Prepared for:

**TRANSCO INC.** 200 North LaSalle Street Suite 1550 Chicago, II 60601

# VOLUNTARY INVESTIGATION AND REMEDIATION PLAN FORMER TRANSCO RAILCAR FACILITY MACON, GEORGIA HSI #10502

Prepared by:



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November 2017

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Kirk J. Kessler Senior Principal

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# **1** INTRODUCTION

## 1.1 Overview

This Voluntary Investigation and Remediation Plan (VIRP) is being submitted on behalf of Transco Inc. (Transco) for the former Transco Railcar Facility (Site) located at 989 7<sup>th</sup> Street, Macon, Georgia and listed under the Hazardous Site Response Act (HSRA) Hazardous Site Inventory (HSI) #10502. Environment assessment activities for the Site began in or around 1995 following the closure of the facility in 1991. Regulated substances released to soil or groundwater provided in the HSI listing summary include the following: soil (lead, PCBs); groundwater (chlorobenzene, cumene, naphthalene, tetrachloroethene [PCE], vinyl chloride, cis-1,2-dichloroethene [cis-DCE], trichloroethene [TCE]). A Compliance Status Report (CSR) prepared in 2000 summarized the status of soil and groundwater constituents of potential concern (COPC) with a conclusion that applicable Risk Reduction Standards (RRS) under HSRA were exceeded and thus corrective action was required for the Site (Arcadis, 2000). A Corrective Action Plan (CAP) for the Site to address identified environmental conditions was prepared by Arcadis in 2001 (Arcadis, 2001), and revised in 2003 (Arcadis, 2003). The 2003 CAP was conditionally approved on September 2, 2004, with final approval of a revised CAP on December 4, 2008 (EPD, 2004; EPD, 2008).

To date, corrective action has been performed for each environmental condition as outlined in the revised CAP including soil remediation, recovery of a light non-aqueous phase liquid (LNAPL) diesel product, and monitoring for lead and volatile organic compounds (VOCs) in groundwater. The Site's residual environmental conditions are well understood and stable, and future risk of exposure can be effectively managed through land use controls (LUC). The objective of this VIRP application is to prepare the Site for closure through the risk management options available in the Georgia Voluntary Remediation Program (VRP).

The VIRP Application and Checklist form is included in Appendix A. The tax map and a warranty deed for the property are provided in Appendix B.

## 1.2 Site Location and Description

The Site is located in a mixed commercial/industrial area southeast of downtown Macon, Georgia (Figure 1). Land use adjacent to the Site is commercial, industrial, and railroad related, with several surrounding land parcels designated as public utility due to their use to support public works or railway infrastructure (Figure 2). Adjacent land parcel ownership and Parcel ID are provided in Figure 2. The Site is bound by railroad tracks on the western, southern, and northeastern property boundaries, and by 7<sup>th</sup> Street to the east. The Norfolk Southern Railway Brosnan Yard encompasses the area east of 7<sup>th</sup> Street.



Since at least 1889, the Site was developed to support the railroad industry and was occupied until 1991 when operations by Transco ceased. The Site is currently vacant, and the only remaining structure is a former multi-story coal chute near the Site's south entrance. Concrete and brick foundations of several of the former buildings remain on the Site but are leveled to grade. The remainder of the property has undergone natural succession to scrub grass, shrubs, and small to medium-sized trees. The Site is fenced with a locked gate. Figure 3 depicts the location of former and existing Site infrastructure.

### 1.3 Purpose

The purpose of this document is to support an application for enrollment into the Georgia VRP. This document presents a current understanding of environmental conditions at the Site following nine years of corrective action and monitoring, a Conceptual Site Model (CSM), remediation plans for closure, and a milestone schedule.

## 1.4 Property Eligibility

The Site meets the eligibility criteria for the VRP as set forth in Code Section 12-8-105. A release of regulated substances on the Site has been confirmed. The Site is not listed on the National Priorities List, is not currently undergoing response activities required by order of the Regional Administrator of the United States Environmental Protection Agency (USEPA), and is not required to have a permit under Code Section 12-8-66. Qualifying the Site under the VRP program would not violate the terms and conditions under which the division operates and administers remedial programs by delegation or by similar authorization from the USEPA. There are no outstanding liens filed against the Site pursuant to Code Sections 12-8-96 and 12-13-12.

## 1.5 Participant Eligibility

The VRP applicant, Transco, meets the eligibility criteria as set forth in Code Section 12-8-106. Transco is the owner of the Site and is in compliance with all orders, judgments, statutes, rules, and regulations subject to the enforcement authority of the Director with respect to this Site.



# 2 REGULATED CONSTITUENTS AND CORRECTIVE ACTION OVERVIEW

### 2.1 Regulated Constituents of Concern

The 2003 revised CAP refined the list of COPC to four constituents of concern (COCs) requiring corrective action and established corrective action objectives for each (Arcadis, 2003). The Site corrective action objectives by media are summarized below and further detailed in this section.

COC	Media	Objective	Basis
Lead	Soil	1,300 mg/kg	Type 4 RRS
Vinyl Chloride	Groundwater	3.2 μg/L	Type 4 RRS
Trichloroethene	Groundwater	7.2 μg/L	Type 4 RRS
Naphthalene	Groundwater	20 µg/L	Type 4 RRS

#### **Site Corrective Action Objectives**

## 2.2 Corrective Actions Status

#### 2.2.1 Lead Contaminated Soil

#### 2.2.1.1 Soil Removal Action

In 2011, a total of 4,917.59 tons of soil and debris were excavated at the Site as described in the 2011 Corrective Action Progress Report (CAPR) (EPS, 2012). Removal activities commenced on July 13, 2011, and were completed on August 31, 2011. The soil removal activities included the excavation of soil above the Type 4 RRS, treatment of soils potentially classified as hazardous based on TCLP testing, disposal of soils at a Subtitle D landfill, and backfilling of the excavated areas with fill from an off-Site clean soil source.

Removal of soil exceeding the Type 4 RRS was attained for all but four sample locations exhibiting a soil lead concentration above the Type 4 RRS. The four locations not excavated are detailed below.

- Two samples (11225-OO10-0-1SP and 11225-RR21-0-1SR) were located on the edge of the property line abutting to the Norfolk Southern right-of-way for railroad lines. Transco did not have the authorization to extend the excavation into the Norfolk Southern property.
- One sample (11225-RR22-0-1SR) was located at the edge of 7<sup>th</sup> Street. No further excavation could be conducted adjacent to 7<sup>th</sup> Street as excavation would have undermined the base material of the paved road.



• The final sample that exceeded the Site RRS was from an interior Site location and was inadvertently missed during the removal action planning. That location is bounded on all four sides by soil samples reported below the RRS.

The extent of soil removal and location of the four samples reporting lead above the Type 4 RRS are illustrated in Figure 4.

#### 2.2.1.2 Groundwater Lead Monitoring

Annual monitoring of groundwater for lead commenced in 2009 to assess for potential leaching of lead from soil. The CAP specified nine monitoring wells located within or adjacent to Site areas exhibiting elevated lead concentrations to be sampled: MW-4, MW-12, MW-13, MW-14, MW-15, MW-30, MW-31, MW-32, and TW-04 (Figure 4). All nine monitoring wells in the groundwater lead monitoring program have been sampled annually since 2009, and all monitoring wells have reported non-detect for lead.

#### 2.2.2 Volatile Organic Compounds in Groundwater

Annual monitoring of groundwater for VOCs commenced in 2009. The CAP specified 16 wells to be sampled: MW-4, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, MW-17, MW-18, MW-19, MW-20, MW-21, TW-01, W-03, TW-04, and TW-08 (Figure 5). Horizontal delineation of chloroethene VOCs has been performed, with the plume bounded to the south by MW-11 and MW-17, to the east by MW-16 and MW-21, to the west by MW-3, TW-4, and MW-11 and to the north by MW-13 and MW-14. MW-14 exhibits intermittent trace detection of carbon tetrachloride (CT), but does not report chloroethenes. Annual evaluation of VOC plume stability and monitored natural attenuation (MNA) potential was last performed for the 2016 CAPR (EPS, 2017). The evaluation found limited to adequate evidence for MNA based on an analysis of VOC plume stability that determined the on and off-Site plume to be stable or lessening with no observed plume migration (EPS, 2017).

Vertical delineation of VOCs required the installation of well pair MW-18/MW-19 in 2009 with the well pair positioned in the core of the VOC plume (Figure 5). The deep well of the pair, MW-18, has reported non-detect for all VOCs since sampling commenced in 2009 to present (last sampled August 18, 2016). Horizontal delineation of VOCs in groundwater was completed with the installation of monitoring wells MW-20 and MW-21 in 2011 and sampling of an existing off-Site monitoring well NS-1 in 2011 (a monitoring well installed by Norfolk Southern to assess a separate off-Site condition).

#### 2.2.3 LNAPL & Naphthalene

LNAPL product recovery efforts from 2008 through 2016 included two types of LNAPL skimming systems and manual product recovery (Figure 6a). The physical properties of the LNAPL and Site hydrogeologic properties were found to limit LNAPL recovery efforts, but also result in a stable and predictable LNAPL plume (i.e., non-migratory behavior). Site LNAPL mobility is constrained due to the physical properties of the LNAPL (i.e., the high viscosity of the LNAPL), the properties of the surficial aquifer (i.e., frequent fluctuations in the water table depth), and insufficient LNAPL



above residual saturation (i.e., recoverable LNAPL). Additional details of the LNAPL condition and status are provided in Section 3.4.

Evaluation of soluble LNAPL components was an additional task to be performed at the completion of the LNAPL recovery effort, where naphthalene was the groundwater COC specified in the HSI listing. Historical data found naphthalene limited to three Site wells, with only one of the three wells (TW-02) reporting a detection of naphthalene in its most recent sample event as shown in Figure 6b. All other Site monitoring wells, notably the down-gradient property line wells, report a non-detect condition during the most recent sampling event on August 18, 2016.



# **3** CONCEPTUAL SITE MODEL (CSM)

### 3.1 Overview

The CSM is intended to establish a common knowledge base about the Site and its environmental condition to facilitate the development of remedial action objectives, and to allow an informed decision regarding possible remedial action measures. Sufficient information for the Site is available from past investigations, the past and current corrective action activities, and the scientific literature to develop a CSM that presents: (i) the surface and subsurface features of the Site (as previously described in the CSR [Arcadis, 2000]), (ii) the nature and extent of the environmental conditions, (iii) fate and transport characteristics of COCs at the Site, and (iv) potential receptors and exposure pathways.

### 3.2 Site Features

#### 3.2.1 Regional Geology

The Site is located in Bibb County and falls in the upper Coastal Plain Physiographic Province just south of the Fall Line in central Georgia. The Coastal Plain Physiographic Province is characterized by sequences of late Mesozoic and Cenozoic sediments consisting of marl, sands, clays, and limestones. The topography of the region is mostly flat with shallowly sloping hills and discontinuous ridges.

Regional stratigraphy consists primarily of the Tuscaloosa Formation locally overlain by the Eutaw Formation and underlain unconformably by shallow, southeastward-dipping crystalline rocks of the Piedmont (Pollard and Vorhis, 1980). The Tuscaloosa Formation is a Cretaceous age, locally cross-bedded, and a southward-thickening wedge of sediments. The formation is composed of gravelly, fine to coarse sand with localized pockets or lenses of iron-stained kaolinitic, micaceous sandy clays.

Adjacent to the Ocmulgee River, alluvial sediments (Pleistocene to Recent) overlie the Tuscaloosa and other undifferentiated Cretaceous material comprise the youngest sediments in the area. East of the Ocmulgee River, massive, deep red, clayey sands of the Barnwell Formation can be found slumped and draping over the Tuscaloosa in inter-stream areas (LeGrand, 1962).

In the Macon vicinity, surficial soils consist of sands and clays. Generally, soils of central to south Macon are a weathering product of the Cretaceous sediments. To the north, soils are typically a weathering product of the crystalline Piedmont bedrock. Alluvial deposits ranging from Pleistocene to recent ages exist along the Ocmulgee floodplain up to one mile from the river's banks. These deposits are primarily unsorted sand, gravel, and clay and measure up to 40 feet (ft) thick (LeGrand, 1962). The Quaternary alluvium near Macon is comprised of unconsolidated alluvial sand, silty to clayey sand, sandy silt, and sandy clay with rare wood



debris (natural). Quaternary alluvium thickness averages 6 ft with a range of 2 to 20 ft in thickness. Depth to the top of this unit averages 5.5 feet below ground surface (ft-bgs) with a range of 1 to 9 ft-bgs. The undifferentiated Cretaceous near Macon consists of clay (often mottled), sandy clay, clayey sand, fine to coarse sand, and fine gravel with rare wood debris (natural). The thickness of this unit averages 23 ft with a range of 6 to 49 ft in thickness. Depth to the top of this unit averages 14 ft-bgs with a range of 8 to 26 ft-bgs. The upper bedrock zone is saprolitic and consists of fine-grained clayey sand, sandy silt, and sandy clay to claystone that grades to more competent partially weathered rock with apparent foliation and finely banded gneiss. Depth to the top of bedrock, saprolite averages 62 ft-bgs with a range of 58 to 66 ft-bgs.

#### 3.2.2 Site Geology

Site geology (from the ground surface to depth) consists largely of fill, Quaternary alluvium, undifferentiated Cretaceous sediments (Blufftown/Eutaw formation overlying the Tuscaloosa formation) and crystalline bedrock. Fill is unconsolidated and consists of lumber debris, metal debris, sands, coal fragments, and minor gravel. These manmade materials are mixed with alluvial sand, silty sand, sandy silt, and sandy to silty clay.

#### 3.2.3 Surface Water Features

No surface water bodies are present on-Site. However, a large subsurface storm water drainage structure is present beneath the southern portion of the Site. The feature is not accessible on-Site. The subsurface drainage structure daylights east of 7<sup>th</sup> Street on Norfolk Southern property. The nearest water body is the Ocmulgee Rover, located approximately 4,000 ft north of the Site (Figure 1).

#### 3.2.4 General Hydrogeologic Conditions

#### 3.2.4.1 Site Geologic and Hydrogeologic Setting

Borehole logging from soil cores and monitoring well installation indicates three hydrogeologic zones exist at the Site (Arcadis, 2000). The upper zone includes the fill, alluvium, and sand in the shallow portions of the upper Cretaceous zone. These materials consist of loose clayey sand, fine to medium to subangular sand, and fine gravel with minor clay, sandy clay, clayey sand, and sandy silt. Lumber debris and coal fragments and fines are observed in the upper zone as well. The upper zone has a Unified Soils Classification System (USCS) classification that is predominantly SP and SM. This zone averages 18 ft thick with a range of thickness from zero to 28 ft. The middle zone is undifferentiated Cretaceous and is comprised of mottled silty clay, sandy clay, and clay with minor wood debris (natural), clay, and gravel. The middle zone has a USCS classification of SC, CL, and minor SM. This zone averages 44 ft thick with a range of thickness from zero to 28 ft-bgs. The lower zone consists of sand and gravel in the lower portion of the undifferentiated Cretaceous, saprolitic bedrock, and jointed/fractured partially weathered bedrock. The basal upper Cretaceous is represented by



sand and gravelly sand with minor clay (USCS, SP, GP, and CL). Saprolitic bedrock is characterized as consolidated to semi-consolidated sandy silt, clayey sand and sandy clay (USCS, SM, SC, and CL). More competent and partially weathered bedrock samples revealed fine-grain gneiss and foliated fine-grained diabase. The average depth to the top of this zone is 62 ft-bgs with a range from 58 to 66 ft-bgs.

#### 3.2.4.2 Groundwater Direction and Flow Velocity

Groundwater flow direction has been assessed annually since 2009 and mimics the ground surface topography, moving east across the Site, then turning southeast near 7<sup>th</sup> Street. The potentiometric surface for 2016 is provided in Figure 7. The hydraulic gradient is approximately 0.017 ft/ft on-Site and 0.024 ft/ft east of the Site near the core of the VOC plume. The hydraulic properties of the near-surface aquifers were evaluated with slug testing by Arcadis for the CSR (Arcadis, 2000). The upper hydrogeologic zone has a horizontal hydraulic conductivity range of 0.7 ft per day (ft/day) to 6 ft/day with an average of 3 ft/day. The lower hydrogeologic zone has a horizontal hydraulic conductivity from the falling head permeability test, and the measured Site hydraulic gradient (0.017 ft/ft), and an assumed effective porosity of 20%, the groundwater velocity in the upper aquifer is calculated to be approximately 75 ft/yr.

## 3.3 Compliance Status of Regulated Constituents

#### 3.3.1 Overview

This section details existing conditions following nine years of corrective action and monitoring.

#### 3.3.2 Lead Contaminated Soil

Site soil with respect to lead is currently in compliance with the Site RRS with the exception of four individual sample points following the 2011 soil removal action (Figure 4). A detailed map and data summary table of the soil lead delineation are provided in Appendix C. Leaching of lead from soil to groundwater has not been observed. All nine monitoring wells in the groundwater lead monitoring network have tested non-detect (detection limit of 5 micrograms per liter [ $\mu$ g/L]) for lead since 2009.

#### 3.3.3 Volatile Organic Compounds in Groundwater

#### 3.3.3.1 Detected VOCs and Compliance Status

Six VOCs are currently detected in groundwater and are summarized below (well locations are shown in Figure 5).

• PCE is currently detected in three monitoring wells: MW-15, MW-19, and MW-20 - all located off-Site and east of 7<sup>th</sup> Street. Concentrations range from 5.6  $\mu$ g/L to 20  $\mu$ g/L, and all three locations exhibit a historically stable condition.



- TCE is currently detected in four monitoring wells: MW-12, MW-15, MW-19, and MW-20 and like PCE, is detected off-Site and east of 7<sup>th</sup> Street with the exception of one on-Site monitoring well (MW-12). TCE reports the highest concentration of detected VOCs and exhibits a generally stable concentration in MW-12, MW-19, and MW-20, and a gradually improving condition in MW-15.
- Cis-DCE, a product of PCE and TCE degradation, is the most widespread VOC reported in groundwater and is detected in TW-8, MW-12, MW-15, MW-19, and MW-20. As with PCE and TCE, cis-DCE is reported at higher concentrations off-Site and east of 7<sup>th</sup> Street. Cis-DCE currently ranges in concentration from 5.2  $\mu$ g/L to 42  $\mu$ g/L. Cis-DCE concentrations are generally stable, with some improvement noted for MW-15.
- Vinyl chloride is currently reported in three monitoring wells: TW-08, MW-19, and MW-30 - and ranges in concentration from  $6.2 \mu g/L$  to  $7.3 \mu g/L$ . Concentrations of vinyl chloride with only a few exceptions have been below 10  $\mu g/L$  since 2000 in all monitoring wells.
- In addition to the chloroethenes, two additional VOCs are intermittently detected at trace levels. Chlorobenzene is intermittently reported in MW-19 and CT is intermittently detected in MW-14.

Location	Range of Detected VOCs	Status
MW-4	TCE	Non-detect since 2002, compliant with RRS.
MW-11	TCE	Non-detect since 2003, compliant with RRS.
MW-12	PCE, TCE, cis-DCE, trans-DCE, VC,	Non-detect except for TCE, cis-DCE, and trans-
	and chlorobenzene	DCE. Concentrations are stable.
MW-13	TCE	Non-detect since 2003, compliant with RRS.
MW-14	TCE, cis-DCE, carbon tetrachloride,	Non-detect except for intermittent detection of
	and chloroform	CT.
MW-15	PCE, TCE, cis-DCE, trans-DCE, VC,	Detections limited to PCE, TCE, and cis-DCE
	and chlorobenzene	since 2014.
MW-19	PCE, TCE, cis-DCE, VC, and	Concentrations are stable.
	chlorobenzene	
MW-20	PCE, TCE, cis-DCE, and VC	Concentrations are stable.
TW-04	PCE, TCE, cis-DCE, and chlorobenzene	Non-detect since 2014, compliant with RRS.
TW-08	PCE, cis-DCE, trans-DCE, and VC	Detection limited to cis-DCE and VC,
		concentrations are declining.

Time series data for all detected VOCs are provided in Table 1 and are summarized below in tabular format. The status of TCE with respect to the Site RRS is also provided.

In summary, the VOC plume is spatially stable and defined within the current monitoring well network. Individual VOC constituents exhibit stable to decreasing concentration time trends as demonstrated by historical data provided in Table 1.

#### 3.3.4 LNAPL

Remedial actions to date have had limited success in advancing the LNAPL condition towards the attainment of the conventional regulatory goal of <0.01 ft of product in well casings. Time series



data illustrating the LNAPL condition from 2008 through 2016 is provided in Table 2. The time series data illustrates three descriptive findings for the Site LNAPL condition:

- 1. LNAPL product thickness within each monitoring well ranges from non-detect to a characteristic maximum for each location.
- 2. LNAPL free product thickness can recover following product removal, but recovery is slow, and analysis finds that the recovery is subject to changes in the local hydrogeology.
- 3. Lastly, the lateral extent of the measurable free product is well defined and stable, as illustrated by periphery wells that either never exhibit free product or only occasionally report minute or trace level LNAPL.

In retrospect of the LNAPL status, a reassessment of Site LNAPL with updated science-based LNAPL concepts was performed to determine an achievable LNAPL remedial objective for the Site. The reassessment followed the Interstate Technology & Regulatory Council (ITRC) protocols as detailed in the document, *Evaluating LNAPL Remedial Technologies for Achieving Project Goals* (ITRC, 2009). Evaluation of Site-specific LNAPL remedial objectives is provided in Section 3.4.3.

### 3.4 LNAPL Assessment

#### 3.4.1 Overview

The framework for LNAPL management has evolved over the past decade to recognize LNAPL remedial objectives require evaluation with respect to technical factors including LNAPL recovery, mobility, and risk concerns. The revised framework was developed to replace the arbitrary threshold limits common to existing LNAPL regulatory programs that in most instances are not technically feasible, and to support defining a practical endpoint for LNAPL remediation, customarily referred to as the "maximum extent practicable" or MEP. The ITRC LNAPL guidance has established a framework for determining appropriate site-specific LNAPL remediation objectives and achievable endpoints, with each objective specific to a risk concern. The four steps of the ITRC framework are:

- 1. establish an LNAPL CSM (LCSM) based on LNAPL properties, status, and potential risk concerns;
- 2. establish appropriate site-specific and achievable LNAPL remedial objectives that address each LNAPL risk concern (i.e., LNAPL risk);
- 3. develop an LNAPL remedial strategy to achieve the LNAPL remedial objective; and
- 4. establish an acceptable outcome if the LNAPL remedial objective is attained (e.g., no further action, LUC, environmental covenant, or a combination of outcomes).

Ten years of LNAPL monitoring, recovery, and evaluation provide sufficient data to establish a detailed LCSM and to evaluate practicable Site-specific LNAPL remediation objectives, steps 1 and 2 above. This section focuses on Site-specific information and LNAPL data to complete these two steps.



#### 3.4.2 LCSM

This section outlines the key elements of the LCSM based on Site history, Site-specific LNAPL data, and potential risk concerns. The LCSM is used to identify potential data gaps and potential risk concerns that require a remedial objective.

A. Site Setting

As provided in Section 1, the Site is located in a mixed commercial/industrial area with land use adjacent to and surrounding the facility zoned as commercial, industrial, or railroad related. Eventual Site reuse is limited to commercial/industrial redevelopment, which is consistent with other approved Site-specific remedial objectives (e.g., lead contaminated soil was managed to a Type 4 RRS). The Site and surrounding industrial/commercial properties are supplied water by the local municipality, and no known drinking water supply wells are present in the immediate vicinity.

#### B. LNAPL Source

The release of the diesel LNAPL occurred prior to 1980, which marked the removal of the former on-Site AST diesel tanks. No ongoing source of LNAPL is present on-Site.

#### C. LNAPL Physical/Chemical Properties

The LNAPL product was evaluated in 2006 to characterize its physical and chemical properties. To assess LNAPL viscosity, LNAPL product was collected from a well casing and submitted to a laboratory for testing. The LNAPL viscosity was determined to be 3.8 centipoises (cP) at 40°C or about six times that of water. When heated to 100°C, the LNAPL viscosity decreased to 1.6 cP, still about 2.5 times that of water. Thus, the Site's LNAPL resistance to flow is substantially impeded in comparison to water and will have a direct influence on mobility and recoverability.

Soluble components of the LNAPL were assessed by testing groundwater in direct contact with LNAPL product (i.e., groundwater from a well casing with measurable product) and groundwater adjacent to the LNAPL plume (i.e., dissolved plume constituents). Dissolved parameters for both conditions are summarized below.

Parameter	Groundwater in contact with LNAPL (µg/L)	Downgradient Groundwater (µg/L)
2-methylnaphthalene	3,100	
Acenaphthalene	180	5
Dibenzofuran	140	
Fluorene	370	7 - 1,200
Naphthalene		1.1 – 76.5
Phenanthrene	650	5 - 1,700
Isopropyl benzene	6	



The last sampling event to assess soluble LNAPL constituents was performed in 2007 and no time series data for individual monitoring wells are available for attenuation assessment. The limited naphthalene dataset is a recognized data gap for the Site and will be addressed as part of the remediation plan (Section 4).

#### D. LNAPL Delineation

The extent of the measurable LNAPL product is delineated within the existing monitoring well network as illustrated by periphery wells that either exhibit no product or occasionally report minute or trace level LNAPL (Figure 8a). Figure 8a illustrates the frequency of detection for LNAPL in well casings for the period of 2008 through 2016. Periphery monitoring wells report no detection of LNAPL product with the exception of three locations: TW-22, MW-32, and TW-26. Although these three periphery wells have reported LNAPL product during monitoring events, the quantity of LNAPL observed in these wells averages 0.14 ft to 0.20 ft for the period of 2008 to 2016 (Figure 8b) and for the past two years the maximum LNAPL product in these periphery wells ranges from non-detect (TW-26) to 0.04 ft (TW-32) as shown in Figure 8c and summarized in Table 2.

The core of the LNAPL product has remained centered primarily along the transect of monitoring well from TW-18 to TW-28 since 2008 (Figure 8b) with some accumulation of LNAPL at greater than one foot in wells to the southeast (TW-19, TW-23, TW-24, and SSB-1). This LNAPL profile is conserved for recent LNAPL measurements, 2015 and 2016 (Figure 8c), indicating the LNAPL plume is stable with no observed migration.

#### E. LNAPL Mobility & Saturation

LNAPL mobility is classified as one of three conditions as detailed in the ITRC guidance and illustrated herein. The key characteristic for classifying LNAPL mobility is the LNAPL residual saturation; LNAPL above its residual saturation limit has the potential to be mobile, whereas LNAPL below its residual saturation limit is immobile.

The first LNAPL classification is one of migrating LNAPL, in which LNAPL is observed to spread in the subsurface, horizontally over time. This condition may be observed when a source of LNAPL is present or recently released and thus having sufficient hydraulic head and saturation (i.e., above residual saturation) to continue to migrate



outwards and displace groundwater from pore space. The second classification is mobile LNAPL.



Mobile LNAPL also exceeds residual saturation but does not migrate horizontally as there is no LNAPL head. Vertical movement of mobile LNAPL can occur and is subject to LNAPL residual saturation, which is not equal for the vadose zone and saturated zone of the aquifer, and therefore mobile LNAPL responds to water table fluctuations. The last classification is residual LNAPL or LNAPL that is less than the LNAPL saturation level. At less than saturation, LNAPL is entrained or trapped within aquifer pore space.

Site LNAPL is well documented through prior delineation efforts and annual monitoring to be horizontally stable. Therefore, Site LNAPL does not exhibit properties of a migrating LNAPL plume. This is consistent with the understood age of the plume (the release occurred prior to 1980) and lack of an ongoing source of LNAPL to the subsurface. The historical dataset does exhibit properties consistent with mobile LNAPL (vertical mobility) as documented in measurements of variable LNAPL thickness in monitoring well casings. Analysis of the LNAPL well casing thickness with respect to the water table elevation finds an inverse relationship between the two. This observation indicates that Site LNAPL occurs at less than residual saturation under high water table conditions and exhibits vertical mobility only during periods of low water table elevation. Three examples illustrating Site LNAPL saturation properties and vertical mobility as a function of the Site water table status are illustrated below.

#### <u>EW-10</u>

EW-10 was installed in 2008 to increase the number of LNAPL recovery points. The time series of measurements for EW-10 illustrate a characteristic dependence of LNAPL well casing accumulation and water table elevation. For example, four events are noted where the water table was at a shallow point or less than 10 ft-bgs: March 2008, March 2009, February 2011, and June 2014. The corresponding LNAPL thickness for these periods reports trace to less than 1 ft of product in the casing. The inverse condition is noted for periods of low water table (i.e., greater LNAPL thickness).



**EW-10 Time Series Data** 



#### <u>TW-17</u>

TW-17 historically exhibits little accumulation of LNAPL product with several monitoring events finding no LNAPL product present in the casing. An exception to the historical pattern occurred in 2015 during which the water table at TW-17 declined to the lowest observed level from 2008 to 2016 (approximately 4 ft less than any other measurement). Coinciding with the drop in the water table was an accumulation of LNAPL in the casing, on the order of 8 ft of LNAPL. This observation indicates that LNAPL in the adjacent aquifer is below residual saturation under typical water table conditions but is above residual saturation and vertically mobile when the water table drops (i.e., when the vadose zone expands).







#### <u>TW-18</u>

TW-18 historically exhibits the thickest accumulation of LNAPL amongst all Site monitoring wells. The time series of measurements for TW-18 illustrates a well-defined relationship between LNAPL accumulation in the well and groundwater elevation. A notable period in the time series occurred in 2014 when the water table elevation was at its shallowest level (8 to 9 ft-bgs) reducing the width of the vadose zone; a condition that increases LNAPL residual saturation (i.e., the saturated aquifer matrix retains more LNAPL) and reduces LNAPL mobility. During this period, LNAPL was nearly absent from the well casing and no LNAPL was recoverable. A contrasting condition occurred in 2010, in which the water table was sustained at a historical low.







#### F. LNAPL Recoverability

A summary of the cumulative LNAPL product recovered is provided below and accounts for the total product recovered from fourteen monitoring/recovery wells since 2008.



Two LNAPL recovery parameters are acquired from the cumulative dataset. First, the LNAPL product recovery rate has declined by approximately 60% in 9 years, from 40 gallons per year (gpy) in 2008 to less than 15 gpy in 2016. Second, the maximum quantity of recoverable LNAPL

can be estimated by extending the recovery rate trend line to zero, at which point no additional recovery will occur. Extending the recovery rate trend line to zero, or the point of no further recovery, the maximum Site-specific LNAPL product recovery is estimated at approximately 425 gallons. Currently, 245 gallons of LNAPL have been recovered with the recovery rate declining.

#### 3.4.3 LNAPL Risk Concerns and Remedial Objectives

#### 3.4.3.1 LNAPL Risk Concerns

An LNAPL remedial objective is a site-specific and achievable goal to manage or remove a specific LNAPL risk concern identified from the LCSM (ITRC, 2009). Based on the Site LCSM, three potential risk concerns are recognized.

<u>Concern 1</u>: Presence of LNAPL product in Site monitoring wells, defined as an LNAPL saturation risk concern.

<u>Concern 2</u>: LNAPL as a potential source of soluble or dissolved constituents to groundwater, defined as a dissolved groundwater plume risk concern.

<u>Concern 3</u>: Potential exposure to LNAPL (product or soil) or inhalation of LNAPL vapors in the event the area is disturbed to support future redevelopment, defined as an LNAPL exposure risk concern.

Remedial objectives to address each risk concern are briefly outlined below.

#### 3.4.3.2 Concern 1: LNAPL Product Saturation Remedial Objective

The LNAPL saturation remedial objective is to reduce LNAPL saturation to the point that future migration of LNAPL is prevented. This remedial objective inhibits movement of LNAPL to previously uncontaminated areas. By doing this, the remedial objective limits any future potential LNAPL exposure routes to on-Site receptors only, thus allowing for potential exposure to be controlled through Site management.

#### 3.4.3.3 Concern 2: Dissolved Plume Remedial Objective

The dissolved plume remedial objective is first to determine if soluble LNAPL constituents are present in groundwater (i.e., naphthalene), and second to assess potential exposure routes, if present. Dissolved naphthalene was last assessed in 2007 and included monitoring wells on the eastern side of the Site. No naphthalene was detected. Wells proximate to the LNAPL plume were last assessed in 2000 or 2003. As identified in section 3.4.2, a recent assessment of dissolved LNAPL constituents is a recognized data gap and will be assessed as part of the proposed remediation plan, with an objective to manage naphthalene to the Site property line or a to-be-determined point of exposure (POE).

#### 3.4.3.4 Concern 3: Exposure to LNAPL Product or Vapors Remedial Objective

Direct LNAPL exposure concerns are currently obstructed and will only occur if the overburden soil in the LNAPL area is disturbed for construction purposes. The limits of the LNAPL plume are well defined, and any future redevelopment can be enacted in a manner protective of workers.



Thus the remedial objective to address the concern of direct exposure to LNAPL product or vapors is land management (i.e., LUC).

## 3.5 Potential Receptors and Exposure Pathways

#### 3.5.1 On-Site Receptors and Exposure Pathways

The Site is located in a mixed commercial/industrial area with no reasonable expectation of residential occupation. Thus, on-Site receptors (current and potential future) include Site Workers, Trespassers, and Construction Workers. On-Site receptors might be exposed to COCs via dermal exposure, ingestion, and inhalation, or possibly through vapor intrusion (possible indoor air exposure/inhalation) if future structures were to be constructed and occupied. A summary for each potential Site receptor is provided below.

- <u>Current/Future Site Worker</u>: It is anticipated that the Site will continue to remain commercial/industrial based on the surrounding property use and its physical location being bound by active railroad infrastructure. Site workers associated with this type of land use can potentially have long-term exposure to Site-related chemicals in surface soil via particulate ingestion and dermal contact. Concrete or asphalt coverings may prevent worker exposure to residual lead contamination in underlying soil. For VOCs, exposure to Site workers is more likely to occur via the inhalation of volatiles in indoor air. Potential vapor intrusion pathways will be evaluated subject to future land use, and suitable measures are available to control vapor intrusion should future land use require the construction of an indoor facility. Thus exposure to Site Workers can be managed according to appropriate land use protocols.
- <u>Current/Future Construction Worker</u>: Construction workers could potentially have shortterm (<1 year) exposure to COCs in mixed surface and subsurface soil (0 to 10 ft-bgs) via ingestion, dermal contact, and inhalation of volatiles and particulates. The distribution of soil and groundwater contaminants is well understood for the Site with the current monitoring well network establishing the bounds of VOCs and LNAPL, and the extensive soil delineation activity characterizing the residual soil lead condition. All Site data is captured in a Geographic Information System (GIS) that will allow future Site reuse to be planned with respect to residual COC conditions. Thus exposure to construction workers can be managed according to OSHA Hazardous Waste Operations (HAZWOPER) protocols.
- <u>Trespassers</u>: Trespassers could potentially have short-term (i.e., hours to days) exposure to surface soil via ingestion, dermal contact, and inhalation of particulates. Exposure to groundwater is inhibited as no water supply wells are located on-Site. The Site is fenced and locked to prevent trespasser activity.



#### 3.5.2 Off-Site Receptors and Exposure Pathways

#### 3.5.2.1 Lead Contaminated Soil

As noted in Section 2.3.2, three soil samples at or slightly past the Site property line report detection of lead above the RRS. Two samples are located on the edge of the property line abutting to the Norfolk Southern right-of-way for active railroad lines and the supporting rail ballast stone. Construction or railroad maintenance workers could potentially have short-term dermal contact exposure to contaminated soil or inhalation of particulates. The other soil sample is located at the edge of 7<sup>th</sup> Street. No further excavation could be conducted adjacent to 7<sup>th</sup> Street as excavation would have undermined or required removal of the 7<sup>th</sup> Street base material or concrete. As with the other two off-Site locations, road maintenance or construction workers could potentially have short-term exposure to lead contaminated soil through dermal contact or inhalation of particulates.

#### 3.5.2.2 Groundwater VOCs

There are no known users of groundwater in the vicinity of the Site. However, a thorough records search will be undertaken for verification. The primary potential exposure pathway for off-Site receptors is for VOC vapor intrusion, although based on the available data this pathway appears negligible, but will be evaluated in the course of the VRP assessments. Development of occupied structures above the core of the VOC plume is also unlikely as the area is currently occupied by several rail lines and a heavy equipment laydown area.



# **4 REMEDIATION PLAN**

### 4.1 Remediation Plan for Lead

Site soil with respect to lead is currently in compliance with the Type 4 RRS, with the exception of four individual sample points following the 2011 soil removal action (Section 3.3.2). Removal of three of the four locations is obstructed by existing infrastructure (i.e., railroad tracks or concrete roadway) that also prevents exposure to Site occupants or trespassers. Leaching of lead from soil to groundwater is not observed for the Site and the potential for any future leaching has been minimized through the soil removal action. Based on these Site-specific conditions, the following actions are proposed to address the residual soil lead condition.

- Off-Site Soil: soil that was not excavated during the removal action due to off-Site physical barriers (i.e., paved roadway or railroad tracks) will be addressed with a LUC to manage future exposure in the event the area is disturbed (i.e., excavated). The LUC will be recorded with an environmental covenant pending agreement with the adjoining property owners to enter the off-Site parcels as a qualifying property.
- On-Site Soil: a no further action (NFA) approach is proposed for on-Site soil (i.e., the single location above the RRS). The suitability of an NFA for on-Site soil will be verified by completing a Site exposure assessment. Remaining Site soil will be evaluated for potential exposure concerns by use of soil area averaging, as allowed by the VRP, using Site data to evaluate compliance with soil criteria. If the representative soil lead concentration for an exposure domain is found to be in compliance with the Site-specific RSS, an NFA approach will be confirmed suitable.

## 4.2 Remediation Plan for VOCs

As illustrated in Section 3.3, the chlorinated ethene group of VOCs is the dominant component of the groundwater plume. The chloroethene groundwater plume is horizontally and vertically bounded by the existing monitoring well network and exhibits a stable spatial profile (i.e., the plume is not migrating). There is limited to adequate evidence to indicate intrinsic microbial communities are degrading the plume, albeit at a gradual rate. The presence of degradation daughter products – TCE, cis-DCE, and VC – is the strongest line of evidence to support this conclusion. There currently does not exist a route for exposure as area groundwater is not utilized as a potable water source and the plume is centered beneath a heavily traveled railway corridor. Based on these site-specific conditions, an MNA approach is proposed with a LUC for the Site and adjoining property. The LUC would be in the form of an environmental covenant pending agreement with the adjoining property owner to enter the parcel as a qualifying property.

## 4.3 Remediation Plan for LNAPL Risk Concerns

#### 4.3.1 Overview

Three potential risk concerns were identified from the LCSM. The three risk concerns and corresponding remedial objectives (Section 3.4.3) are summarized below followed by a proposed remediation plan to address each.

Concern	Potential Risk	Remedial Objective	Performance Metric
Concern 1:	The presence of LNAPL	Based on reduced LNAPL	LNAPL footprint/center of
LNAPL	product (i.e., LNAPL	saturation and prevention of	mass stabilization; establish
Product	saturation) in Site monitoring	product migration, NFA	environmental covenant
Saturation	wells; potential migration	approach through land	
		management (i.e. LUC)	
Concern 2:	LNAPL as a potential source of	Attainment of Type 4 RRS for	Stable dissolved plume;
Dissolved	dissolved constituents to	naphthalene prior to POE	attainment of naphthalene
Plume	groundwater (i.e., dissolve		regulatory standard at POE
	plume)		
Concern 3:	Potential exposure to LNAPL	Land management (i.e., LUC)	Establish environmental
Direct	(product or soil) or inhalation		covenant
Contact &	of LNAPL vapors in the event		
Inhalation	the area is disturbed to support		
	future redevelopment		

#### 4.3.2 Concern 1: LNAPL Product Saturation

The LNAPL product saturation remedial objective is to achieve a condition of stable and nonmigratory LNAPL. Currently, there exists sufficient historical data to confirm the LNAPL condition and verify plume stability based on nine years of product removal and monitoring (including decreasing LNAPL recovery rate) as evaluated in Section 3.4.2. Based on the sitespecific conditions, an NFA approach is the remediation plan for the LNAPL saturation concern. Potential exposure routes are limited to on-Site receptors, which can be appropriately managed through a LUC. A LUC in the form of an environmental covenant will prevent future incidental contact or allow for appropriate health and safety measures to be enacted if the area were to be disturbed during future Site redevelopment.

#### 4.3.3 Concern 2: Dissolved Plume

The second remedial objective for the Site LNAPL is to determine if dissolved constituents are present in groundwater (specifically naphthalene) and if present, manage the dissolved condition to the Type 4 RRS ( $20 \mu g/L$ ) at the POE. Dissolved naphthalene was last assessed in 2007 on the eastern side of the Site and sampling was not intended to assess the area downgradient of the LNAPL plume. As identified in section 3.4.2, assessment of naphthalene is a recognized data gap and will be evaluated as part of the remediation plan. Based on these site-specific conditions, a baseline sampling event is proposed as the remediation plan to verify that the naphthalene plume,



if existent, is limited to the Site. In the event the naphthalene plume extends off-Site, additional characterization and remedial options will be evaluated.

The baseline sample event for naphthalene will include six on-Site monitoring wells as shown in Figure 9.

#### 4.3.4 Concern 3: Direct Contact & Inhalation

Direct exposure to LNAPL product is currently obstructed and will only occur if the overburden soil in the LNAPL area is disturbed for construction purposes. An exposure pathway for vapors is not considered complete unless the overburden soil is disturbed or an enclosed structure is built over the LNAPL area. The limits of the LNAPL plume are well defined and any future redevelopment can be enacted in a manner protective of workers. Thus, the remediation plan to address the concern of direct exposure to LNAPL product or vapors is a LUC. A LUC in the form of an environmental covenant is a feasible approach to protect future occupants to direct exposure LNAPL or indirect exposure to LNAPL from released vapors.



# **5 MILESTONE SCHEDULE**

The Projected Milestone Schedule (Appendix D) is benchmarked according to acceptance into the VRP.

An environmental covenant as provided in Georgia Uniform Environmental Covenants Act, OCGA § 44-16-1, et seq., will be implemented to restrict groundwater use at the Site and adjacent properties, to limit the Site to non-residential usage, and to ensure that future construction and use of the Site has proper safeguards for site and construction workers. However, Transco intends to defer the recording of the covenant until any additional assessment and remediation activities are implemented to ensure that the covenant properly identifies the restrictions for the Site.



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## TABLES

Location/Date	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Acenaphthene	Acetone	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroform	cis-1,2-Dichloroethene	Fluorene	Freon-11	lsopropylbenzene	Naphthalene	Phenanthrene	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene	Vinyl chloride
MW-01																			
8/6/1997	ND	ND	ND	ND			ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4/13/1999	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/29/2000	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/7/2003	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND
MW-02																			
8/6/1997	ND	ND	ND	ND			ND	ND		ND	ND	ND	12.1	76.5	106	ND	ND	ND	ND
4/13/1999	ND	ND	ND	ND	ND	ND	ND	ND		ND	1200	ND	ND	ND	1700	ND	ND	ND	ND
10/6/2000				5							7			ND	5				
MW-03																			
8/13/1997	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4/13/1999	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/29/2000	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/7/2003	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND
MW-04																			
8/13/1997	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	3	ND
4/13/1999	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	5	ND
3/1/2000	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	6	ND
10/1/2002					ND	ND	ND	ND		ND						ND	ND	1.7	ND
1/14/2003	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	1.1		ND	ND	ND	ND
3/1/2007	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND
8/21/2009	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
11/16/2009	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
2/18/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
5/5/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/11/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
11/29/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
2/23/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
5/9/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/2/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
7/25/2012	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
9/17/2013	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
9/11/2014	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/5/2015	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/10/2016	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
MW-08D																			
6/28/2000	ND	ND	ND		29.5	2.6	ND	ND		ND		ND	ND	ND		ND	ND	2.8	ND
10/6/2000	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND
2/7/2003	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND

Location/Date	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Acenaphthene	Acetone	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroform	cis-1,2-Dichloroethene	Fluorene	Freon-11	lsopropylbenzene	Naphthalene	Phenanthrene	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene	Vinyl chloride
MW-11																			
10/5/2000	ND	ND	ND		ND	ND	ND	ND		ND		ND	2.2	ND		ND	ND	ND	ND
10/1/2002					ND	ND	ND	ND		ND						ND	ND	ND	ND
1/14/2003	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	2.3	ND
3/1/2007	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND
8/21/2009	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
11/16/2009	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
2/18/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
5/5/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/11/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
11/29/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
2/23/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
5/9/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/2/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
7/25/2012	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
9/18/2013	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
9/11/2014	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/5/2015	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/10/2016	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
MW-12																			
10/5/2000	ND	ND	ND		ND	ND	ND	ND		6.8		ND	ND	ND		ND	ND	26.6	ND
10/1/2002					ND	ND	ND	7.2		36						29	3.9	140	4.6
1/14/2003	ND	ND	ND		ND	ND	ND	ND		7		ND	ND	ND		ND	1.9	9.4	ND
3/1/2007	ND	ND	ND		ND	ND	ND	ND		9.7		ND	ND	ND		ND	ND	8.3	ND
8/21/2009	ND	ND	ND		ND	ND	ND	ND	ND	16		ND	ND			ND	ND	19	ND
11/16/2009	ND	ND	ND		ND	ND	ND	ND	ND	6.6		ND	ND			ND	ND	7.5	ND
2/18/2010	ND	ND	ND		ND	ND	ND	14	ND	9.9		ND	ND			ND	ND	6.6	ND
5/5/2010	ND	ND	ND		ND	ND	ND	9.7	ND	12		ND	ND			ND	ND	10	ND
8/11/2010	ND	ND	ND		ND	ND	ND	ND	ND	12		ND	ND			ND	ND	18	ND
11/29/2010	ND	ND	ND		ND	ND	ND	ND	ND	14		ND	ND			ND	ND	20	ND
2/22/2011	ND	ND	ND		ND	ND	ND	ND	ND	5.9		ND	ND			ND	ND	9.8	ND
5/9/2011	ND	ND	ND		ND	ND	ND	ND	ND	9.8		ND	ND			ND	ND	10	ND
8/2/2011	ND	ND	ND		ND	ND	ND	ND	ND	15		ND	ND			ND	ND	18	ND
7/25/2012	ND	ND	ND		ND	ND	ND	ND	ND	15		ND	ND			ND	5.5	17	ND
9/17/2013	ND	ND	ND		ND	ND	ND	69	ND	9.4		ND	ND			ND	ND	6.3	ND
9/11/2014	ND	ND	ND		ND	ND	ND	ND	ND	12		ND	ND			ND	ND	11	ND
8/5/2015	ND	ND	ND		ND	ND	ND	ND	ND	13		ND	ND			ND	ND	13	ND
8/10/2016	ND	ND	ND		ND	ND	ND	ND	ND	19		ND	ND			ND	5.2	17	ND

Location/Date	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Acenaphthene	Acetone	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroform	cis-1,2-Dichloroethene	Fluorene	Freon-11	Isopropylbenzene	Naphthalene	Phenanthrene	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene	Vinyl chloride
MW-13																			
10/5/2000	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND
10/1/2002					ND	ND	ND	ND		ND						ND	ND	ND	ND
1/14/2003	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	1.3	ND
3/1/2007	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND
8/21/2009	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
11/16/2009	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
2/18/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
5/5/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/11/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
11/29/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
2/22/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
5/10/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/2/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
7/24/2012	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
9/17/2013	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
9/11/2014	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/5/2015	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/10/2016	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
MW-14																			
10/5/2000	ND	ND	ND		ND	ND	10.8	ND		ND		ND	ND	ND		ND	ND	12.5	ND
10/1/2002					ND	ND	43	ND		1.1						ND	ND	6.5	ND
1/15/2003	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	2.3	ND
2/28/2007	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND
8/21/2009	ND	ND	ND		ND	ND	19	ND	ND	ND		ND	ND			ND	ND	ND	ND
11/16/2009	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
2/19/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
5/5/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	5.7	ND
8/11/2010	ND	ND	ND		ND	ND	12	ND	ND	ND		ND	ND			ND	ND	ND	ND
11/30/2010	ND	ND	ND		ND	ND	28	ND	ND	ND		ND	ND			ND	ND	ND	ND
2/22/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
5/10/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/2/2011	ND	ND	ND		ND	ND	26	ND	5.5	ND		ND	ND			ND	ND	ND	ND
7/24/2012	ND	ND	ND		ND	ND	23	ND	5.3	ND		ND	ND			ND	ND	ND	ND
9/17/2013	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
9/10/2014	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/5/2015	ND	ND	ND		ND	ND	13	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/10/2016	ND	ND	ND		ND	ND	6	ND	ND	ND		ND	ND			ND	ND	ND	ND

Location/Date	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Acenaphthene	Acetone	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroform	cis-1,2-Dichloroethene	Fluorene	Freon-11	sopropylbenzene	Naphthalene	Phenanthrene	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene	vinyl chloride
MW-15						-		-				_		_			-		
10/5/2000	18.9	2.7	6.4		ND	ND	ND	20.3		87.1		ND	ND	ND		55.8	3.2	165	10.8
10/1/2002					ND	ND	ND	7.3		39						27	4.1	140	4.6
1/14/2003	2.8	ND	1		ND	ND	ND	3		34		ND	ND	ND		16	3.6	140	3.5
2/28/2007	ND	ND	ND		ND	ND	ND	ND		70		ND	ND	ND		23	5.9	210	8.4
8/20/2009	7.8	ND	ND		ND	ND	ND	6	ND	41		ND	ND			26	ND	130	4
11/16/2009	9	ND	ND		ND	ND	ND	6.8	ND	41		ND	ND			29	5.2	170	5
2/18/2010	ND	ND	ND		ND	ND	ND	ND	ND	32		ND	ND			18	5.8	190	3.5
5/5/2010	ND	ND	ND		ND	ND	ND	ND	ND	37		ND	ND			23	5.1	180	3.8
8/11/2010	ND	ND	ND		ND	ND	ND	ND	ND	21		ND	ND			13	ND	110	2.5
11/29/2010	ND	ND	ND		ND	ND	ND	ND	ND	18		ND	ND			16	ND	110	2
2/22/2011	ND	ND	ND		ND	ND	ND	ND	ND	29		ND	ND			16	ND	130	2.5
5/10/2011	ND	ND	ND		ND	ND	ND	ND	ND	36		ND	ND			16	ND	160	ND
8/3/2011	ND	ND	ND		ND	ND	ND	ND	ND	42		ND	ND			22	ND	190	4.1
7/25/2012	16	ND	ND		ND	ND	ND	12	ND	55		ND	ND			56	ND	160	6.2
9/17/2013	11	ND	ND		ND	ND	ND	8.4	ND	40		ND	ND			40	ND	140	4
9/10/2014	ND	ND	ND		ND	ND	ND	ND	ND	18		ND	ND			11	ND	78	ND
8/5/2015	ND	ND	ND		ND	ND	ND	ND	ND	21		ND	ND			12	ND	92	ND
8/10/2016	ND	ND	ND		ND	ND	ND	ND	ND	29		ND	ND			14	ND	110	ND
MW-16																			
2/10/2003	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND
2/28/2007	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND
8/20/2009	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
11/16/2009	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
2/18/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
5/5/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/11/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
11/29/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
2/22/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
5/9/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/1/2011		ND	ND		ND	ND	ND	ND		ND		ND	ND			ND	ND	ND	
0/16/2012																			
9/10/2013																			
9/10/2014 8///2015								ND								ND			
8/9/2015		ND			ND		ND	ND		ND		ND				ND			
0, 5, 2010																			

Location/Date	1,2-Dichlorobenzene	1, 3-Dichlorobenzene	1,4-Dichlorobenzene	Acenaphthene	Acetone	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroform	cis-1,2-Dichloroethene	Fluorene	Freon-11	sopropylbenzene	Naphthalene	Phenanthrene	Tetrachloroethene	trans-1,2-Dichloroethene	<b>Trichloroethene</b>	vinyl chloride
MW-17																			
2/10/2003	ND	ND	ND		59	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND
2/28/2007	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND
8/19/2009	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
11/16/2009	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
2/18/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
5/5/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/11/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
11/29/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
2/22/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
5/9/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/3/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
7/25/2012	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
9/17/2013	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
9/10/2014	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/5/2015	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/10/2016	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
MW-18																			
8/19/2009	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
11/16/2009	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
2/18/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
5/6/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/12/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
11/29/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
2/23/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
5/9/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/2/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
7/25/2012	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
9/17/2013	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
9/11/2014	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/5/2015	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/10/2016	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND

Location/Date	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Acenaphthene	Acetone	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroform	cis-1,2-Dichloroethene	Fluorene	Freon-11	lsopropylbenzene	Naphthalene	Phenanthrene	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene	Vinyl chloride	
MW-19												_	_	_	_					-
8/19/2009	7.5	ND	ND		ND	ND	ND	8.3	ND	44		ND	ND			23	ND	170	7.8	
11/16/2009	ND	ND	ND		ND	ND	ND	ND	ND	30		ND	ND			18	ND	160	3.9	
2/18/2010	ND	ND	ND		ND	ND	ND	ND	ND	21		ND	ND			19	ND	130	2.9	
5/5/2010	ND	ND	ND		ND	ND	ND	ND	ND	34		ND	ND			21	ND	150	6	
8/11/2010	6.5	ND	ND		ND	ND	ND	6.5	ND	35		ND	ND			22	ND	150	8.8	
11/29/2010	9.6	ND	ND		ND	ND	ND	10	ND	40		ND	ND			32	ND	190	9.9	
2/22/2011	6.9	ND	ND		ND	ND	ND	6.2	ND	35		ND	ND			19	ND	160	4.5	
5/10/2011	5.3	ND	ND		ND	ND	ND	ND	ND	30		ND	ND			17	ND	130	ND	
8/2/2011	7.1	ND	ND		ND	ND	ND	6.6	ND	31		ND	ND			20	ND	140	5.1	
7/25/2012	5.7	ND	ND		ND	ND	ND	5.3	ND	35		ND	ND			22	ND	180	6.1	
9/16/2013	ND	ND	ND		ND	ND	ND	ND	ND	26		ND	ND			19	ND	140	4	
9/10/2014	13	ND	ND		ND	ND	ND	13	ND	47		ND	ND			27	ND	140	9.1	
8/5/2015	8.4	ND	ND		ND	ND	ND	8.2	ND	31		ND	ND			24	ND	130	4.5	
8/9/2016	9.3	ND	ND		ND	ND	ND	7.9	ND	42		ND	ND			20	ND	160	7.3	
MW-20																				
2/23/2011	ND	ND	ND		ND	ND	ND	ND	ND	13		ND	ND			6	ND	49	3.8	
5/10/2011	ND	ND	ND		ND	ND	ND	ND	ND	14		ND	ND			5.5	ND	48	2.1	
8/2/2011	ND	ND	ND		ND	ND	ND	ND	ND	15		ND	ND			7.2	ND	57	4.2	
7/25/2012	ND	ND	ND		ND	ND	ND	ND	ND	20		ND	ND			6.7	ND	65	5.2	
9/16/2013	ND	ND	ND		ND	ND	ND	ND	ND	16		ND	ND			5.8	ND	51	11	
9/10/2014	ND	ND	ND		ND	ND	ND	ND	ND	14		ND	ND			5.1	ND	46	6	
8/5/2015	ND	ND	ND		ND	ND	ND	ND	ND	12		ND	ND			6.5	ND	47	3.2	
8/9/2016	ND	ND	ND		ND	ND	ND	ND	ND	16		ND	ND			5.6	ND	49	7.2	
MW-21																				
2/24/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND	Ì
5/10/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND	
8/2/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND	
7/25/2012	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND	
9/16/2013	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND	
9/10/2014	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND	
8/5/2015	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND	
8/9/2016	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND	
MW-9D																				
6/28/2000	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2/7/2003	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND	
NS-1																				
8/5/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND	
TW-01																				_
3/1/2000	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2/7/2003	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND	
## Table 1Time Series Data for Detected VOCs in Groundwater

	2-Dichlorobenzene	3-Dichlorobenzene	+Dichlorobenzene	enaphthene	etone	rbon disulfide	rbon tetrachloride	lorobenzene	loroform	-1,2-Dichloroethene	Jorene	eon-11	ppropylbenzene	phthalene	enanthrene	trachloroethene	ans-1,2-Dichloroethene	ichloroethene	nyl chloride
Location/Date	1,1	τ,	1,4	Ac	Ac	ů	S	5	<del>5</del>	cis	E	Ę	Isc	Za	Ч	Те	tra	Ë	5
TW-02																			
5/29/2000	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	1	23.1	ND	ND	ND	ND	ND
2/19/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
5/6/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/11/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
11/30/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
2/23/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
5/9/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/1/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
7/24/2012	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/10/2016	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
TW-03																			
5/29/2000	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	1.5	ND	ND	ND	ND	ND	ND	ND
6/30/2000	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND
2/7/2003	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND
8/20/2009	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
5/6/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/11/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
11/30/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
2/22/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
5/9/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/1/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
7/24/2012	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
9/18/2013	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
9/11/2014	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/6/2015	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/10/2016	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND

## Table 1Time Series Data for Detected VOCs in Groundwater

Location/Date	1,2-Dichlorobenzene	1, 3-Dichlorobenzene	1,4-Dichlorobenzene	Acenaphthene	Acetone	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroform	cis-1,2-Dichloroethene	Fluorene	Freon-11	Isopropylbenzene	Naphthalene	Phenanthrene	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene	Vinyl chloride
TW-04																			
5/29/2000	ND	ND	3.1	ND	ND	ND	ND	15.4		2.4	ND	ND	ND	ND	ND	ND	ND	ND	1.4
9/13/2000	ND	ND	ND		ND	ND	ND	4.9		4.4		ND	ND	ND		4.6	ND	ND	ND
10/2/2002					ND	ND	ND	ND		ND						ND	ND	ND	ND
1/14/2003	ND	ND	ND		ND	ND	ND	ND		1.1		ND	ND	ND		ND	ND	ND	ND
3/2/2007	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND
8/20/2009	ND	ND	ND		ND	ND	ND	5.6	ND	ND		ND	ND			ND	ND	ND	ND
11/17/2009	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
2/19/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
5/6/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/11/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
11/30/2010	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
2/22/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
5/9/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/2/2011	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
7/24/2012	ND	ND	ND		ND	ND	ND	5.4	ND	ND		ND	ND			ND	ND	ND	ND
9/18/2013	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
9/11/2014	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/6/2015	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
8/10/2016	ND	ND	ND		ND	ND	ND	ND	ND	ND		ND	ND			ND	ND	ND	ND
TW-07																			
6/29/2000	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND
2/7/2003	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND
3/1/2007	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND
TW-08																			
6/28/2000	ND	ND	ND		ND	ND	ND	ND		13.5		ND	ND	ND		ND	ND	ND	5.2
9/13/2000	ND	ND	ND		ND	ND	ND	ND		19.9		ND	ND	ND		3.4	ND	ND	8.2
9/30/2002					ND	ND	ND	ND		15						ND	1	ND	7.4
1/14/2003	ND	ND	ND		ND	ND	ND	ND		11		ND	ND	ND		ND	ND	ND	7.1
3/1/2007	ND	ND	ND		ND	ND	ND	ND		16		ND	ND	ND		ND	ND	ND	9
8/21/2009	ND	ND	ND		ND	ND	ND	ND	ND	14		ND	ND			ND	ND	ND	7.3
11/16/2009	ND	ND	ND		ND	ND	ND	ND	ND	8.6		ND	ND			ND	ND	ND	4.5
2/18/2010	ND	ND	ND		ND	ND	ND	ND	ND	5.6		ND	ND			ND	ND	ND	ND
5/5/2010	ND	ND	ND		ND	ND	ND	ND	ND	8.2		ND	ND			ND	ND	ND	4.3
8/11/2010	ND	ND	ND		ND	ND	ND	ND	ND	12		ND	ND			ND	ND	ND	6.4
11/29/2010	ND	ND	ND		ND	ND	ND	ND	ND	14		ND	ND			ND	ND	ND	5.9
2/22/2011	ND	ND	ND		ND	ND	ND	ND	ND	11		ND	ND			ND	ND	ND	4.8
5/9/2011	ND	ND	ND		ND	ND	ND	ND	ND	8.4		ND	ND			ND	ND	ND	2.6
8/2/2011	ND	ND	ND		ND	ND	ND	ND	ND	9.5		ND	ND			ND	ND	ND	5.9
7/25/2012	ND	ND	ND		ND	ND	ND	ND	ND	15		ND	ND			ND	ND	ND	11
9/18/2013	ND	ND	ND		ND	ND	ND	ND	ND	6.3		ND	ND			ND	ND	ND	3
9/11/2014	ND	ND	ND		ND	ND	ND	ND	ND	10		ND	ND			ND	ND	ND	3.3
8/5/2015	ND	ND	ND		ND	ND	ND	ND	ND	9.4		ND	ND			ND	ND	ND	3.8
8/10/2016	ND	ND	ND		ND	ND	ND	ND	ND	11		ND	ND			ND	ND	ND	6.2

Table 1Time Series Data for Detected VOCs in Groundwater

Location/Date	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Acenaphthene	Acetone	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroform	cis-1,2-Dichloroethene	Fluorene	Freon-11	lsopropylbenzene	Naphthalene	Phenanthrene	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene	Vinyl chloride
TW-09																			
6/30/2000	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/7/2003	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND
TW-10																			
6/29/2000	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/7/2003	ND	ND	ND		ND	ND	ND	ND		ND		ND	ND	ND		ND	ND	ND	ND

## Table 2Time Series Data for Measured LNAPL Free Product

Measurement Date	EW-10	EW-11	EW-12	EW-13	EW-14	MW-02	SSB-1	TW-01	TW-02	TW-1	TW-16	TW-17
1/31/2008	0.1	ND	ND	0.4	ND	2.5				ND	3.63	3.7
3/14/2008	0.05	ND	ND	ND	ND	6.7				ND	1.55	ND
3/25/2008	0.74	ND	ND	ND	ND	0.22						0.02
6/11/2008	2.2	ND	0.07	0.4	ND	0.4				ND	1.55	4.35
8/20/2008	2.55	ND	0.09	ND	0.52	0.7						0.36
9/11/2008	2.63	ND	ND	ND	ND	0.08				ND	1.8	0.02
11/25/2008	ND	ND	ND	ND	0.05	ND				ND	0.42	ND
1/5/2009	0.7	ND	ND	ND	ND	1.76				ND	ND	0.13
3/20/2009	1.02	ND	1.15	3.2	0.56	2.18						ND
3/30/2009										ND	1.13	
6/17/2009	0.66	ND	ND	0.93	1.48	1.31				ND	3.14	ND
9/11/2009	2.34	ND	ND	1.55	0.99	0.78						0.39
1/15/2010	6.43	ND	ND	ND	ND	2.86				ND	2.87	0.11
6/29/2010	9.05	ND	0.56		ND	2.18	0.11			ND	ND	0.13
8/17/2010	0.47	ND	ND		ND	1.1	1.05			ND	0.01	ND
8/30/2010	2.47	ND	ND		ND	2.06	1.24			ND	1.03	0.01
9/22/2010	1.29	ND	0.95		ND	1.64	2.17			ND	1.18	0.04
2/21/2011	0.28	ND	ND		0.02	1.86	1.1			ND	0.33	1.52
5/9/2011	2.47	ND	0.23	ND	0.07	0.87						ND
8/1/2011	0.13	ND	0.61	0.67	ND	5.19						0.89
2/3/2012	5.62	ND	0.21		0.69	0.35	3.74			ND	0.6	0.24
11/1/2012		ND	0.22		0.65		3.66			ND	0.48	
5/1/2013	7.78	ND	3.23		2.33	2.28	1.93			ND	3.59	1.76
4/22/2014	7.41	ND	2.52	7.49	3.74	5.53	2.22			ND	0.73	0.07
6/1/2014	ND	ND	2.32	ND	ND	1.1	2.09			ND	1.43	ND
10/15/2014	5.16	ND	2.36	ND		1.9	0.22			ND	0.46	0.55
2/1/2015	2.57	ND	1.8	0.09	0.05	2.79	0.38			ND	0.02	8.1
5/1/2015	3.81	ND	2.01	0.73	0.31	3.43	0.99			ND	0.69	0.04
8/1/2015	3.3	ND	2.2	0.65	0.4	1.5	ND			ND	0.15	0.21
12/1/2015	0.86	ND	2.39	0.62	0.35	1.01	0.34			ND	0.16	0.04
4/1/2016	6.76	ND	1.85	1.38		5.46	0.97	ND	ND		0.76	0.04
8/1/2016	6.8	ND	2.41	ND		2.06	0.06	ND	ND		0.25	0.27

Units: feet ND: Non-detect --: not measured

## Table 2Time Series Data for Measured LNAPL Free Product

Measurement Date	TW-18	TW-19	TW-2	TW-20	TW-22	TW-23	TW-24	TW-25	TW-26	TW-27	TW-28	TW-29
1/31/2008	8.92	4.52	ND	4.5	1.09	2.1	2.35	ND	1.12		3.38	10.17
3/14/2008	1.6	ND	ND	ND	0.15		3.45	ND	0.7		4.7	6.85
3/25/2008	0.62	ND		0.57								
6/11/2008	9.05	1.4	ND	ND	0.15		3.45	ND	0.71	ND	4.7	6.85
8/20/2008	10.22	0.85		ND								
9/11/2008	0.74	0.95	0.14	ND	0.03	6.35	1.13	0.05	ND	ND	1.18	5.81
11/25/2008	0.02	1.48	0.02	ND	0.23	5.91	0.29	ND	0.06	ND	1.84	3.73
1/5/2009	2.55	1.75	ND	1.93	0.31	1.25	0.91	ND	0.34	4.72	7.54	ND
3/20/2009	1.21	ND		ND								
3/30/2009			ND		0.28	11.5	1.31	ND	0.34	ND	4	9.25
6/17/2009	9.47	3.4	ND	ND	0.21	13.32	1.34	ND	0.21	0.69	9.1	ND
9/11/2009	9.73	ND		ND								
1/15/2010	12.5	5.81	ND	0.14	0.21	15.06	1.37	ND	0.11	0.99	10.59	ND
6/29/2010	12.62	ND	ND	ND	1.05	ND	2.96	10.84	0.05	0.84	2.31	ND
8/17/2010	1.1	6.15	ND	ND	ND	0.4	1.81	ND	ND	ND	1.77	1.75
8/30/2010	11.33	6.75	ND	ND	0.14	3.95	2.54	ND	ND	ND	1.69	2
9/22/2010	5.41	6.75	ND	ND	0.15	0.7	1.36	ND	ND	ND	0.45	1.74
2/21/2011	5.9	1.06	ND	0.26	0.47	1.37	0.97	ND	ND	ND	7.99	8.7
5/9/2011	6.02	1.3		0.23								
8/1/2011	0.3	0.01		0.04								
2/3/2012	1.06	2.25	ND	1.12	0.01	1.19	1	ND	ND	ND	3.04	3.64
11/1/2012		2.35	ND		0.01	1.03	0.84	ND	ND	ND	2.84	3.1
5/1/2013	3.91	1.68	ND	2.06	0.15	13.85	0.21	ND	0.12	ND	5.15	9.51
4/22/2014	13.39	1.31	ND	2.54	0.05	15.44	6.23	ND	ND	ND	2.84	10.13
6/1/2014	0.03	ND	0.01	0.01	0.12	2.87	3.9	ND	ND	ND	0.02	2.38
10/15/2014	10.32	ND	ND	0.94	0.1	3.83	1.61	ND	ND	ND	ND	5.31
2/1/2015	0.05	0.25	ND	1.01	ND	1.15	4.15	ND	ND	ND	0.17	3.33
5/1/2015	10.09	0.62	ND	1.16	ND	5.86	4.87	ND	ND	ND	0.06	4.65
8/1/2015	10.55	1.85	ND	0.03	0.03	2	1.98	ND	ND	ND	ND	1.78
12/1/2015	6.14	1.33	ND	0.4	ND	0.41	0.51	ND	ND	ND	0.37	0.91
4/1/2016	8.11	3.14		1.09	ND	9.5	1.64	ND	ND	ND	0.07	7.44
8/1/2016	10.15			0.09	0.01	3.47	2.17	ND	ND	ND	0.03	6.64

## Table 2Time Series Data for Measured LNAPL Free Product

Measurement Date	TW-30	TW-31	TW-32	TW-33	TW-34
1/31/2008	ND		ND	ND	ND
3/14/2008	ND	ND	ND	ND	ND
3/25/2008					
6/11/2008	ND	ND	ND	ND	ND
8/20/2008					
9/11/2008	ND	ND	ND	ND	ND
11/25/2008	ND	ND	ND	ND	ND
1/5/2009	ND	ND	ND	ND	
3/20/2009					
3/30/2009	ND	ND	ND	ND	ND
6/17/2009	ND	ND	ND	ND	
9/11/2009					
1/15/2010	ND	ND	ND	ND	
6/29/2010	ND	ND	ND	ND	ND
8/17/2010	ND	ND	ND	ND	ND
8/30/2010	ND	ND	ND	ND	ND
9/22/2010	ND	ND	ND	ND	ND
2/21/2011	ND	ND	ND	0.44	ND
5/9/2011					
8/1/2011					
2/3/2012	ND	ND	0.05	ND	ND
11/1/2012	ND	ND	0.1	ND	ND
5/1/2013	ND	ND	1.09	0.1	ND
4/22/2014	ND	ND	0.95	ND	ND
6/1/2014	ND	ND	ND	ND	ND
10/15/2014	ND	ND	ND	ND	ND
2/1/2015	ND	ND	ND	ND	ND
5/1/2015	ND	ND	ND	ND	ND
8/1/2015	ND	ND	ND	ND	ND
12/1/2015	ND	ND	0.04	ND	ND
4/1/2016	ND	ND	0.04	ND	ND
8/1/2016	ND	ND	0.03	ND	ND



### **FIGURES**













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Environmental Planning Specialists, Inc.





Environmental Planning Specialists, Inc.





Environmental Planning Specialists, Inc.







### **APPENDIX A** Voluntary Remediation Program Application Form and Checklist

### Voluntary Investigation and Remediation Plan Application Form and Checklist

		VRP A	PPLICANT INFOR	RMATION		1					
COMPANY NAME	Transco, Inc	-									
CONTACT PERSON/TITLE	Charles Andersen, CEO	rles Andersen, CEO									
ADDRESS	200 North LaSalle Street,	North LaSalle Street, Suite 1550, Chicago, Illinois 60601									
PHONE	312-896-8514	FAX		E-MAIL	candersen@	Dtranscoinc.com					
GEORGIA CER	TIFIED PROFESSION	AL GEOL	OGIST OR PROF	ESSIONAL	ENGINEE	R OVERSEEING CLEANUP					
NAME	Kirk Kessler			GA PE/PG N	IUMBER	GA 685					
COMPANY	Environmental Planning S	ironmental Planning Specialists, Inc									
ADDRESS	1050 Crown Pointe Parkway, Suite 550										
PHONE	404-315-9113	FAX		E-MAIL	kkessler@e	nvplanning.com					
		APPL	ICANT'S CERTIFI	CATION							
In order to be considered a qu	alifying property for the VR	P:									
<ul> <li>(2) The property shall not be:</li> <li>(A) Listed on the federal Section 9601.</li> <li>(B) Currently undergoing</li> <li>(C) A facility required to</li> <li>(3) Qualifying the property und delegation or similar authorization</li> <li>(4) Any lien filed under subsection</li> </ul>	National Priorities List purs response activities require have a permit under Code ler this part would not violat tion from the United States tion (e) of Code Section 12- Section 12-8-94 or Code Section	suant to the f ed by an orde Section 12-8 te the terms a Environment 8-96 or subs ection 12-13-	ederal Comprehensive of the regional admit -66. and conditions under v tal Protection Agency. ection (b) of Code Sec 6.	e Environmentanistrator of the which the divisition 12-13-12 a	al Response, federal Envir ion operates a against the pro	Compensation, and Liability Act, 42 U.S.C. onmental Protection Agency; or and administers remedial programs by operty shall be satisfied or settled and released by					
In order to be considered a pa (1) The participant must b (2) The participant must	rticipant under the VRP: be the property owner of the not be in violation of any or	voluntary rei der, judgmer	mediation property or h nt, statute, rule, or regi	nave express po ulation subject	ermission to e to the enforce	nter another's property to perform corrective action. ement authority of the director.					
I certify under penalty of law th qualified personnel properly ga responsible for gathering the i significant penalties for submit	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 i Code Section 12-8-106.	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 12-8-105.										
APPLICANT'S SIGNATURE	Charles F	and	lusin								
APPLICANT'S NAME/TITLE (PRINT)	CHARLES P.	ANDERSE	in, President E	C.E.O.	DAT ////	E/17					

s

QUALIFYING F	PROPERTY INFORMATION (For additional qua	lifying properties, please refer to the	last page of applicatior	n form)		
	HAZARDOUS SITE INVENT	ORY INFORMATION (if applicable)				
HSI Number	10502	Date HSI Site listed	3/19/1998			
HSI Facility Name	Transco Railcar Facility (Former)	NAICS CODE				
	PROPERT	Y INFORMATION				
TAX PARCEL ID	R0810091OC 79	PROPERTY SIZE (ACRES)	22.52			
PROPERTY ADDRESS	989 Seventh Street	-				
CITY	Macon	COUNTY	Bibb			
STATE	Georgia	31201				
LATITUDE (decimal format)	32 <sup>°</sup> 49'33.34"	LONGITUDE (decimal format)	83°37'37.40"			
	PROPERTY OV	VNER INFORMATION	_			
PROPERTY OWNER(S)	Transco, Inc.	312-896-8514				
MAILING ADDRESS	200 N. LaSalle Street, Suite 1550	-				
CITY	Chicago	STATE/ZIPCODE	IL, 60601			
ITEM #	DESCRIPTION OF RE	Location in VRP (i.e. pg., Table #, Figure #, etc.)	For EPD Comment Only (Leave Blank)			
1.	\$5,000 APPLICATION FEE IN THE FORM OF GEORGIA DEPARTMENT OF NATURAL RES (PLEASE LIST CHECK DATE AND CHECK NU "LOCATION IN VRP." PLEASE DO NOT INCL IN ELECTRONIC COPY OF APPLICATION.)	Date: #:				
2.	WARRANTY DEED(S) FOR QUALIFYING PRO	OPERTY.	Attached, Appendix			
3.	TAX PLAT OR OTHER FIGURE INCLUDING O BOUNDARIES, ABUTTING PROPERTIES, AN NUMBER(S).	QUALIFYING PROPERTY D TAX PARCEL IDENTIFICATION	Figure 2			
4.	ONE (1) PAPER COPY AND TWO (2) COMPA VOLUNTARY REMEDIATION PLAN IN A SEA FORMAT (PDF).	<b>CT DISC (CD) COPIES</b> OF THE RCHABLE PORTABLE DOCUMENT	Enclosed			
5.	The VRP participant's initial plan and applic reasonably available current information to application, a graphic three-dimensional pr (CSM) including a preliminary remediation standards, brief supporting text, charts, and total) that illustrates the site's surface and s suspected source(s) of contamination, how the environment, the potential human healt complete or incomplete exposure pathways preliminary CSM must be updated as the ir progresses and an up-to-date CSM must b status report submitted to the director by th <b>MILESTONE SCHEDULE</b> for investigation after enrollment as a participant, must update annual status report to the director describi	cation must include, using all the extent known at the time of eliminary conceptual site model plan with a table of delineation d figures (no more than 10 pages, subsurface setting, the known or v contamination might move within th and ecological receptors, and the s that may exist at the site; the nvestigation and remediation e included in each semi-annual he participant; a <b>PROJECTED</b> and remediation of the site, and ate the schedule in each semi- ing implementation of the plan	Sections 1 to 5 of VIRP report; Appendix B			

	during the preceding period. A Gantt chart format is preferred for the milestone schedule.	
	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:	
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;	Complete; VIRP Section 3
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;	Complete; VIRP Section 3
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	To be completed
5.d.	Within 60 months after enrollment, the participant must submit the compliance status report required under the VRP, including the requisite certifications.	To be completed
6.	Signed And Sealed PE/PG CERTIFICATION AND SUPPORTING         DOCUMENTATION:         "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.         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.         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."         Kirk Kessler       #685         Printed Name and GA PE/PG Number       Date         Signature and Stamp       *	
	No 685 No 685	

### ADDITIONAL QUALIFYING PROPERTIES (COPY THIS PAGE AS NEEDED)

PROPERTY INFORMATION									
TAX PARCEL ID	PROPERTY SIZE (ACRES)								
PROPERTY ADDRESS									
CITY	COUNTY								
STATE	ZIPCODE								
LATITUDE (decimal format)	LONGITUDE (decimal format)								
	PROPERTY OWNER INFORMATION								
PROPERTY OWNER(S)	PHONE #								
MAILING ADDRESS									
CITY	STATE/ZIPCODE								

	PROPERTY INFORMATION									
TAX PARCEL ID	PROPERTY SIZE (ACRES)									
PROPERTY ADDRESS										
CITY	COUNTY									
STATE	ZIPCODE									
LATITUDE (decimal format)	LONGITUDE (decimal format)									
	PROPERTY OWNER INFORMATION									
PROPERTY OWNER(S)	PHONE #									
MAILING ADDRESS										
CITY	STATE/ZIPCODE									

	PROPERTY INFORMATION									
TAX PARCEL ID	PROPERTY SIZE (ACRES)									
PROPERTY ADDRESS										
CITY	COUNTY									
STATE	ZIPCODE									
LATITUDE (decimal format)	LONGITUDE (decimal format)									
	PROPERTY OWNER INFORMATION									
PROPERTY OWNER(S)	PHONE #									
MAILING ADDRESS										
CITY	STATE/ZIPCODE									



### APPENDIX B Tax Map and Warranty Deed





Parcel ID R0810091OC 79 **Class Code** Industrial Taxing District MACON-BIBB MACON-BIBB 22.52 Acres (Note: Not to be used on legal documents)

Owner

TRANSCO INC 200 N LASALLE ST STE 1550 CHICAGO IL 60601 Physical Address 861 SEVENTH ST Assessed Value Value \$366052

Last 2 Sales								
Date	Price	Reason	Qual					
5/11/1992	\$100	СР	U					
n/a	\$0	n/a	n/a					

Date created: 11/10/2017 Last Data Uploaded: 11/10/2017 5:33:25 AM



Developed by The Schneider Corporation



#### Summary

Parcel Number	R081-0091
Location Address	861 SEVENTH ST
Legal Description	OLD CITY
	(Note: Not to be used on legal documents)
Class	I4-Industrial
	(Note: This is for tax purposes only. Not to be used for zoning.)
Zoning	M-2
Tax District	MACON-BIBB (District 11)
Millage Rate	32.597
Acres	22.52
Neighborhood	Industrial Park, 3100, Acres (3125)
Homestead Exemption	No (S0)
Landlot/District	N/A

View Map

#### Owner

TRANSCO INC 200 N LASALLE ST STE 1550 CHICAGO, IL 60601

#### Land

Туре	Description	Calculation Method	Square Footage	Frontage	Depth	Acres	Lots
RES	3125	Acres	980,971	0	0	22.52	0

#### **Accessory Information**

Description	Year Built	Dimensions/Units	Identical Units	Value
Fence-Chain Link 3 SBW	1950	6x3000 / 3000	0	\$8,772

#### Permits

Permit Date	Permit Number	Туре	Description
08/01/1993	C 6127	NEW CONSTRUCT	WRECKING
09/01/1988	10118	NEW CONSTRUCT	RENOVATE OFFICE BLD 2

#### Sales

Sale Date	Deed Book / Page	Plat Book / Page	Sale Price	Reason	Grantor	Grantee
5/11/1992	2134 344	627	\$100	CONVERSION OF PAST SALES	MACON-BIBB COUNTY INDUSTRIAL AUTHORITY	TRANSCO INC

#### Valuation

	2017	2016	2015
Previous Value	\$366,052	\$366,052	\$379,210
Land Value	\$357,280	\$357,280	\$357,280
+ Improvement Value	\$O	\$O	\$0
+ Accessory Value	\$8,772	\$8,772	\$8,772
= Current Value	\$366,052	\$366,052	\$366,052

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

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



**Developed by** The Schneider Corporation

Last Data Upload: 11/10/2017 5:33:25 AM



### **APPENDIX C** Soil Lead Delineation Summary



### Legend

### **Confirmation Samples**

- Sidewall sample location Bottom sample location

### Site Details

- As-Built Excavation Zone Fenc Estimated Excavation Extent ----- Road

- Concrete/Asphalt
- Sample locations above 1,300 mg/kg
   Removed
   Sample locations above 1,300 mg/kg
   Left in place



			Sample	Denth	beal			
Area	Location	Sample Type	Jampie	Deptil	Leau	Removed	Comment	Date Sampled
			Top (ft)	Bottom (ft)	(mg/kg)			•
Zone 1	PP22	Floor	1	1	84,500	Yes	excavated to 2 ft	07/22/11
Zone 1	LL19-S	Sidewall	1	2	64,600	Yes	over excavation to south	08/10/11
Zone 1	0022	Floor	1	1	43 100	Ves	excavated to 2 ft	07/22/11
Zone 1	0022	Sidowall	0	1	43,100	Tes Voc	stop out to road limit	07/22/11
Zone 1		Sidewall	0	1	42,800	Tes Ver	step out to road mint	07/23/11
Zone 1	10110114	FIOOF	1	1	35,000	Yes	excavated to 2 ft	07/21/11
Zone 1	0010	Sidewall	0	1	31,700	Yes	step out to property line	07/23/11
Zone 1	MM17	Floor	1	1	28,300	Yes	excavated to 2 ft	07/21/11
Zone 1	QQ24-SN	Sidewall	1	2	27,900	Yes	over excavation to south	08/10/11
Zone 1	1121	Floor	1	1	26,700	Yes	excavated to 2 ft	07/22/11
Zone 1	MM21	Floor	1	1	23 600	Ves	excavated to 2 ft	07/22/11
70ne 1	0018	Floor	1	1	21,600	Ves	excavated to 2 ft	07/21/11
Zone 1	0010	Cidowall	1	2	15,000	Ves	excavated to 2 it	07/21/11
Zone 1	<u>QQ22-5</u>	Sidewall	1	2	15,900	res	step out west	07/30/11
Zone 1	IVIIVI23	Floor	1	1	13,900	Yes	excavated to 2 ft	07/22/11
Zone 1	0020	Floor	1	1	13,900	Yes	excavated to 2 ft	07/22/11
Zone 1	NN11	Floor	1	1	13,700	Yes	excavated to 2 ft	07/21/11
Zone 1	PP23	Sidewall	0	1	12,600	Yes	over excavated south	07/23/11
Zone 1	KK27	Floor	1	1	12,400	Yes	excavated to 2 ft	07/23/11
Zone 1	1119	Floor	1	1	11 700	Ves	excavated to 2 ft	07/22/11
Zone 1	DD33-C	Sidowall	1	2	10 500	Voc	sten out east	07/20/11
Zone 1	PP23-3	Floor	1	1	10,300	Vec	overvated to 2 ft	07/30/11
20110 1	PP20	FIUUI	1	1	9,500	fes		07/22/11
Zone 1	JJ23	FIOOR	1	1	9,370	Yes	excavated to 2 ft	0//22/11
Zone 1	PP23-S	Sidewall	0	1	9,110	Yes	step out east	08/01/11
Zone 1	MM22	Floor	1	1	8,980	Yes	excavated to 2 ft	07/22/11
Zone 1	0010-SP	Sidewall	0	1	8,020	No	inaccessible: railroad	08/13/11
Zone 1	LL23	Floor	1	1	7,960	Yes	excavated to 2 ft	07/22/11
Zone 1	0024-SW	Sidewall	1	2	7 790	Yes	over excavation to east	08/10/11
70no 1	NN23-5	Sidewall	<u>^</u>	<u>-</u> 1	6 660	Vac	over excavated south	07/22/11
	0024 55	Cidowall	0	1	0,000	105 V		00/12/11
Zone 1	UUZ4-SE	Sidewall	0	1	6,140	Yes	over excavation to east	08/13/11
Zone 1	KK30	Sidewall	0	1	5,290	Yes	over excavated east	07/23/11
Zone 1	KK26	Floor	1	1	4,740	Yes	excavated to 2 ft	07/22/11
Zone 1	0024-S1	Sidewall	0	1	4,290	Yes	step out west	07/30/11
Zone 1	RR21-SR	Sidewall	0	1	4.070	No	inaccessible: road limit	08/13/11
Zone 1	КК23	Floor	1	1	3,930	Yes	excavated to 2 ft	07/22/11
Zone 1	MM16	Floor	1	1	3 620	Ves	excavated to 2 ft	07/21/11
Zone 1		Sidowall	0	1	2 1 2 0	Tes Voc	stop out to property line	07/22/11
Zone 1		Sidewall	0	1	5,150	tes	step out to property line	07/25/11
Zone 1	KKZZ-SK	Sidewall	0	1	3,110	NO	inaccessible: road limit	08/13/11
Zone 1	KK24	Floor	1	1	2,810	Yes	excavated to 2 ft	07/22/11
Zone 1	0025-S2	Sidewall	0	1	2,730	Yes	over excavated to south	08/10/11
Zone 1	QQ22	Floor	1	1	2,520	Yes	excavated to 2 ft	07/23/11
Zone 1	PP17	Floor	1	1	2,290	Yes	excavated to 2 ft	07/21/11
Zone 1	PP18	Floor	1	1	2 190	Yes	excavated to 2 ft	07/21/11
Zone 1	KK25	Floor	1	1	2 1 2 0	Ves	excavated to 2 ft	07/22/11
Zone 1	1122	Floor	1	1	2,120	Tes Vec	excavated to 2 ft	07/22/11
20110 1	JJZZ	FIOOr	1	1	1,980	res		07/22/11
Zone 1	KK21	Floor	1	1	1,820	Yes	excavated to 2 ft	0//22/11
Zone 1	MM17-5	Sidewall	1	2	1,810	Yes	step out east	07/30/11
Zone 1	JJ21	Floor	1	1	1,800	Yes	excavated to 2 ft	07/22/11
Zone 1	LL24-SE	Sidewall	1	2	1,800	Yes	over excavation to east	08/10/11
Zone 1	KK22	Floor	1	1	1.750	Yes	excavated to 2 ft	07/22/11
Zone 1	0023-S	Sidewall	0	1	1,740	Yes	step out west	08/01/11
Zone 1	1120-5	Sidewall	0	1	1 720	Ves	over excavated west	07/23/11
70no 1	0019-5	Sidewall	1	2	1 700	Vec	sten out south	07/30/11
Zone 1	0013-5	Sidowall	1	2	1 700	Ver	stop out south	07/20/11
2011e 1	QQ23-3	Sidewall	1	2	1,700	165	step out south	07/30/11
Zone 1	KKZ1	Sidewall	U	1	1,680	res	step out to road limit	07/23/11
Zone 1	NN23	FIOOr	1	1	1,600	Yes	excavated to 2 ft	0//22/11
Zone 1	JJ25	Floor	1	1	1,550	Yes	excavated to 2 ft	07/22/11
Zone 1	NN24	Floor	1	1	1,520	Yes	excavated to 2 ft	07/30/11
Zone 1	0023	Floor	1	1	1.490	Yes	excavated to 2 ft	08/01/11
Zone 1	II26-S	Sidewall	0	1	1,460	Yes	over excavated west	07/23/11
70no 1	1120	Floor	1	1	1 /10	Vor	excavated to 2 ft	07/22/11
Zone 1	NANA24	Floor	1	1	1,410	Vec	excavated to 2 ft	07/22/11
Zone 1		Cidawal!	1	1	1,400	res		0//22/11
Zone 1	KK2U-SE	Sidewall	1	2	1,360	Yes	over excavation to east	08/10/11
Zone 1	JJ27	Floor	1	1	1,330	Yes	excavated to 2 ft	07/23/11
Zone 1	HH28-S	Sidewall	0	1	1,290	No		07/23/11
Zone 1	MM24-S	Sidewall	0	1	1,290	No		07/23/11
Zone 1	JJ20	Floor	1	1	1.280	No		07/22/11
Zone 1	MM25-5	Sidewall	1	2	1 260	No		08/10/11
Zono 1	NN15	Floor	1	1	1 260	No		07/21/11
Zone 1		Sidowall		1	1,200	NO No	<u> </u>	07/21/11
20110 1	17722-3	Sidewall	U	1	1,220	INO		07/30/11
Zone 1		FIOOR	1	1	1,200	NO		0//21/11
Zone 1	0021	Floor	1	1	1,160	No		07/22/11
Zone 1	PP16	Floor	1	1	1,110	No		07/21/11
Zone 1	PP16-S	Sidewall	1	2	940	No		07/30/11
Zone 1	KK20	Floor	1	1	919	No		07/22/11
70ne 1	0024-SN	Sidewall	Õ	1	003	No		08/10/11
Zone 1		Sidowall	1	1 2	060	No		00/10/11
ZUIR 1	111113-3	Sidewall	1	<u> </u>	803	INU N -		00/10/11
Zone 1	KK12	Sidewall	U	1	861	NO		0//23/11
Zone 1	0024-2	Floor	1	1	851	No		08/10/11
Zone 1	MM30	Sidewall	1	1	817	No	1	07/23/11

			Sample	e Depth	Lead			
Area	Location	Sample Type	Ton (ft)	Dottom (ft)		Removed	Comment	Date Sampled
			TOP (ft)	Bottom (ft)	(mg/kg)			
Zone 1	QQ21-S	Sidewall	1	2	805	No		07/30/11
Zone 1	MM20	Floor	1	1	781	No		07/22/11
Zone 1	HH28	Floor	1	1	741	No		07/23/11
Zone 1	KK20-SW	Sidewall	1	2	738	No		08/10/11
Zone 1	PP15	Floor	1	1	738	No		07/21/11
Zone 1	1118	Floor	1	1	728	No		07/21/11
Zone 1	0021	Floor	1	1	715	No		07/23/11
Zone 1	0010	Floor	1	1	713	No		07/23/11
Zone 1	0019	Cidawall	1	2	705	No		07/22/11
Zone 1	KK2U-S	Sidewall	1	2	661	NO		08/02/11
Zone 1	KK27-S	Sidewall	1	2	645	No		08/02/11
Zone 1	NN16	Floor	1	1	645	No		07/21/11
Zone 1	LL31	Sidewall	0	1	549	No		07/30/11
Zone 1	NN10	Floor	1	1	542	No		07/21/11
Zone 1	MM18	Floor	1	1	528	No		07/21/11
Zone 1	0024-S	Sidewall	0	1	523	No		08/01/11
Zone 1	NN9-SP	Sidewall	0	1	519	No		08/13/11
Zone 1	0020	Sidewall	0 0	1	518	No		07/23/11
Zone 1	1128	Floor	1	1	500	No		07/23/11
Zone 1	1120	Floor	1	1	300	No		07/23/11
Zone 1	LL29	FIOOR	1	1	487	NU		07/23/11
Zone 1	0025-2	FIOOF	1	1	487	NO		08/10/11
Zone 1	HH29	Sidewall	0	1	465	No		0//23/11
Zone 1	КК17	Sidewall	0	1	461	No		07/23/11
Zone 1	RR25-S	Sidewall	0	1	461	No		08/16/11
Zone 1	PP25	Sidewall	0	1	459	No		08/01/11
Zone 1	0017-S	Sidewall	1	2	457	No		07/30/11
Zone 1	NN17-S	Sidewall	1	2	432	No		08/10/11
70ne 1	NN13	Floor	1	1	429	No		07/21/11
70no 1	0017	Sidewall	<u>^</u>	1	110	No		07/22/11
Zone 1		Sidewall	0	1	206	No		07/23/11
Zone 1	KK14	Sidewall	0	1	390	NO No		07/23/11
Zone 1	LLID	FIOOF	1	1	394	NO		07/21/11
Zone 1	QQ19	Sidewall	0	1	390	No		07/23/11
Zone 1	JJ27-SS	Sidewall	1	2	389	No		08/02/11
Zone 1	JJ29	Floor	1	1	387	No		07/23/11
Zone 1	MM10	Floor	1	1	383	No		07/21/11
Zone 1	LL15	Floor	1	1	379	No		07/21/11
Zone 1	0026-S	Sidewall	0	1	364	No		08/01/11
Zone 1	1124	Floor	1	1	359	No		07/22/11
Zono 1		Floor	1	1	244	No		07/21/11
Zone 1	N/N/29	Sidowall	0	1	220	No		07/22/11
Zone 1		Sidewall	0	1	333	No		07/23/11
Zone 1	LLII-S	Sidewali	0	1	327	NO		07/23/11
Zone 1	LL11	Floor	1	1	323	NO		07/21/11
Zone 1	LL14	Floor	1	1	323	No		07/21/11
Zone 1	KK19	Floor	1	1	319	No		07/22/11
Zone 1	0025-S	Sidewall	0	1	318	No		08/01/11
Zone 1	PP21	Floor	1	1	307	No		07/22/11
Zone 1	HH21-SE	Sidewall	0	1	304	No		07/30/11
Zone 1	NN22	Floor	1	1	296	No		07/22/11
Zone 1	0025	Floor	1	1	295	No		08/01/11
Zone 1	NN20-S	Sidowall	0	1	200	No		08/16/11
Zono 1	1120 3	Eloor	1	1	204	No		07/22/11
Zone 1	1120	Sidowall	-	1	204	No	<u> </u>	07/23/11
7000 1	1120	Floor	0	1	283	INU No	<u> </u>	07/23/11
Zone 1			1	1	265	INO		07/23/11
Zone 1	MM14-S	Sidewall	1	2	257	No		0//30/11
Zone 1	0016	Floor	1	1	251	No		07/21/11
Zone 1	JJ24-S	Sidewall	1	2	249	No		08/02/11
Zone 1	JJ30	Sidewall	0	1	243	No		07/23/11
Zone 1	NN18	Floor	1	1	241	No		07/21/11
Zone 1	LL22	Floor	1	1	235	No		07/22/11
Zone 1	NN21	Floor	1	1	229	No		07/22/11
70ne 1	NN17	Floor	1	1	202	No		07/21/11
70ne 1	6626	Sidewall	<u>^</u>	1	202	No		07/20/11
Zone 1	NN10	Floor	1	1	100	No		07/22/11
7000 1	0027	Floor	1	1	190	INU No	<u> </u>	07/22/11
2011e 1	0027	Floor	1		189	INU N -		00/01/11
Zone 1		1001	1	1	18/	INO		07/23/11
Zone 1	JJ19	Floor	1	1	178	No		07/22/11
Zone 1	QQ16	Sidewall	0	1	176	No		07/23/11
Zone 1	0027-S2	Sidewall	0	1	173	No		08/13/11
Zone 1	LL13	Floor	1	1	172	No		07/21/11
Zone 1	NN20	Floor	1	1	170	No		07/22/11
Zone 1	NN12	Floor	1	1	169	No		07/21/11
Zone 1	0026	Floor	1	1	169	No		08/01/11
70ne 1	PP19-S	Floor	1	1	166	No		07/22/11
70ne 1	MM9	Floor	1	1	165	No		07/21/11
7000 1	1117	Eloor	1	1	103	No		07/21/11
Z0110 1	0026.2	Floor	1	1	101	INU No	<u> </u>	00/12/11
Zone I	0020-2		1	1	101	INO		07/21/11
Zone 1	KK18	FIOOR	1	1	159	No		0//21/11
Zone 1	0016-5	Sidewall	1	2	141	No		08/10/11
Zone 1	0020-S	Sidewall	1	2	141	No	1	08/10/11

			Sample	e Depth	Lead			
Area	Location	Sample Type	Top (ft)	Pottom (ft)	(mg/kg)	Removed	Comment	Date Sampled
			TOP (IL)	Bottom (It)	(mg/kg)			
Zone 1	NN25-SE	Sidewall	0	1	141	No		08/10/11
Zone 1	MM25	Floor	1	1	138	No		07/22/11
Zone 1	NN18-S	Sidewall	1	2	138	No		07/30/11
Zone 1	MM12	Floor	1	1	134	No		07/21/11
Zone 1	PP19-SW	Sidewall	1	2	130	No		08/10/11
Zone 1	0013	Floor	1	1	128	No		07/21/11
Zone 1	KK15	Sidewall	Ō	1	123	No		07/23/11
Zone 1	1126	Eloor	1	1	123	No		07/23/11
Zone 1	1120	Sidowall	0	1	115	No		07/22/11
Zone 1		Sidewall	0	2	115	No		07/23/11
Zone 1	10110111-5	Sidewall	1	2	115	NO		07/30/11
Zone 1	1129	FIOOr	1	1	109	NO		07/23/11
Zone 1	JJ27-SW	Sidewall	1	2	109	NO		08/02/11
Zone 1	NN15-S	Sidewall	1	2	109	No		08/10/11
Zone 1	LL12	Floor	1	1	108	No		07/21/11
Zone 1	0027-S	Sidewall	0	1	108	No		08/01/11
Zone 1	QQ25-S	Sidewall	1	2	107	No		08/13/11
Zone 1	151-S	Sidewall	0	1	107	No		08/16/11
Zone 1	PP27	Sidewall	0	1	101	No		08/01/11
Zone 1	LL9	Floor	1	1	100	No		07/21/11
Zone 1	0021-S	Sidewall	1	2	97	No		08/16/11
Zone 1	NN26-S	Sidewall	0	1	97	No		08/13/11
Zone 1	MM19	Floor	1	1	93	No		07/22/11
70ne 1	1120	Floor	1	1	84	No		07/22/11
70no 1	PP26	Sidewall	<u>^</u>	1	04	No		08/01/11
7000 1	NN11 C	Sidewall	1	⊥ 2	03	No		03/01/11
Zone 1		Floor	1	<u>∠</u>	10	NU	1	07/30/11
Zone 1				1	80	NO N-		07/21/11
20ne 1	<u>KKZŏ</u>		1	1	/8	INO NO		0//23/11
Zone 1	0024	FIOOR	1	1	76	No		08/01/11
Zone 1	0017	Floor	1	1	74	No		07/21/11
Zone 1	LL26	Floor	1	1	70	No		07/22/11
Zone 1	PP12	Sidewall	0	1	65	No		07/23/11
Zone 1	LL24	Floor	1	1	62	No		07/22/11
Zone 1	1127	Floor	1	1	61	No		07/22/11
Zone 1	PP14	Floor	1	1	61	No		07/21/11
Zone 1	0014	Floor	1	1	60	No		07/21/11
Zone 1	MM13-S	Sidewall	1	2	59	No		07/30/11
Zone 1	RR24-S	Sidewall	0	1	59	No		08/16/11
Zone 1	PP13	Floor	1	1	58	No		07/21/11
Zone 1	PP24	Sidewall	0	1	53	No		08/01/11
Zone 1	NN1/	Floor	1	1	52	No		07/21/11
Zone 1		Sidowall	1	2	50	No		07/20/11
Zone 1		Floor	1	<u> </u>	50	No		07/30/11
Zone 1		Cidowall	1	1	50	NO		07/21/11
Zone 1	1133-210	Sidewall	0	1	47	NO		08/13/11
Zone 1	0015	FIOOr	1	1	37	NO		0//21/11
Zone 1	JJ19-S	Sidewall	1	2	37	NO		08/10/11
Zone 1	KK29	Floor	1	1	35	No		07/23/11
Zone 1	1125	Sidewall	0	1	34	No		07/23/11
Zone 1	0012	Floor	1	1	34	No		07/21/11
Zone 1	KK19-SE	Sidewall	1	2	33	No		08/13/11
Zone 1	MM26	Sidewall	0	1	32	No		07/23/11
Zone 1	KK32	Floor	1	1	31	No		08/16/11
Zone 1	LL18-S	Sidewall	1	2	28	No		08/13/11
Zone 1	JJ18	Sidewall	0	1	26	No		07/23/11
Zone 1	NN25	Sidewall	0	1	23	No		07/30/11
Zone 1	HH21-SS	Sidewall	Ō	1	22	No		07/30/11
70ne 1	PP19	Sidewall	1	2	22	No		07/30/11
70ne 1	HH26	Floor	1	1	22	No		07/30/11
70no 1	MM16-SW/	Sidewall	1	2	17	No		07/20/11
Zone 1	нили 10-3 М	Floor	1		1/	No		07/30/11
Zone 1	0014	Sidowall	1	1	10	NU	1	07/30/11
2011e 1 70no 1		Sidowall	1	1 2	15	INU No	1	09/12/11
	1122-2IN	Sidewall		2	15	INO N -		07/20/44
Zone 1	ININ14-5	Sidewall	1	2	14	NO		07/30/11
Zone 1	JJ26	FIOOR	1	1	12	NO		0//22/11
Zone 1	0011	Sidewall	1	2	12	NO		0//30/11
Zone 1	LL10	Floor	1	1	11	No		07/21/11
Zone 1	HH25	Sidewall	0	1	10	No		07/30/11
Zone 1	LL25	Floor	1	1	9	No		07/22/11
Zone 1	HH27	Sidewall	0	1	7	No		07/30/11
Zone 1	1123	Sidewall	0	1	6	No		07/23/11
Zone 1	HH20-S	Sidewall	0	1	0	No		07/30/11
Zone 2	LL40	Sidewall	0	1	11,200	Yes	over excavated north	07/25/11
Zone 2	JJ38-S	Sidewall	1	2	5.330	Yes	over excavation to west	08/10/11
Zone 2	KK42	Floor	1	1	4.060	Yes	excavated to 2 ft	07/18/11
70ne 2	1140	Sidewall	1	2	3 700	Yes	over excavated north	07/25/11
70ne 2	P27-S	Sidewall	ñ	1	2 170	Yes	over excavation north	08/11/11
7000 J	KK41	Floor	1	1	2,170	Vac	excavated to 2 ft	07/10/11
7000 2	KK35	Floor	1	1	1 070	Voc	excavated to 2 ft	08/02/11
Zono 2		Sidowall		1	1,070	Vac	over exclusion to north	00/02/11
ZUITE Z	11132-3	SILLEWAIL	U	1	1,820	162		00/13/11

-			Sample	P Denth	Lead			
Area	Location	Sample Type	Tara (ft)	Deptin	(mag(ha)	Removed	Comment	Date Sampled
			Top (ft)	Bottom (ft)	(mg/kg)			-
Zone 2	KK33-S	Sidewall	0	1	1,670	Yes	over excavation north	08/10/11
Zone 2	JJ40	Sidewall	0	1	1,640	Yes	over excavated west	07/18/11
Zone 2	KK35-S	Sidewall	0	1	1.590	Yes	over excavation to north	08/02/11
Zone 2	KK36	Floor	1	1	1.560	Yes	excavated to 2 ft	08/02/11
Zone 2	1141	Floor	1	1	1,320	Yes	over excavated north	07/18/11
Zone 2	KK43	Sidewall	0	1	1 200	No		07/18/11
Zone 2	1134-5	Sidowall	0	1	1 1 3 0	No		08/10/11
Zone 2	1112	Floor	1	1	1,130	No		07/19/11
Zone 2		FIUUI	1	1	1,020	NO		07/18/11
Zone z	LL43	Sluewall	0	1	999	NO		07/18/11
Zone 2	MM42	Floor	1	1	941	NO		07/18/11
Zone 2	KK39	Floor	1	1	922	NO		0//18/11
Zone 2	1131-2	Sidewall	1	2	875	NO		08/10/11
Zone 2	KK40	Floor	1	1	644	No		07/18/11
Zone 2	KK34-SE	Sidewall	0	1	594	No		08/10/11
Zone 2	JJ35-SW	Sidewall	0	1	570	No		08/10/11
Zone 2	KK34	Floor	1	1	519	No		08/10/11
Zone 2	JJ36-SN	Sidewall	0	1	321	No		08/10/11
Zone 2	JJ41	Sidewall	0	1	319	No		07/18/11
Zone 2	JJ41	Sidewall	0	2	311	No		07/23/11
Zone 2	JJ36-SE	Sidewall	1	2	138	No		08/10/11
Zone 2	II38-S	Sidewall	0	1	75	No		08/13/11
Zone 2	151	Floor	1	1	69	No		08/16/11
Zone 2	1133-5	Sidewall	Ô	1	67	No		08/13/11
70ne 2	1125-5N	Sidewall	1	2	66	No	1	08/12/11
70no 7	1135-2	Floor	1	1	12	No		08/10/11
70no 7	KK31_S	Sidowall	0	1	40	No		08/16/11
7000 2	KK33	Floor	1	1	23	No		00/10/11
Zono 2	1121 0	Sidowall		1	30	NO NO	1	00/15/11
Zone 2	1122 CC	Sidowall	0	1	26	INO No	1	00/10/11
Zone 2	1121-22	Sidowall	1	1	21	INO No	1	00/13/11
Zone Z	1138-5	Sidewall	1	2	16	NO		08/13/11
Zone 2	P27-S	Sidewall	1	2	12	NO		08/16/11
Zone 2	JJ37-SS2	Sidewall	1	2	11	NO		08/13/11
Zone 3	HH36	Sidewall	0	1	827	No		07/16/11
Zone 3	FF40	Floor	1	1	805	No		07/16/11
Zone 3	GG37	Floor	1	1	723	No		07/16/11
Zone 3	ff40-S	Sidewall	0	1	719	No		07/16/11
Zone 3	GG42	Sidewall	0	1	573	No		07/16/11
Zone 3	GG40	Floor	1	1	435	No		07/16/11
Zone 3	FF41	Floor	1	1	409	No		07/16/11
Zone 3	GG41	Floor	1	1	348	No		07/16/11
Zone 3	ff41-S	Sidewall	0	1	261	No		07/16/11
Zone 3	FF39	Floor	1	1	194	No		07/16/11
Zone 3	gg38-S	Sidewall	0	1	156	No		07/16/11
Zone 3	HH37-S	Sidewall	0	1	110	No		08/04/11
Zone 3	GG39	Floor	0	1	56	No		07/16/11
Zone 3	gg39-S	Sidewall	0	1	44	No		07/16/11
Zone 3	HH37	Floor	1	1	38	No		08/04/11
Zone 3	FF38	Sidewall	0	1	27	No		07/16/11
Zone 3	ag/1_S	Sidowall	0	1	26	No		07/16/11
Zono 2	6629	Eloor	1	1	20	No		07/16/11
Zone 2	0038	Cidowall		1	2.3	No		07/10/11
Zone 4	06000 V/67	Sidewall	1	1	22	INO Voc	avery at add to 2 ft	00/01/11
Zone 4	707	Cideu	1		008,00	res		07/01/11
Zone 4	200	Sidewall	0	1	1,870	Yes	over excavated south	07/15/11
Zone 4	V00	Sidewall	0	1	1,560	Yes	over excavated south	07/15/11
Zone 4	вврр	Sidewall	U	1	/19	NO		0//15/11
Zone 4	066	Sidewall	0	1	657	No		0//15/11
Zone 4	165	Floor	1	1	618	No		07/15/11
Zone 4	U65	Floor	1	1	586	No		07/15/11
Zone 4	X67-S	Sidewall	0	1	560	No		07/22/11
Zone 4	V66-SW	Sidewall	1	2	519	No		08/09/11
Zone 4	V67-S	Sidewall	0	1	511	No		07/22/11
Zone 4	V66-SW	Sidewall	0	1	433	No		08/09/11
Zone 4	BB65	Floor	1	1	345	No		07/15/11
Zone 4	W67	Floor	1	1	340	No		08/01/11
Zone 4	V65	Floor	1	1	334	No		07/15/11
Zone 4	X65	Floor	1	1	304	No		07/15/11
Zone 4	Z67-S	Sidewall	0	1	301	No		07/22/11
Zone 4	AA65	Floor	1	1	294	No		07/15/11
Zone 4	aa66-S	Sidewall	0	1	254	No		07/15/11
Zone 4	S65	Floor	1	1	254	No		07/15/11
Zone 4	X66	Sidewall	Ô	1	248	No		07/15/11
Zone 4	AA66	Floor	1	1	229	No		07/15/11
Zone 4	W65	Floor	1	1	225	No		07/15/11
70ne 4	566	Sidewall	0	1	202	No	1	07/15/11
70ne /	Y65	Floor	1	1	19/	No		07/15/11
7000 /	765	Floor	1	1	104 65	No		07/15/11
Zone 4	¥67	Floor	1	1	20	No		08/01/11
7000 /	767	Floor	1	1	30	No		08/01/11
20110 4	201	11001	L T	1	∠3	INU		00/01/11

			Sample	P Denth	Lead			
Area	Location	Sample Type		Dettern (ft)	(	Removed	Comment	Date Sampled
			Top (ft)	Bottom (ft)	(mg/kg)		-	
Zone 4	Y67	Floor	1	1	22	No		08/01/11
Zone 4	S64	Floor	1	1	0	No		07/15/11
Zone 4	V67-S	Sidewall	1	2	0	No		08/09/11
Zone 4	W67-S	Sidewall	1	2	0	No		08/09/11
Zone 5	066	Sidewall	0	1	21,400	Yes		08/03/11
Zone 5	152	Floor	1	1	4 180	Ves	excavated to 2 ft	07/26/11
Zone 5	K58	Floor	1	1	3 610	Ves	excavated to 2 ft	07/25/11
Zone 5		Sidowall	0	1	2 440	Voc	over excavation to north	08/02/11
Zone 5	160	Floor	1	1	3,440	Vec	over excavation to north	07/15/11
Zone 5		FIOUI	1	1	3,010	res		07/15/11
Zone 5	MI53	Floor	1	1	2,630	Yes	excavated to 2 ft	07/26/11
Zone 5	J54	Floor	1	1	2,450	Yes	excavated to 2 ft	07/26/11
Zone 5	L56	Floor	1	1	2,020	Yes	excavated to 2 ft	07/25/11
Zone 5	N66	Sidewall	0	1	1,960	Yes	over excavated east	07/26/11
Zone 5	N59	Sidewall	0	1	1,820	Yes	over excavated east	07/26/11
Zone 5	165	Floor	1	1	1,690	Yes	excavated to 2 ft	07/25/11
Zone 5	J53-S	Sidewall	0	1	1,630	Yes	over excavated west	07/26/11
Zone 5	J59	Floor	1	1	1,620	Yes	excavated to 2 ft	07/25/11
Zone 5	K54	Floor	1	1	1,470	Yes	excavated to 2 ft	07/26/11
Zone 5	N59-2	Floor	1	1	1.470	Yes	excavated to 2 ft	08/03/11
Zone 5	H64	Floor	1	1	1.460	Yes	excavated to 2 ft	07/25/11
Zone 5	J51-S	Sidewall	0	1	1.380	Yes	over excavation to north	08/04/11
Zone 5	M53-S	Sidewall	0	1	1,380	Yes	over excavated east	07/26/11
Zone 5	150-5	Sidewall	õ	1	1 330	Yes	over excavation to west	08/11/11
70ne 5	152-5	Sidewall	ñ	1	1 200	Vec	over excavated west	07/26/11
7000 5	157	Floor	1	1	1 200	Vec	excavated to 2 ft	07/25/11
7000 5	059	Sidewall	0	1	1 250	No		08/02/11
Zono F	V56 S	Sidowall	1	1 2	1,230	NO	1	00/03/11
Zono 5	165	Floor	1	1	1,230	INU No	1	07/05/11
20118 5	102	Floor	1	1	1,220	INO	l	07/15/11
Zone 5		Floor	1	1	1,180	INO	l	07/25/11
Zone 5	H65	FIOOF	1	1	1,170	NO		07/25/11
Zone 5	160	Floor	1	1	1,170	No		07/25/11
Zone 5	N63	Sidewall	0	1	1,130	No		07/26/11
Zone 5	N67-SN	Sidewall	0	1	1,130	No		08/03/11
Zone 5	064	Sidewall	0	2	1,130	No		07/25/11
Zone 5	J53	Floor	1	1	1,120	No		07/26/11
Zone 5	G65	Sidewall	0	1	1,100	No		07/26/11
Zone 5	160-S	Sidewall	0	1	1,090	No		07/26/11
Zone 5	M52	Sidewall	0	1	983	No		07/26/11
Zone 5	J55	Floor	1	1	953	No		07/26/11
Zone 5	154	Sidewall	0	1	929	No		07/26/11
Zone 5	M54	Floor	1	1	921	No		07/26/11
Zone 5	H66	Floor	1	1	896	No		07/25/11
Zone 5	154-S	Sidewall	0	1	876	No		08/04/11
Zone 5	053-S	Sidewall	0	1	862	No		08/04/11
Zone 5	159-S	Sidewall	0	1	855	No		07/26/11
Zone 5	N58	Sidewall	0	1	834	No		08/03/11
Zone 5	K71	Sidewall	0	1	820	No		07/26/11
Zone 5	152-SE	Sidewall	0	1	819	No		08/04/11
Zone 5	164	Floor	1	1	808	No		07/25/11
Zone 5	156	Sidewall	0	1	807	No		07/26/11
Zone 5	P55-S2	Sidewall	Ő	1	797	No		08/11/11
70ne 5	150	Floor	1	1	775	No		08/11/11
Zono 5		Sidowall		1	775	No	1	07/26/11
7000 5	166	Floor	1	1	7/1	INU No	1	07/20/11
Z0118 3	H67	Floor	1	1	745	NO	1	07/25/11
7000 5	K61	Floor	1	1	740	NO	1	07/15/11
2011e 5	C67	Sidowall	1	1	/3/	INU No	ł	07/15/11
2011e 5	407	Juewdll	0	1	703	INU N-	l	07/20/11
20118 5	171.0	Cidowo!!			/02	INO N -	l	07/25/11
Zone 5	L/1-5	Sidewall	U	1	687	INO	l	07/26/11
Zone 5	162	FIOOR	1	1	681	NO		0//25/11
Zone 5	15/	FIOOR	1	1	656	No		0//25/11
Zone 5	157-5	Sidewall	0	1	653	No		0//26/11
Zone 5	K52	Floor	1	1	626	No		07/26/11
Zone 5	L58	Floor	1	1	609	No		07/25/11
Zone 5	N54	Sidewall	0	1	606	No		07/26/11
Zone 5	162-S	Sidewall	0	1	589	No	Į	07/26/11
Zone 5	J70	Sidewall	0	1	566	No		07/26/11
Zone 5	169-S	Sidewall	0	1	556	No		07/26/11
Zone 5	163	Floor	1	1	553	No		07/25/11
Zone 5	L65	Floor	1	1	550	No	l	07/15/11
Zone 5	I59-S1	Sidewall	1	2	531	No		08/03/11
Zone 5	K67	Floor	1	1	523	No		07/15/11
Zone 5	L59	Floor	1	1	520	No		07/15/11
Zone 5	M59	Floor	1	1	520	No		07/15/11
Zone 5	J63	Floor	1	1	515	No		07/25/11
Zone 5	K51	Floor	1	1	432	No		07/26/11
Zone 5	K56-SE	Sidewall	1	2	432	No		08/04/11
Zone 5	N52-S	Sidewall	0	1	386	No		08/04/11

			Sample	e Depth	Lead			
Area	Location	Sample Type	Top (ft)	Dottom (ft)		Removed	Comment	Date Sampled
			10p (ft)	Bottom (ft)	(mg/kg)			
Zone 5	N67	Sidewall	0	1	369	No		07/26/11
Zone 5	J55-S	Sidewall	1	2	365	No		08/04/11
Zone 5	К69	Floor	1	1	330	No		07/25/11
Zone 5	N68	Sidewall	0	1	330	No		07/26/11
Zone 5	M56-S	Sidewall	1	2	306	No		08/04/11
Zone 5	H53-S	Sidewall	0	1	304	No		08/04/11
Zone 5	161	Floor	1	1	291	No		07/25/11
Zone 5	KEE	Floor	1	1	270	No		07/15/11
Zone 5	162 5	Sidowall	0	1	275	No		07/15/11
Zone F	103-3	Sluewall	0	1	270	No		07/20/11
Zone 5	K53	FIOOT	1	1	208	NO No		07/20/11
Zone 5	L57-SW	Sidewall	1	2	257	NO		08/03/11
Zone 5	H68-5	Sidewall	0	1	249	NO		07/26/11
Zone 5	K59-SW	Sidewall	1	2	236	No		08/03/11
Zone 5	M70	Floor	1	1	229	No		07/25/11
Zone 5	M62	Floor	1	1	224	No		07/15/11
Zone 5	J49-S	Sidewall	0	1	222	No		08/16/11
Zone 5	M69	Floor	1	1	222	No		07/25/11
Zone 5	K55	Floor	1	1	208	No		07/26/11
Zone 5	K53-S	Sidewall	1	2	206	No		08/04/11
Zone 5	162	Floor	1	1	201	No		07/25/11
Zone 5	J58	Floor	1	1	200	No		07/25/11
Zone 5	L53-SE	Sidewall	1	2	197	No		08/04/11
Zone 5	159	Floor	1	1	189	No	1	07/25/11
Zone 5	J66	Floor	1	1	188	No	1	07/25/11
Zone 5	153	Floor	1	1	186	No	1	08/04/11
70ne 5	M52-S	Sidewall	1	2	175	No		08/04/11
Zone 5	160-5	Sidewall	1	2	173	No		08/02/11
7000 5	100-3	Eloor	1	<u> </u>	162	No	1	07/15/11
Z0110 3	N56	Sidowall	<u> </u>	1	163	No	1	07/15/11
Zone 5	1150	Sluewdll	0	1	162	INU No	ł	07/20/11
Zone 5	L53	FIOOF	1	1	160	NO		07/26/11
Zone 5	K59	FIOOr	1	1	159	NO		07/15/11
Zone 5	027-5	Sidewall	0	1	144	No		08/16/11
Zone 5	M55	Floor	1	1	134	No		07/26/11
Zone 5	L57	Floor	1	1	124	No		07/25/11
Zone 5	L54-S	Sidewall	1	2	122	No		08/04/11
Zone 5	K52-S	Sidewall	1	2	121	No		08/04/11
Zone 5	151-SN	Sidewall	0	1	120	No		08/16/11
Zone 5	L71	Floor	1	1	114	No		07/25/11
Zone 5	K64	Floor	1	1	112	No		07/15/11
Zone 5	150-SE	Sidewall	0	1	109	No		08/16/11
Zone 5	J68	Floor	1	1	109	No		07/25/11
Zone 5	L54	Floor	1	1	104	No		07/26/11
Zone 5	L56-S	Sidewall	1	2	101	No		08/04/11
Zone 5	163	Floor	1	1	96	No		07/15/11
Zone 5	149	Floor	1	1	95	No		08/16/11
Zone 5	169	Floor	1	1	92	No		07/25/11
Zone 5	K56	Floor	1	1	20	No		07/25/11
Zone 5	H51-S	Sidewall	<u> </u>	1	88	No		08/16/11
Zone 5		Sidowall	0	1	00	No		07/26/11
Zone 5	LJI-J	Floor	0	1	00	No		07/20/11
Zone F	003	Cidowall	1	2	65	No		07/15/11
20118 5		Sidewall	0	<u> </u>	//	INO N -	l	09/12/11
20ne 5	NSU-S	Sidewall	U	1		INO		08/16/11
Zone 5	IVI57	FIOOR	1	1	75	NO		0//25/11
Zone 5	IV165	Floor	1	1	73	No		07/15/11
Zone 5	157-51	Sidewall	1	2	70	No		08/03/11
Zone 5	K55-S	Sidewall	1	2	65	No		08/04/11
Zone 5	L55-S	Sidewall	1	2	64	No		08/04/11
Zone 5	J52	Floor	1	1	62	No	l	08/04/11
Zone 5	L53-SN	Sidewall	1	2	62	No		08/04/11
Zone 5	J58-SS	Sidewall	1	2	60	No		08/03/11
Zone 5	L69	Floor	1	1	60	No		07/25/11
Zone 5	M66	Floor	1	1	59	No		07/15/11
Zone 5	O65-S	Sidewall	0	1	57	No		08/31/11
Zone 5	M58	Floor	1	1	53	No		07/25/11
Zone 5	K57	Floor	1	1	52	No		07/25/11
Zone 5	L64	Floor	1	1	49	No		07/15/11
Zone 5	P66-S	Sidewall	Ô	1		No	1	08/31/11
Zone 5	M56	Floor	1	1	43 43	No		07/25/11
Zone 5	162	Floor	1	1	 	No	1	07/15/11
70no 5	K60-S	Sidewall	1	2	42	No	1	08/02/11
7000 F	N61	Sidewall	1	1	20	No		07/26/11
7000 5	161	Floor	1	1	39	No	1	07/20/11
Zone 5	170	Floor	1	1	39	INU No	ł	07/25/11
20fe 5	10	Floor	1		39	INO N -		07/25/11
20ne 5	108	FIOOR	1	1	38	NO	l	07/25/11
Zone 5	НЬХ	FIOOR	1	1	36	NO		0//25/11
Zone 5	L51-51	Sidewall	1	2	33	No		08/04/11
Zone 5	152-55	Sidewall	1	2	33	No		08/04/11
Zone 5	J58-SN	Sidewall	1	2	33	No	1	08/03/11

			Sample Depth		Lead			
Area	Location	Sample Type	Top (ft)	Pottom (ft)	(mg/kg)	Removed	Comment	Date Sampled
			TOP (TL)	Bottom (It)	(mg/kg)			
Zone 5	158	Floor	1	1	31	No		07/25/11
Zone 5	J60	Floor	1	1	31	No		07/25/11
Zone 5	M68	Floor	1	1	30	No		07/15/11
Zone 5	K68	Floor	1	1	30	No		07/15/11
Zone 5	L68	Floor	1	1	29	No		07/15/11
Zone 5	156	Floor	1	1	29	No		07/25/11
Zone 5	164	Floor	1	1	28	No		07/25/11
Zone 5	K62	Floor	1	1	20	No		07/15/11
Zone 5	161	Floor	1	1	20	No		07/15/11
Zone 5	000	Floor	1	1	27	No		09/21/11
Z011E 5	U00-2	FIOOT	1	1	25	NO No		08/31/11
Zone 5	N54-SN	Sidewall	0	1	25	NO		08/04/11
Zone 5	N60	Sidewall	0	1	25	NO		07/26/11
Zone 5	J69	Floor	1	1	24	No		07/25/11
Zone 5	N53	Floor	1	1	23	No		08/04/11
Zone 5	152-SS	Sidewall	0	1	22	No		08/04/11
Zone 5	J56-S	Sidewall	1	2	21	No		08/03/11
Zone 5	N66-2	Floor	1	1	21	No		08/03/11
Zone 5	165-S	Sidewall	1	2	18	No		08/03/11
Zone 5	067-S	Sidewall	0	1	18	No		08/31/11
Zone 5	L67	Floor	1	1	18	No		07/15/11
Zone 5	167	Floor	1	1	18	No		07/25/11
Zone 5	K59-SN	Sidewall	1	2	16	No		08/03/11
Zone 5	151	Floor	1	1	16	No	1	07/26/11
Zone 5	161-2	Floor	1	1	15	No		08/03/11
Zone 5	167	Floor	1	1	10	No	1	07/25/11
Zone 5	M67	Floor	1	1	10	No	1	07/15/11
Zono 5		Sidowall	1	1 2	9	NO	1	02/02/11
Zone 5	170-25	Sidewall	1	2	9	INU N-	ł	08/03/11
20/18 5	104-5	Sidewall	1	2	9	INO		08/03/11
Zone 5	L58-5	Sidewall	1	2	8	NO		08/03/11
Zone 5	M63	Floor	1	1	/	No		0//15/11
Zone 5	M60	Floor	1	1	6	No		07/15/11
Zone 5	L55	Floor	1	1	6	No		07/26/11
Zone 5	M61	Floor	1	1	6	No		07/15/11
Zone 5	M64	Floor	1	1	6	No		07/15/11
Zone 5	L66	Floor	1	1	5	No		07/15/11
Zone 5	L59-S	Sidewall	1	2	5	No		08/03/11
Zone 5	M60-S	Sidewall	1	2	0	No		08/03/11
Zone 5	J65-S	Sidewall	1	2	0	No		08/03/11
Zone 5	M54-S	Sidewall	1	2	0	No		08/04/11
Zone 5	N57	Sidewall	0	1	0	No		07/26/11
Zone 6	Q56	Sidewall	0	1	13,600	Yes	over excavated west	07/27/11
Zone 6	P55-S	Sidewall	0	1	2.850	Yes	over excavation to west	08/04/11
Zone 6	R59	Sidewall	0	1	1,960	Yes	step out south	07/27/11
Zone 6	045	Floor	1	1	1,530	Yes	excavated to 2 ft	07/27/11
Zone 6	T57	Floor	1	1	1 360	Yes	excavated to 2 ft	07/27/11
Zone 6	059	Sidewall	Ō	1	1 340	Yes	over excavated south and	07/27/11
Zone 6	R48	Floor	1	1	1 230	No		07/27/11
Zone 6	N/15	Floor	1	1	1 1 2 0	No		07/27/11
Zone 6		Sidowall	0	1	1,130	No		07/27/11
Zone C	Q35-3	Sidewall	0	1	1,130	No		07/07/11
Zona C	057	Sidewall	0	1	1,120	INU N-	l	07/27/11
2011e b	U3/	Sloer	U	1	1,060	INO N-	l	07/27/11
20ne 6	K40		1	1	1,010	INO		07/27/11
Zone 6	N46-5	Sidewall	0	1	998	No		0//27/11
Zone 6	P59-5	Sidewall	0	1	908	No		08/04/11
Zone 6	046	FIOOR	1	1	906	No	l	07/27/11
Zone 6	O56-S	Sidewall	0	1	873	No		08/11/11
Zone 6	046-S	Sidewall	0	1	855	No		07/27/11
Zone 6	P57-S	Sidewall	0	1	813	No		08/11/11
Zone 6	045-SE	Sidewall	1	2	812	No		08/04/11
Zone 6	N44	Floor	1	1	783	No		07/27/11
Zone 6	T46	Floor	1	1	779	No		07/27/11
Zone 6	N44-S	Sidewall	0	1	733	No		07/27/11
Zone 6	N46	Floor	1	1	675	No		07/27/11
Zone 6	044-S	Sidewall	0	1	638	No		07/27/11
Zone 6	047	Sidewall	0	1	575	No		07/27/11
Zone 6	057-SN	Sidewall	Ő	1	539	No		08/04/11
Zone 6	S59-S	Sidewall	0	1	516	No	1	07/27/11
Zone 6	051	Sidewall	õ	1	508	No	1	07/16/11
Zone 6	055	Sidewall	0	1	100	No		07/27/11
7000 G	045-55	Sidewall	1	2	430	No		07/27/11
Zone 6	045-51	Sidewall	1	2	472	No		08/04/11
7000 C	R/7	Floor	1	1	410	No	1	07/27/11
Zona 6	060 \$	Sidowall	1	1	415	No	1	02/11/11
Zona C	040	Sidewall	0	1	410	INU N-	l	07/27/44
2019 6	Q49	Sidewall	U		400	INO NI-		07/27/11
Zone 6	K5/	FIOOR	1	1	325	NO		0//2//11
Zone 6	K55	FIOOR	1	1	318	NO		0//2//11
Zone 6	14/	FIOOr	1	1	311	No		0//27/11
Zone 6	Q54	Sidewall	0	1	299	No	1	07/27/11
## Table C1Summary of Soil Removal Confirmational Samples

			Sample Depth		Lead			
Area	Location	Sample Type	Top (ft)	Pottom (ft)	(mg/kg)	Removed	Comment	Date Sampled
			TOP (ft)	Bottom (ft)	(mg/kg)			
Zone 6	Q58-S	Sidewall	0	1	240	No		08/04/11
Zone 6	R51	Floor	1	1	153	No		07/16/11
Zone 6	S54	Floor	1	1	153	No		07/16/11
Zone 6	044	Floor	1	1	152	No		07/27/11
Zone 6	R60	Floor	1	1	151	No		08/11/11
Zone 6	R49	Floor	1	1	137	No		07/27/11
Zone 6	R56	Floor	1	1	129	No		07/27/11
Zone 6	\$56	Floor	1	1	112	No		07/27/11
Zone 6	330 TEO	Floor	1	1	112	No		07/27/11
Zone G	159	FILLER	1	1	110	NU NI-		07/27/11
Zone 6	559	FIOOF	1	1	101	NO		07/27/11
Zone 6	150	Floor	1	1	99	NO		07/27/11
Zone 6	R50	Floor	1	1	97	NO		0//2//11
Zone 6	S50	Floor	1	1	86	No		07/27/11
Zone 6	Q50	Sidewall	0	1	85	No		07/27/11
Zone 6	S55	Floor	1	1	83	No		07/27/11
Zone 6	T55	Floor	1	1	71	No		07/27/11
Zone 6	T56	Floor	1	1	67	No		07/27/11
Zone 6	T49	Floor	1	1	63	No		07/27/11
Zone 6	R60-S	Sidewall	0	1	57	No		08/11/11
Zone 6	\$57	Floor	1	1	48	No		07/27/11
Zone 6	T48	Floor	1	1	47	No		07/27/11
Zone 6	C10	Floor	1	1	47	No		07/27/11
70006	DE0	Floor	1	1	43	No	1	07/27/11
20110 0	050	Floor	1	1	44	NU	1	07/10/11
Zone 6	K52		1	1	36	INO		07/16/11
Zone 6	Q53	SIGEWAII	0	1	35	NO		U//16/11
Zone 6	156-5	Sidewall	1	2	33	No		08/04/11
Zone 6	045-SN	Sidewall	1	2	33	No		08/04/11
Zone 6	S58	Floor	1	1	32	No		07/27/11
Zone 6	S49	Floor	1	1	24	No		07/27/11
Zone 6	S52	Floor	1	1	20	No		07/16/11
Zone 6	KK19-SS	Sidewall	1	2	20	No		08/13/11
Zone 6	T58	Floor	1	1	16	No		07/27/11
Zone 6	\$51	Floor	1	1	15	No		07/16/11
Zone 6	B5/	Floor	1	1	13	No		07/16/11
Zone 6	647	Floor	1	1	13	No		07/10/11
Zone 6	J47	Floor	1	1	13	No		07/27/11
Zone 6	K53	FIOOr	1	1	9	NO		07/10/11
Zone 6	158-5	Sidewall	1	2	9	NO		08/04/11
Zone 6	553	Floor	1	1	9	NO		07/16/11
Zone 6	T51	Floor	1	2	6	No		07/26/11
Zone 6	S57-S	Sidewall	1	2	5	No		08/04/11
Zone 7	J40	Floor	1	1	54,400	Yes	excavated to 2 ft	07/27/11
Zone 7	140	Floor	1	1	24,700	Yes	excavated to 2 ft	07/27/11
Zone 7	J41-S	Sidewall	0	1	9,320	Yes	over excavated east	07/14/11
Zone 7	142	Sidewall	0	1	6,000	Yes	over excavated south	07/14/11
Zone 7	J40-S	Sidewall	0	1	3,580	Yes	over excavated north	07/14/11
Zone 7	K40-SE	Sidewall	0	1	2.900	Yes	step out east	07/27/11
Zone 7	140	Floor	2	2	2,250	Yes	2 ft bottom sample	07/14/11
Zone 7	140-5	Sidewall	0	1	2 160	Yes	over excavated north	07/14/11
Zone 7	142	Sidewall	0	1	2,100	Vos	over excavated south	07/14/11
Zone 7	у <del>ч</del> 2 КЛ1	Floor	1	1	2,000	Vos	excavated to 2 ft	07/27/11
70no 7	1/1/2	Sidowall	1	⊥ 2	1 050	Voc	over excavated couth	07/11/11
Zone 7	142	Sidewall	1	<u> </u>	1,950	Yes	over excavated south	07/14/11
Zone /	J43	Sidewall	0	1	1,700	res	step out south	07/2//11
Zone /	141-5	Sidewall	U	1	1,300	Yes	over excavated to west	07/14/11
Zone /	143	Sidewall	0	1	1,290	NO		0//2//11
Zone 7	L41	Sidewall	0	1	1,280	No		0//27/11
Zone 7	H42	Sidewall	0	1	918	No		07/14/11
Zone 7	K42-SN	Sidewall	0	1	881	No		07/27/11
Zone 7	J39	Sidewall	1	2	854	No		08/09/11
Zone 7	L40-S	Sidewall	0	1	851	No		08/09/11
Zone 7	139	Sidewall	1	2	828	No		08/09/11
Zone 7	J43-SW	Sidewall	0	1	644	No		08/09/11
Zone 7	139	Sidewall	0	1	594	No		07/27/11
Zone 7	J44-S	Sidewall	Ō	1	505	No		08/09/11
Zone 7	H40	Sidewall	1	2	440	No	1	07/14/11
Zone 7	140-5	Sidewall	1	2	/12	No		07/14/11
7000 7	141-5	Sidewall	1	2	101	No		07/1//11
70007	141 CN	Sidowall	1	2	202	No	1	07/14/11
70207	142-31	Floor	1	<u>∠</u>	201	NO No	1	00/03/11
Zone /	J43-2	Cideu : "	1	1	241	INO	1	08/09/11
Zone /	J4Z	Sidewall	1	2	237	NO		07/14/11
Zone 7	H40	Sidewall	0	1	210	No		07/14/11
Zone 7	K43-SE	Sidewall	0	1	208	No		08/09/11
Zone 7	141	Floor	2	2	192	No		07/14/11
Zone 7	J39	Sidewall	0	1	157	No		07/27/11
Zone 7	K39-S	Sidewall	0	1	141	No		08/09/11
Zone 7	L41	Sidewall	1	2	140	No		08/09/11
Zone 7	G41	Sidewall	0	1	129	No		07/27/11
Zone 7	H41	Floor	1	1	125	No	1	07/27/11
Zone 7	J43	Sidewall	1	2	108	No		07/27/11

## Table C1Summary of Soil Removal Confirmational Samples

Area	Location	Sample Type	Sample Depth		Lead	Pomovod	Commont	Data Sampled	
			Top (ft)	Bottom (ft)	(mg/kg)	Kenioveu	Comment	Date Sampled	
Zone 7	K42-SE	Sidewall	0	1	106	No		07/27/11	
Zone 7	J40-S	Sidewall	1	2	93	No		07/14/11	
Zone 7	143	Sidewall	1	2	73	No		07/27/11	
Zone 7	H41-S	Sidewall	1	2	39	No		07/14/11	
Zone 7	H42	Sidewall	1	2	32	No		07/14/11	
Zone 7	J41	Floor	2	2	31	No		07/14/11	
Zone 7	K42-SE	Sidewall	1	2	31	No		07/27/11	
Zone 7	K40-SS	Sidewall	0	1	11	No		07/27/11	
Zone 7	J40	Floor	2	2	9	No		07/14/11	
Zone 8	P29	Sidewall	0	1	18,200	Yes	over excavated north and	07/14/11	
Zone 8	J50-S	Sidewall	0	1	4,480	Yes	over excavation to north	08/11/11	
Zone 8	029	Sidewall	0	1	3,880	Yes	over excavated north	07/14/11	
Zone 8	029	Sidewall	1	2	3,840	Yes	over excavated north	07/14/11	
Zone 8	P28	Floor	1	1	3,580	Yes	excavated to 2 ft	08/11/11	
Zone 8	P28-S	Sidewall	0	1	1,720	Yes	over excavation to north	08/04/11	
Zone 8	P29	Sidewall	1	2	1,350	Yes	over excavated north and	07/14/11	
Zone 8	P30	Sidewall	0	1	1,290	No		07/14/11	
Zone 8	P30	Sidewall	1	2	1,080	No		07/14/11	
Zone 8	P31	Sidewall	0	1	987	No		07/14/11	
Zone 8	N31-SW	Sidewall	1	1	895	No		07/14/11	
Zone 8	N29	Sidewall	0	1	799	No		07/14/11	
Zone 8	N29-S	Sidewall	0	1	722	No		08/04/11	
Zone 8	N31	Floor	2	2	645	No		07/14/11	
Zone 8	N30-S	Sidewall	1	2	575	No		07/14/11	
Zone 8	N30-S	Sidewall	0	1	528	No		07/14/11	
Zone 8	028-S	Sidewall	1	2	500	No		08/04/11	
Zone 8	N29	Sidewall	1	2	482	No		07/14/11	
Zone 8	N31-SW	Sidewall	1	2	474	No		07/14/11	
Zone 8	N31-SS	Sidewall	1	2	437	No		07/14/11	
Zone 8	031	Floor	2	2	424	No		07/14/11	
Zone 8	N31-SS	Sidewall	0	1	408	No		07/14/11	
Zone 8	P31	Sidewall	1	2	395	No		07/14/11	
Zone 8	N30	Floor	2	2	286	No		07/14/11	
Zone 8	O28-S	Sidewall	0	1	286	No		08/04/11	
Zone 8	P26-S	Sidewall	0	1	205	No		08/16/11	
Zone 8	N29-S	Sidewall	1	2	184	No		08/04/11	
Zone 8	RR23-S	Sidewall	0	1	130	No		08/16/11	
Zone 8	030	Floor	2	2	94	No		07/14/11	
Zone 8	P27	Floor	1	1	91	No		08/16/11	
Zone 8	P28-S	Sidewall	1	2	61	No		08/04/11	
Zone 8	028-SE	Sidewall	1	2	59	No		08/16/11	
Zone 8	028-SE	Sidewall	0	1	46	No		08/11/11	



## APPENDIX D Milestone Schedule

## Appendix D Project Milestone Schedule Former Transco Railyard, GA HSI Site

	Ye	Year 1		Year 2		Year 3		Year 4		Year 5	
	6mo	12mo	18mo	24mo	30mo	36mo	42mo	48mo	54mo	60mo	
ID Task Name	Jan-18	Jul-18	Jan-2019	Jul-19	Jan-2020	Jul-20	Jan-2021	Jul-22	Jan-2023	Jul-23	
1 VIRP Approval											
2 Semi-Annual Progress Reports											
3 Enter Qualifying Properties											
4 Source Area Investigation / Soil Delineation											
5 On-site Horizontal Groundwater Delineation											
6 Off-site Horizontal Groundwater Delineation (if necessary)											
7 Vertical Groundwater Delineation (if necessary)											
8 Updated CSM, Final Remdiation Plan, and Cost Estimate											
9 Remedial Activities											
10 Compliance Status Report											