	2.12	3.42
10/19/2011 16:15	9.83	4.95	17.83	2.00	2.12	3.10
10/19/2011 16:30	9.72	4.96	17.46	1.89	2.13	2.73
10/19/2011 16:45	9.58	4.96	17.01	1.75	2.13	2.28
10/19/2011 17:00	9.40	4.95	16.46	1.57	2.12	1.73
10/19/2011 17:15	9.18	4.95	15.98	1.35	2.12	1.25
10/19/2011 17:30	8.94	4.93	15.45	1.11	2.10	0.72
10/19/2011 17:45	8.67	4.92	14.94	0.84	2.09	0.21
10/19/2011 18:00	8.41	4.91	14.47	0.58	2.08	-0.26
10/19/2011 18:15	8.15	4.88	13.99	0.32	2.05	-0.74
10/19/2011 18:30	7.87	4.82	13.54	0.04	1.99	-1.19
10/19/2011 18:45	7.61	4.80	13.15	-0.22	1.97	-1.58
10/19/2011 19:00	7.35	4.77	12.82	-0.48	1.94	-1.91
10/19/2011 19:15	7.11	4.74	12.49	-0.72	1.91	-2.24
10/19/2011 19:30	6.89	4.71	12.22	-0.94	1.88	-2.51
10/19/2011 19:45	6.67	4.66	12.00	-1.16	1.83	-2.73
10/19/2011 20:00	6.47	4.62	11.76	-1.36	1.79	-2.97
10/19/2011 20:15	6.29	4.58	11.50	-1.54	1.75	-3.23
10/19/2011 20:30	6.13	4.49	11.20	-1.70	1.66	-3.53
10/19/2011 20:45	5.98	4.46	11.25	-1.85	1.63	-3.49
10/19/2011 21:00	5.86	4.43	11.22	-1.97	1.60	-3.51
10/19/2011 21:15	5.77	4.40	11.22	-2.06	1.57	-3.51
10/19/2011 21:30	5.71	4.39	11.40	-2.12	1.56	-3.33
10/19/2011 21:45	5.68	4.37	11.56	-2.15	1.54	-3.18
10/19/2011 22:00	5.68	4.34	11.69	-2.15	1.51	-3.04
10/19/2011 22:15	5.71	4.33	12.01	-2.12	1.50	-2.72
10/19/2011 22:30	5.77	4.31	12.22	-2.06	1.48	-2.51
10/19/2011 22:45	5.86	4.30	12.55	-1.97	1.47	-2.18
10/19/2011 23:00	5.97	4.28	12.89	-1.86	1.45	-1.84
10/19/2011 23:15	6.11	4.28	13.37	-1.72	1.45	-1.36
10/19/2011 23:30	6.26	4.27	13.77	-1.57	1.44	-0.96
10/19/2011 23:45	6.45	4.27	14.23	-1.38	1.44	-0.50
10/20/2011 0:00	6.64	4.27	14.66	-1.19	1.44	-0.07
10/20/2011 0:15	6.86	4.27	15.08	-0.97	1.44	0.35
10/20/2011 0:30	7.08	4.28	15.50	-0.75	1.45	0.77
10/20/2011 0:45	7.30	4.28	15.89	-0.53	1.45	1.16
10/20/2011 1:00	7.53	4.29	16.27	-0.31	1.46	1.54
10/20/2011 1:15	7.72	4.29	16.48	-0.11	1.46	1.75
10/20/2011 1:30	7.91	4.31	16.64	0.08	1.48	1.91
10/20/2011 1:45	8.06	4.32	16.89	0.23	1.49	2.16

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/20/2011 2:00	8.20	4.34	16.94	0.37	1.51	2.21
10/20/2011 2:15	8.33	4.35	17.10	0.50	1.52	2.37
10/20/2011 2:30	8.45	4.37	16.94	0.62	1.54	2.21
10/20/2011 2:45	8.56	4.38	17.38	0.73	1.55	2.65
10/20/2011 3:00	8.66	4.40	17.44	0.83	1.57	2.71
10/20/2011 3:15	8.74	4.42	17.41	0.91	1.59	2.68
10/20/2011 3:30	8.80	4.44	17.32	0.97	1.61	2.59
10/20/2011 3:45	8.83	4.46	17.23	1.00	1.63	2.50
10/20/2011 4:00	8.83	4.47	17.09	1.00	1.64	2.36
10/20/2011 4:15	8.80	4.50	16.87	0.97	1.67	2.14
10/20/2011 4:30	8.76	4.51	16.66	0.93	1.68	1.93
10/20/2011 4:45	8.68	4.52	16.32	0.85	1.69	1.59
10/20/2011 5:00	8.58	4.50	15.96	0.75	1.67	1.23
10/20/2011 5:15	8.44	4.49	15.70	0.61	1.66	0.97
10/20/2011 5:30	8.28	4.49	15.02	0.45	1.66	0.29
10/20/2011 5:45	8.09	4.48	14.73	0.26	1.65	0.00
10/20/2011 6:00	7.89	4.48	14.34	0.06	1.65	-0.39
10/20/2011 6:15	7.69	4.48	13.97	-0.14	1.65	-0.76
10/20/2011 6:30	7.48	4.46	13.61	-0.35	1.63	-1.12
10/20/2011 6:45	7.27	4.45	13.20	-0.56	1.62	-1.53
10/20/2011 7:00	7.05	4.43	12.82	-0.78	1.60	-1.91
10/20/2011 7:15	6.84	4.41	12.53	-0.99	1.58	-2.20
10/20/2011 7:30	6.63	4.39	12.16	-1.20	1.56	-2.57
10/20/2011 7:45	6.44	4.36	11.92	-1.39	1.53	-2.82
10/20/2011 8:00	6.26	4.34	11.72	-1.57	1.51	-3.01
10/20/2011 8:15	6.10	4.32	11.51	-1.73	1.49	-3.22
10/20/2011 8:30	5.96	4.30	11.35	-1.87	1.47	-3.38
10/20/2011 8:45	5.83	4.28	11.27	-2.00	1.45	-3.46
10/20/2011 9:00	5.72	4.25	11.20	-2.11	1.42	-3.53
10/20/2011 9:15	5.63	4.23	11.19	-2.20	1.40	-3.54
10/20/2011 9:30	5.57	4.21	11.27	-2.26	1.38	-3.46
10/20/2011 9:45	5.53	4.18	11.42	-2.31	1.35	-3.31
10/20/2011 10:00	5.52	4.17	11.60	-2.31	1.34	-3.13
10/20/2011 10:15	5.56	4.16	11.89	-2.27	1.33	-2.84
10/20/2011 10:30	5.62	4.15	12.21	-2.21	1.32	-2.52
10/20/2011 10:45	5.72	4.14	12.58	-2.11	1.31	-2.15
10/20/2011 11:00	5.84	4.13	12.92	-1.99	1.30	-1.81
10/20/2011 11:15	5.98	4.12	13.28	-1.85	1.29	-1.45
10/20/2011 11:30	6.14	4.11	13.62	-1.69	1.28	-1.11
10/20/2011 11:45	6.31	4.07	14.01	-1.52	1.24	-0.72

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/20/2011 12:00	6.50	4.09	14.43	-1.33	1.26	-0.30
10/20/2011 12:15	6.70	4.07	14.84	-1.13	1.24	0.11
10/20/2011 12:30	6.91	4.08	15.28	-0.92	1.25	0.55
10/20/2011 12:45	7.13	4.12	15.73	-0.70	1.29	1.00
10/20/2011 13:00	7.37	4.15	16.14	-0.46	1.32	1.41
10/20/2011 13:15	7.60	4.19	16.49	-0.23	1.36	1.76
10/20/2011 13:30	7.82	4.21	16.82	-0.01	1.38	2.09
10/20/2011 13:45	8.04	4.23	17.14	0.21	1.40	2.41
10/20/2011 14:00	8.24	4.25	17.41	0.41	1.42	2.68
10/20/2011 14:15	8.43	4.28	17.67	0.60	1.45	2.94
10/20/2011 14:30	8.61	4.31	17.87	0.78	1.48	3.14
10/20/2011 14:45	8.78	4.33	17.90	0.95	1.50	3.17
10/20/2011 15:00	8.93	4.36	18.18	1.10	1.53	3.45
10/20/2011 15:15	9.05	4.38	17.97	1.22	1.55	3.24
10/20/2011 15:30	9.14	4.41	18.26	1.31	1.58	3.53
10/20/2011 15:45	9.20	4.43	18.15	1.37	1.60	3.42
10/20/2011 16:00	9.24	4.45	18.02	1.41	1.62	3.29
10/20/2011 16:15	9.25	4.46	17.92	1.42	1.63	3.19
10/20/2011 16:30	9.23	4.47	17.67	1.40	1.64	2.94
10/20/2011 16:45	9.19	4.48	17.54	1.36	1.65	2.81
10/20/2011 17:00	9.13	4.49	17.27	1.30	1.66	2.54
10/20/2011 17:15	9.03	4.50	16.88	1.20	1.67	2.15
10/20/2011 17:30	8.90	4.51	16.45	1.07	1.68	1.72
10/20/2011 17:45	8.75	4.43	15.99	0.92	1.60	1.26
10/20/2011 18:00	8.55	4.45	15.52	0.72	1.62	0.79
10/20/2011 18:15	8.33	4.46	15.02	0.50	1.63	0.29
10/20/2011 18:30	8.10	4.45	14.59	0.27	1.62	-0.15
10/20/2011 18:45	7.87	4.44	14.15	0.04	1.61	-0.58
10/20/2011 19:00	7.64	4.43	13.73	-0.19	1.60	-1.00
10/20/2011 19:15	7.41	4.42	13.37	-0.42	1.59	-1.36
10/20/2011 19:30	7.18	4.40	12.98	-0.65	1.57	-1.75
10/20/2011 19:45	6.97	4.38	12.65	-0.86	1.55	-2.08
10/20/2011 20:00	6.76	4.36	12.34	-1.07	1.53	-2.40
10/20/2011 20:15	6.57	4.34	12.12	-1.26	1.51	-2.61
10/20/2011 20:30	6.39	4.32	11.86	-1.44	1.49	-2.87
10/20/2011 20:45	6.23	4.29	11.73	-1.60	1.46	-3.00
10/20/2011 21:00	6.09	4.27	11.58	-1.74	1.44	-3.15
10/20/2011 21:15	5.97	4.24	11.50	-1.87	1.41	-3.23
10/20/2011 21:30	5.86	4.21	11.48	-1.97	1.38	-3.25
10/20/2011 21:45	5.78	4.19	11.56	-2.05	1.36	-3.17

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/20/2011 22:00	5.73	4.17	11.60	-2.10	1.34	-3.13
10/20/2011 22:15	5.70	4.14	11.74	-2.13	1.31	-2.99
10/20/2011 22:30	5.69	4.12	11.93	-2.14	1.29	-2.80
10/20/2011 22:45	5.73	4.10	12.16	-2.11	1.27	-2.57
10/20/2011 23:00	5.79	4.09	12.45	-2.05	1.26	-2.28
10/20/2011 23:15	5.86	4.07	12.73	-1.97	1.24	-2.00
10/20/2011 23:30	5.96	4.06	13.01	-1.87	1.23	-1.72
10/20/2011 23:45	6.08	4.06	13.32	-1.75	1.23	-1.41
10/21/2011 0:00	6.21	4.06	13.64	-1.62	1.23	-1.09
10/21/2011 0:15	6.36	4.06	14.04	-1.47	1.23	-0.69
10/21/2011 0:30	6.52	4.05	14.25	-1.31	1.22	-0.48
10/21/2011 0:45	6.69	4.06	14.77	-1.14	1.23	0.04
10/21/2011 1:00	6.88	4.07	15.14	-0.95	1.24	0.41
10/21/2011 1:15	7.08	4.08	15.48	-0.75	1.25	0.75
10/21/2011 1:30	7.27	4.09	15.83	-0.56	1.26	1.10
10/21/2011 1:45	7.47	4.11	16.22	-0.36	1.28	1.49
10/21/2011 2:00	7.66	4.21	16.59	-0.17	1.38	1.86
10/21/2011 2:15	7.86	4.17	16.81	0.03	1.34	2.08
10/21/2011 2:30	8.05	4.18	17.07	0.22	1.35	2.34
10/21/2011 2:45	8.23	4.19	17.35	0.40	1.36	2.62
10/21/2011 3:00	8.39	4.20	17.57	0.56	1.37	2.84
10/21/2011 3:15	8.53	4.22	17.68	0.70	1.39	2.95
10/21/2011 3:30	8.66	4.23	17.75	0.83	1.40	3.02
10/21/2011 3:45	8.76	4.25	17.74	0.93	1.42	3.01
10/21/2011 4:00	8.85	4.28	17.79	1.02	1.45	3.06
10/21/2011 4:15	8.91	4.31	17.73	1.08	1.48	3.00
10/21/2011 4:30	8.95	4.32	17.65	1.12	1.49	2.92
10/21/2011 4:45	8.96	4.31	17.46	1.13	1.48	2.73
10/21/2011 5:00	8.95	4.31	17.31	1.12	1.48	2.58
10/21/2011 5:15	8.90	4.32	17.17	1.07	1.49	2.44
10/21/2011 5:30	8.84	4.33	16.88	1.01	1.50	2.15
10/21/2011 5:45	8.75	4.34	16.54	0.92	1.51	1.81
10/21/2011 6:00	8.63	4.35	16.17	0.80	1.52	1.44
10/21/2011 6:15	8.49	4.35	15.79	0.65	1.52	1.06
10/21/2011 6:30	8.32	4.35	15.38	0.49	1.52	0.65
10/21/2011 6:45	8.14	4.34	14.97	0.31	1.51	0.24
10/21/2011 7:00	7.94	4.34	14.55	0.11	1.51	-0.18
10/21/2011 7:15	7.74	4.33	14.13	-0.09	1.50	-0.60
10/21/2011 7:30	7.52	4.32	13.75	-0.31	1.49	-0.98
10/21/2011 7:45	7.32	4.31	13.48	-0.51	1.48	-1.25

Attachment B-1: Summary of Water Levels and Elevations

Colonial Terminals, Plant #2

Savannah, Georgia

Date and Time	Troll Data (ft)			Converted Water Elevation (ft amsl)		
	MW-09D	MW-12R	Savannah River	MW-09D	MW-12R	Savannah River
10/21/2011 8:00	7.11	4.29	12.85	-0.72	1.46	-1.88
10/21/2011 8:15	6.90	4.28	12.51	-0.93	1.45	-2.22
10/21/2011 8:30	6.69	4.27	12.54	-1.14	1.44	-2.19
10/21/2011 8:45	6.48	4.25	12.10	-1.35	1.42	-2.63
10/21/2011 9:00	6.30	4.22	11.84	-1.53	1.39	-2.89
10/21/2011 9:15	6.14	4.20	11.57	-1.69	1.37	-3.16
10/21/2011 9:30	5.98	4.18	11.51	-1.85	1.35	-3.23
10/21/2011 9:45	5.85	4.16	11.25	-1.99	1.33	-3.48
10/21/2011 10:00	5.73	4.14	11.24	-2.10	1.31	-3.49
10/21/2011 10:15	5.64	4.13	11.31	-2.19	1.30	-3.42
10/21/2011 10:30	5.58	4.14	11.32	-2.25	1.31	-3.41
10/21/2011 10:45	5.55	NA	11.44	-2.28	NA	-3.29
10/21/2011 11:00	5.55	NA	11.72	-2.29	NA	-3.02
10/21/2011 11:15	5.58	NA	11.96	-2.25	NA	-2.77
10/21/2011 11:30	NA	NA	12.30	NA	NA	-2.44

Notes:

ft - feet

ft amsl - feet above mean sea level

NA - Not Available

Attachment B-2
River Dilution Calculations

Attachment B-2: River Dilution Calculations

Colonial Terminals, Plant #2

Savannah, Georgia

Sample Location	Sample Date	Original Analytical Data						Data for Calculation						Average Concentration Between Wells (Linear)											
		VOC by EPA Method 8260 (ug/L)				Metals by 6010B (mg/L)		Unit: ug/L			Unit: mg/L			Unit: ug/L			Unit: mg/L								
		Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Arsenic	Lead	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Arsenic	Lead	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Arsenic	Lead			
MW-16	9/1/2010	<1.0	<1.0	<1.0	<1.0	<1.0	NS	NS	0.5	0.5	0.5	0.5	0.5	0	0										
MW-29	9/1/2010	6.8	2.1	3.1	<1.0	<1.0	0.0025	<0.001	6.8	2.1	3.1	0.5	0.5	0.0025	0.0005	3.65	1.3	1.8	0.5	0.5	0.00125	0.00025			
MW-11R	9/1/2010	18,200	2,900	5,570	<250	218	<0.002	<0.001	18,200	2,900	5,570	125	218	0.001	0.0005	9103.4	1451.05	2786.55	62.75	109.25	0.00175	0.0005			
MW-26	9/2/2010	14,600	4,340	77.4	773	8	<0.002	<0.001	14,600	4,340	77.4	773	8	0.001	0.0005	16400	3620	2823.7	449	113	0.001	0.0005			
MW-25	9/2/2010	12,400	946	193	2,810	<100	0.26	1.36	12,400	946	193	2,810	50	0.26	1.36	13500	2643	135.2	1791.5	29	0.1305	0.68025			
MW-18	9/1/2010	80.6	34.9	72.2	58.4	8.4	0.0032	<0.010	80.6	34.9	72.2	58.4	8.4	0.0032	0.005	6240.3	490.45	132.6	1434.2	29.2	0.1316	0.6825			
MW-19	9/1/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<0.010	<0.001	0.5	0.5	0.5	0.5	0.5	0.005	0.0005	40.55	17.7	36.35	29.45	4.45	0.0041	0.00275			

Notes:

NS - Not Sampled

Bold values exceed the Risk Reduction Standards

Attachment B-2: River Dilution Calculations

Colonial Terminals, Plant #2

Savannah, Georgia

Sample Location	Sample Date	Parameters						Contaminant Mass Flux Rate Between Wells						Flow Rate	
		Distance between Wells (ft)	Depth of Plume (ft)	Area of Groundwater Flow (ft^2)	Hydraulic Conductivity (ft/day)	Hydraulic Gradient (ft/ft)	Groundwater Flow Rate (ft^3/sec)	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Arsenic	Lead	
MW-16	9/1/2010														
MW-29	9/1/2010	140	15	2100	9.56	0.0015	0.0003	0.0013	0.0005	0.0006	0.0002	0.0002	0.0000	0.0000	6700
MW-11R	9/1/2010	98	15	1470	9.56	0.0015	0.0002	2.2210	0.3540	0.6799	0.0153	0.0267	0.0000	0.0000	6700
MW-26	9/2/2010	357	15	5355	9.56	0.0015	0.0009	14.5760	3.2174	2.5097	0.3991	0.1004	0.0000	0.0000	6700
MW-25	9/2/2010	77	15	1155	9.56	0.0015	0.0002	2.5879	0.5067	0.0259	0.3434	0.0056	0.0000	0.0001	6700
MW-18	9/1/2010	189	15	2835	9.56	0.0015	0.0005	2.9363	0.2308	0.0624	0.6748	0.0137	0.0001	0.0003	6700
MW-19	9/1/2010	126	15	1890	9.56	0.0015	0.0003	0.0127	0.0056	0.0114	0.0092	0.0014	0.0000	0.0000	6700

Totals

987	--	14805	--	--	0.002457	22.3352	4.3148	3.2899	1.4420	0.1480	0.0001	0.0005		
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Notes:

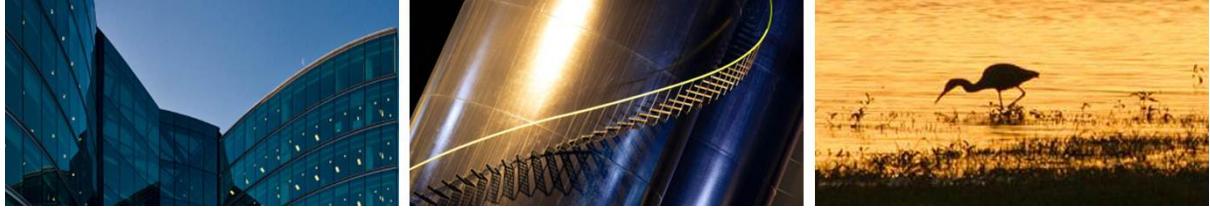
NS - Not Sampled

Bold values exceed the Risk Reduction Standards

Contaminant Concentration in River						
VOC (unit: ug/L)				Metal (unit: mg/L)		
7Q10	3.33E-03	6.44E-04	4.91E-04	2.15E-04	2.21E-05	1.34E-08

Appendix C

Calculation of Risk-Based Vapor Intrusion Criteria



Appendix C – Calculation of Risk-
Based Vapor Intrusion Criteria
Voluntary Remediation Plan and Application
Colonial Terminals, Plant #2

Prepared for:
Colonial Terminals, Inc.
Savannah, Georgia

Prepared by:
ENVIRON International Corporation

November 2012

Project Number:
07-30114B

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List of Attachments

- Attachment 1 Risk Calculation Inputs
Attachment 2 Routine Worker Vapor Intrusion Calculations

Acronyms and Abbreviations

AST	Aboveground Storage Tank
ATSDR	Agency for Toxic Substances and Disease Registry
cm	Centimeters
HEAST	Health Effects Assessment Summary Tables
IRIS	Integrated Risk Information System
m	Meters
MDEQ	Michigan Department of Environmental Quality
NCEA	National Center for Environmental Assessment
PCE	Tetrachloroethene
PPRTV	Provisional Peer Reviewed Toxicity Values
RBC	Risk Based Criteria
RME	Reasonable Maximum Exposure
TCE	Trichloroethene
USEPA	United States Environmental Protection Agency
VRP	Voluntary Remediation Program

1 Introduction

This report describes the derivation of risk-based criteria that are intended to be protective of potential vapor intrusion exposures that could result from impacts to the soil and groundwater at the Colonial Terminal, Plant #2 site in Savannah, Georgia (the “site”). The site and adjacent properties are depicted on Figure 1 of the Voluntary Remediation Program (VRP) Application. The criteria derived in this report are based on the protection of expected exposures to soil and groundwater under current and reasonably expected future uses. The derivation of these criteria is consistent with United States Environmental Protection Agency (USEPA) guidance.

The remainder of this report is organized as follows:

- Section 2 discusses the scenarios for potential vapor intrusion exposure that form the basis for the derivation of the risk-based criteria.
- Section 3 discusses the toxicity values used in the derivation of the risk-based criteria.
- Section 4 discusses the physical and chemical parameters used in the derivation.
- Section 5 discusses the calculation of criteria for routine worker vapor intrusion exposures.

2 Exposure Assessment

2.1 Conceptual Site Model for Vapor Intrusion

The site is bordered and bounded by the Savannah River to the north and has been used since the late 1970s as a bulk storage facility for a variety of products including chlorinated solvents, petroleum compounds, food-grade products, and kaolin clay. The site is developed with an approximately 60,000-square foot warehouse building, approximately 50 aboveground storage tanks (ASTs) used for bulk storage, truck loading areas, a fueling station, and a concrete-paved loading dock for barges in the Savannah River. The remaining areas of the site include gravel-covered roads and parking areas, rail spurs, and earthen-bermed tank farms. Administrative buildings are located on the adjacent parcel to the east-northeast and are not considered to be a part of the site. The area surrounding the site is zoned for industrial purposes.

The scenario for potential vapor intrusion exposure to routine workers current and reasonably-expected future conditions at the Site. These workers could inhale vapors in indoor air that migrate into the current or potential future buildings from unsaturated soil or groundwater.

2.2 Exposure Factors

Standard default exposure factors recommended by USEPA for estimating reasonable maximum exposures (RMEs) are used in the derivation of the risk-based criteria, and are presented in **Attachment 1** to this appendix.

3 Toxicity Values

According to USEPA, the hierarchy of sources for toxicity values used in quantitative risk computations is as follows (USEPA, 2003):

1. Integrated Risk Information System (IRIS);
2. Provisional Peer Reviewed Toxicity Values (PPRTV); and
3. Other Toxicity Values (e.g., historical Health Effects Assessment Summary Tables [HEAST], National Center for Environmental Assessment [NCEA] provisional values, and Agency for Toxic Substances and Disease Registry [ATSDR]).

When a toxicity value is not available from the first two tiers of the hierarchy, other USEPA and non-USEPA sources of toxicity values were consulted. If no inhalation value was identified for a constituent, then that constituent was not included in the calculation. Route-to-route extrapolation of toxicity values was not performed, following USEPA guidance (USEPA, 2009). The toxicity values and their sources used in the derivation of the risk-based criteria are summarized in **Attachment 1** of this appendix.

4 Physical and Chemical Parameters

The physical and chemical parameters used in this risk evaluation are based on the hierarchy USEPA used in the Soil Screening Guidance (USEPA 1996). The values used in the risk evaluation and their sources are presented in **Attachment 1** of this appendix.

5 Routine Worker Volatilization into Indoor Air

As discussed previously, routine workers at the site could inhale vapors from unsaturated soil or groundwater that migrate into indoor air. The risk based criteria (RBC) for vapor intrusion were derived using a vapor intrusion modeling approach recommended by USEPA for screening-level analysis, as discussed below. The calculation of the RBC is provided in **Attachment 2** of this appendix.

The RBC for potential routine worker exposure to constituents in soil and groundwater via assumed vapor intrusion are calculated as follows:

$$RBC_{ca} = \frac{TR \cdot AT_c}{URF \cdot ET \cdot EF \cdot ED} C_{building}$$

$$RBC_{nc} = \frac{THQ \cdot RfC \cdot AT_{nc}}{ET \cdot EF \cdot ED} C_{building}$$

where

- TR is the target cancer risk used for screening (10^{-5});
- THQ is the target hazard quotient used for screening;
- AT_c and AT_{nc} are averaging time for cancer and noncancer effects, respectively;
- URF is the unit risk factor;
- RfC is the reference concentration;
- ET is exposure time;
- EF is exposure frequency;
- ED is exposure duration; and,
- $C_{building}$ is the indoor air concentration.

The indoor air concentration was estimated using the following relationships described by Johnson and Ettinger (1991):

$$C_{building} = \alpha C_{source}$$

where C_{source} is the source vapor concentration that is normalized to a unit concentration in soil (1 mg/kg) or groundwater (1 mg/L), and α is an attenuation coefficient that is given by the following equation:

$$\alpha = \frac{\left[\frac{D_T^{eff} A_B}{Q_{building} L_T} \right] \exp\left(\frac{Q_{soil} L_{crack}}{D^{crack} A_{crack}} \right)}{\exp\left(\frac{Q_{soil} L_{crack}}{D^{crack} A_{crack}} \right) + \left[\frac{D_T^{eff} A_B}{Q_{building} L_T} \right] + \left[\frac{D_T^{eff} A_B}{Q_{soil} L_T} \right] \exp\left(\frac{Q_{soil} L_{crack}}{D^{crack} A_{crack}} \right) - 1}$$

The derivation of this equation and definition of the equation parameters can be found in Johnson and Ettinger's 1991 journal article, and therefore, are not repeated here.

The effective diffusion coefficient term D_T^{eff} in the equation for the attenuation coefficient α is calculated based on a "sandy-clay" soil, which is the predominant soil type. Therefore, a soil type of sandy-clay was assumed in the calculation of the vapor intrusion RBC. The soil-water profile in the vadose zone was estimated using the van Genuchten soil-water retention equation with default water retention parameters appropriate for sandy-clay (USEPA 2004).

The distance between onsite groundwater and the foundation of a slab-on-grade commercial building L_T was estimated to be approximately 2.9 meters (m), which is the difference between the typical depth to groundwater on-site of 3.05 m (10 feet) and a conservatively assumed building foundation thickness of 15 centimeters (cm). The cracks in the building foundation were conservatively assumed to be filled with dry sand. The remaining parameters in the equation for the attenuation coefficient α , which relate to building characteristics, are based on default values presented in the Michigan Department of Environmental Quality (MDEQ) technical support document for assessing vapor intrusion into commercial buildings (MDEQ, 1998)¹. The rationale for these inputs is discussed in the MDEQ guidance, and therefore, is not repeated here.

The source vapor concentration C_{source} for a constituent in soil is calculated from the constituent's unit concentration in soil C_{soil} , as follows:

$$C_{\text{source}} = C_{\text{soil}} \left(\frac{K_d}{H} + \frac{\theta_w}{\rho_b H} + \frac{\theta_a}{\rho_b} \right)^{-1}$$

where

- K_d is the equilibrium-partitioning coefficient;
- H is the Henry's law constant;
- θ_w is the water-filled soil porosity;
- ρ_b is the soil bulk density; and,
- θ_a is the air-filled soil porosity.

The calculations included a mass balance check to ensure that the assumed mass of a chemical infiltrating into the building over the assumed exposure period does not exceed an upper-bound estimate of the chemical's mass in the vadose zone underlying the building. The estimate of the chemical's mass in the vadose zone was conservatively estimated by assuming a unit concentration of the chemical from ground surface to the water table. The attenuation coefficient α_{ML} used in the mass balance check is given by the following equation:

¹ Factors for assessing this pathway for commercial/industrial buildings, including assumptions regarding building characteristics, are not available from GA EPD or USEPA. Therefore, in the absence of state-specific guidance, the input values developed by MDEQ have been used.

$$\alpha_{ML} = \left(\frac{\rho_b \cdot K_d}{H} + \frac{\theta_w}{H} + \theta_a \right) \cdot \left(\frac{A_B \cdot \Delta H}{Q_{building} \cdot ED} \right)$$

where

- A_B is the area of the building footprint,
- ΔH is the contaminant thickness (the distance between groundwater and the building foundation (2.9 m), and
- $Q_{building}$ is the air flow rate through the building.

These parameters are included in **Attachment 2** of this appendix.

The source vapor concentration for a constituent in groundwater is calculated from the constituent's unit concentration in groundwater C_{gw} , as follows:

$$C_{source} = C_{gw} \cdot H$$

The RBC for soil and groundwater volatilization to indoor air are presented in **Table 1** and **Table 2** of this appendix and summarized below:

Soil-Based RBC

Constituent	RBC (mg/kg)
1,1-Dichloroethene	200
cis-1,2-Dichloroethene	--
Trans-1,2-Dichloroethene	--
Methylene Chloride	590
Tetrachloroethene	40
Trichloroethene	2.0
Vinyl Chloride	6.3

Groundwater-Based RBC

Constituent	RBC (mg/L)
1,1-Dichloroethene	1,500
cis-1,2-Dichloroethene	--
Trans-1,2-Dichloroethene	--
Methylene Chloride	13,000
Tetrachloroethene	430
Trichloroethene	25
Vinyl Chloride	39

6 References

- Johnson, P. C., and R. A. Ettinger. 1991. Heuristic model for predicting the intrusion rate of contaminant vapors into buildings. *Environ. Sci. Technol.* 25(8):1445-1452.
- Michigan Department of Environmental Quality (MDEQ). 1998. Environmental Response Division. Part 201, Generic Groundwater and Soil Volatilization to Indoor Air Inhalation Criteria: Technical Support Document. August 31.
- United States Environmental Protection Agency (USEPA). 1989. Office of Emergency and Remedial Response. Risk Assessment Guidance for Superfund. Volume I, Human Health Evaluation Manual. Washington, DC. EPA/540-1-89-002. OSWER Directive 9285.7 01a. December.
- United States Environmental Protection Agency (USEPA). 1996. Office of Solid Waste and Emergency Response (OSWER). Soil Screening Guidance: Technical Background Document, 2nd Ed. EPA/540/R95/128. May.
- United States Environmental Protection Agency (USEPA). 2003. Office of Solid Waste and Emergency Response (OSWER). Human Health Toxicity Values in Superfund Risk Assessments. OSWER Directive 92857.7-53. December.
- United States Environmental Protection Agency (USEPA). 2004a. User's Guide for Evaluating Subsurface Vapor Intrusion into Buildings. Office of Emergency and Remedial Response, Washington D.C., February.
- United States Environmental Protection Agency (USEPA). 2009. Office of Emergency and Remedial Response. Risk Assessment Guidance for Superfund, Volume 1: Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment). USEPA/540/R/070/002. January.

Appendix C Tables

Table 1: Summary of Risk-Based Criteria for Soil Colonial Terminal, Savannah, Georgia				
Chem Group	Chemical	CASRN	Carc Class	RBC (mg/kg)
VOC	1,1-Dichloroethene	75-35-4	C	2.0E+02
VOC	cis-1,2-Dichloroethene	156-59-2	ID	
VOC	trans-1,2-Dichloroethene	156-60-5	ID	
VOC	Methylene Chloride	75-09-2	LC	5.9E+02
VOC	Tetrachloroethene	127-18-4	LC	4.0E+01
VOC	Trichloroethene	79-01-6	HC	2.0E+00
VOC	Vinyl Chloride	75-01-4	A	6.3E+00
Notes:				
RBC are risk-based criteria for unsaturated soils.				
The target risk level for chemicals designated as Class A and B, Carcinogenic To Humans (HC), and Likely To be Carcinogenic To Humans (LC) is 10^{-5} .				
The target risk level for chemicals designated as Class C and D carcinogens and Data Are Inadequate for An Assessment of Human Carcinogenic Potential (ID) is 10^{-4} .				
The target hazard quotient for all chemicals if 1.				
Neither URFs nor RfCs are available from the hierarchy of sources discussed in Section 3 for cis- and trans-1,2-dichloroethene; therefore, vapor intrusion criteria are				

Table 2: Summary of Risk-Based Criteria for Groundwater Colonial Terminal, Savannah, Georgia				
Chem Group	Chemical	CASRN	Carc Class	RBC (mg/L)
VOC	1,1-Dichloroethene	75-35-4	C	1.5E+03
VOC	cis-1,2-Dichloroethene	156-59-2	ID	
VOC	trans-1,2-Dichloroethene	156-60-5	ID	
VOC	Methylene Chloride	75-09-2	LC	1.3E+04
VOC	Tetrachloroethene	127-18-4	LC	4.3E+02
VOC	Trichloroethene	79-01-6	HC	2.5E+01
VOC	Vinyl Chloride	75-01-4	A	3.9E+01
Notes:				
RBC are risk-based criteria.				
The target risk level for chemicals designated as Class A and B, Carcinogenic To Humans (HC), and Likely To be Carcinogenic To Humans (LC) is 10^{-5} .				
The target risk level for chemicals designated as Class C and D carcinogens and Data Are Inadequate for An Assessment of Human Carcinogenic Potential (ID) is 10^{-4} .				
The target hazard quotient for all chemicals if 1.				
Neither URFs nor RfCs are available from the hierarchy of sources discussed in Section 3 for cis- and trans-1,2-dichloroethene; therefore, vapor intrusion criteria are not calculated.				

Appendix C, Attachment 1

Risk Calculation Inputs

Contents:

- Toxicity Values
- Physical and Chemical Properties
- Exposure Factors

Attachment 1: Toxicity Values
Colonial Terminal, Savannah, Georgia

Chem Group	Chemical	CASRN	Cancer Classification			URF (mg/m ³) ⁻¹			RfC (mg/m ³)			
			Group	Ref	Note	Value	Ref	Notes	Value	UF	Ref	Notes
VOC	1,1-Dichloroethene	75-35-4	C	1					2.0E-01	30	1	
VOC	cis-1,2-Dichloroethene	156-59-2	ID	1							1	90
VOC	trans-1,2-Dichloroethene	156-60-5	ID	1							1	90
VOC	Methylene Chloride	75-09-2	LC	1		1.0E-05	1	159	6.0E-01	30	1	
VOC	Tetrachloroethene	127-18-4	LC	1		2.6E-04	1		4.0E-02	1,000	1	
VOC	Trichloroethene	79-01-6	HC	1		4.1E-03	1	159	2.0E-03	100	1	
VOC	Vinyl Chloride	75-01-4	A	1		4.4E-03	1	79	1.0E-01	30	1	
Reference:												
1	USEPA. Integrated Risk Information System (IRIS). On-line database.											
Note:												
79	IRIS presents an inhalation URF for vinyl chloride of 4.4E-6 (ug/m ³)-1 for continuous lifetime exposure during adulthood and a twofold increase to 8.8E-6 (ug/m ³)-1 for continuous lifetime exposure from birth.											
90	Inadequate data exist to derive a toxicity value, according to the indicated reference.											
159	Because the chemical has a mutagenic mode of action according to USEPA, the SF and URF are adjusted by the following age-dependant adjustment factors (ADAFs) before use: 10 for ages 0 to 2; 3 for ages 2 to 16; and 1 for ages 16 and older (USEPA 2005).											

Attachment 1: Physical and Chemical Properties
Colonial Terminal, Savannah, Georgia

Chem Group	Chemical	CASRN	MW (g/mole)			K _{ow} (unitless)			K _{oc} (L/kg)			H (unitless)			D _{air} (m ² /d)				
			Value	Ref	Notes	Value	Ref	Notes	Value	Ref	Notes	Value	Ref	Notes	Value	Ref	Notes		
VOC	1,1-Dichloroethene	75-35-4	9.7E+01	50.1		1.3E+02	44		5.8E+01	44	111	1.1E+00	44		7.8E-01	44		9.0E-05	44
VOC	cis-1,2-Dichloroethene	156-59-2	9.7E+01	50.1		7.2E+01	44		3.6E+01	44	111	1.7E-01	44		6.4E-01	44		9.8E-05	44
VOC	trans-1,2-Dichloroethene	156-60-5	9.7E+01	50.1		1.2E+02	44		5.2E+01	44	111	3.9E-01	44		6.1E-01	44		1.0E-04	44
VOC	Methylene Chloride	75-09-2	8.5E+01	50.1		1.8E+01	44		1.2E+01	44	111	9.0E-02	44		8.7E-01	44		1.0E-04	44
VOC	Tetrachloroethene	127-18-4	1.7E+02	50.1		4.7E+02	44		1.6E+02	44	111	7.5E-01	44		6.2E-01	44		7.1E-05	44
VOC	Trichloroethene	79-01-6	1.3E+02	50.1		5.1E+02	44		1.7E+02	44	111	4.2E-01	44		6.8E-01	44		7.9E-05	44
VOC	Vinyl Chloride	75-01-4	6.3E+01	50.1		3.2E+01	44		1.8E+01	44	111	1.1E+00	44		9.2E-01	44		1.1E-04	71
Reference:																			
44	USEPA.	1996.	Soil Screening Guidance: Technical Background Document and User Guide.	Office of Emergency and Remedial Response.	EPA/540/R-95/128.	May.													
50.1	USEPA.	1997.	Superfund Chemical Data Matrix (SCDM).	Office of Emergency and Remedial Response.	September 12.														
71	USEPA.	2002.	Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites.	Office of Solid Waste and Emergency Response.	OSWER 9355.4-24.	December.													
Note:																			
111	ENVIRON	used Equation (71) from Reference 44 to calculate Koc value using Log Kow value from indicated reference.																	

**Attachment 1: Exposure Factors for Routine Workers
Colonial Terminal, Savannah, Georgia**

	Routine Workers	
Indoor Vapor Inhalation		
Exposure Time (hours/day)	8	d
Exposure Frequency (d/yr)	250	b
Exposure Duration (yr)	25	b
Averaging Time, carc (hours)	613,200	a
Averaging Time, noncanc (hours)	219,000	a
References:		
a. Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part A) Interim Final (EPA 1989).		
b. Standard default exposure factors. OSWER Directive 9285.6-03 (EPA 1991).		
d. Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual: Part F, Supplemental Guidance for Inhalation Risk Assessment (EPA 2009).		

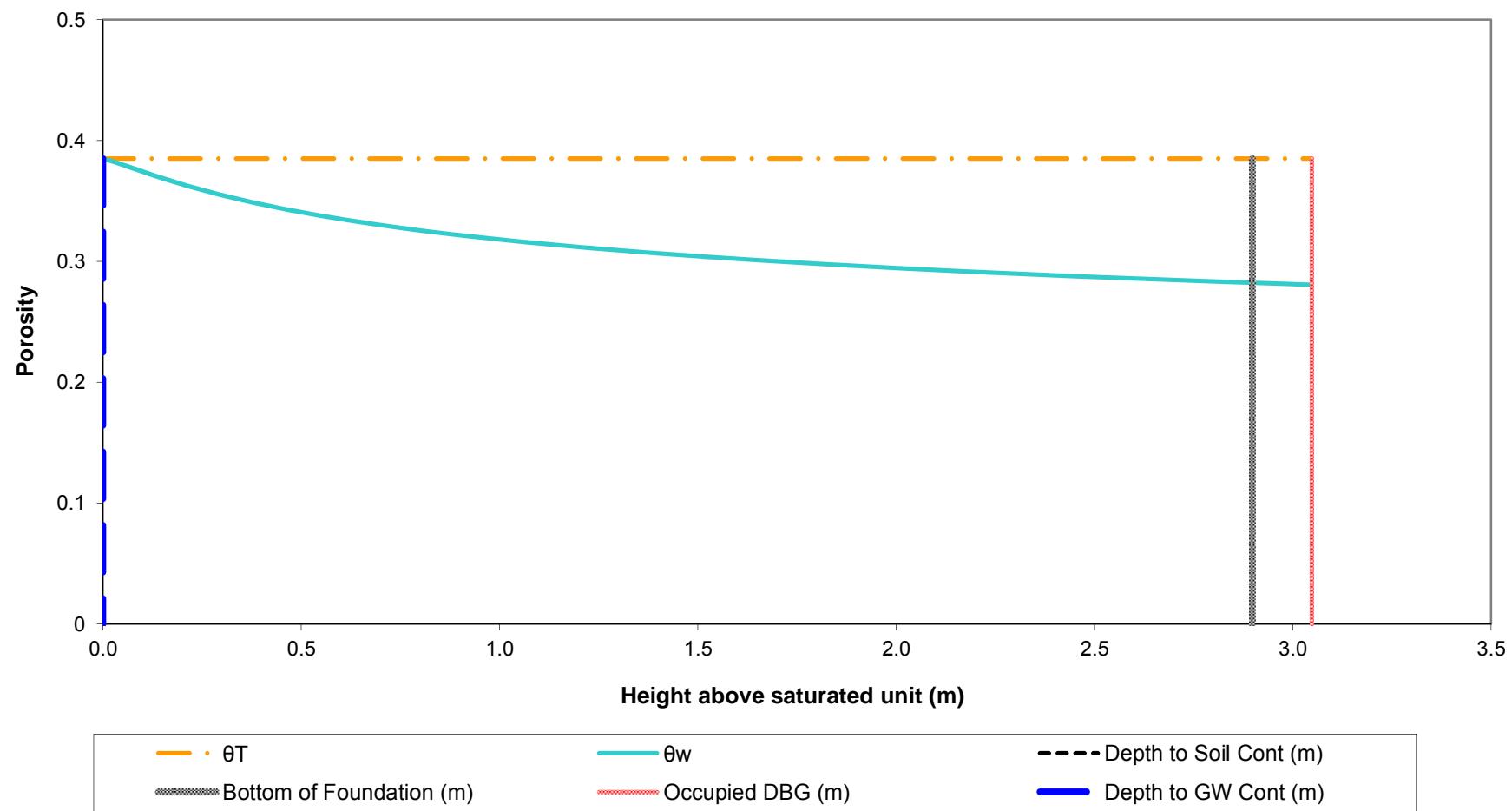
Appendix C, Attachment 2

Routine Worker Vapor Intrusion Calculations

Contents:

- Soil Moisture Profile for Comm/Ind Building (Slab-on-Grade)
- Normalized Indoor Air Concentration in a Comm/Ind Building (Slab-on-Grade) due to Vapor Intrusion from Subsurface Soil
- Risk-Based Criteria for Soil Vapor Intrusion into a Comm/Ind Building (Slab-on-Grade)
- Normalized Indoor Air Concentration in a Comm/Ind Building (Slab-on-Grade) due to Vapor Intrusion from Groundwater
- Risk-Based Criteria for Groundwater Vapor Intrusion into a Comm/Ind Building (Slab-on-Grade)

**Attachment 2: Soil Moisture Profile for Comm/Ind Building (Slab-on-Grade)
Colonial Terminal, Savannah, Georgia**



**Attachment 2: Normalized Indoor Air Concentration in a Comm/Ind Building (Slab-on-Grade)
due to Vapor Intrusion from Subsurface Soil
Colonial Terminal, Savannah, Georgia**

Chem Group	Chemical	CASRN	D_{air} (m ² /day)	D_{water} (m ² /day)	H (unitless)	D_{crack} (m ² /day)	D_{eff}^T (m ² /day)	α_m	K_{oc} (L/kg)	K_d (L/kg)	C_{s, vap} (kg-soil/m ³)	α_{ML}	α	C_{bldg} (kg-soil/m ³)
VOC	1,1-Dichloroethene	75-35-4	7.78E-01	8.99E-05	1.07E+00	1.24E-01	2.66E-03	8.21E-05	5.82E+01	1.16E-01	3.00E+03	1.47E-06	1.47E-06	4.42E-03
VOC	cis-1,2-Dichloroethene	156-59-2	6.36E-01	9.76E-05	1.67E-01	1.01E-01	2.23E-03	8.21E-05	3.56E+01	7.12E-02	6.55E+02	6.75E-06	6.75E-06	4.42E-03
VOC	trans-1,2-Dichloroethene	156-60-5	6.11E-01	1.03E-04	3.85E-01	9.73E-02	2.11E-03	8.21E-05	5.22E+01	1.04E-01	1.28E+03	3.46E-06	3.46E-06	4.42E-03
VOC	Methylene Chloride	75-09-2	8.73E-01	1.01E-04	8.98E-02	1.39E-01	3.09E-03	8.22E-05	1.17E+01	2.34E-02	4.44E+02	9.95E-06	9.95E-06	4.42E-03
VOC	Tetrachloroethene	127-18-4	6.22E-01	7.08E-05	7.54E-01	9.91E-02	2.13E-03	8.21E-05	1.56E+02	3.12E-01	1.42E+03	3.12E-06	3.12E-06	4.42E-03
VOC	Trichloroethene	79-01-6	6.83E-01	7.86E-05	4.22E-01	1.09E-01	2.35E-03	8.21E-05	1.68E+02	3.35E-01	7.89E+02	5.60E-06	5.60E-06	4.42E-03
VOC	Vinyl Chloride	75-01-4	9.16E-01	1.06E-04	1.11E+00	1.46E-01	3.13E-03	8.22E-05	1.85E+01	3.69E-02	3.96E+03	1.11E-06	1.11E-06	4.42E-03
Notes: Soil and Building Characteristics			Crack	Vadose										
SCS Soil texture class			Sand	Sandy Clay										
Bulk density	kg/L	ρ_b	1.66	1.63										
Total porosity	L/L-soil	θ_T	0.375	0.385										
Water-filled porosity	L/L-soil	θ_w	0.055	0.282										
Air-filled porosity	L/L-soil	θ_a	0.320	0.103										
Organic carbon fraction	unitless	f_{oc}		0.002										
Residual saturation	L/L-soil	θ_r	0.053											
Hydraulic conductivity	cm/s	K	7.4E-03											
Dynamic viscosity of water	g/cm·s	μ_w	0.01307											
Density of water	g/cm ³	ρ_w	1.0											
Gravitational acceleration	cm/s ²	g	980.7											
Intrinsic permeability	cm ²	k	9.9E-08											
Relative saturation	unitless	S_e	0.006											
van Genuchten N	unitless	N	3.18											
van Genuchten M	unitless	M	0.685											
Relative air permeability	unitless	k_{rg}	0.996											
Permeability to vapor	cm ²	k_v	9.9E-08											
Distance from building foundation to source	m	L_{T-soil}	0.001											
Bldg foundation thickness	m	L_{crack}	0.15											
Bldg foundation length	m		19.29											
Bldg foundation width	m		19.29											
Bldg occupied height	m		2.44											
Bldg occupied volume	m ³		907.93											
Occupied depth below ground	m		0.0											
Bldg area for vapor intrusion	m ²	A_B	372.1											
Ratio of A _{crack} to A _B		η	1E-04											
Area of cracks	m ²	A_{crack}	3.86E-02											
Air exchange rate	hour ⁻¹	ach	2.0											
Building ventilation rate	m ³ /day	Q_{bldg}	4.36E+04											
Pressure difference between outdoors-indoors	kg/m·s ²	ΔP	1.0											
Viscosity of air	kg/m·s	μ_a	1.8E-05											
Crack length (bldg perimeter)	m	X_{crack}	77.16											
Crack depth below ground	m	Z_{crack}	0.15											
Crack radius	m	r_{crack}	5E-04											
Soil gas flow rate into bldg	m ³ /day	Q_{soil}	3.59E+00											
Averaging period	d	T	9.13E+03											
Contaminant thickness	m	ΔH	2.8970											

**Attachment 2: Risk-Based Criteria for Soil Vapor Intrusion into a Comm/Ind Building (Slab-on-Grade)
Colonial Terminal, Savannah, Georgia**

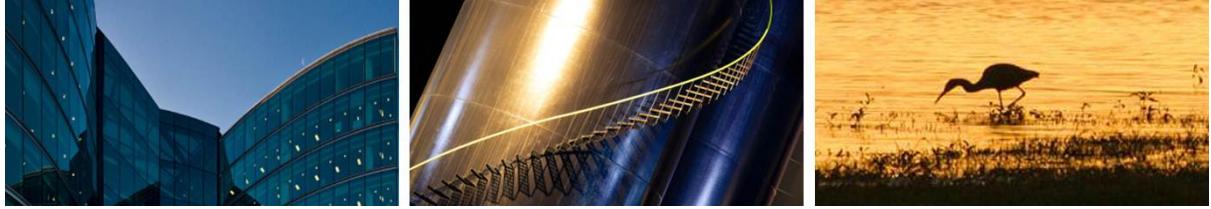
Chem Group	Chemical	CASRN	Carc Class	Cancer				Noncancer			Combined
				C _{air} (mg/m ³)	URF (m ³ /mg)	Risk	RBC (mg/kg)	RfC (mg/m ³)	HQ	RBC (mg/kg)	
VOC	1,1-Dichloroethene	75-35-4	C	4.42E-03				2.0E-01	5.0E-03	2.0E+02	2.0E+02
VOC	cis-1,2-Dichloroethene	156-59-2	ID	4.42E-03							
VOC	trans-1,2-Dichloroethene	156-60-5	ID	4.42E-03							
VOC	Methylene Chloride	75-09-2	LC	4.42E-03	1.0E-05	3.6E-09	2.8E+03	6.0E-01	1.7E-03	5.9E+02	5.9E+02
VOC	Tetrachloroethene	127-18-4	LC	4.42E-03	2.6E-04	9.4E-08	1.1E+02	4.0E-02	2.5E-02	4.0E+01	4.0E+01
VOC	Trichloroethene	79-01-6	HC	4.42E-03	4.1E-03	1.5E-06	6.8E+00	2.0E-03	5.0E-01	2.0E+00	2.0E+00
VOC	Vinyl Chloride	75-01-4	A	4.42E-03	4.4E-03	1.6E-06	6.3E+00	1.0E-01	1.0E-02	9.9E+01	6.3E+00

Attachment 2: Normalized Indoor Air Concentration in a Comm/Ind Building (Slab-on-Grade) due to Vapor Intrusion from Groundwater Colonial Terminal, Savannah, Georgia											
Chem Group	Chemical	CASRN	D _{air} (m ² /day)	D _{water} (m ² /day)	H (unitless)	D _{crack} (m ² /day)	D _{off} ^T (m ² /day)	α_{soil}	α_{slab}	α_{∞}	C _{bldg} (L-water/m ³)
VOC	1,1-Dichloroethene	75-35-4	7.78E-01	8.99E-05	1.07E+00	1.24E-01	1.93E-04	6.84E-03	8.24E-05	5.64E-07	6.04E-04
VOC	cis-1,2-Dichloroethene	156-59-2	6.36E-01	9.76E-05	1.67E-01	1.01E-01	4.98E-04	1.75E-02	8.24E-05	1.44E-06	2.41E-04
VOC	trans-1,2-Dichloroethene	156-60-5	6.11E-01	1.03E-04	3.85E-01	9.73E-02	3.26E-04	1.15E-02	8.24E-05	9.50E-07	3.66E-04
VOC	Methylene Chloride	75-09-2	8.73E-01	1.01E-04	8.98E-02	1.39E-01	8.11E-04	2.82E-02	8.24E-05	2.32E-06	2.09E-04
VOC	Tetrachloroethene	127-18-4	6.22E-01	7.08E-05	7.54E-01	9.91E-02	1.87E-04	6.63E-03	8.24E-05	5.46E-07	4.12E-04
VOC	Trichloroethene	79-01-6	6.83E-01	7.86E-05	4.22E-01	1.09E-01	2.84E-04	1.00E-02	8.24E-05	8.28E-07	3.49E-04
VOC	Vinyl Chloride	75-01-4	9.16E-01	1.06E-04	1.11E+00	1.46E-01	2.23E-04	7.90E-03	8.24E-05	6.52E-07	7.23E-04
Notes: Crack Soil and Building Characteristics				Crack Soil							
SCS Soil texture class				Sand							
Bulk density	kg/L	ρ_b		1.66							
Total porosity	L/L-soil	θ_t		0.375							
Water-filled porosity	L/L-soil	θ_w		0.055							
Air-filled porosity	L/L-soil	θ_a		0.320							
Residual saturation	L/L-soil	θ_r		0.053							
Hydraulic conductivity	cm/s	K		7.4E-03							
Dynamic viscosity of water	g/cm-s	μ_w		0.01307							
Density of water	g/cm ³	ρ_w		1.0							
Gravitational acceleration	cm/s ²	g		980.7							
Intrinsic permeability	cm ²	k		9.9E-08							
Relative saturation	unitless	S_o		0.006							
van Genuchten N	unitless	N		3.177							
van Genuchten M	unitless	M		0.685							
Relative air permeability	unitless	k_{rg}		0.996							
Permeability to vapor	cm ²	k_v		9.88E-08							
Distance from building foundation to source	m	L_{T-gw}		2.90							
Bldg foundation thickness	m	L_{crack}		0.15							
Bldg foundation length	m			19.29							
Bldg foundation width	m			19.29							
Bldg occupied height	m			2.44							
Bldg occupied volume	m ³			907.93							
Occupied depth below ground	m			0.0							
Bldg area for vapor intrusion	m ²	A_B		372.1							
Ratio of A _{crack} to A _B		η		1E-04							
Area of cracks	m ²	A_{crack}		4E-02							
Air exchange rate	hour ⁻¹	ach		2.00							
Building ventilation rate	m ³ /day	Q_{bldg}		4.36E+04							
Pressure difference between outdoors-indoors	kg/m-s ²	ΔP		1.0							
Viscosity of air	kg/m-s	μ_a		1.8E-05							
Crack length (bldg perimeter)	m	X_{crack}		77.16							
Crack depth below ground	m	Z_{crack}		0.15							
Crack radius	m	r_{crack}		5E-04							
Soil gas flow rate into bldg	m ³ /day	Q_{soil}		3.59							

**Attachment 2: Risk Based Criteria for Groundwater Vapor Intrusion into a Comm/Ind Building (Slab-on-Grade)
Colonial Terminal, Savannah, Georgia**

Chem Group	Chemical	CASRN	Carc Class	C _{air} (mg/m ³)	Cancer			Noncancer			Combined RBC (mg/L)
					URF (m ³ /mg)	Risk	RBC (mg/L)	RfC (mg/m ³)	HQ	RBC (mg/L)	
VOC	1,1-Dichloroethene	75-35-4	C	6.04E-04				2.0E-01	6.9E-04	1.5E+03	1.5E+03
VOC	cis-1,2-Dichloroethene	156-59-2	ID	2.41E-04							
VOC	trans-1,2-Dichloroethene	156-60-5	ID	3.66E-04							
VOC	Methylene Chloride	75-09-2	LC	2.09E-04	1.0E-05	1.7E-10	5.9E+04	6.0E-01	7.9E-05	1.3E+04	1.3E+04
VOC	Tetrachloroethene	127-18-4	LC	4.12E-04	2.6E-04	8.7E-09	1.1E+03	4.0E-02	2.4E-03	4.3E+02	4.3E+02
VOC	Trichloroethene	79-01-6	HC	3.49E-04	4.1E-03	1.2E-07	8.6E+01	2.0E-03	4.0E-02	2.5E+01	2.5E+01
VOC	Vinyl Chloride	75-01-4	A	7.23E-04	4.4E-03	2.6E-07	3.9E+01	1.0E-01	1.7E-03	6.1E+02	3.9E+01

Appendix D
Ecological Assessment



**Appendix D – Ecological Assessment
Voluntary Remediation Plan and Application
Colonial Terminals, Plant #2**

Prepared for:
Colonial Terminals, Inc.
Savannah, Georgia

Prepared by:
ENVIRON International Corporation

November 2012

Project Number:
07-30114B

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Acronyms and Abbreviations

11DCE	1,1-Dichloroethylene
7Q10	Lowest 7-day average flow that occurs (on average) once every 10 years
ATSDR	Agency for Toxic Substances and Disease Registry
c12DCE	Cis 1,2-Dichloroethylene
EIS	Environmental Impact Statement
ERM	Environmental Resource Management, Inc.
Ga DNR	Georgia Department of Natural Resources
GNHP	Georgia Natural Heritage Program
HQ	Hazard Quotient
iPAC	Information Planning and Conservation Report
ISWQS	In-Stream Water Quality Standards
NWI	National Wetlands Inventory
PCE	Tetrachloroethylene
t12DCE	Trans 1,2-Dichloroethylene
TCE	Trichloroethylene
USACOE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Constituents
µg/L	Micrograms per liter

1 Environmental Setting (Problem Formulation)

The approximately 34.6-acre Colonial Terminals, Plant #2 site (the “site”) is located on North Lathrop Avenue and abuts the tidally-influenced Savannah River in Savannah, Chatham County, Georgia. The site is situated in an industrial-zoned area of Savannah approximately sixteen miles upstream from where the Savannah River empties into the Atlantic Ocean (**Figure D-1**).

1.1 Terrestrial Habitat

Based on visual observations and aerial photographs of the site, the site is highly industrialized and as indicated in the 2005 Corrective Action Plan “does not provide habitat for plants or animals” (ERM, 2005). In the absence of natural habitats and vegetation and based on the significant amount of human disturbance, biologically significant populations of wildlife receptors will not be present in the terrestrial areas of the site.

1.2 Aquatic Habitat

The Savannah River in the vicinity of the site is split into two channels by Hutchinson Island (**Figure D-2**). This figure (as well as **Figure D-1**) shows a striking difference between these two channels. The southwest channel adjacent to the site (Front River) is approximately 900 feet wide. This is a part of the Marsh Island Channel dredging area, and is maintained by periodic dredging by the US Army Corps of Engineers (USACOE) to a depth of between 40 and 43 feet (**Figure D-3**). The northeast channel of the Savannah River, on the other side of Hutchinson Island (the Back River, near Pennyworth Island), is about 1,600 feet wide. It is undredged, and is generally less than 15 feet deep in this area (**Figure D-2**). In general, the Back River (the channel on the north side of Hutchinson Island that is not adjacent to the site) is much more attractive aquatic habitat than the Front River (the south side of Hutchinson island that is adjacent to the site) because the Back River is undredged, mostly unaltered, and has a much lower level of human disturbance.

The Savannah River, as a whole, provides habitat for biologically significant populations of wildlife receptors. The recent USACOE Savannah Harbor Expansion Project has exhaustively reported on aquatic wildlife in the area. In particular, the section of the Savannah River near the site may provide some habitat for American shad, striped bass, and sturgeon species. Fish are likely to be present in the Marsh Island Channel/Front River near the site at least some of the time, notwithstanding the frequent disturbance from shipping and dredging and the highly-altered habitat.

1.3 Protected Species

Information from the Georgia Natural Heritage Program (GNHP) was reviewed to identify potential environmental receptors near the site (**Attachment D-1**). Also, a US Fish and Wildlife Information Planning and Conservation (iPAC) report was prepared for the site vicinity (**Attachment D-1**). The rare, imperiled, and critically imperiled plant and animal species likely to occur in Chatham County and/or in the Lower Savannah River (Watershed Code: 03060109) were compiled from these sources and are summarized in **Table D-1**. These data were obtained from the GNHP (Ga DNR, 2012a, 2012b), which catalogs wildlife in Georgia by county and watershed. This list includes state and federally listed protected species which may (or may not) be present in the area based on their geographic range. Environmental factors, which include, (but are not limited to) temperature, season, rainfall, human disturbance, and migration

patterns may affect the potential presence of these species. However, the actual occurrence of these organisms near the site has not been confirmed.

In general, the terrestrial species on this list are extremely unlikely to occur near the site due to the lack of natural habitat for cover and foraging. The industrial hardscape and substantial human disturbance would cause wildlife to avoid the site.

Aquatic protected species listed in the above sources include fish, sea turtles, marine mammals, aquatic insects, aquatic invertebrates, and aquatic plants.

- Sea turtles and marine mammals (which are all protected species) are extremely unlikely to occur near the site because of the intense human disturbance (including dredging and ship traffic).
- Protected aquatic insects are unlikely to occur near the site. The one listed dragonfly has aquatic larvae that are unlikely to inhabit deep waters such as those near the site in the dredged/maintained channel of the Front River.
- Protected aquatic invertebrates are unlikely to occur near the site. Both mussels are unlikely to colonize the relatively harder riverbed in the Front River where strongly consolidated sediment remains after dredging.
- Aquatic plants are unlikely to occur near the site, as the area near the site is either too deep, too frequently disturbed by ship loading/unloading, or impermeable industrial hardscape.
- Endangered fish may possibly be present in the dredged channel of the Front River.

Based on additional review of the preferred habitat of the listed fish species, all but two species do not have habitat near the site, and therefore are unlikely to be present in the vicinity of the site. Their habitat is described on **Table D-1**. However, the shortnose sturgeon (federally- and state-listed as endangered) and the Atlantic sturgeon (a state species of concern) may potentially both live in large rivers and estuaries and may potentially occur near the site.

The USACOE Environmental Impact Statement (EIS) for the Savannah Harbor Deepening Project (USACOE, 2012) provides a wealth of information about shortnose sturgeon in the Savannah River. The shortnose sturgeon feeds in relatively soft sediment or gravel that may be home to established communities of benthic invertebrates:

“The Shortnose sturgeon is a suctorial feeder and its preferred prey is small gastropods. Sturgeon forage by slowly swimming along the bottom, lightly dragging their barbels until they feel something that may resemble food, at which time they suck it up in their protrusible mouths. The non-food items are expelled through their gills. Juveniles may be even more indiscriminate, and just vacuum their way across the bottom. Soft sediments with abundant prey items such as macroinvertebrates are thought to be preferred by Shortnose sturgeon for foraging, so established benthic communities are important. They are thought to forage for small epifaunal and infaunal organisms over gravel and mud.”
(USACOE, 2012, Appendix B of that document).

The Atlantic sturgeon is likely to feed in a similar manner given the similarity between these species. However, given that the Marsh Island Channel/Front River is dredged to maintain its depth and has substantial river traffic, the community of benthic invertebrates is likely to be frequently disturbed. Furthermore, dredged areas tend to have consolidated sediments (as the softer sediments are dredged out) that are likely to be poor habitat for benthic invertebrates.

Furthermore, the fisheries maps of the EIS (USACOE, 2012, Appendix P of that document) indicate that the area of the Front River near the site, in its existing condition is:

- not suitable habitat for juvenile sturgeon in January (when they might possibly be in the area);
- not suitable habitat for adult sturgeon in August (because of low dissolved oxygen); and,
- suitable habitat only for adult sturgeon and only during winter months.

However, the area near the site is proposed to be dredged deeper. All of the proposed harbor deepening scenarios (even the least alteration, to 44 feet) will cause a loss of adult sturgeon in winter months because of low dissolved oxygen. These maps are presented in **Attachment D-2**.

In summary, due to the marginal habitat in the river near the site and the limited amount of time that sturgeon (adults only) may be in proximity to the site (i.e., only during the winter), there is a very low potential for exposure of sturgeon to the site.

1.4 Wetlands

ENVIRON searched the National Wetlands Inventory (NWI, 2012) for the purpose of identifying wetlands in the project area (**Figure D-4**). Wetland areas were not identified onsite, and the nearest wetlands are located approximately one-quarter mile to the southwest and northeast of the site.

1.5 Summary

In summary, there are no terrestrial organisms or protected habitats at the site that would be associated with significant exposure or unacceptable risks. Therefore, the potential ecological exposures are limited to aquatic organisms, particularly fish. However, because the Front River/Marsh Island channel adjacent to the site is a dredged, disturbed habitat that is of relatively low quality and maintains a high volume of boat traffic, significant exposures to aquatic receptors are also considered to be unlikely. Sturgeons appear to be the lone protected species that may have habitats in areas near the site. However, natural (e.g., low dissolved oxygen) and anthropogenic conditions (e.g., dredging) have resulted in the channel areas near the site being less than optimal for sturgeon to habitat and potentially contain limited food sources (i.e., invertebrates) for the sturgeon.

2 Exposure Assessment

Based on the information presented in the Environmental Setting (Section 1), the exposure assessment is focused on potential exposures to surface water in the Savannah River adjacent to the site. The analytical data available for the Savannah River (as it pertains to the Colonial site) consists of surface water data collected in 2007 and 2010. The sampling efforts included three surface water sampling events in 2007 and one sampling event in 2010, and samples were collected from three locations during each event (SW-01, SW-02, and SW-03, as shown on **Figure D-5**). In each event, the samples were analyzed for tetrachloroethylene (PCE); trichloroethylene (TCE); cis-1,2-dichloroethylene (c12DCE); trans-1,2-dichloroethylene (t12DCE); 1,1-dichloroethylene (11DCE); vinyl chloride (VC), methylene chloride (MECL) arsenic, chromium, and lead.

The laboratory results showed that PCE, TCE, and c12DCE were the only constituents detected in the surface water samples. The results are described below, and a summary of the surface water data is provided in **Table D-2**.

- PCE was detected in only three of the 12 samples collected, and only during the August 2007 sampling event (in which it was detected at all three sampling locations).
- TCE was detected in only one of the 12 samples collected; specifically, it was detected in SW-02 only during the August 2007 sampling event (the detected concentration, 1.4 ug/L, was only slightly greater than laboratory detection limit of 1.0 µg/L).
- c12DCE was detected in five of the 12 samples collected; specifically, it was detected at SW-02 during the April 2007 event, and at SW-03 during all four sampling events. All five of the detected concentrations were 1.2 ug/L, which is only slightly greater than laboratory detection limit of 1.0 µg/L.

There is some uncertainty associated with using surface water data from any surface water body (due to potential, unknown upriver sources). This is especially true for a river such as the Savannah River, with its long history of industrial use (including a very large port nearby and upstream).

In addition to the surface water data from the sampling conducted in 2007 and 2010, a groundwater/river dilution model was used to conservatively predict instream concentrations of PCE, TCE, c12DCE, 11DCE, vinyl chloride, arsenic, and lead in the Savannah River.

Specifically, the model estimates the concentrations of site-related constituents that might be present in the Savannah River in the area immediately adjacent to the site due to groundwater discharge to the river. To be conservative, the model based the mixing/dilution on the lowest 7-day average flow that occurs (on average) once every 10 years (i.e., the “7Q10” flow value).

The model and associated predicted concentrations are presented in **Appendix B** of this document, and the predicted concentrations are reproduced in this appendix in **Table D-3**. The results of the model estimates that the in-river concentrations of metals and VOCs associated with the groundwater at the site would be orders of magnitude below the current laboratory detection limits, as shown on **Table D-3**.

3 Effects Assessment

Exposure to VOCs can have deleterious effects on wildlife receptors including decreases in body weight, reproduction, growth, and adult survival (Gallegos et. al. 2007). However, these compounds are not typically considered to be persistent in sediments due to their volatility and solubility (Fuschman 2003), and their natural volatilization from sediment and water into air can rapidly result in concentrations being diluted to below detection limits.

Arsenic and lead are naturally occurring and ubiquitous in the environment (Agency for Toxic Substances and Disease Registry, ATSDR 2007a, b). As such, most organisms have a capacity to biotransform and/or eliminate various amounts of these metals (Newman 1998; Leland and Kuwabara 1985). However, elevated concentrations of these constituents may result in adverse effects. Arsenic reacts with proteins and inhibits protein functions (ATSDR 2007a), while lead toxicity primarily targets the nervous system but may also affect blood (ATSDR, 2007b).

A summary of state and United States Environmental Protection Agency (USEPA) Region 4 surface water criteria for select VOCs, lead, and arsenic is presented in **Table D-4**. Due to the tidal influence on the Savannah River, saltwater and freshwater criteria were considered. The most conservative appropriate criterion for each constituent is shown on **Table D-4**.

The Georgia In-Stream Water Quality Standards (ISWQS; Georgia Code 391-3-6-03, 2011) for VOCs are not based on ecological endpoints. As an example, the Georgia In-Stream Water Quality Criterion for PCE is 3.3 µg/L is identical to the USEPA National Recommended Water Quality Criterion for PCE based on human cancer risk from fish consumption (USEPA, 2002, 2012a). Therefore, the ISWQS VOC criteria are not useful or meaningful in the context of ecological risk for aquatic receptors in the Savannah River adjacent to the site. However, the ISWQS are presented in this risk evaluation for completeness.

The USEPA Region 4 criteria (USEPA, 2001) are based on ecological endpoints and are meaningful for ecological risk for wildlife receptors. USEPA Region 4 does not have criteria for TCE or vinyl chloride, so the value for PCE was used as a conservative surrogate for these constituents. The use of PCE as a surrogate for this purpose is conservative (i.e., protective) because PCE is generally regarded as more toxic to wildlife than either TCE or vinyl chloride.

4 Risk Characterization

Based on the assessment of potentially impacted wildlife receptors and surface water data obtained from historical sampling events, a potentially complete exposure pathway exists for some aquatic receptors to be exposed to site-related constituents. Specifically, fish in the Savannah River adjacent to the site could be exposed to site-related constituents via groundwater discharge to the river.

As discussed in Section 2, only three VOCs (cDCE, PCE, and TCE) have been historically detected in the surface water, though PCE and TCE have not been detected in the last two sampling events. In addition, for the purposes of the risk characterization portion of this Ecological Assessment, estimated concentrations of PCE, TCE, c12DCE, 11DCE, vinyl chloride, arsenic, and lead in the Savannah River were calculated using a model that incorporates the available groundwater data, groundwater-surface water discharge, and surface water flow.

Table D-5 compares the concentrations from surface water sampling (from **Table D-2**) and the groundwater/river dilution model output (from **Table D-3**) to the most stringent appropriate criteria (from **Table D-4**). Hazard quotients (HQs, the unitless ratio of the concentration to the criteria) are presented in **Table D-5**.

As shown in **Table D-5**, neither the maximum detected nor the modeled concentrations of the constituents exceed the most stringent appropriate criteria (that is, all the HQs are less than 1). Therefore, the regulated substances in the groundwater at the site do not pose an unacceptable risk to aquatic receptors.

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Appendix D Tables

Table D-1: Protected Species Information
Colonial Terminals, Plant #2
Savannah, Georgia

Scientific Name	Common Name	Area	Group	Global Rank	State Rank	Federal Status	State Status	Found Near Site?	Habitat in Georgia
<i>Pseudacris brimleyi</i>	Brimley's Chorus Frog	CC & LSR	Amphibian	G5	S1	--	SSC	Unlikely	Moist forests; swamps; bottomlands
<i>Pseudobranchus striatus striatus</i>	Broad-striped Dwarf Siren	LSR	Amphibian	G5T2T3	S3	--	SSC	Unlikely	Swamps; marshes; limesink ponds; cypress ponds
<i>Rana virgatipes</i>	Carpenter Frog	LSR	Amphibian	G5	S3	--	SSC	Unlikely	Heavily vegetated swamps, bogs, blackwater streams, ponds
<i>Ambystoma cingulatum</i>	Frosted Flatwoods Salamander	CC & LSR	Amphibian	G2	S2	LT	T	Unlikely	Pine flatwoods; moist savannas; isolated cypress/gum ponds
<i>Rana capito</i>	Gopher Frog	CC	Amphibian	G3	S3	--	R	Unlikely	Sandhills; dry pine flatwoods; breed in isolated wetlands
<i>Stereochilus marginatus</i>	Many-lined Salamander	CC & LSR	Amphibian	G5	S3	--	SSC	Unlikely	Sluggish, swampy streams and bayheads with substrate of leaf litter
<i>Haematopus palliatus</i>	American Oystercatcher	CC	Bird	G5	S2	--	R	Unlikely	Sandy beaches; tidal flats; salt marshes
<i>Haliaeetus leucocephalus</i>	Bald Eagle	CC & LSR	Bird	G5	S2	--	T	Unlikely	Edges of lakes & large rivers; seacoasts
<i>Tyto alba</i>	Barn owl	CC & LSR	Bird	G5	S3S4	--	SSC	Unlikely	Nests in large hollow trees or old buildings in areas with extensive pasture or grassland or other open habitats such as marsh.
<i>Rynchops niger</i>	Black Skimmer	CC & LSR	Bird	G5	S1	--	R	Unlikely	Tidal ponds; sandy beaches
<i>Nycticorax nycticorax</i>	Black-crowned Night-heron	CC & LSR	Bird	G5	S4	--	SSC	Unlikely	River swamps; marshes; cypress/gum ponds
<i>Himantopus mexicanus</i>	Black-necked Stilt	CC & LSR	Bird	G5	S3	--	SSC	Unlikely	Shallow ponds; lagoons
<i>Sternula antillarum</i>	Least Tern	CC & LSR	Bird	G4	S3	--	R	Unlikely	Sandy beaches; sandbars
<i>Lanius ludovicianus migrans</i>	Migrant Loggerhead Shrike	CC	Bird	G4T3Q	S3	--	SSC	Unlikely	Open woods; field edges
<i>Passerina ciris</i>	Painted Bunting	CC & LSR	Bird	G5	S3	--	SSC	Unlikely	Lower coastal plain in thickets, woodland borders, and brushy areas
<i>Charadrius melanotos</i>	Piping Plover	CC	Bird	G3	S1	LT	T	Unlikely	Sandy beaches; tidal flats
<i>Picoides borealis</i>	Red-cockaded Woodpecker	CC & LSR	Bird	G3	S2	LE	E	Unlikely	Open pine woods; pine savannas
<i>Ammodramus maritimus</i>	Seaside Sparrow	CC	Bird	G4	S3	--	SSC	Unlikely	Salt marshes
<i>Elanoides forficatus</i>	Swallow-tailed Kite	CC & LSR	Bird	G5	S2	--	R	Unlikely	River swamps; marshes
<i>Charadrius wilsonia</i>	Wilson's Plover	CC	Bird	G5	S2	--	T	Unlikely	Sandy beaches; tidal flats
<i>Troglodytes troglodytes</i>	Winter Wren	LSR	Bird	G5	S4	--	SSC	Unlikely	Coniferous forests; brushy areas
<i>Mycteria americana</i>	Wood Stork	CC	Bird	G4	S2	LE	E	Unlikely	Cypress/gum ponds; marshes; river swamps; bays
<i>Nyctanassa violacea</i>	Yellow-crowned Night-heron	CC	Bird	G5	S3S4	--	SSC	Unlikely	River swamps; marshes; cypress/gum ponds
<i>Acipenser oxyrinchus oxyrinchus</i>	Atlantic Sturgeon	CC & LSR	Fish	G3T3	S3	--	SSC	Possibly	Large rivers and estuaries on Atlantic Coast
<i>Elassoma okatie</i>	Bluebarred Pygmy Sunfish	CC & LSR	Fish	G2G3	S1S2	--	E	Unlikely	Temporary ponds and stream backwaters with dense aquatic vegetation
<i>Moxostoma sp. 4</i>	Brassy Jumprock	LSR	Fish	G4	S3S4	--	SSC	Unlikely	Medium to large streams with rocky substrate
<i>Umbra pygmaea</i>	Eastern Mudminnow	CC	Fish	G5	S2S3	--	SSC	Unlikely	Sluggish streams, ponds, and sloughs with mud bottoms and heavy vegetation
<i>Notropis chalybaeus</i>	Ironcolor Shiner	LSR	Fish	G4	S2S3	--	SSC	Unlikely	Coastal Plain streams and floodplain swamps
<i>Moxostoma robustum</i>	Robust Redhorse	CC	Fish	G1	S1	--	E	Unlikely	Medium to large rivers, shallow riffles to deep flowing water; moderately swift current
<i>Etheostoma fricksium</i>	Savannah Darter	LSR	Fish	G4	S2	--	SSC	Unlikely	Shallow creeks with moderate current over sand or gravel substrate; sometimes associated with aquatic vegetation
<i>Etheostoma serrifer</i>	Sawcheek Darter	LSR	Fish	G5	S2	--	SSC	Unlikely	Sluggish streams and swamps over substrate of sand, mud, or detritus
<i>Acipenser brevirostrum</i>	Shortnose Sturgeon	CC & LSR	Fish	G3	S2	LE	E	Possibly	Estuaries; lower end of large rivers in deep pools with soft substrates

Table D-1: Protected Species Information
Colonial Terminals, Plant #2
Savannah, Georgia

Scientific Name	Common Name	Area	Group	Global Rank	State Rank	Federal Status	State Status	Found Near Site?	Habitat in Georgia
<i>Chologaster cornuta</i>	Swampfish	LSR	Fish	G5	S2S3	--	SSC	Unlikely	Blackwater streams and swamps; often in woody debris, detritus, or vegetation
<i>Cordulegaster sayi</i>	Say's Spiketail	LSR	Insect	G2	S1S2	--	T	Unlikely	Silty-mucky seepage areas; pools of first order springfed streams
<i>Toxolasma pullus</i>	Savannah Lilliput	CC & LSR	Invertebrate	G2	S2	--	T	Unlikely	Large rivers to small creeks, oxbows, and sloughs
<i>Lampsilis cariosa</i>	Yellow Lampmussel	LSR	Invertebrate	G3G4	S2	--	SSC	Unlikely	Large to small rivers
<i>Pseudorca crassidens</i>	False Killer Whale	CC & LSR	Mammal	G4	SNRN	--	SSC	Unlikely	Open ocean
<i>Trichechus manatus</i>	Manatee	CC & LSR	Mammal	G2	S1S2	LE	E	Unlikely	Open ocean; estuaries; tidal rivers
<i>Eubalaena glacialis</i>	Northern Atlantic Right Whale	CC & LSR	Mammal	G1	S1	LE	E	Unlikely	Open ocean
<i>Lasiurus intermedius</i>	Northern Yellow Bat	CC & LSR	Mammal	G4G5	S2S3	--	SSC	Unlikely	Wooded areas near open water or fields
<i>Corynorhinus rafinesquii</i>	Rafinesque's Big-eared Bat	LSR	Mammal	G3G4	S3?	--	R	Unlikely	Pine forests; hardwood forests; caves; abandoned buildings
<i>Geomys pinetis</i>	Southeastern Pocket Gopher	LSR	Mammal	G5	S2	--	T	Unlikely	Open areas with deep, sandy soils
<i>Malaclemys terrapin</i>	Diamondback Terrapin	CC	Reptile	G4	S3	--	U	Unlikely	Entire coast, estuarine and marine edge; All saltmarsh, beaches
<i>Crotalus adamanteus</i>	Eastern Diamond-backed Rattlesnake	CC & LSR	Reptile	G4	S4	--	SSC	Unlikely	Early successional habitats on barrier islands and mainland; pine flatwoods; sandhills
<i>Gopherus polyphemus</i>	Gopher Tortoise	CC & LSR	Reptile	G3	S2	C	T	Unlikely	Sandhills; dry hammocks; longleaf pine-turkey oak woods; old fields
<i>Chelonia mydas</i>	Green Sea Turtle	CC	Reptile	G3	S1	LT	T	Unlikely	Open ocean; sounds; coastal rivers; beaches
<i>Lepidochelys kempii</i>	Kemp's or Atlantic Ridley	CC	Reptile	G1	S1	LE	E	Unlikely	Open ocean; sounds; coastal rivers; beaches
<i>Dermochelys coriacea</i>	Leatherback Sea Turtle	CC	Reptile	G2	S1	LE	E	Unlikely	Open ocean; sounds; coastal beaches
<i>Caretta caretta</i>	Loggerhead Sea Turtle	CC & LSR	Reptile	G3	S2	LT	E	Unlikely	Open ocean; sounds; coastal rivers; beaches
<i>Pituophis melanoleucus melanoleucus</i>	Northern Pine Snake	LSR	Reptile	G4T4	S2	--	SSC	Unlikely	Dry pine or pine-hardwood forests
<i>Ophisaurus attenuatus attenuatus</i>	Slender Glass Lizard	LSR	Reptile	G5T5	S3	--	SSC	Unlikely	Open woods; savannas; old fields; sandhills
<i>Heterodon simus</i>	Southern Hognose Snake	LSR	Reptile	G2	S2	--	T	Unlikely	Sandhills; fallow fields; longleaf pine-turkey oak
<i>Clemmys guttata</i>	Spotted Turtle	CC & LSR	Reptile	G5	S3	--	U	Unlikely	Heavily vegetated swamps, marshes, bogs, and small ponds; nest and possibly hibernate in surrounding uplands
<i>Acacia farnesiana</i>	Sweet Acacia	CC & LSR	Plant	G5	S1	--	SSC	Unlikely	Sandy flats behind dunes; open live oak woods
<i>Amorpha georgiana var. georgiana</i>	Georgia Indigo-bush	CC	Plant	G3T2	S1	--	SSC	Unlikely	Wet to mesic forests; Flint kaolin outcrops; longleaf pine wiregrass or mixed oak woods
<i>Astragalus michauxii</i>	Sandhill Milk-vetch	LSR	Plant	G3	S2	--	T	Unlikely	Longleaf pine-wiregrass savannas; turkey oak scrub
<i>Carex calcifugens</i>	Lime-fleeing Sedge	LSR	Plant	G2G4	S2?	--	SSC	Unlikely	Rich bluff forests; evergreen maritime forests
<i>Forestiera segregata</i>	Florida Wild Privet	CC & LSR	Plant	G4	S2	--	R	Unlikely	Shell mounds on barrier islands in scrub or maritime forests
<i>Hibiscus grandiflorus</i>	Swamp Hibiscus	CC	Plant	G4?	S2	--	SSC	Unlikely	Tidal marshes, coastal flatwoods; wet savannas
<i>Illicium parviflorum</i>	Yellow Anise-tree	CC	Plant	G2	SH	--	SSC	Unlikely	Evergreen hammocks, bayheads
<i>Lachnocaulon beyrichianum</i>	Southern Bog-button	LSR	Plant	G4	S1?	--	SSC	Unlikely	Flatwoods
<i>Lindera melissifolia</i>	Pond Spicebush	CC & LSR	Plant	G2G3	S2	LE	E	Unlikely	Pond margins and wet savannas
<i>Listera australis</i>	Southern Twayblade	CC & LSR	Plant	G4	S2	--	SSC	Unlikely	Poorly drained circumneutral soils
<i>Litsea aestivalis</i>	Pond Spice	CC & LSR	Plant	G3	S2	--	R	Unlikely	Cypress ponds; swamp margins

Table D-1: Protected Species Information
Colonial Terminals, Plant #2
Savannah, Georgia

Scientific Name	Common Name	Area	Group	Global Rank	State Rank	Federal Status	State Status	Found Near Site?	Habitat in Georgia
<i>Magnolia pyramidata</i>	Pyramid Magnolia	LSR	Plant	G4	S3	--	SSC	Unlikely	Bluff and ravine forests
<i>Peltandra sagittifolia</i>	Arrow Arum	LSR	Plant	G3G4	S2?	--	SSC	Unlikely	Swamps; wet hammocks on pristine sphagnum mats
<i>Physostegia leptophylla</i>	Narrowleaf Obedient Plant	CC & LSR	Plant	G4?	S2S3	--	SSC	Unlikely	Freshwater tidal marshes; disjunct in wet savannas of extreme SW Georgia
<i>Rhynchospora punctata</i>	Pineland Beaksedge	CC	Plant	G1?	S1?	--	SSC	Unlikely	Wet savannas, pitcherplant bogs
<i>Sageretia minutiflora</i>	Climbing Buckthorn	CC	Plant	G4	S2	--	T	Unlikely	Calcareous bluff forests; maritime forests over shell mounds
<i>Sapindus marginatus</i>	Soapberry	CC	Plant	G5	S1S2	--	R	Unlikely	Shell mound forests
<i>Sarracenia flava</i>	Yellow Flytrap	LSR	Plant	G5?	S3S4	--	U	Unlikely	Wet savannas, pitcherplant bogs
<i>Sarracenia minor var. minor</i>	Hooded Pitcherplant	CC & LSR	Plant	G4T4	S4	--	U	Unlikely	Wet savannas, pitcherplant bogs
<i>Scutellaria mellichampii</i>	Mellichamp's Skullcap	CC	Plant	G3G4	S2?	--	SSC	Unlikely	Sandy deciduous woods
<i>Silene caroliniana</i>	Carolina Pink	LSR	Plant	G5	S2?	--	SSC	Unlikely	Granite outcrops and sandhills near the Ogeechee and Savannah Rivers
<i>Sporobolus pинетorum</i>	Pineland Dropseed	CC	Plant	G3	S2?	--	SSC	Unlikely	Wet savannas with wiregrass
<i>Stewartia malacodendron</i>	Silky Camellia	LSR	Plant	G4	S2	--	R	Unlikely	Along streams on lower slopes of beech-magnolia or beech-basswood-Florida maple forests
<i>Vaccinium crassifolium</i>	Evergreen Lowbush Blueberry	LSR	Plant	G4G5	SH	--	SSC	Unlikely	Open margins of Carolina bays
<i>Vigna luteola</i>	Wild Yellow Cowpea	CC	Plant	G5	S2?	--	SSC	Unlikely	Open swamps; maritime beaches and tidal flats

Notes

- Not listed by the US Fish and Wildlife Service.
- ? Inexact Numeric Rank. Denotes inexact numeric rank.
- Area Where the organism is listed.
- CC Organism listed in Georgia in Chatham County.
- E State listed as endangered. A species which is in danger of extinction throughout all or part of its range.
- G Global rank.
- G1 or S1 Critically Imperiled. At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
- G2 or S2 Imperiled. At high risk of extinction or elimination due to very restricted range, very few populations, steep declines, or other factors.
- G3 or S3 Vulnerable. At moderate risk of extinction or elimination due to a restricted range, relatively few populations, recent and widespread declines, or other factors.
- G4 or S4 Apparently Secure. Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- G5 or S5 Secure. Common; widespread and abundant.
- GH or SH Possibly Extinct. Known from only historical occurrences but still some hope of rediscovery. There is evidence that the species may be extinct, but not enough to state this with certainty.
- GX or SX Presumed extinct. Not located despite intensive searches and virtually no likelihood of rediscovery.
- LE Federally listed as endangered. A species which is in danger of extinction throughout all or part of its range.
- LSR Organism listed in Georgia in the Lower Savannah River.
- LT Federally listed as threatened. A species which is likely to become an endangered species in the foreseeable future throughout all or parts of its range.
- Q Questionable taxonomy that may reduce conservation priority. Distinctiveness of this entity as a taxon at the current level is questionable.
- R State listed as rare. A species which may not be endangered or threatened but which should be protected because of its scarcity.
- S State rank.
- SNRN Species not ranked, nonbreeding.
- SoC Federally listed candidate species. A species under consideration for official listing for which there is sufficient information to support listing.
- SSC Species of special concern. A species listed as a Georgia species of special concern that is not otherwise categorized.
- T State listed as threatened. A species which is likely to become an endangered species in the foreseeable future throughout all or parts of its range.
- T# Infraspecific Taxon (trinomial). The status of infraspecific taxa (subspecies or varieties) are indicated by a "T-rank" following the species' global rank.
- U State listed as unusual, and thus deserving of special consideration. Plants subject to commercial exploitation would have this status.

Table D-2: Surface Water Data Summary
Colonial Terminals, Plant #2
Savannah, Georgia

ID	Date	PCE µg/L	TCE µg/L	c12DCE µg/L	t12DCE µg/L	11DCE µg/L	Methylene Chloride µg/L	Vinyl Chloride µg/L	Arsenic µg/L	Chromium µg/L	Lead µg/L
SW-1	4/25/2007	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	NA	NA	NA
	8/16/2007	6.4	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	NA	NA	NA
	10/24/2007	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	NA	NA	NA
	9/17/2010	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0
SW-2	4/25/2007	< 1.0	< 1.0	1.2	< 1.0	< 1.0	< 5.0	< 1.0	NA	NA	NA
	8/16/2007	8.5	1.4	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	NA	NA	NA
	10/24/2007	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	NA	NA	NA
	9/17/2010	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0
SW-3	4/25/2007	< 1.0	< 1.0	1.2	< 1.0	< 1.0	< 5.0	< 1.0	NA	NA	NA
	8/16/2007	2.0	< 1.0	1.2	< 1.0	< 1.0	< 5.0	< 1.0	NA	NA	NA
	10/24/2007	< 1.0	< 1.0	1.2	< 1.0	< 1.0	< 5.0	< 1.0	NA	NA	NA
	9/17/2010	< 1.0	< 1.0	1.2	< 1.0	< 1.0	< 5.0	< 1.0	< 2.0	< 1.0	< 1.0
Maximum		8.5	1.4	1.2	--	--	--	--	--	--	--

Notes

-- = not detected

< = less than the laboratory reporting limit indicated for VOCs

< = less than the method detection limit for metals

11DCE = 1,1-dichloroethylene

c12DCE = cis-1,2-dichloroethylene

NA = not analyzed

PCE = tetrachloroethene

t12DCE = trans-1,2-dichloroethylene

TCE = trichloroethene

µg/L = micrograms per liter

Table D-3: Model-Predicted Surface Water Concentrations
Colonial Terminals, Plant #2
Savannah, Georgia

Concentration	PCE µg/L	TCE µg/L	c12DCE µg/L	11DCE µg/L	Vinyl Chloride µg/L	Arsenic µg/L	Lead µg/L
Modeled river concentration based on 7Q10 flow rate	0.00333361	0.00064401	0.00049102	0.00021523	0.00002208	0.00001343	0.00006762
Detection Limit	1.0	1.0	1.0	1.0	1.0	2.0	1.0

Notes

11DCE = 1,1-dichloroethylene

7Q10 = Lowest 7-day average flow that occurs (on average) once every 10 years

c12DCE = cis-1,2-dichloroethylene

PCE = tetrachloroethene

TCE = trichloroethene

µg/L = micrograms per liter

**Table D-4: Surface Water Criteria
Colonial Terminals, Plant #2
Savannah, Georgia**

Constituent	Georgia In-Stream Water Quality Criteria μg/L		USEPA Region 4 Criterion μg/L		Most Stringent Appropriate Criterion (b) μg/L	
	FW	SW	FW	SW		
PCE	3.3 (a)	NC	84	45	45	R4 SW
TCE	30 (a)	NC	NC	NC	45	(c)
c12DCE	10,000 (a, d)	NC	1,350 (e)	NC	1,350	R4 FW
11DCE	7,100 (a)	NC	303	2,240	303	R4 FW
Vinyl Chloride	2.4	NC	NC	NC	45	(c)
Arsenic	150	36	190	36	36	GA SW
Lead	1.2	8.1	1.32	8.5	1.2	GA FW

Notes

(a) = Georgia In-Stream Water Quality Criteria for the volatile organic constituents on this table are not based on ecological endpoints and are not appropriate for ecological risk assessment.

(b) = Freshwater and saltwater criteria are considered because the site is in a tidally-influenced area

(c) = Value for PCE used as a surrogate

(d) = Value for 1,2-Trans-Dichloroethylene used as a surrogate

(e) = Value for 1,2-Trans-Dichloroethylene used as a surrogate

11DCE = 1,1-dichloroethylene

c12DCE = cis-1,2-dichloroethylene

FW = Freshwater

GA = Georgia

NC = no criterion

PCE = tetrachloroethene

R4 = USEPA Region 4

SW = Saltwater

TCE = trichloroethene

ug/L = micrograms per liter

Table D-5: Surface Water Hazard Quotients
Colonial Terminals, Plant #2
Savannah, Georgia

Constituent	Source	Concentration µg/L	Criterion µg/L	Hazard Quotient Unitless
PCE	SW Data max	8.5	45 GA FW	0.2
	GW/SW Model	0.00333361		0.00007
TCE	SW Data max	1.4	45 (a)	0.03
	Model	0.00064401		0.00001
c12DCE	SW Data max	1.2	1,350 R4 FW	0.0009
	Model	0.00049102		0.0000004
11DCE	Model	0.00021523	303 R4 FW	0.0000007
Vinyl Chloride	Model	0.00002208	45 (a)	0.0000005
Arsenic	Model	0.00001343	36 GA SW	0.0000004
Lead	Model	0.00006762	1.2 GA FW	0.00006

Notes

(a) = Value for PCE used as a surrogate

11DCE = 1,1-dichloroethylene

7Q10 = Lowest 7-day average flow that occurs (on average) once every 10 years

c12DCE = cis-1,2-dichloroethylene

FW = Freshwater

GA = Georgia

GW/SW Model = Groundwater river dilution model output under 7Q10 conditions

PCE = tetrachloroethene

R4 = USEPA Region 4

SW = Saltwater

TCE = trichloroethene

ug/L = micrograms per liter

Appendix D Figures

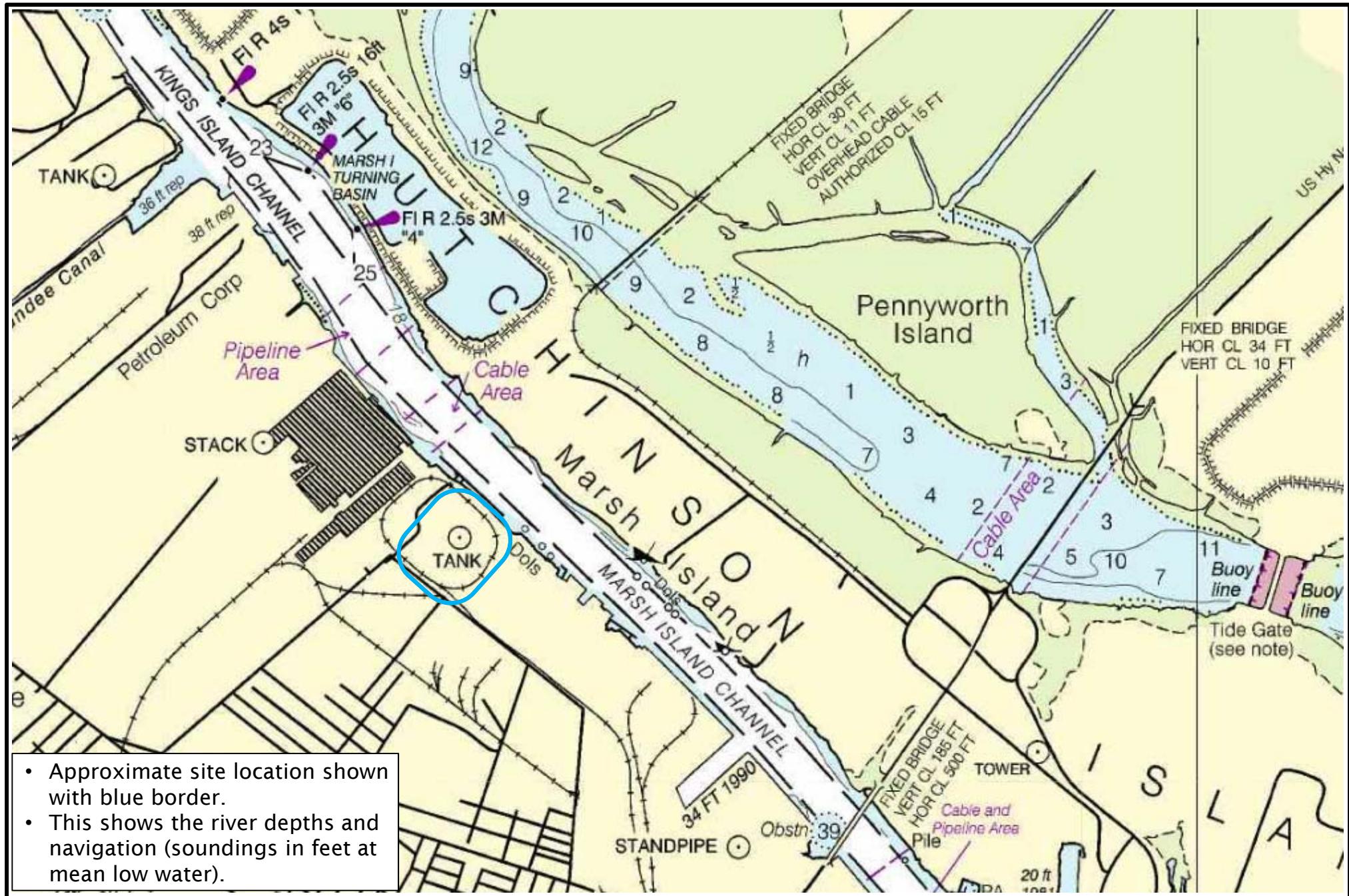
Figure D-1

Aerial Photograph of the Site



Figure D-2

NOAA Navigational Map



- Approximate site location shown with blue border.
 - This shows the river depths and navigation (soundings in feet at mean low water).



Figure D-3

Savannah River Channel Depths

SAVANNAH RIVER CHANNEL DEPTHS							
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUL 2012							
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)						PROJECT DIMENSIONS	
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (MILES)
TYBEE RANGE	43.5	44.5	46.0	42.0	7-12	600	3.79
BLOODY POINT RANGE	41.5	44.0	44.5	42.5	7-12	600	3.41
JONES ISLAND RANGE	42.5	43.5	45.0	43.0	7-12	600	1.33
TYBEE KNOLL CUT RANGE	43.0	44.5	44.0	43.5	7-12	500	2.84
NEW CHANNEL RANGE (A)	37.5	41.0	44.0	40.0	7-12	500	1.89
L. I. CROSSING RANGE	39.5	41.0	42.0	41.0	7-12	500	3.03
LOWER FLATS RANGE	40.0	44.0	44.5	42.5	7-12	500	1.52
UPPER FLATS RANGE	43.5	44.5	46.0	42.5	7-12	500	1.33
THE BIGHT CHANNEL	44.5	45.5	47.5	48.0	7-12	500	1.7
FT. JACKSON RANGE	43.5	46.0	46.0	45.5	7-12	500	0.76
OGLETHORPE RANGE	44.5	45.0	45.5	46.0	7-12	500	1.33
WRECKS CHANNEL (B)	42.0	45.5	47.0	46.0	7-12	500	1.7
CITY FRONT CHANNEL	41.0	45.0	44.5G	39.0	7-12	500	1.7
MARSH ISLAND CHANNEL (C)	40.0H	41.0	43.0	42.0	7-12	500	1.9
KINGS ISLAND CHANNEL (D)	39.5	40.0	42.0	37.5I	7-12	500	2.46
WHITEHALL CHANNEL (E)	29.5	30.0	31.0	30.0	7-12	400	0.66
PORT WENTWORTH CHANNEL (F)	30.0J	27.0	25.0	32.0	12-94; 7-12	200	1.33

Figure D-4

National Wetlands Inventory



U.S. Fish and Wildlife Service

National Wetlands Inventory

Colonial Terminal

Sep 19, 2012



- Approximate site location shown with blue border.

Figure D-5
Surface Water Sampling Locations



Appendix D, Attachment 1
Protected Species Information



U.S. Fish and Wildlife Service

Natural Resources of Concern

This resource list is to be used for planning purposes only — it is not an official species list.

Endangered Species Act species list information for your project is available online and listed below for the following FWS Field Offices:

SOUTH CAROLINA ECOLOGICAL SERVICES
176 CROGHAN SPUR ROAD, SUITE 200
CHARLESTON, SC 29407
(843) 727-4707
<http://www.fws.gov/charleston/>

GEORGIA ECOLOGICAL SERVICES FIELD OFFICE
105 WESTPARK DRIVE
WESTPARK CENTER SUITE D
ATHENS, GA 30606
(706) 613-9493

Project Name:

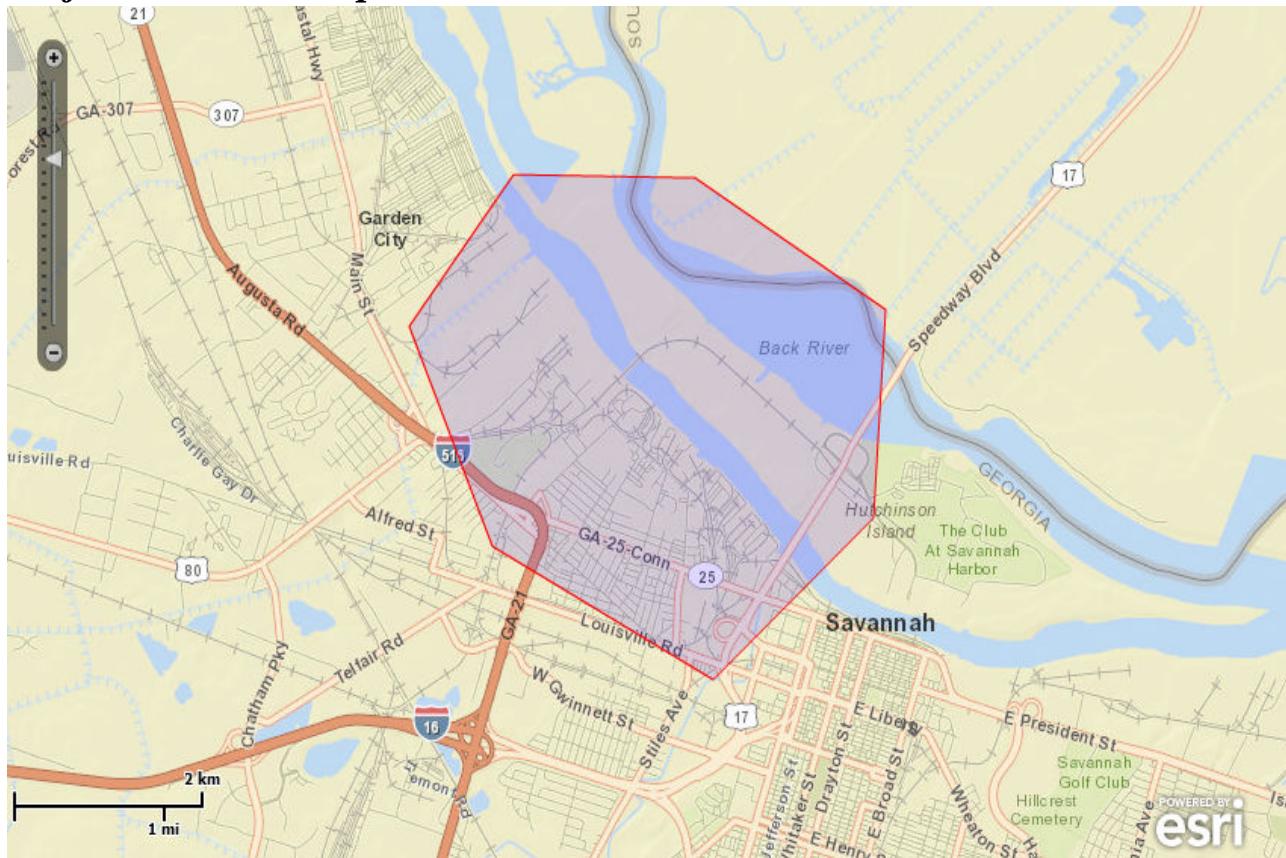
Colonial Terminal



U.S. Fish and Wildlife Service

Natural Resources of Concern

Project Location Map:



Project Location Measurements:

Area : 1206.0 ac.

Length : 5.4 mi.

Project Counties:

Chatham, GA | Jasper, SC

Geographic coordinates (Open Geospatial Consortium Well-Known Text, NAD83):

MULTIPOLYGON (((-81.1101923 32.1204932, -81.0885716 32.1089998, -81.0899449 32.0908225, -81.108141 32.0767144, -81.1332035 32.0883501, -81.1426449 32.1075457, -81.1307917 32.120784, -81.1101923 32.1204932)))



Natural Resources of Concern

Project Type:

** Other **

Endangered Species Act Species List

There are a total of 14 species in your species list

Species that may be affected by your project:

Amphibians			
frosted flatwoods salamander (<i>Ambystoma cingulatum</i>)	Threatened	species info	South Carolina Ecological Services, Georgia Ecological Services Field Office
Birds			
Kirtland's Warbler (<i>Dendroica kirtlandii</i>)	Endangered	species info	South Carolina Ecological Services
Piping Plover (<i>Charadrius melanotos</i>) Population: except Great Lakes watershed	Threatened	species info	South Carolina Ecological Services
Red-Cockaded woodpecker (<i>Picoides borealis</i>)	Endangered	species info	South Carolina Ecological Services, Georgia Ecological Services Field Office
Wood stork (<i>Mycteria americana</i>) Population: AL, FL, GA, SC	Endangered	species info	South Carolina Ecological Services, Georgia Ecological Services Field Office
Fishes			
Shortnose sturgeon (<i>Acipenser brevirostrum</i>)	Endangered	species info	South Carolina Ecological Services, Georgia Ecological Services Field Office
Flowering Plants			



Natural Resources of Concern

American chaffseed (<i>Schwalbea americana</i>)	Endangered	species info	South Carolina Ecological Services
Canby's dropwort (<i>Oxypolis canbyi</i>)	Endangered	species info	South Carolina Ecological Services
pondberry (<i>Lindera melissifolia</i>)	Endangered	species info	South Carolina Ecological Services
Mammals			
North Atlantic right Whale (<i>Eubalaena glacialis</i>)	Endangered	species info	Georgia Ecological Services Field Office
West Indian manatee (<i>Trichechus manatus</i>)	Endangered	species info	South Carolina Ecological Services, Georgia Ecological Services Field Office
Reptiles			
Green sea turtle (<i>Chelonia mydas</i>) Population: except where endangered	Threatened	species info	South Carolina Ecological Services, Georgia Ecological Services Field Office
Kemp's Ridley sea turtle (<i>Lepidochelys kempii</i>)	Endangered	species info	South Carolina Ecological Services
Leatherback sea turtle (<i>Dermochelys coriacea</i>)	Endangered	species info	South Carolina Ecological Services, Georgia Ecological Services Field Office

FWS National Wildlife Refuges

There are 1 refuges in your refuge list

Savannah-pinchney National Wildlife Refuges (843) 784-6751 C/O SAVANNAH COASTAL OFFICE-WASSAW AND TYBEE NATIONAL WILDLIFE REFUGES 1000 BUSINESS CENTER DRIVE, SUITE 10 SAVANNAH, GA31405	refuge profile
--	--------------------------------



U.S. Fish and Wildlife Service

Natural Resources of Concern

FWS Migratory Birds

Not yet available through IPaC.

FWS Delineated Wetlands

Not yet available through IPaC.



WILDLIFE RESOURCES DIVISION

**Known occurrences of special concern plants, animals and natural communities
Chatham County — Fips Code: 13051**

Find details for these species at [Georgia Rare Species and Natural Community Data](#) and [NatureServe Explorer](#).

[US] indicates species with federal status (Protected or Candidate).

Species that are federally protected in Georgia are also state protected.

[GA] indicates Georgia protected species.

link to species profile on our site (not available for all species).

link to report for element on NatureServe Explorer (only available for animals and plants).

Animal Occurrences

- *Acipenser brevirostrum* (Shortnose Sturgeon) [US] - fish
- *Acipenser oxyrinchus oxyrinchus* (Atlantic Sturgeon) - fish
- *Ambystoma cingulatum* (Frosted Flatwoods Salamander) [US] - amphibian
- *Ammodramus maritimus* (Seaside Sparrow) - bird
- *Caretta caretta* (Loggerhead Sea Turtle) [US] - reptile
- *Charadrius melanotos* (Piping Plover) [US] - bird
- *Charadrius wilsonia* (Wilson's Plover) [GA] - bird
- *Chelonia mydas* (Green Sea Turtle) [US] - reptile
- *Clemmys guttata* (Spotted Turtle) [GA] - reptile
- *Crotalus adamanteus* (Eastern Diamond-backed Rattlesnake) - reptile
- *Dermochelys coriacea* (Leatherback Sea Turtle) [US] - reptile
- *Elanoides forficatus* (Swallow-tailed Kite) [GA] - bird
- *Elassoma okatie* (Bluebarred Pygmy Sunfish) [GA] - fish
- *Eubalaena glacialis* (Northern Atlantic Right Whale) [US] - mammal
- *Gopherus polyphemus* (Gopher Tortoise) [US] - reptile
- *Haematopus palliatus* (American Oystercatcher) [GA] - bird
- *Haliaeetus leucocephalus* (Bald Eagle) [GA] - bird
- *Himantopus mexicanus* (Black-necked Stilt) - bird
- *Lanius ludovicianus migrans* (Migrant Loggerhead Shrike) - bird
- *Lasiurus intermedius* (Northern Yellow Bat) - mammal
- *Lepidochelys kempii* (Kemp's or Atlantic Ridley) [US] - reptile
- *Malaclemys terrapin* (Diamondback Terrapin) [GA] - reptile
- *Moxostoma robustum* (Robust Redhorse) [GA] - fish
- *Mycteria americana* (Wood Stork) [US] - bird
- *Nyctanassa violacea* (Yellow-crowned Night-heron) - bird
- *Nycticorax nycticorax* (Black-crowned Night-heron) - bird
- *Passerina ciris* (Painted Bunting) - bird
- *Picoides borealis* (Red-cockaded Woodpecker) [US] - bird
- *Pseudacris brimleyi* (Brimley's Chorus Frog) - amphibian
- *Pseudorca crassidens* (False Killer Whale) - mammal
- *Rana capito* (Gopher Frog) [GA] - amphibian
- *Rynchops niger* (Black Skimmer) [GA] - bird
- *Stereochilus marginatus* (Many-lined Salamander) - amphibian
- *Sternula antillarum* (Least Tern) [GA] - bird
- *Toxolasma pullus* (Savannah Lilliput) [GA] - mollusk
- *Trichechus manatus* (Manatee) [US] - mammal
- *Tyto alba* (Barn owl) - bird
- *Umbra pygmaea* (Eastern Mudminnow) - fish

Community Occurrences

- *Acer rubrum* - *Nyssa biflora* - (*Liquidambar styraciflua*, *Fraxinus sp.*) *Maritime Swamp Forest* (Maritime Swamp Forest)
- *Baccharis halimifolia* - *Iva frutescens* - *Morella cerifera* - (*Ilex vomitoria*) *Shrubland* (Groundsel-tree - Maritime Marsh-elder - Wax-myrtle - (Yaupon) Shrubland)
- *Cakile edentula* ssp. *harperi* *Sparse Vegetation* (South Atlantic Upper Ocean Beach)
- *Cladium mariscus* ssp. *jamaicense* - *Woodwardia virginica* *Herbaceous Vegetation* (Sawgrass Head)
- *Fagus grandifolia* - *Magnolia grandiflora* / *Ilex opaca* - (*Persea borbonia*) / *Mitchella repens* *Forest* (Atlantic Coastal Plain Acidic Loam Beech - Magnolia Forest)
- *Gordonia lasianthus* - *Magnolia virginiana* - *Persea palustris* / *Sphagnum spp.* *Forest* (Loblolly-bay Forest)
- *Juniperus virginiana* var. *silicicola* - (*Quercus virginiana*, *Sabal palmetto*) *Forest* (Cedar - Live Oak - Cabbage Palmetto Marsh Hammock)
- *Juniperus virginiana* var. *silicicola* - *Zanthoxylum clava-herculis* - *Quercus virginiana* - (*Sabal palmetto*) / *Sageretia minutiflora* - (*Sideroxylon tenax*) *Woodland* (Coastal Red-cedar - Toothache-tree - Live Oak - (Cabbage Palmetto) / Small-flower Mock Buckthorn - (Tough Bumelia) Woodland)
- *Liquidambar styraciflua* - *Acer rubrum* - (*Nyssa biflora*) / *Woodwardia virginica* *Forest* (No common name available)
- *Morella cerifera* / *Spartina patens* - (*Juncus roemerianus*) *Shrubland* (Atlantic Coast Interdune Swale)
- *Muhlenbergia filipes* - *Spartina patens* - *Eustachys petraea* *Herbaceous Vegetation* (No common name available)
- *Nyssa biflora* - (*Nyssa aquatica*, *Taxodium distichum*) *Tidal Forest* (Tidal Hardwood Swamp Forest)
- *Nyssa biflora* - *Acer rubrum* var. *rubrum* / *Lyonia lucida* *Forest* (Sandhills Swamp Blackgum Floodplain Forest)
- *Nyssa biflora* - *Acer rubrum* var. *trilobum* - *Liriodendron tulipifera* / *Ilex coriacea* - *Lyonia lucida* *Forest* (Sandhills Swamp Blackgum Hillside Seepage Forest)
- *Nyssa biflora* - *Quercus nigra* - *Quercus laurifolia* - *Pinus taeda* / *Ilex opaca* - *Carpinus caroliniana* *Forest* (Swamp Blackgum - Mixed Hardwood Small Stream Forest)
- *Panicum hemitomon* - *Pluchea (camphorata, rosea)* - *Ludwigia spp.* *Herbaceous Vegetation* (Outer Coastal Plain Maidencane Pond)
- *Pinus elliottii* var. *elliottii* / *Serenoa repens* - *Ilex glabra* *Woodland* (Slash Pine Flatwoods)
- *Pinus glabra* - *Quercus (laurifolia, michauxii, nigra)* / *Carpinus caroliniana* ssp. *caroliniana* / *Sabal minor* *Forest* (Coastal Plain Spruce Pine - Oak Stream Forest)
- *Pinus glabra* - *Quercus virginiana* - *Carya glabra* / *Carpinus caroliniana* / *Serenoa repens* *Forest* (South Atlantic Swamp Island)
- *Pinus palustris* / *Quercus laevis* - *Quercus incana* - *Quercus margarettiae* / *Licania michauxii* / *Aristida beyrichiana* *Woodland* (No common name available)
- *Pinus palustris* / *Serenoa repens* - *Vaccinium myrsinites* / *Aristida beyrichiana* - *Sporobolus curtissii* *Woodland* (South Atlantic Coastal Plain Longleaf Flatwoods)
- *Pinus serotina* / *Gordonia lasianthus* - *Persea palustris* *Saturated Woodland* (Pond Pine - Bay Swamp)
- *Quercus falcata* - *Quercus stellata* - *Carya alba* / *Vaccinium spp.* *Coastal Plain Forest* (Dry Acid Eastern Coastal Plain Oak - Hickory Forest)
- *Quercus geminata* / *Vaccinium arboreum* *Forest* (Southeastern Coastal Plain Xeric Hammock)
- *Quercus hemisphaerica* - *Magnolia grandiflora* - *Carya (glabra, pallida)* / *Vaccinium arboreum* / *Chasmanthium sessiliflorum* *Forest* (Sand Laurel Oak - Mixed Hardwood Upland Forest)
- *Quercus laurifolia* - *Quercus lyrata* / *Carpinus caroliniana* - *Persea palustris* / *Vaccinium elliotii* *Forest* (Atlantic Coastal Plain Blackwater River Terrace and Ridge Forest)
- *Quercus laurifolia* / *Carpinus caroliniana* / *Justicia ovata* *Forest* (Diamondleaf Oak Bottomland Forest)
- *Quercus pagoda* - *Quercus michauxii* - *Quercus alba* / *Arundinaria gigantea* ssp. *tecta* - *Sabal minor* / *Chasmanthium laxum* *Forest* (No common name available)
- *Quercus virginiana* - (*Pinus elliottii* var. *elliottii*, *Sabal palmetto*) / *Persea borbonia* - *Callicarpa americana* *Forest* (Maritime Live Oak Hammock)
- *Quercus virginiana* - (*Pinus taeda*) / (*Sabal minor*, *Serenoa repens*) *Forest* (Outer Coastal Plain Live Oak Levee Forest)
- *Quercus virginiana* - *Quercus hemisphaerica* - *Pinus taeda* - *Quercus falcata* / *Ilex vomitoria* *Forest* (Atlantic Coastal Fringe Evergreen Forest)
- *Quercus virginiana* - *Quercus nigra* - *Quercus pagoda* - *Liquidambar styraciflua* / *Sabal minor* - *Ilex vomitoria* *Forest* (No common name available)
- *Quercus virginiana* - *Quercus pagoda* - *Magnolia grandiflora* - *Carya glabra* / *Ilex opaca* *Forest* (No common name available)
- *Sabal palmetto* - (*Juniperus virginiana* var. *silicicola*) *Woodland* (No common name available)
- *Sabal palmetto* / *Glyceria septentrionalis* - *Carex stipata* - *Woodwardia virginica* *Woodland* (Atlantic Coast Cabbage Palmetto Dune Swale)
- *Salix caroliniana* *Temporarily Flooded Shrubland* (Carolina Willow Shrubland)
- *Schoenoplectus americanus* - *Spartina patens* *Herbaceous Vegetation* (Transitional Tidal Marsh)
- *Spartina bakeri* - *Kosteletzkya virginica* *Herbaceous Vegetation* (No common name available)
- *Spartina bakeri* - *Woodwardia virginica* - *Saccharum giganteum* *Herbaceous Vegetation* (South Atlantic Coastal Pond)
- *Spartina cynosuroides* *Herbaceous Vegetation* (Atlantic Giant Cordgrass Marsh)
- *Taxodium distichum* - *Nyssa aquatica* - *Nyssa biflora* / *Fraxinus caroliniana* / *Itea virginica* *Forest* (Atlantic Coastal Plain Bald-cypress - Water Tupelo Blackwater Small Stream Swamp Forest)
- *Uniola paniculata* - *Hydrocotyle bonariensis* *Herbaceous Vegetation* (No common name available)

Other Occurrences

- *Wading Bird Colony* (Wading Bird Colony)

Plant Occurrences

- *Acacia farnesiana* (Sweet Acacia)
- *Amorpha georgiana* var. *georgiana* (Georgia Indigo-bush)
- *Forestiera segregata* (Florida Wild Privet) [GA]
- *Hibiscus grandiflorus* (Swamp Hibiscus)
- *Illicium parviflorum* (Yellow Anise-tree)

- *Lindera melissifolia* (Pond Spicebush) [US]  
- *Physostegia leptophylla* (Narrowleaf Obedient Plant)  
- *Rhynchospora punctata* (Pineland Beaksedge)  
- *Sageretia minutiflora* (Climbing Buckthorn) [GA]  
- *Sapindus marginatus* (Soapberry) [GA]  
- *Sarracenia minor var. minor* (Hooded Pitcherplant) [GA]  
- *Scutellaria mellichampii* (Mellichamp's Skulcap)  
- *Sporobolus pinetorum* (Pineland Dropseed)  
- *Vigna luteola* (Wild Yellow Cowpea)  

Generated from Georgia DNR's NatureServe Biotics conservation database on October 12, 2011



WILDLIFE RESOURCES DIVISION

Known occurrences of special concern plants, animals and natural communities Savannah River, Lower Watershed — HUC8 Watershed Code: 03060109

Find details for these species at [Georgia Rare Species and Natural Community Data](#) and [NatureServe Explorer](#).

[US] indicates species with federal status (Protected or Candidate).

Species that are federally protected in Georgia are also state protected.

[GA] indicates Georgia protected species.

link to species profile on our site (not available for all species).

link to report for element on NatureServe Explorer (only available for animals and plants).

Animal Occurrences

- *Acipenser brevirostrum* (Shortnose Sturgeon) **[US]** - fish
- *Acipenser oxyrinchus oxyrinchus* (Atlantic Sturgeon) - fish
- *Ambystoma cingulatum* (Frosted Flatwoods Salamander) **[US]** - amphibian
- *Caretta caretta* (Loggerhead Sea Turtle) **[US]** - reptile
- *Chologaster cornuta* (Swampfish) - fish
- *Clemmys guttata* (Spotted Turtle) **[GA]** - reptile
- *Cordulegaster sayi* (Say's Spiketail) **[GA]** - insect
- *Corynorhinus rafinesquii* (Rafinesque's Big-eared Bat) **[GA]** - mammal
- *Crotalus adamanteus* (Eastern Diamond-backed Rattlesnake) - reptile
- *Elanoides forficatus* (Swallow-tailed Kite) **[GA]** - bird
- *Elassoma okatie* (Bluebarred Pygmy Sunfish) **[GA]** - fish
- *Etheostoma fricksium* (Savannah Darter) - fish
- *Etheostoma serrifer* (Sawcheek Darter) - fish
- *Eubalaena glacialis* (Northern Atlantic Right Whale) **[US]** - mammal
- *Geomys pinetis* (Southeastern Pocket Gopher) **[GA]** - mammal
- *Gopherus polyphemus* (Gopher Tortoise) **[US]** - reptile
- *Haliaeetus leucocephalus* (Bald Eagle) **[GA]** - bird
- *Heterodon simus* (Southern Hognose Snake) **[GA]** - reptile
- *Himantopus mexicanus* (Black-necked Stilt) - bird
- *Lampsilis cariosa* (Yellow Lampmussel) - mollusk
- *Lasius intermedium* (Northern Yellow Bat) - mammal
- *Moxostoma sp. 4* (Brassy Jumperock) - fish
- *Notropis chalybaeus* (Ironcolor Shiner) - fish
- *Nycticorax nycticorax* (Black-crowned Night-heron) - bird
- *Ophisaurus attenuatus* (Slender Glass Lizard) - reptile
- *Passerina ciris* (Painted Bunting) - bird
- *Picoides borealis* (Red-cockaded Woodpecker) **[US]** - bird
- *Pituophis melanoleucus melanoleucus* (Northern Pine Snake) - reptile
- *Pseudacris brimleyi* (Brimley's Chorus Frog) - amphibian
- *Pseudobranchus striatus striatus* (Broad-striped Dwarf Siren) - amphibian
- *Pseudorca crassidens* (False Killer Whale) - mammal
- *Rana virgatipes* (Carpenter Frog) - amphibian
- *Rynchops niger* (Black Skimmer) **[GA]** - bird
- *Stereochilus marginatus* (Many-lined Salamander) - amphibian
- *Sternula antillarum* (Least Tern) **[GA]** - bird
- *Toxolasma pullus* (Savannah Lilliput) **[GA]** - mollusk
- *Trichechus manatus* (Manatee) **[US]** - mammal
- *Troglodytes troglodytes* (Winter Wren) - bird
- *Tyto alba* (Barn owl) - bird

Community Occurrences

- *Blackwater stream floodplain forest* (Blackwater Swamp)
- *Cp mesic broadleaf decid.-broadleaf ever. forest* (Coastal Plain Mesic Ravine Forest)
- *Juniperus virginiana* var. *silicicola* - (*Quercus virginiana*, *Sabal palmetto*) *Forest* (Cedar - Live Oak - Cabbage Palmetto Marsh Hammock)
- *Liquidambar styraciflua* - *Acer rubrum* - (*Nyssa biflora*) / *Woodwardia virginica* *Forest* (No common name available)
- *Nyssa biflora* - (*Nyssa aquatica*, *Taxodium distichum*) *Tidal Forest* (Tidal Hardwood Swamp Forest)
- *Nyssa biflora* - *Acer rubrum* var. *rubrum* / *Lyonia lucida* *Forest* (Sandhills Swamp Blackgum Floodplain Forest)
- *Nyssa biflora* - *Quercus nigra* - *Quercus laurifolia* - *Pinus taeda* / *Ilex opaca* - *Carpinus caroliniana* *Forest* (Swamp Blackgum - Mixed Hardwood Small Stream Forest)
- *Open water/aquatic bed veg.*, *carolina bay* (Open-water Carolina Bay)
- *Pinus elliottii* var. *elliottii* / *Serenoa repens* - *Ilex glabra* *Woodland* (Slash Pine Flatwoods)
- *Quercus laurifolia* / *Carpinus caroliniana* / *Justicia ovata* *Forest* (Diamondleaf Oak Bottomland Forest)
- *Schoenoplectus americanus* - *Spartina patens* *Herbaceous Vegetation* (Transitional Tidal Marsh)
- *Spartina cynosuroides* *Herbaceous Vegetation* (Atlantic Giant Cordgrass Marsh)
- *Taxodium distichum* - *Nyssa aquatica* - *Nyssa biflora* / *Fraxinus caroliniana* / *Itea virginica* *Forest* (Atlantic Coastal Plain Bald-cypress - Water Tupelo Blackwater Small Stream Swamp Forest)

Other Occurrences

- *Wading Bird Colony* (Wading Bird Colony)

Plant Occurrences

- *Acacia farnesiana* (Sweet Acacia) 
- *Astragalus michauxii* (Sandhill Milk-vetch) [GA]  
- *Carex calcifugens* (Lime-fleeing Sedge) 
- *Forestiera segregata* (Florida Wild Privet) [GA]  
- *Lachnocaulon beyrichianum* (Southern Bog-button)  
- *Lindera melissifolia* (Pond Spicebush) [US]  
- *Listera australis* (Southern Twayblade) 
- *Litsea aestivalis* (Pond Spice) [GA]  
- *Magnolia pyramidata* (Pyramid Magnolia)
- *Peltandra sagittifolia* (Arrow Arum) 
- *Physostegia leptophylla* (Narrowleaf Obedient Plant) 
- *Sarracenia flava* (Yellow Flytrap) [GA]  
- *Sarracenia minor* var. *minor* (Hooded Pitcherplant) [GA] 
- *Silene caroliniana* (Carolina Pink) 
- *Stewartia malacodendron* (Silky Camellia) [GA]  
- *Vaccinium crassifolium* (Evergreen Lowbush Blueberry) 

Generated from Georgia DNR's NatureServe Biotics conservation database on October 13, 2011

Appendix D, Attachment 2
Fishery Maps from the Savannah Harbor Expansion Project

ENVIRONMENTAL IMPACT STATEMENT

APPENDIX P: Fishery Habitat Maps

SAVANNAH HARBOR EXPANSION PROJECT

Chatham County, Georgia and Jasper County, South Carolina

January 2012



**US Army Corps
of Engineers**
*Savannah District
South Atlantic Division*

**Savannah Harbor Expansion
Fishery Impacts**

American Shad

Existing Conditions (42 ft depth)
May 50th percentile flow

Legend

- shoreline
- Habitat Suitability
- DOexisting50
- Pass

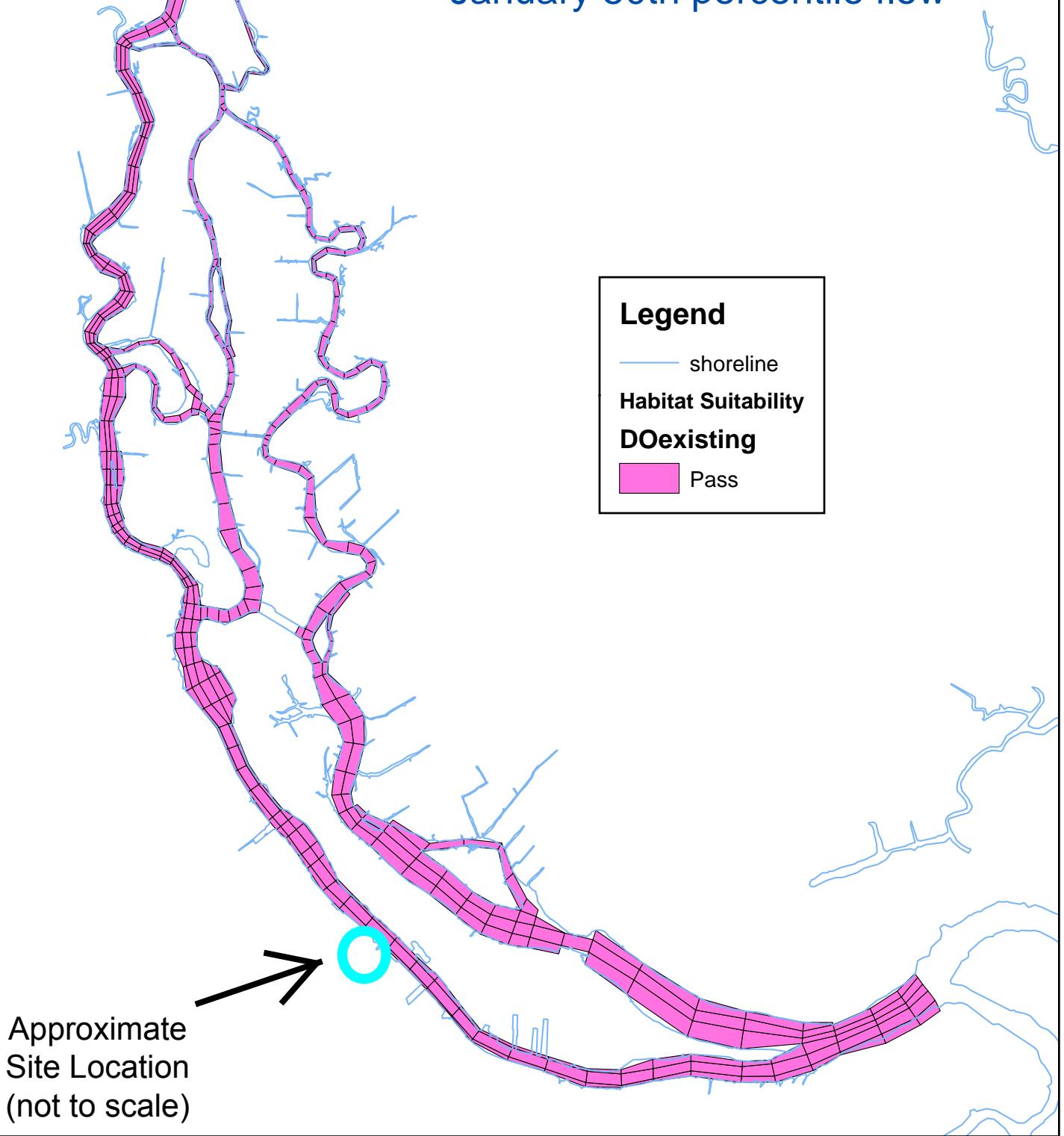
Approximate
Site Location
(not to scale)

**Savannah Harbor Expansion
Fishery Impacts**

American Shad

Existing Conditions (42 ft depth)
January 50th percentile flow

Legend	
—	shoreline
Habitat Suitability	
DOexisting	Pass



**Savannah Harbor Expansion
Fishery Impacts**

Striped Bass Eggs

Existing Conditions (42 ft depth)
April, 50th percentile flows

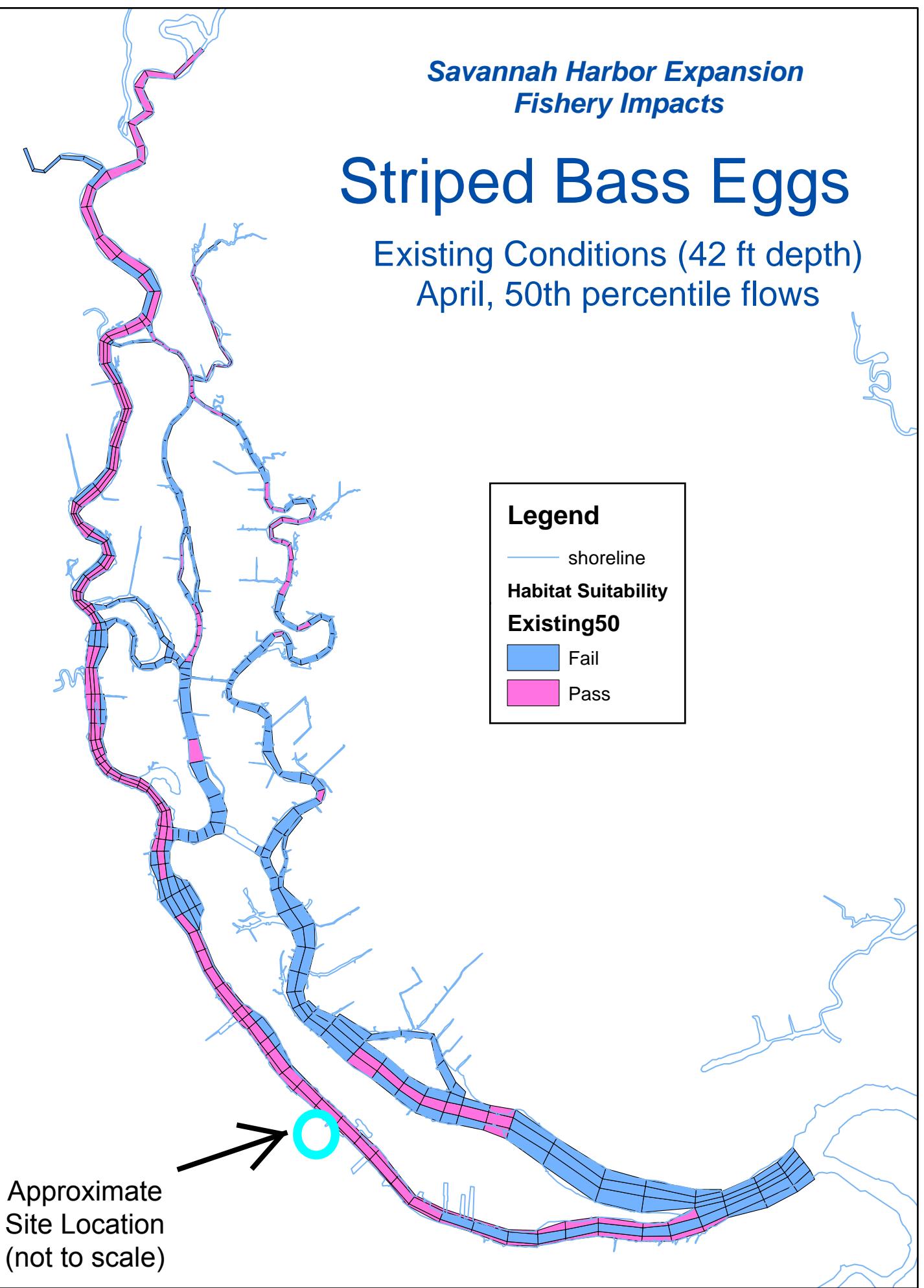
Legend

— shoreline

Habitat Suitability

Existing50

- Fail
- Pass



*Savannah Harbor Expansion
Fishery Impacts*

Striped Bass Larvae

Existing Conditions (42 ft depth)
May, 50th percentile flows

Legend	
—	shoreline
Habitat Suitability	
HabExMay50	
■	FAIL
■	PASS

Approximate
Site Location
(not to scale)

**Savannah Harbor Expansion
Fishery Impacts**

Striped Bass Spawning

Existing Conditions (42 ft depth)
April, 50th percentile flows

Legend

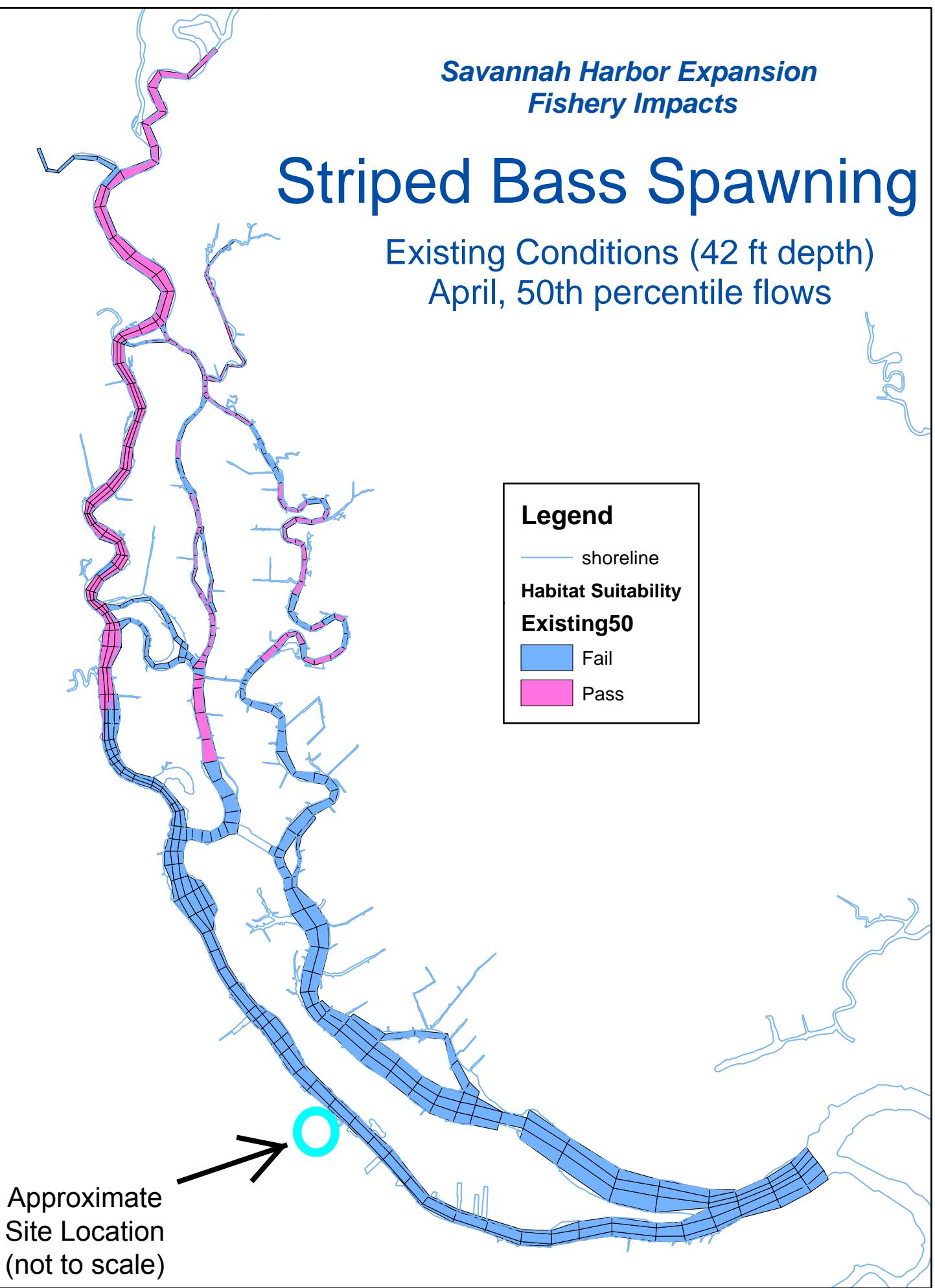
— shoreline

Habitat Suitability

Existing50

Fail

Pass



ENVIRONMENTAL IMPACT STATEMENT

APPENDIX P: Fishery Habitat Maps

SAVANNAH HARBOR EXPANSION PROJECT

Chatham County, Georgia and Jasper County, South Carolina

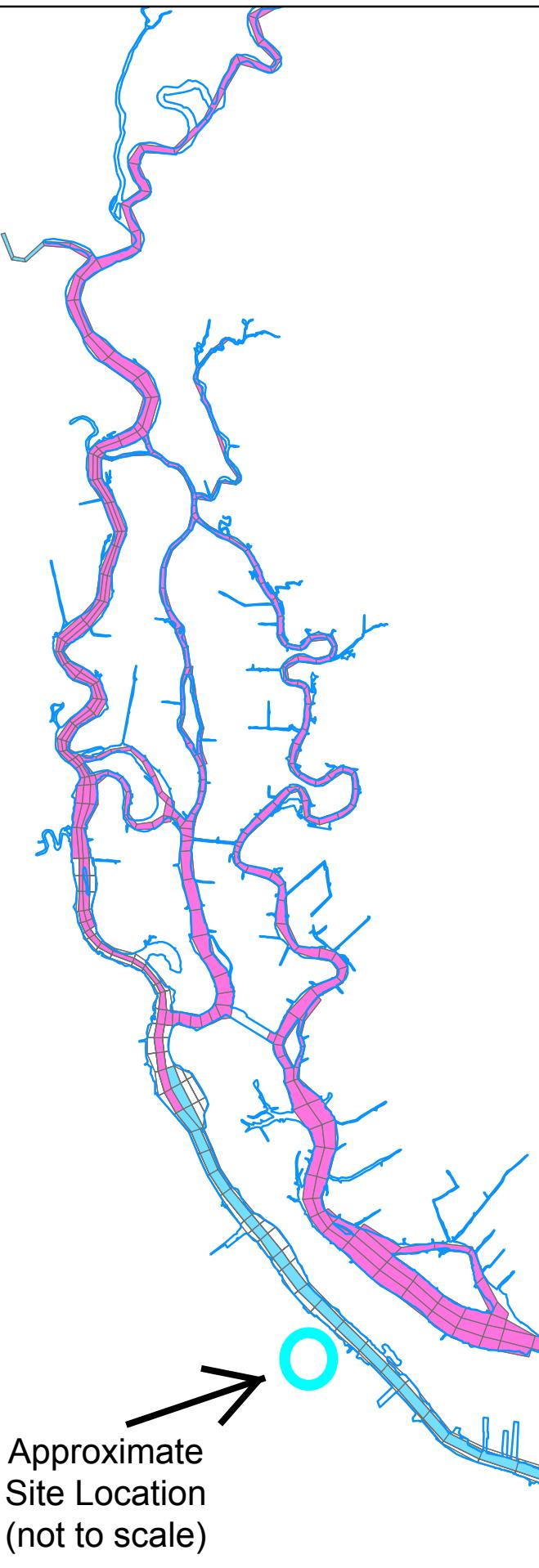
January 2012

ATTACHMENT 1

Revised Shortnose Sturgeon Habitat Maps
March 2011



**US Army Corps
of Engineers**
*Savannah District
South Atlantic Division*



Savannah Harbor Expansion Fishery Impacts

Habitat Suitability for Juvenile Shortnose Sturgeon

Existing Conditions ONLY
NO Deepening
NO Mitigation

Analysis period is January with
2004 point source discharges.

Habitat Suitability

[white square]	n/a
[blue square]	Unsuitable Habitat (Fail)
[pink square]	Suitable Habitat (Pass)

Suitable Habitat when:

D.O.
 $\geq 3.5 \text{ mg/L}$ at 90% exceedance
 $\geq 3.0 \text{ mg/L}$ at 95% exceedance
 $\geq 2.0 \text{ mg/L}$ at 99% exceedance

Salinity
50% exceedance of max salinity $\leq 14.9 \text{ ppt}$

Savannah Harbor Expansion Project

Shortnose Sturgeon Habitat Suitability

Existing Conditions

NO Deepening
NO Mitigation

Analysis period is August with
2004 Point Source Discharges

Habitat Suitability

Habitat Criteria:

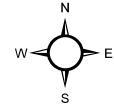
D.O. August:

10 percentile $\geq 4.0 \text{ mg/L}$
5 percentile $\geq 3.0 \text{ mg/L}$
1 percentile $\geq 2.0 \text{ mg/L}$

Max Salinity $\leq 10 \text{ ppt}$

 Unusable Habitat (Fail)

 Suitable Habitat (Pass)



95

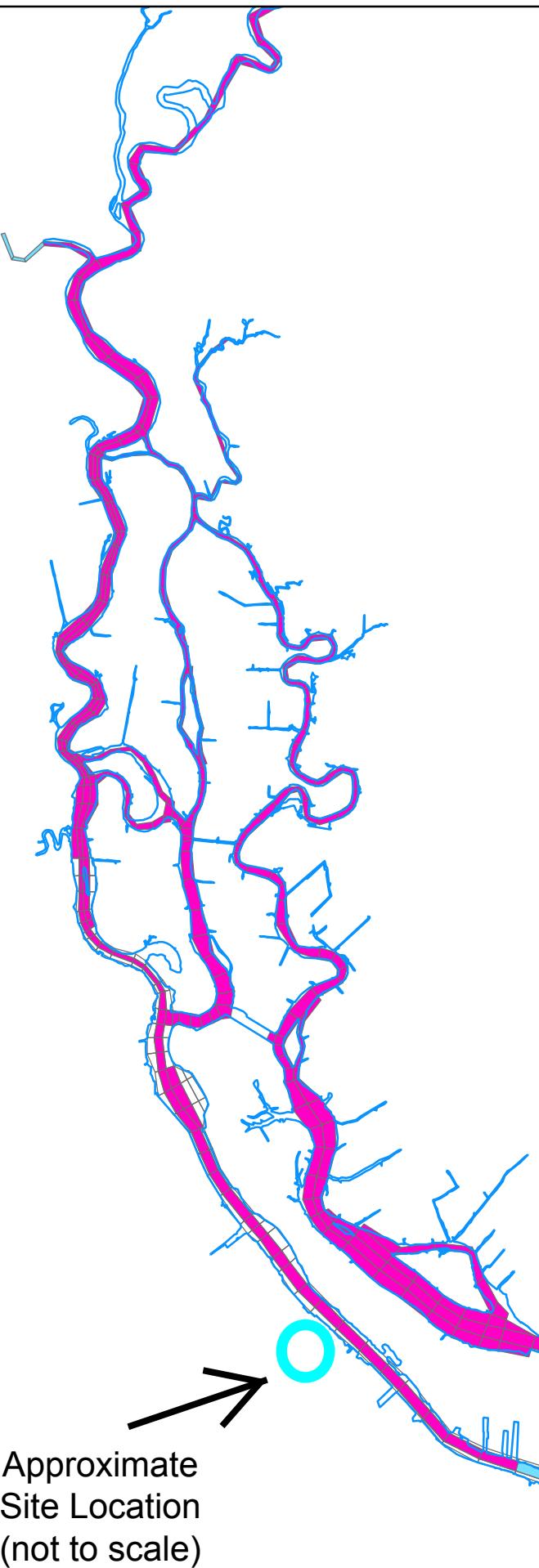
321

17

Approximate
Site Location
(not to scale)

516

0 2 4
Miles



Approximate
Site Location
(not to scale)

Savannah Harbor Expansion Fishery Impacts

Habitat Suitability for Adult Shortnose Sturgeon

Existing Conditions ONLY
NO Deepening
NO Mitigation

Analysis period is January with
2004 point source discharges.

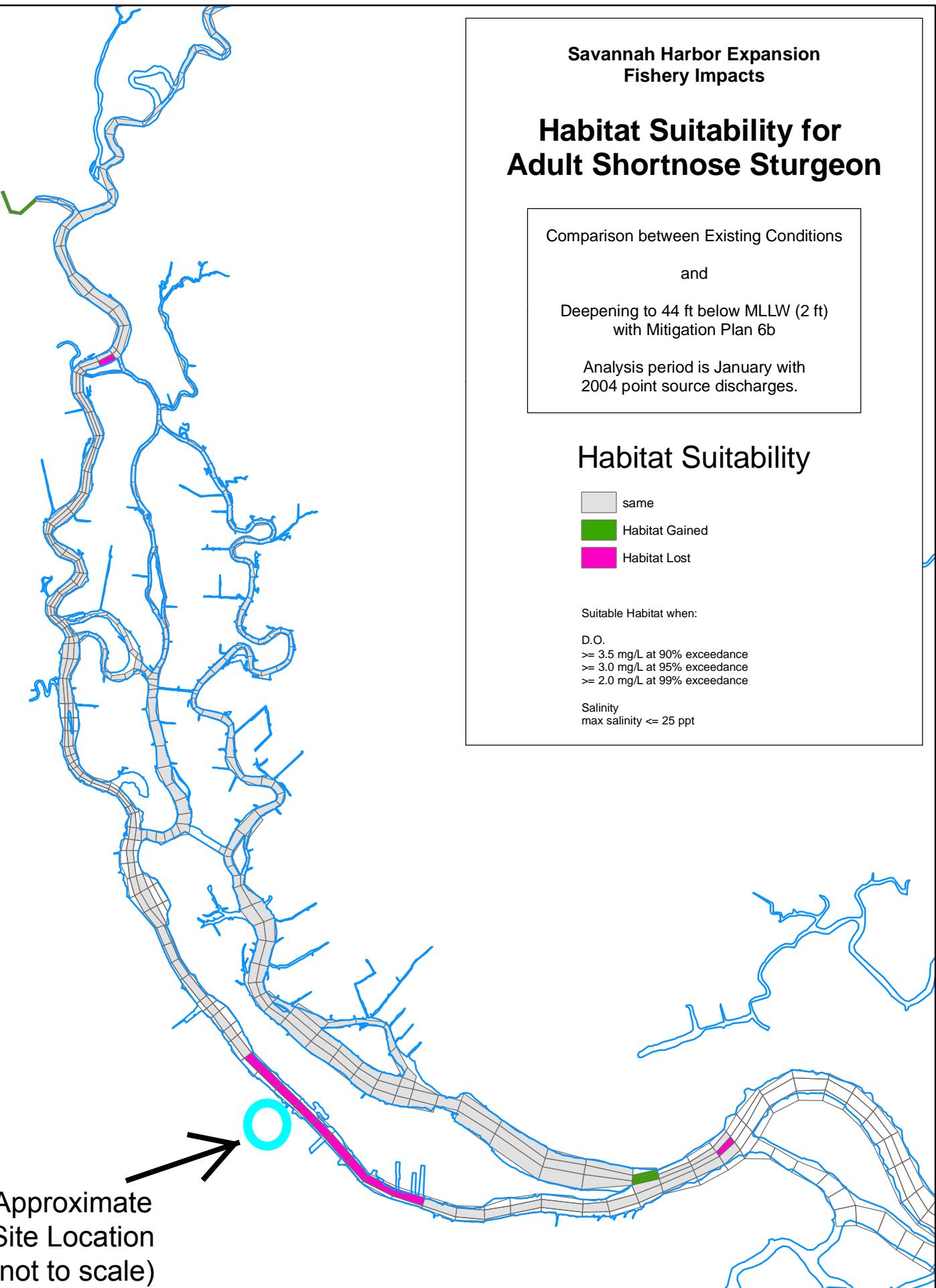
Habitat Suitability

- [White Box] n/a
- [Blue Box] Unusable Habitat (Fail)
- [Pink Box] Suitable Habitat (Pass)

Suitable Habitat when:

D.O.
 $\geq 3.5 \text{ mg/L}$ at 90% exceedance
 $\geq 3.0 \text{ mg/L}$ at 95% exceedance
 $\geq 2.0 \text{ mg/L}$ at 99% exceedance

Salinity
max salinity $\leq 25 \text{ ppt}$



Appendix E

Calculation of Risk Reduction Standards and UCLs

Appendix E

Calculation of Risk Reduction Standards and UCLs

Table E.1 - Example Calculation of Type 4 Risk Reduction Standards for Soil
Colonial Terminals - HSI No. 10098
Savannah, Georgia

ROUTE-SPECIFIC RRSs:

Oral:

$$(RRS_o)_{C \text{ or } NC} = \frac{(TCR \text{ or } THI) \times BW \times (AT_C \text{ or } AT_{NC}) \times (10^6 \text{ mg/kg})}{IRs \times EF \times ED \times [SF_O \text{ or } (1/RfD_O)]}$$

Inhalation:

$$(RRS_i)_{C \text{ or } NC} = \frac{(TCR \text{ or } THI) \times (AT_C \text{ or } AT_{NC}) \times BW}{[(1/VF) + (1/PEF)] \times IRair \times EF \times ED \times [SF_i \text{ or } (1/RfD_i)]}$$

where:

$$VF = \frac{LS \times V \times DH}{A} \times \frac{(3.14 \times \alpha \times T)^{1/2}}{2 \times Dei \times E \times Kas \times (10^3 \text{ kg/g})}$$

$$\alpha = \frac{Dei \times E}{E + [ps \times (1-E)/Kas]}$$

$$Dei = Di \times E^{0.33}$$

$$Kas = H/(RT \times Kd)$$

Cancer Effects RRS:

$$RRS_C = \frac{1}{\frac{1}{(RRS_O)_C} + \frac{1}{(RRS_i)_C}}$$

Non-Cancer Effects RRS:

$$RRS_{NC} = \frac{1}{\frac{1}{(RRS_O)_{NC}} + \frac{1}{(RRS_i)_{NC}}}$$

Soil RRS

= Minimum result of RRS_C and RRS_{NC} .

where:

α Alpha; calculation intermediate (cm^2/sec).

A Contiguous area of contamination ($20,250,000 \text{ cm}^2$; EPA [1991] default).

AT_C Averaging time for cancer effects (25,550 days).

AT_{NC} Averaging time for non-cancer effects; $ED \times 365$ days/year.

BW Body weight (70 kg adult) (GAEPD, 2003).

DH Diffusion Height (2 m, EPA [1991] default)

Dei Effective diffusivity (cm^2/sec).

Di Diffusivity in air (cm^2/sec); constituent specific.

E Total soil porosity (0.35 unitless, EPA default).

ED Exposure duration (25 years industrial (GAEPD, 2003); 25 years utility; 1 year construction).

EF Exposure frequency (250 days/year industrial (GAEPD, 2003); 5 days/year utility; 65 days/year construction).

Foc Fraction organic carbon in soil (0.002 unitless, EPA default).

H Henry's Law Constant ($\text{atm}\cdot\text{m}^3/\text{mol}$); constituent specific.

H' Dimensionless Henry's Law Constant.

IR_{air} Inhalation rate ($20 \text{ m}^3/\text{day}$ industrial (GAEPD, 2003)).

IR_{soil} Incidental soil ingestion rate (50 mg/day industrial (GAEPD 2003); 330 mg/kg utility; 330 mg/kg construction).

Kas Soil-air partition coefficient ($\text{g soil}/\text{cm}^3 \text{ air}$).

Kd Soil-water partition coefficient (cm^3/g or mL/g); constituent specific. Kd is calculated as Foc x Koc.

Koc Organic carbon partition coefficient (cm^3/g or mL/g); constituent specific.

LS Length of side of contaminated area (45 m, EPA default).

PEF Particulate emission factor ($4.63 \times 10^9 \text{ m}^3/\text{kg}$) (GAEPD, 2003).

ps True soil or particle density (2.65 g/cm^3 , EPA default).

RfDi Reference dose for inhalation (mg/kg/day).

RfDo Reference dose for ingestion (mg/kg/day).

RPF Respirable particle fraction (0.036 g/m²/hr).

RRS Risk reduction standard for soil (mg/kg); minimum of the RRS_C (based on cancer effects) and the RRS_{NC} (based on non-cancer effects), which are based on the route-specific RRSs (RRSo for the oral route and RRsi for the inhalation route).

RT Product of the ideal gas constant ($8.206 \times 10^{-5} \text{ atm}\cdot\text{m}^3/\text{mol}\cdot\text{K}$) and the absolute temperature (K); $RT = 0.02445 \text{ atm}\cdot\text{m}^3/\text{mol}$ at 25°C (298 K).

**Table E.1 - Example Calculation of Type 4 Risk Reduction Standards for Soil
Colonial Terminals - HSI No. 10098
Savannah, Georgia**

SF	Cancer slope factor or oral (SF_o) or inhalation (SF_i) exposure (kg-day/mg).
T	Exposure interval (7.9×10^8 sec, EPA default).
TCR	Target cancer risk (unitless); results presented for TCR value of 10^{-5} (10^{-4} for Class C carcinogens).
THI	Target hazard index (unitless); results presented for THI value of 1.
V	Wind speed in the mixing zone (2.25 m/sec, EPA default).
VF	Volatilization factor (m^3/kg).

SAMPLE CALCULATIONS, Tetrachloroethene, Industrial Exposure (Type 4).

$$\begin{aligned}
 Dei &= 0.05 \text{ cm}^2/\text{sec} \times (0.35)^{0.33} = 0.0354 \text{ cm}^2/\text{sec} \\
 Kas &= \frac{1.76 \times 10^2 \text{ atm-m}^3/\text{mol}}{(0.02445 \text{ atm-m}^3/\text{mol}) \times 1.9 \text{ cm}^3/\text{g}} = 3.79E-01 \text{ g/cm}^3 \\
 \alpha &= \frac{0.0354 \text{ cm}^2/\text{sec} \times 0.35}{0.35 + [2.65 \text{ g/cm}^3 \times (1 - 0.35)/3.79 \times 10^{-1} \text{ g/cm}^3]} \\
 &= 2.53E-03 \text{ cm}^2/\text{sec} \\
 VF &= \frac{45 \text{ m} * 2.25 \text{ m/s} * 2 \text{ m}}{2.03 \times 10^7 \text{ cm}^2} \times \frac{(3.14 \times 2.53 \times 10^3 \text{ cm}^2/\text{sec} \times 7.9 \times 10^8 \text{ sec})^{1/2}}{2 \times 0.0354 \text{ cm}^2/\text{sec} \times 0.35 \times 3.36 \times 10^{-1} \text{ g/cm}^3 \times 10^{-3} \text{ kg/g}} \\
 VF &= 2,700 \text{ m}^3/\text{kg}
 \end{aligned}$$

CANCER EFFECTS:

Oral:

$$\begin{aligned}
 (RRS_O)_C &= \frac{10^{-5} \times 70 \text{ kg} \times 25,550 \text{ days} \times 10^6 \text{ mg/kg}}{50 \text{ mg/day} \times 250 \text{ days/yr} \times 25 \text{ yrs} \times (0.0021 \text{ kg-day/mg})} \\
 &= 27,000 \text{ mg/kg}
 \end{aligned}$$

Inhalation:

$$\begin{aligned}
 (RRS_I)_C &= \frac{10^{-5} \times 70 \text{ kg} \times 25,550 \text{ days}}{(1/2.70 \times 10^3 \text{ m}^3/\text{kg} + 1/4.63 \times 10^9 \text{ m}^3/\text{kg}) \times 250 \text{ days/yr} \times 25 \text{ yrs} \times 20 \text{ m}^3/\text{day} \times 0.000091 \text{ kg-day/mg}} \\
 &= 4,200 \text{ mg/kg}
 \end{aligned}$$

CANCER EFFECTS RRS:

$$RRS_C = \frac{1}{\frac{1}{27,000} + \frac{1}{4,200}} = 3,600 \text{ mg/kg}$$

NON-CANCER EFFECTS:

Oral:

$$\begin{aligned}
 (RRS_{NC})_O &= \frac{1 \times 70 \text{ kg} \times 9,125 \text{ days} \times 10^6 \text{ mg/kg}}{50 \text{ mg/day} \times 250 \text{ days/yr} \times 25 \text{ yrs} \times (1/0.006 \text{ mg/kg-day})} \\
 &= 12,000 \text{ mg/kg}
 \end{aligned}$$

Inhalation:

$$\begin{aligned}
 (RRS_{NC})_I &= \frac{1 \times 70 \text{ kg} \times 9,125 \text{ days}}{(1/2.70 \times 10^3 \text{ m}^3/\text{kg} + 1/4.63 \times 10^9 \text{ m}^3/\text{kg}) \times 250 \text{ days/yr} \times 25 \text{ yrs} \times 20 \text{ m}^3/\text{day} \times (1/0.011 \text{ mg/kg-day})} \\
 &= 150 \text{ mg/kg}
 \end{aligned}$$

NON-CANCER EFFECTS RRS:

$$RRS_{NC} = \frac{1}{\frac{1}{12,000 \text{ mg/kg}} + \frac{1}{150 \text{ mg/kg}}} = 150 \text{ mg/kg}$$

Soil RRS = Minimum result of RRS_C (3,600 mg/kg) and RRS_{NC} (150 mg/kg) = 150 mg/kg

Table E.2 - Physical-Chemical Properties
Colonial Terminals - HSI No. 10098
Savannah, Georgia

Constituent	Molecular Weight (g/mole)	Di		Dei (cm ² /sec) (calc)	H		Kd		Kas (g/cm ³) (calc)	alpha (cm ² /sec) (calc)	Volatile*	VF (m ³ /kg) (calc)
		(cm ² /sec)	(ref)		(atm-m ³ /mol)	(ref)	(cm ³ /g)	(ref)				
1,1-Dichloroethene	96.94	8.60E-02	ORNL	6.08E-02	2.68E-02	ORNL	6.36E-01	ORNL	1.72E+00	1.58E-02	YES	8.53E+02
cis-1,2-Dichloroethene	96.94	8.80E-02	ORNL	6.22E-02	4.15E-03	ORNL	7.92E-01	ORNL	2.14E-01	2.59E-03	YES	2.72E+03
trans-1,2-Dichloroethene	96.94	8.80E-02	ORNL	6.22E-02	4.15E-03	ORNL	7.92E-01	ORNL	2.14E-01	2.59E-03	YES	2.72E+03
Methylene Chloride	84.93	1.00E-01	ORNL	7.07E-02	3.17E-03	ORNL	4.35E-01	ORNL	2.98E-01	4.04E-03	YES	2.14E+03
Tetrachloroethene	165.83	5.00E-02	ORNL	3.54E-02	1.76E-02	ORNL	1.90E+00	ORNL	3.78E-01	2.52E-03	YES	2.67E+03
Trichloroethene	131.39	6.90E-02	ORNL	4.88E-02	9.76E-03	ORNL	1.21E+00	ORNL	3.29E-01	3.05E-03	YES	2.45E+03
Vinyl Chloride	62.5	1.10E-01	ORNL	7.78E-02	2.68E-02	ORNL	4.35E-01	ORNL	2.52E+00	2.64E-02	YES	5.88E+02
2,4-Dinitrotoluene	182.14	0.00E+00	ORNL	0.00E+00	5.37E-08	ORNL	1.15E+01	ORNL	1.91E-07	0.00E+00	No	
Antimony	124.78	—	40	—	0.00E+00	0	4.50E+01	44	0.00E+00	—	No	
Arsenic	77.95	—	40	—	0.00E+00	0	2.90E+01	44	0.00E+00	—	No	
Barium	137.33	—	40	—	0.00E+00	0	4.10E+01	44	0.00E+00	—	No	
Beryllium	9.01	—	40	—	0.00E+00	0	7.90E+02	44	0.00E+00	—	No	
Cadmium	112.41	—	40	—	0.00E+00	0	7.50E+01	44	0.00E+00	—	No	
Chromium (total)	52	—	40	—	0.00E+00	0	1.90E+01	44	0.00E+00	—	No	
Chromium III	0	—	0	—	0.00E+00	0	1.80E+06	44	0.00E+00	—	No	
Chromium VI	0	—	40	—	0.00E+00	0	1.90E+01	44	0.00E+00	—	No	
Copper	63.55	—	40	—	0.00E+00	0	4.30E+02	50.2	0.00E+00	—	No	
Lead	207.2	—	—	—	0.00E+00		9.00E+02	50.2	0.00E+00	—	No	
Mercury	200.59	3.07E-02	44	2.17E-02	4.67E-01	44	5.20E+01	44	3.67E-01	1.51E-03	No	
Nickel	58.69	—	40	—	0.00E+00	0	6.50E+01	44	0.00E+00	—	No	
Silver	107.87	—	40	—	0.00E+00	0	8.30E+00	44	0.00E+00	—	No	
Thallium	204.38	—	40	—	0.00E+00	0	7.10E+01	44	0.00E+00	—	No	
Zinc	67.41	—	40	—	0.00E+00	0	6.20E+01	44	0.00E+00	—	No	

* Volatile is defined as the molecular weight is less than 200 g/mole and the Henry's Law Constant is greater than 1E-05 atm-m3/mole
 ORNL 2012. Oak Ridge National Laboratory Regional Screening Levels Tables.

Di Diffusivity in air.
 Dei Effective diffusivity.
 H Henry's Law Constant.
 Koc Organic carbon partition coefficient.
 Kas Soil-air partition coefficient.
 VF Volatilization factor.

Table E.3. Toxicity Values
Colonial Terminals - HSI No. 10098
Savannah, Georgia

Constituent	Cancer Slope Factors (kg-day/mg)					Reference Doses (mg/kg/day)			
	CSFo Oral	(ref)	CSFi Inhalation	(ref)	Weight of Evidence	RfDo Oral	(ref)	RfDi Inhalation	(ref)
1,1-Dichloroethene					C	5.0E-02	1	5.7E-02	1
cis-1,2-Dichloroethene					ID	2.0E-03	1		
trans-1,2-Dichloroethene						2.0E-02	1	1.7E-02	3
Methylene Chloride	2.0E-03	1	3.5E-06	1	B2	6.0E-03	1	1.7E-01	1
Tetrachloroethene	2.1E-03	1	9.1E-05	1	B2	6.0E-03	1	1.1E-02	1
Trichloroethene	4.6E-02	1	1.4E-02	1	B2	5.0E-04	1	5.7E-04	1
Vinyl Chloride	7.2E-01	1	1.5E-02	1	A	3.0E-03	1	2.9E-02	1
2,4-Dinitrotoluene	3.1E-01	3	3.1E-01	3	B2	2.0E-03	1		
Antimony						4.0E-04	1		
Arsenic	1.5E+00	1	1.5E+01	1	A	3.0E-04	1	4.3E-06	5
Barium					D	2.0E-01	1	1.4E-04	2
Beryllium			8.4E+00	1	B1	2.0E-03	1	5.7E-06	1
Cadmium			6.3E+00	1	B1	1.0E-03	1	5.7E-06	3
Chromium (total)									
Chromium III					D	1.5E+00	1		
Chromium VI	5.0E-01	3	2.9E+02	1	A	3.0E-03	1	2.9E-05	1
Copper					D	4.0E-02	2		
Lead					B2				
Mercury					D	1.0E-04	1		
Nickel			9.1E-01	2	A	2.0E-02	1	2.6E-05	2
Silver					D	5.0E-03	1		
Thallium					D	1.0E-05	2		
Zinc					D	3.0E-01	1		

1. USEPA. Integrated Risk Information System (IRIS). On-line database.
 3. ORNL 2012.

A Known human carcinogen
 B2 Probable human carcinogen
 C Possible human carcinogen
 D Not classifiable as to human carcinogenicity

Table E.4 - Surface Soil Types 3 and 4 Risk Reduction Standards (0 - 2 feet below ground surface) - Industrial Worker
Colonial Terminals - HSI No. 10098
Savannah, Georgia

Detected Regulated Substance	Maximum Concentration Detected from 0-2 ft (mg/kg)	Surface Soil Type 3 RRS (mg/kg)	Source of Surface Soil Type 3	Surface Soil Type 4 RRS Industrial Worker (mg/kg)	Source of Type 4 Standard
1,1-Dichloroethene	0	0.7	T1 GWx100	250	RBC
cis-1,2-Dichloroethene	0	7	T1 GWx100	4,100	RBC
trans-1,2-Dichloroethene	0	10	T1 GWx100	240	RBC
Methylene Chloride	0.047	0.5	T1 GWx100	1,600	RBC
Tetrachloroethene	0	0.5	T1 GWx100	150	RBC
Trichloroethene	0.02	0.5	T1 GWx100	7.1	RBC
Vinyl Chloride	0	0.2	T1 GWx100	5.1	RBC
2,4-Dinitrotoluene	0	1	T1 GWx100	180	RBC
Antimony	29	10	NC	820	RBC
Arsenic	230	38	PRGc-Ind	38	RBC
Barium	120	1,000	A-III	360,000	RBC
Beryllium	0.7	3	NC	4,000	RBC
Cadmium	2.5	39	NC	2,000	RBC
Chromium (total)	69	1,200	NC	1,200	NC
Chromium III	69	1,200	NC	3,100,000	RBC
Chromium VI	69	110	PRGc-Ind	110	RBC
Copper	300	1,500	NC	82,000	RBC
Lead	1,500	400	NC	930	GALM
Mercury	2.2	17	NC	200	RBC
Nickel	25	420	NC	38,000	RBC
Silver	0	10	NC	10,000	RBC
Thallium	0.29	10	NC	20	RBC
Zinc	320	2,800	NC	610,000	RBC

BOLD Risk Reduction Standard exceeded.

GALM Georgia Adult Lead Model
 NC Notification Criteria
 RBC Risk Based Concentration
 T1 GW x 100 Type 1 Groundwater RRS x 100

Table E.5 - Georgia Adult Blood Lead Model
Colonial Terminals - HSI No. 10098
Savannah, Georgia

$$\text{PbB} = \frac{\text{PbB}_{fetal}}{R \times \text{GSD}^{1.645}}$$

$$\text{Cs} = \left[\frac{\text{PbB} - \text{PbB}_b}{\text{BSF} \times \frac{\text{EF}}{\text{AT}}} - (\text{C}_W \times \text{I}_W \times \text{A}_W) \right] \times [\text{I}_S \times \text{A}_S]^{-1}$$

		Construction Worker	Industrial Worker	Utility Worker
PbBb	= Typical blood lead concentration in adults, specifically women of child-bearing age,	1.38	1.38	1.38
PbBfetal	= The blood lead goal for the unborn fetus, defined as the concentration which will	10	10	10
GSD	= Geometric standard deviation of blood lead concentration among the exposed	2.04	2.04	2.04
R	= Constant of proportionality between fetal blood lead concentration at birth and	0.9	0.9	0.9
BSF	= Biokinetic slope factor relating (quasi-steady state) increase in typical adult blood	0.4	0.4	0.4
EF	= Exposure frequency for contact with assessed soils and/or dust derived in part from	65	219	5
AT	= Averaging time for continuing long term exposures (days/yr)	365	365	365
I _s	= Intake rate of soil, predominantly occupational exposures to indoor soil-derived	0.05	0.05	0.05
A _s	= Absolute gastrointestinal absorption fraction for ingested lead in soil and in dust	0.12	0.12	0.12
C _w	= Concentration of lead in ground water at site ($\mu\text{g}/\text{L}$); provided, however, when	15	15	15
I _w	= Intake rate of water from on-site groundwater (L/day)	0.01	1	0.01
A _w	= Absolute gastrointestinal absorption fraction for ingested lead in drinking water	0.2	0.2	0.2
PbB	= Average adult blood level that is protective of the fetus	3.44	3.44	3.44
Cs	= Soil target concentration; i.e., concentration of lead in soil that is goal for the site	4,800	930	63,000

Table E.6 - RAGS Calculations for Potential Industrial Worker Exposure to Soil (Type 4)
Colonial Terminals - HSI No. 10098
Savannah, Georgia

Constituent	CANCER EFFECTS			NON-CANCER EFFECTS			Calculated Goal (mg/kg)	
	Route-Specific RRSs (mg/kg)		RRSc (mg/kg)	Route-Specific RRSs (mg/kg)		RRSnc (mg/kg)		
	Oral	Inhalation		Oral	Inhalation			
1,1-Dichloroethene				1.0E+05	2.5E+02	250	250	
cis-1,2-Dichloroethene				4.1E+03		4,100	4,100	
trans-1,2-Dichloroethene				4.1E+04	2.4E+02	240	240	
Methylene Chloride	2.9E+04	8.8E+04	22,000	1.2E+04	1.9E+03	1,600	1,600	
Tetrachloroethene	2.7E+04	4.2E+03	3,600	1.2E+04	1.6E+02	150	150	
Trichloroethene	1.2E+03	2.4E+01	24	1.0E+03	7.2E+00	7.1	7.1	
Vinyl Chloride	7.9E+01	5.5E+00	5.1	6.1E+03	8.6E+01	85	5.1	
2,4-Dinitrotoluene	1.8E+02	2.1E+06	180	4.1E+03		4,100	180	
Antimony				8.2E+02		820	820	
Arsenic	3.8E+01	4.4E+04	38	6.1E+02	1.0E+05	610	38	
Barium				4.1E+05	3.4E+06	360,000	360,000	
Beryllium		7.9E+04	79,000	4.1E+03	1.4E+05	4,000	4,000	
Cadmium		1.1E+05	110,000	2.0E+03	1.4E+05	2,000	2,000	
Chromium (total)								
Chromium III				3.1E+06		3,100,000	3,100,000	
Chromium VI	1.1E+02	2.3E+03	110	6.1E+03	6.8E+05	6,100	110	
Copper				8.2E+04		82,000	82,000	
Lead								
Mercury				2.0E+02		200	200	
Nickel		7.3E+05	730,000	4.1E+04	6.1E+05	38,000	38,000	
Silver				1.0E+04		10,000	10,000	
Thallium				2.0E+01		20	20	
Zinc				6.1E+05		610,000	610,000	

The Type 4 RRSc (for carcinogens) is calculated using a target cancer risk (TCR) of 10-5; RRSnc (for noncarcinogens) is calculated using a target hazard index (THI) of 1.

mg/kg Milligram per kilogram.

Table E.7 - Soil Types 3 and 4 Risk Reduction Standards (2 - 10 feet below ground surface) - Utility Worker
Colonial Terminals - HSI No. 10098
Savannah, Georgia

Detected Regulated Substance	Maximum Concentration Detected from 2-10 ft (mg/kg)	Soil Type 3 RRS (mg/kg)	Source of Surface Soil Type 3	Soil Type 4 RRS Utility Worker (mg/kg)	Source of Type 4 Standard
1,1-Dichloroethene	3.8	0.7	T1 GWx100	12,000	RBC
cis-1,2-Dichloroethene	0.66	7	T1 GWx100	31,000	RBC
trans-1,2-Dichloroethene	0	10	T1 GWx100	11,000	RBC
Methylene Chloride	32	0.5	T1 GWx100	47,000	RBC
Tetrachloroethene	400	0.5	T1 GWx100	7,200	RBC
Trichloroethene	19	0.5	T1 GWx100	340	RBC
Vinyl Chloride	0.0086	0.2	T1 GWx100	3,900	RBC
2,4-Dinitrotoluene	460	1	T1 GWx100	31,000	RBC
Antimony	29	10	NC	6,200	RBC
Arsenic	850	38	PRGc-Ind	4,600	RBC
Barium	176	1,000	A-III	3,000,000	RBC
Beryllium	0.7	3	NC	31,000	RBC
Cadmium	4.95	39	NC	15,000	RBC
Chromium (total)	69	1,200	NC	1,200	NC
Chromium III	69	1,200	NC	23,000,000	RBC
Chromium VI	69	110	PRGc-Ind	22,000	RBC
Copper	1,910	1,500	NC	620,000	RBC
Lead	17,000	400	NC	63,000	GALM
Mercury	15.4	17	NC	1,500	RBC
Nickel	25	420	NC	310,000	RBC
Silver	6.21	10	NC	77,000	RBC
Thallium	0.29	10	NC	150	RBC
Zinc	3,400	2,800	NC	4,600,000	RBC

BOLD Risk Reduction Standard exceeded.

GALM Georgia Adult Lead Model
 NC Notification Criteria
 RBC Risk Based Concentration
 T1 GW x 100 Type 1 Groundwater RRS x 100

Table E.8 - RAGS Calculations for Potential Utility Worker Exposure to Soil (Type 4)
Colonial Terminals - HSI No. 10098
Savannah, Georgia

Constituent	CANCER EFFECTS			NON-CANCER EFFECTS			Calculated Goal (mg/kg)	
	Route-Specific RRSs (mg/kg)		RRSc (mg/kg)	Route-Specific RRSs (mg/kg)		RRSnc (mg/kg)		
	Oral	Inhalation		Oral	Inhalation			
1,1-Dichloroethene				7.7E+05	1.2E+04	12,000	12,000	
cis-1,2-Dichloroethene				3.1E+04		31,000	31,000	
trans-1,2-Dichloroethene				3.1E+05	1.2E+04	11,000	11,000	
Methylene Chloride	5.4E+06	1.1E+08	5,200,000	9.3E+04	9.4E+04	47,000	47,000	
Tetrachloroethene	5.2E+06	5.3E+06	2,600,000	9.3E+04	7.8E+03	7,200	7,200	
Trichloroethene	2.4E+05	3.1E+04	27,000	7.7E+03	3.6E+02	340	340	
Vinyl Chloride	1.5E+04	6.8E+03	4,700	4.6E+04	4.3E+03	3,900	3,900	
2,4-Dinitrotoluene	3.5E+04	2.7E+09	35,000	3.1E+04		31,000	31,000	
Antimony				6.2E+03		6,200	6,200	
Arsenic	7.2E+03	5.5E+07	7,200	4.6E+03	5.1E+06	4,600	4,600	
Barium				3.1E+06	1.7E+08	3,000,000	3,000,000	
Beryllium		9.9E+07	99,000,000	3.1E+04	6.8E+06	31,000	31,000	
Cadmium		1.3E+08	130,000,000	1.5E+04	6.8E+06	15,000	15,000	
Chromium (total)								
Chromium III				2.3E+07		23,000,000	23,000,000	
Chromium VI	2.2E+04	2.9E+06	22,000	4.6E+04	3.4E+07	46,000	22,000	
Copper				6.2E+05		620,000	620,000	
Lead								
Mercury				1.5E+03		1,500	1,500	
Nickel		9.1E+08	910,000,000	3.1E+05	3.0E+07	310,000	310,000	
Silver				7.7E+04		77,000	77,000	
Thallium				1.5E+02		150	150	
Zinc				4.6E+06		4,600,000	4,600,000	

The Type 4 RRSc (for carcinogens) is calculated using a target cancer risk (TCR) of 10-5; RRSnc (for noncarcinogens) is calculated using a target hazard index (THI) of 1.

mg/kg Milligram per kilogram.

Table E.9 - Soil Types 3 and 4 Risk Reduction Standards (2 - 10 feet below ground surface) - Construction Worker
Colonial Terminals - HSI No. 10098
Savannah, Georgia

Detected Regulated Substance	Maximum Concentration Detected from 2-10 ft (mg/kg)	Soil Type 3 RRS (mg/kg)	Source of Surface Soil Type 3	Soil Type 4 RRS Construction Worker (mg/kg)	Source of Type 4 Standard
1,1-Dichloroethene	3.8	0.7	T1 GWx100	940	RBC
cis-1,2-Dichloroethene	0.66	7	T1 GWx100	2,400	RBC
trans-1,2-Dichloroethene	0	10	T1 GWx100	880	RBC
Methylene Chloride	32	0.5	T1 GWx100	3,600	RBC
Tetrachloroethene	400	0.5	T1 GWx100	550	RBC
Trichloroethene	19	0.5	T1 GWx100	26	RBC
Vinyl Chloride	0.0086	0.2	T1 GWx100	300	RBC
2,4-Dinitrotoluene	460	1	T1 GWx100	2,400	RBC
Antimony	29	10	NC	480	RBC
Arsenic	850	38	PRGc-Ind	360	RBC
Barium	176	1,000	A-III	230,000	RBC
Beryllium	0.7	3	NC	2,400	RBC
Cadmium	4.95	39	NC	1,200	RBC
Chromium (total)	69	1,200	NC	1,200	NC
Chromium III	69	1,200	NC	1,800,000	RBC
Chromium VI	69	110	PRGc-Ind	1,700	RBC
Copper	1,910	1,500	NC	48,000	RBC
Lead	17,000	400	NC	4,800	GALM
Mercury	15.4	17	NC	120	RBC
Nickel	25	420	NC	24,000	RBC
Silver	6.21	10	NC	6,000	RBC
Thallium	0.29	10	NC	12	RBC
Zinc	3,400	2,800	NC	360,000	RBC

BOLD Risk Reduction Standard exceeded.

GALM Georgia Adult Lead Model
 NC Notification Criteria
 RBC Risk Based Concentration
 T1 GW x 100 Type 1 Groundwater RRS x 100

Table E.10 - RAGS Calculations for Potential Construction Worker Exposure to Soil (Type 4)
Colonial Terminals - HSI No. 10098
Savannah, Georgia

Constituent	CANCER EFFECTS			NON-CANCER EFFECTS			Calculated Goal (mg/kg)	
	Route-Specific RRSs (mg/kg)		RRSc (mg/kg)	Route-Specific RRSs (mg/kg)		RRSnc (mg/kg)		
	Oral	Inhalation		Oral	Inhalation			
1,1-Dichloroethene				6.0E+04	9.6E+02	940	940	
cis-1,2-Dichloroethene				2.4E+03		2,400	2,400	
trans-1,2-Dichloroethene				2.4E+04	9.2E+02	880	880	
Methylene Chloride	4.2E+05	8.4E+06	400,000	7.1E+03	7.2E+03	3,600	3,600	
Tetrachloroethene	4.0E+05	4.0E+05	200,000	7.1E+03	6.0E+02	550	550	
Trichloroethene	1.8E+04	2.4E+03	2,100	6.0E+02	2.8E+01	26	26	
Vinyl Chloride	1.2E+03	5.3E+02	360	3.6E+03	3.3E+02	300	300	
2,4-Dinitrotoluene	2.7E+03	2.0E+08	2,700	2.4E+03		2,400	2,400	
Antimony				4.8E+02		480	480	
Arsenic	5.6E+02	4.2E+06	560	3.6E+02	3.9E+05	360	360	
Barium				2.4E+05	1.3E+07	230,000	230,000	
Beryllium		7.6E+06	7,600,000	2.4E+03	5.2E+05	2,400	2,400	
Cadmium		1.0E+07	10,000,000	1.2E+03	5.2E+05	1,200	1,200	
Chromium (total)								
Chromium III				1.8E+06		1,800,000	1,800,000	
Chromium VI	1.7E+03	2.2E+05	1,700	3.6E+03	2.6E+06	3,600	1,700	
Copper				4.8E+04		48,000	48,000	
Lead								
Mercury				1.2E+02		120	120	
Nickel		7.0E+07	70,000,000	2.4E+04	2.3E+06	24,000	24,000	
Silver				6.0E+03		6,000	6,000	
Thallium				1.2E+01		12	12	
Zinc				3.6E+05		360,000	360,000	

The Type 4 RRSc (for carcinogens) is calculated using a target cancer risk (TCR) of 10-5; RRSnc (for noncarcinogens) is calculated using a target hazard index (THI) of 1.

mg/kg Milligram per kilogram.

Table E.11 - Soil Data for UCL Calculations
 Colonial Terminals - HSI No. 10098
 Savannah, Georgia

Surface Soil Locations	Arsenic (mg/kg)
1042-W	22
1054W	34
1058W-S-R	9
1065W	19
1066W	2.3
1072-W	6.2
1079W	9.3
1081W	23
1086W-R	25
1095W	15
A1-W-N (R)	4.7
A4-Wall South	7
A5-W-S	25
Area D SW-East	2.14
Area D SW-North	3.42
Area D SW-South	2.12
Area D SW-West	9.43
B2-SUP-WS1	11
B2-SUP-WS2	7.9
B2-SUP-WS3	18
B2-SUP-WS4	23
B2-SUP-WS5-R	17
B2-SUP-WW	31
B3-SUP-WS	5.9
B3-SUP-WW	8.4
D2R-W-E	18
D-2-SW-E	230
D-2-SW-S	13
D-3-SW-N	22
D-3-SW-S	16
D-3-SW-W	6
D-Berm-2	25
D-Berm-W-S	31
D-HA-2	17.4
D-HA-3	6.7
F SUP NW	24
F SUP SW	13
F5-W-S	6.5
F6-W-W	30
G4-W-S	24
G-NW-SW	38
G-W-N	29
I6	37
I1-SW	15
I3-W-W	23
I4-W-S	4.8
I5-W-N (R)	20
I6-W-W	14
I7-W-S	21
I7-W-W	34
I8-W-S	20
I8-W-W	11
I9-W-N	17
SB-1	9
SB-2	28
SB-4	11
SB-5	2
SB-6	4
SB-7	2.3
SB-8	89
SB-9	13
SB-20	8
SB-22	34
SB-23	5.9
SB-26	15
SB-29	21
SB-31	11
SB-32	3.9
SB-34	6.9
SB-48	21
SB-50	66
SB-52	54
SB-53	1
SB-54	4.2
SB-55	50
SB-56	19
SB-57	1.4

Surface Soil Locations (Cont.)	Arsenic (mg/kg)
SB-58	1
SL-BF-1	7.7
SL-BF-2	22
SL-BF-3	2.5
A-SB-1	88
A-SB-5	37
B-SB-1	5.9
B-SB-10	13
B-SB-12	17
B-SB-13	17
B-SB-14	29
A1-W-N (R)	64
B-SB-2	19
B-SB-20	51
B-SB-27	48
Area D SW-East	48
B-SB-3	23
B-SB-3 DUP	4.5
B-SB-42	14
B-SB-44	14
B-SB-44	3.7
B-SB-52	15
B-SB-53	11
B-SB-8	9.3
B-SB-9	37
C-SB-1	32
C-SB-4	7.5
C-SB-5	3.9
C-SB-6	9.5
D2R-W-E	62
D-SB-2	110
D-SB-8	76
E-SB-1	7.3
E-SB-4	27
F-SB-1	26
F-SB-7	25
F-SB-8	20
F-SB-9	18
F-SB-10	100
F-SB-11	100
F-SB-12	100
F-SB-13	100
F-SB-14	100
F-SB-15	100
F-SB-16	100
F-SB-17	100
F-SB-18	100
F-SB-19	100
F-SB-20	100
F-SB-21	100
F-SB-22	100
F-SB-23	100
F-SB-24	100
F-SB-25	100
F-SB-26	100
F-SB-27	100
F-SB-28	100
F-SB-29	100
F-SB-30	100
F-SB-31	100
F-SB-32	100
F-SB-33	100
F-SB-34	100
F-SB-35	100
F-SB-36	100
F-SB-37	100
F-SB-38	100
F-SB-39	100
F-SB-40	100
F-SB-41	100
F-SB-42	100
F-SB-43	100
F-SB-44	100
F-SB-45	100
F-SB-46	100
F-SB-47	100
F-SB-48	100
F-SB-49	100
F-SB-50	100
F-SB-51	100
F-SB-52	100
F-SB-53	100
F-SB-54	100
F-SB-55	100
F-SB-56	100
F-SB-57	100
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F-SB-60	100
F-SB-61	100
F-SB-62	100
F-SB-63	100
F-SB-64	100
F-SB-65	100
F-SB-66	100
F-SB-67	100
F-SB-68	100
F-SB-69	100
F-SB-70	100
F-SB-71	100
F-SB-72	100
F-SB-73	100
F-SB-74	100
F-SB-75	100
F-SB-76	100
F-SB-77	100
F-SB-78	100
F-SB-79	100
F-SB-80	100
F-SB-81	100
F-SB-82	100
F-SB-83	100
F-SB-84	100
F-SB-85	100
F-SB-86	100
F-SB-87	100
F-SB-88	100
F-SB-89	100
F-SB-90	100
F-SB-91	100
F-SB-92	100
F-SB-93	100
F-SB-94	100
F-SB-95	100
F-SB-96	100
F-SB-97	100
F-SB-98	100
F-SB-99	100
F-SB-100	100

Surface Soil Locations	Lead (mg/kg)
1042-W	230
1054W	350
1058W-S-R	56
1065W	160
1066W	51
1072-W	57
1079W	82
1081W	180
1086W-R	120
1095W	140
A1-Floor	74
A2-Floor	85
A3-Floor	120
A4-Floor	69
A5-Floor	280
Area D Bottom-Center	75.2
Area D Bottom-NE	31.4
Area D Bottom-NW	65.6
Area D Bottom-SE	32
Area D Bottom-SW	67.9
C-Floor	55
C-W-E	7.1
C-W-N	42
C-W-S	120
C-W-W (R)	20
C-W-W (E)	18
C-W-E	4.3
C-W-N	65
C-W-S	18
C-W-W	14
C-Floor	56
C-Floor	20
C-Floor	9.4
C-Floor	100
C-Floor	8.1
C-Floor	92
C-Floor	54
C-Floor	4.9
C-Floor	310
C-Floor	31
C-Floor	38
C-Floor 1	62
C-Floor 2	7.3
C-Floor 3	62
C-Floor 4	22
C-Floor 5	270
C-Floor 6	5.6
C-Floor 7	21
C-Floor 8	230
C-Floor 9	38
C-Floor 10	62
C-Floor 11	7.3
C-Floor 12	12
C-Floor 13	1.1
C-Floor 14	3.8
C-Floor 15	120
C-Floor 16	21
C-Floor 17	12
C-Floor 18	3.4
C-Floor 19	62
C-Floor 20	64
C-Floor 21	670
C-Floor 22	810
C-Floor 23	22
C-Floor 24	14
C-Floor 25	95
C-Floor 26	18
C-Floor 27	280
C-Floor 28	670
C-Floor 29	34
C-Floor 30	440
C-Floor 31	6.1
C-Floor 32	440
C-Floor 33	10
C-Floor 34	21
C-Floor 35	21
C-Floor 36	21
C-Floor 37	17
C-Floor 38	1000
C-Floor 39	11
C-Floor 40	5.9
C-Floor 41	95
C-Floor 42	280
C-Floor 43	6.6
C-Floor 44	11
C-Floor 45	5.6
C-Floor 46	4.6
C-Floor 47	20
C-Floor 48	10
C-Floor 49	1400
C-Floor 50	13
C-Floor 51	1000
C-Floor 52	28
C-Floor 53	5.1
C-Floor 54	13
C-Floor 55	1400
C-Floor 56	15
C-Floor 57	3200
C-Floor 58	4.6
C-Floor 59	830
C-Floor 60	440
C-Floor 61	28
C-Floor 62	20
C-Floor 63	38
C-Floor 64	120
C-Floor 65	230
C-Floor 66	340
C-Floor 67	5.5
C-Floor 68	34
C-Floor 69	12
C-Floor 70	2.8
C-Floor 71	11
C-Floor 72	2.8
C-Floor 73	25
C-Floor 74	76
C-Floor 75	1000
C-Floor 76	5.2
C-Floor 77	1300
C-Floor 78	1400
C-Floor 79	250</td

	A	B	C	D	E	F	G	H	I	J	K	L	
1				General UCL Statistics for Data Sets with Non-Detects									
2		User Selected Options											
3		From File		WorkSheet.wst									
4		Full Precision		OFF									
5		Confidence Coefficient		95%									
6		Number of Bootstrap Operations		5000									
7													
8													
9	SS Arsenic												
10													
11	General Statistics												
12	Number of Valid Data			122		Number of Detected Data			113				
13	Number of Distinct Detected Data			65		Number of Non-Detect Data			9				
14									Percent Non-Detects				
15													
16	Raw Statistics				Log-transformed Statistics								
17	Minimum Detected			1		Minimum Detected			0				
18	Maximum Detected			230		Maximum Detected			5.438				
19	Mean of Detected			22.46		Mean of Detected			2.712				
20	SD of Detected			26.14		SD of Detected			0.921				
21	Minimum Non-Detect			1		Minimum Non-Detect			0				
22	Maximum Non-Detect			9.43		Maximum Non-Detect			2.244				
23													
24	Note: Data have multiple DLs - Use of KM Method is recommended				Number treated as Non-Detect								
25	For all methods (except KM, DL/2, and ROS Methods),				Number treated as Detected								
26	Observations < Largest ND are treated as NDs				Single DL Non-Detect Percentage								
27													
28	UCL Statistics												
29	Normal Distribution Test with Detected Values Only				Lognormal Distribution Test with Detected Values Only								
30	Lilliefors Test Statistic			0.207		Lilliefors Test Statistic			0.0914				
31	5% Lilliefors Critical Value			0.0833		5% Lilliefors Critical Value			0.0833				
32	Data not Normal at 5% Significance Level				Data not Lognormal at 5% Significance Level								
33													
34	Assuming Normal Distribution				Assuming Lognormal Distribution								
35	DL/2 Substitution Method					DL/2 Substitution Method							
36	Mean			20.94		Mean			2.546				
37	SD			25.73		SD			1.078				
38	95% DL/2 (t) UCL			24.8		95% H-Stat (DL/2) UCL			28.44				
39													
40	Maximum Likelihood Estimate(MLE) Method				Log ROS Method								
41	Mean			14		Mean in Log Scale			2.579				
42	SD			33.11		SD in Log Scale			1.01				
43	95% MLE (t) UCL			18.97		Mean in Original Scale			21				
44	95% MLE (Tiku) UCL			19.34		SD in Original Scale			25.68				
45													
46													
47													
48													
49													
50	Gamma Distribution Test with Detected Values Only				Data Distribution Test with Detected Values Only								
51	k star (bias corrected)			1.363		Data Follow Appr. Gamma Distribution at 5% Significance Level							
52	Theta Star			16.48									
53	nu star			308									

A	B	C	D	E	F	G	H	I	J	K	L
54											
55				A-D Test Statistic	0.918						
56				5% A-D Critical Value	0.773						
57				K-S Test Statistic	0.773					Mean	20.95
58				5% K-S Critical Value	0.0879					SD	25.62
59				Data follow Appr. Gamma Distribution at 5% Significance Level						SE of Mean	2.33
60										95% KM (t) UCL	24.81
61				Assuming Gamma Distribution						95% KM (z) UCL	24.78
62				Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL	24.8
63				Minimum	0.000001					95% KM (bootstrap t) UCL	26.51
64				Maximum	230					95% KM (BCA) UCL	25.41
65				Mean	20.8					95% KM (Percentile Bootstrap) UCL	25.07
66				Median	15.5					95% KM (Chebyshev) UCL	31.1
67				SD	25.83					97.5% KM (Chebyshev) UCL	35.5
68				k star	0.418					99% KM (Chebyshev) UCL	44.13
69				Theta star	49.78						
70				Nu star	102					Potential UCLs to Use	
71				AppChi2	79.68					95% KM (Chebyshev) UCL	31.1
72				95% Gamma Approximate UCL (Use when n >= 40)	26.63						
73				95% Adjusted Gamma UCL (Use when n < 40)	26.7						
74				Note: DL/2 is not a recommended method.							
75											
76				Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
77				These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).							
78				For additional insight, the user may want to consult a statistician.							
79											
80											
81	SS Lead										
82											
83				General Statistics							
84				Number of Valid Data	119					Number of Detected Data	117
85				Number of Distinct Detected Data	73					Number of Non-Detect Data	2
86										Percent Non-Detects	1.68%
87											
88				Raw Statistics						Log-transformed Statistics	
89				Minimum Detected	3.2					Minimum Detected	1.163
90				Maximum Detected	1500					Maximum Detected	7.313
91				Mean of Detected	230.6					Mean of Detected	4.897
92				SD of Detected	227.3					SD of Detected	1.235
93				Minimum Non-Detect	4.71					Minimum Non-Detect	1.55
94				Maximum Non-Detect	5					Maximum Non-Detect	1.609
95											
96				Note: Data have multiple DLs - Use of KM Method is recommended						Number treated as Non-Detect	4
97				For all methods (except KM, DL/2, and ROS Methods),						Number treated as Detected	115
98				Observations < Largest ND are treated as NDs						Single DL Non-Detect Percentage	3.36%
99											
100				UCL Statistics							
101				Normal Distribution Test with Detected Values Only						Lognormal Distribution Test with Detected Values Only	
102				Lilliefors Test Statistic	0.176					Lilliefors Test Statistic	0.13
103				5% Lilliefors Critical Value	0.0819					5% Lilliefors Critical Value	0.0819
104				Data not Normal at 5% Significance Level						Data not Lognormal at 5% Significance Level	
105											
106				Assuming Normal Distribution						Assuming Lognormal Distribution	

A	B	C	D	E	F	G	H	I	J	K	L								
160	Raw Statistics					Log-transformed Statistics													
161	Minimum Detected			1.1			Minimum Detected			0.0953									
162	Maximum Detected			850			Maximum Detected			6.745									
163	Mean of Detected			62.3			Mean of Detected			3.229									
164	SD of Detected			112.6			SD of Detected			1.361									
165	Minimum Non-Detect			0.97			Minimum Non-Detect			-0.0305									
166	Maximum Non-Detect			5.7			Maximum Non-Detect			1.74									
167																			
168	Note: Data have multiple DLs - Use of KM Method is recommended						Number treated as Non-Detect			41									
169	For all methods (except KM, DL/2, and ROS Methods),						Number treated as Detected			158									
170	Observations < Largest ND are treated as NDs						Single DL Non-Detect Percentage			20.60%									
171																			
172	UCL Statistics																		
173	Normal Distribution Test with Detected Values Only					Lognormal Distribution Test with Detected Values Only													
174	Lilliefors Test Statistic			0.293			Lilliefors Test Statistic			0.0552									
175	5% Lilliefors Critical Value			0.0648			5% Lilliefors Critical Value			0.0648									
176	Data not Normal at 5% Significance Level						Data appear Lognormal at 5% Significance Level												
177																			
178	Assuming Normal Distribution						Assuming Lognormal Distribution												
179	DL/2 Substitution Method						DL/2 Substitution Method												
180	Mean			58.64			Mean			3.054									
181	SD			110.1			SD			1.497									
182	95% DL/2 (t) UCL			71.53			95% H-Stat (DL/2) UCL			86.35									
183																			
184	Maximum Likelihood Estimate(MLE) Method						Log ROS Method												
185	Mean			40.56			Mean in Log Scale			3.062									
186	SD			127.9			SD in Log Scale			1.481									
187	95% MLE (t) UCL			55.54			Mean in Original Scale			58.65									
188	95% MLE (Tiku) UCL			55.27			SD in Original Scale			110.1									
189																			
190	95% t UCL						95% Percentile Bootstrap UCL												
191																			
192	95% BCA Bootstrap UCL						95% H UCL												
193																			
194	Gamma Distribution Test with Detected Values Only						Data Distribution Test with Detected Values Only												
195	k star (bias corrected)			0.666			Data appear Lognormal at 5% Significance Level												
196	Theta Star			93.54															
197	nu star			249.1															
198																			
199	A-D Test Statistic			3.837			Nonparametric Statistics												
200	5% A-D Critical Value			0.804			Kaplan-Meier (KM) Method												
201	K-S Test Statistic			0.804			Mean			58.66									
202	5% K-S Critical Value			0.07			SD			109.8									
203	Data not Gamma Distributed at 5% Significance Level						SE of Mean												
204																			
205	Assuming Gamma Distribution						95% KM (z) UCL												
206	Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL			71.54									
207	Minimum			0.000001			95% KM (bootstrap t) UCL			75.74									
208	Maximum			850			95% KM (BCA) UCL			72.89									
209	Mean			58.54			95% KM (Percentile Bootstrap) UCL			72.32									
210	Median			22			95% KM (Chebyshev) UCL			92.67									
211	SD			110.1			97.5% KM (Chebyshev) UCL			107.4									
212	k star			0.356			99% KM (Chebyshev) UCL			136.3									

Appendix F

Projected Schedule and Milestones

Appendix F - Project Schedule

		Appendix F - Project Schedule																			
ID	Task Name	2012				2013				2014				2015				2016			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Submittal of VRP Application																				
2	Approval of VRP Application																				
3	Groundwater Monitoring																				
6	Annual Status Report																				
9	Submittal of Revised CSM / Cost Estimate (If Necessary)																				
10	Final CSR / Site Closure																				

A horizontal timeline diagram representing the project schedule. It starts with a vertical line labeled 'Milestone' at the top, followed by a diamond marker. The timeline then branches into two parallel paths. The upper path contains three green diamond markers labeled 'Submittal of VRP Application', 'Approval of VRP Application', and 'Groundwater Monitoring Events'. The lower path contains three purple diamond markers labeled 'Submittal of Annual Status Reports', 'Revised CSM/Cost (If Necessary)', and 'Final CSR / Site Closure'. The timeline ends with a red diamond marker at the far right.

Colonial Terminals, Plant #2 VRP Application November 2012	Milestone Project Start Project Completion
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