



# **RCRA FACILITY INVESTIGATION (RFI) REPORT**

**EXIDE TECHNOLOGIES  
555 North Hoke Avenue  
Frankfort, Indiana  
EPA ID No. IND001647460**

*Prepared For:*

**EXIDE TECHNOLOGIES  
Milton, Georgia**

*Prepared By:*

**ADVANCED GEOSERVICES CORP.  
West Chester, Pennsylvania**

**Project No. 2011-2678-14  
September 14, 2018**



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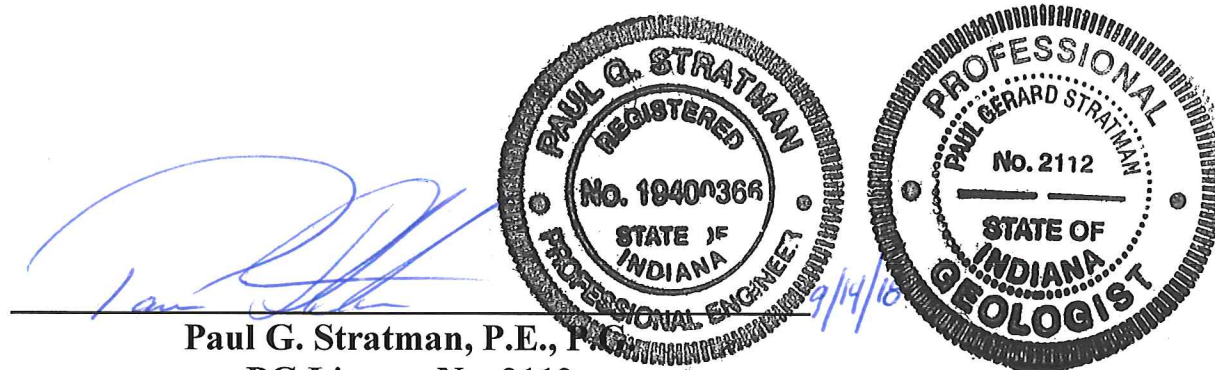
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- J Current Conditions Report (Advanced GeoServices, July 6, 2017)
- K Summary of Soil Sampling Results Letter (April 4, 2014)



## 1.0 INTRODUCTION

### 1.1 PURPOSE

This RCRA Facility Investigation (RFI) Report has been prepared by Advanced GeoServices Corp. (Advanced GeoServices), on behalf of Exide Technologies, Inc. (Exide), for the site investigation activities performed at Exide's former battery manufacturing facility located at 555 North Hoke Avenue in Frankfort, Indiana (EPA ID# IND 001 647 460) (i.e., the Site). The RFI is being performed pursuant to Section VI, item 11.c of the Administrative Order on Consent (AO) (EPA Docket No. RCRA-05-2017-0014), between the United States Environmental Protection Agency (USEPA) and Exide. The field activities were performed in accordance with the RFI Work Plan (WP) (Advanced GeoServices, February 26, 2018) and conducted between April 21 to July 17, 2018.

In addition to presentation of information specifically obtained during the RFI, this report also consolidates information obtained during the previous site sampling activities. These include the following:

- Summary of Soil Sampling Results Letter (Advanced GeoServices April 4, 2014);
- Initial Site Characterization Report – UST #201404505 (Advanced GeoServices July 29, 2014);
- Limited Subsurface Investigation Report – UST #210404509 (Advanced GeoServices August 21, 2014); and,
- Current Conditions Report (Advanced GeoServices July 6, 2017).

Electronic copies of these previously completed reports are provided as Appendices to this Report.



## 1.2 SCOPE

The purpose of the RFI is to identify and define the nature and extent of releases of hazardous waste and hazardous constituents at the facility, or in ongoing releases from the facility by groundwater or surface water migration. To accomplish this goal, the RFI included random soil sampling based on a site wide grid system; focused soil sampling in or around Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs); installation of groundwater monitoring wells around the perimeter of the Site; and sediment sampling in Site storm drainage pipes. For screening purposes, sample results are compared against the IDEM Remediation Closure Guidance (RCG) values for Groundwater Tap Limits and Direct Contact Non-Residential Soil Limits. A copy of the IDEM RCGs utilized for evaluation of results is provided on Tables 3A and 3B.

RFI implementation was planned to be a single phase of field activities, however; a supplemental phase of RFI sampling was proposed by Exide and approved by the USEPA to expedite evaluation of elevated volatile organic compound (VOC) concentrations identified in groundwater in the east-central portion of the Site. The supplemental sampling consisted of hydro-punch groundwater samples.

### 1.2.1 Report Organization

The RFI Report contains a description of the investigative field activities associated with the implementation of the RFI Work Plan (including supplemental groundwater investigation), the results of the laboratory analysis, and conclusions and recommendations regarding adequacy of Site Characterization. This document is organized as follows:

- Section 1.0 - Introduction
- Section 2.0 – Facility Description and Background
- Section 3.0 – Environmental Setting
- Section 4.0 – Source Characterization



- Section 5.0 – Nature of Contamination
- Section 6.0 - Scope of Investigation
- Section 7.0 – Results
- Section 8.0 – Site Characterization Summary
- Section 9.0 – Conclusions
- Section 10.0 - Recommendations

Tables are provided to present information on the AOCs/AOIs. Figures are provided which depict the former Site layout, current conditions, and historic sample locations. Several appendices are also attached to provide the reader with detailed information that has been compiled for the Site such as laboratory reports, well search records, historic photographs, and other relevant records and documents.



## 2.0 FACILITY DESCRIPTION AND BACKGROUND

### 2.1 FACILITY LOCATION

The Site is located as shown on Figure 1 (based on USGS Topographic maps for Michigantown Quadrangle and Frankfort Quadrangle, Indiana-Clinton County 7.5 minute series). The Site is bounded by North Hoke Avenue to the west, Kelley Avenue to the east, Washington Street to the north (also referred to as Michigantown Road on some maps), and Norfolk Southern railroad tracks to the south. The Site is located in central Indiana within Clinton County, approximately 50 miles northwest of Indianapolis. Residential properties lie across the street from the Site on North Hoke and Kelly Avenue; as well as on the opposite side of the railroad tracks to the south. Michigantown Road is immediately north of the Site and has several light industrial commercial properties located in proximity to the Site.

The Site consists of eighteen (18) contiguous parcels owned by Exide which encompass approximately 13.7 acres (Figure 2). All but three of the parcels are located within a perimeter security fence. The majority of the area (12.1 acres) lies within the perimeter security, and with the exception of grass and a few shrubs along North Hoke Avenue is covered with pavement or crushed stone. The three parcels outside the fence represent approximately 1.6 acres and are open grassy lots and are not know to have been part of historic Site operations. Fourteen (14) of the 18 parcels are small (typically 40' x 100') properties with frontage along N Kelley Ave. suggestive of residential uses, however; historic aerial photographs (available beginning in 1952) do not indicate that residential structures were ever on these parcels.

### 2.2 OWNERSHIP HISTORY

Limited information is available regarding the exact nature of historic manufacturing operations at the Site. Based on information contained in the Consent Order and a November 28, 2011 Letter Report prepared by USEPA, Prest-O-lite Manufacturing owned the Site during the World War II era. Prest-O-Lite was a car equipment manufacturer (including lead acid batteries), although this ownership history and specific Prest-O-Lite manufacturing operations conducted on-site could not

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be confirmed. Based on Polk's City Directory in 1959 a telephone exchange registered to P.R. Mallory & Co. Inc. was listed for the address. P.R. Mallory & Co. manufactured electronics including dry cell batteries and eventually became Duracell. General Battery Corporation purchased the Site in 1963, which is consistent with additional information from Polk's City Directory which shows the telephone exchange for the address belonging to General Battery & Ceramic Co. Exide assumed ownership of the Site during the acquisition of General Battery Corporation in 1988. Exide currently owns the parcels that make up the Site.

## 2.3 OPERATIONAL HISTORY

### 2.3.1 Early History

Carriage manufacturing operations reportedly began on the Site in the early 1900s. Historic aerial photographs dating back to 1969 show many structures were still present at the time of demolition in 2012. Prior to 1963, the Site was also reportedly used for cabinet manufacturing. It is possible that Prest-O-Lite, P.R. Mallory and cabinet manufacturing operations occurred concurrently on the property between World War II and 1963.

### 2.3.2 Battery Manufacturing

In 1963, General Battery Corporation began the manufacturing of lead-acid batteries for use in automotive, golf cart, marine and industrial applications. At its peak the facility produced over 12,000 automotive batteries per day. The Standard Industry Classification (SIC) code for the facility was 3691; "Battery manufacturing". The aerial photograph taken in 1969 shows a Facility layout that looks very similar in development to conditions observed in subsequent photographs.

The extent of paved areas is unclear in the 1977 aerial photo. The 1981 aerial photo included in the Current Conditions Report (CCR) clearly shows that the remaining portions of the Site, along Kelley Avenue have been paved. The New Formation portion of the facility was constructed in





the late 1980s or early 1990s and is visible in the 1992 aerial photographs reviewed in the CCR. Some portions of the New Formation area may have been enclosed earlier in the 1980s.

During the battery manufacturing process, metallic lead was received at the facility, melted, and cast into grids and posts. Lead oxide paste was also manufactured at the facility and subsequently applied to the grids. Lead oxide was created by feeding molten lead into a reactor and mixing it with air to oxidize the lead. Pasted grids were placed in stacks that formed the core of the battery. The cores were placed in battery cases that were produced offsite. Then the remaining components were added. Electrolyte (dilute sulfuric acid) was then added to the battery and a charge was applied (formation). After formation, the battery was cleaned, finished, labelled, and packaged for shipment to retailers and distributors.

Water was used to cool batteries after charging and also to wash batteries prior to shipment. Cooling water was collected in floor drains and emptied to a sump in the wastewater treatment plant (WWTP) located on the northwest corner of the Site. The sump collected wastewater from the entire plant, including sulfuric acid from the cooling and washing process, and lead from washing and dry charge operations. Wastewater was treated with lime ( $\text{CaCO}_3$ ) to neutralize the pH and precipitate dissolved metals. Precipitated solids settled to the bottom and was pumped to a sludge holding tank. From June 1986 until operations ceased in 1997 the sludge was dewatered using a filter press. Sludge cake generated by the filter press was collected in a roll-off container for offsite disposal. Extracted water was recycled back to the clarifier. Prior to the use of the filter press, sludge was dewatered using vacuum pan filters and the filter cake was temporarily stored in an enclosure building prior to offsite disposal. This former temporary storage area is designated as SWMU-1. Clarified water was then discharged to the City of Frankfort sanitary sewer system in accordance with a discharge permit issued by the City.



### 2.3.3 Facility Decontamination and Demolition

In October 2012, Exide voluntary performed a decontamination of the facility followed by demolition of the above grade structures. The decontamination and demolition project was completed in January 2013. The scope of work included:

- interior pressure washing and vacuuming to remove dust;
- removal of universal wastes (mercury bulbs and switches, PCB ballasts, miscellaneous chemicals, paints, and petroleum products, etc.);
- dust suppression and air monitoring program;
- demolition of above grade structures;
- cleaning of pits, sumps, and pipes to remove sediment;
- abandonment of piping/drains;
- sampling and sorting of debris for disposal, recycling, or reuse;
- crushing and onsite placement of approximately 3,300 CY of concrete rubble;
- final washing of remaining impervious surfaces;
- collection and onsite treatment of impacted wash water and other contact water;
- demolition of select areas of corroded concrete floor and placement of impermeable cover; and,
- Installation of chain link fence as needed to secure the perimeter.



### 3.0 ENVIRONMENTAL SETTING

#### 3.1 TOPOGRAPHY AND SURFACE DRAINAGE

The Site is relatively flat with a typical ground surface elevation of approximately 850 feet above mean sea level (MSL) with the south end of the Site slightly higher than the north end of the Site. Topographically the eastern half of the Site drains east and north towards Kelley Avenue. Storm water from the western half of the Site drains west and north to North Hoke Avenue. Northern portions of the Site drain north to Michigantown Road. Storm water drainage features (inlets and piping) within the Site collect internal Site runoff and direct flow into the North Hoke Avenue storm drainage system or to an unnamed tributary of Prairie Creek. See additional information regarding storm drainage system on Figure 5.

#### 3.2 SURROUNDING LAND USE

Residential properties lie across the street from the Site on North Hoke and Kelly Avenues; as well as on the opposite side of the railroad tracks to the south. Michigantown Road is immediately north of the Site and has several light industrial commercial properties located in proximity to the Site. No Sanborn maps were available for the Site.

A review of environmental data for surrounding properties identified various commercial/industrial properties and underground storage tanks located near the Site. This includes the following:

- Wampler Services Inc, 1270 Washington Ave. (aka Michigantown Road) – this property is located immediately across Michigantown Road from the Site includes an active scrap yard that appears to have been in operation since the late 1960s based on aerial photos. Michael Construction shares the same address and at one time had an underground storage tank onsite. The current status of any tanks on that property is unknown.



- Indiana Gas Company, 500 North Hoke Avenue – this property located on the opposite side of Hoke Avenue previously housed underground storage tanks (current status unknown). This location was also identified as the site of a voluntary cleanup (VRP Number 6980709).
- Norfolk Southern Railroad, 1601 West Ohio Street – this property is located approximately 700 feet south of the Site and a review of available records indicated that there was a leaking UST present at this location. Based on a review of aerial photographs it is unclear whether this is the correct physical address for a UST facility. This location was also identified as the site of a voluntary cleanup (VRP Number 6020104).
- Jay’s Car Care, 358 East Hoke Avenue – this property is located approximately 700 feet south of the Site.
- As summarized in the CCR; an October 6, 1997 letter from Exide’s Legal Council (Lawrence Vanore) to IDEM indicated that in April 1987 a gasoline filling station was present “right across the street from the complainant’s house” located at 1403 Michigantown Road. This would place the potential location within 400 feet of the Site.

### 3.3 CLIMATE

Central Indiana has a humid continental climate with cold winters and hot, wet summers. Measureable snowfall usually begins in late November and ends in late March. Daytime temperatures in January, the coldest month of the year, average in the low-mid 30s; with overnight lows in the upper teens. In the summer, daytime highs average in the low to mid 80s; with overnight lows in the mid-60s. Extended periods of higher temperatures are rare due to disruption from cooler and drier Canadian air. The clashing of hot and cold air masses can lead to severe weather, particularly in the spring. Spring is typically the wettest time of the year and is the peak



time for tornados. May is typically the wettest month with average rainfall between four and five inches across the State. Average annual precipitation in Clinton County is approximately 39 inches.

### 3.4 SURFACE WATER HYDROLOGY

Precipitation in the vicinity of the Site can fall as rain in the warmer months or snow during the winter. Most precipitation around the site is managed by a system of paved roads and curbing which direct stormwater into inlets and drainage structures.

An unnamed tributary of Prairie Creek lies approximately 300 feet north of the Site; on the opposite side of Kelley Avenue. The unnamed tributary eventually drains to the Prairie Creek approximately 1.5 miles downstream of the Site. The Prairie Creek eventually drains into the South Fork of the Wildcat Creek and ultimately to the Wabash River. Most of Indiana (approximately 24,000 square miles) is drained by the Wabash River system. The Site is located in the Upper Wabash River Basin.

A printed FEMA FIRM map for the Site and surrounding vicinity was not available. Panel 18023C0165C was viewed using the FEMA ArcGIS viewer and indicated that the panel containing the Site is an “Area of Minimal Flood Hazard”.

### 3.5 GEOLOGY

As the Laurentide ice sheet began to retreat from present day Northern Indiana and Northwest Ohio between 14,000 and 15,000 years ago, it receded into three distinct lobes. The eastern or Erie Lobe sat atop and behind the Fort Wayne Moraine. Meltwater from the glacier fed into two ice-marginal streams, which became the St. Joseph and St. Marys Rivers. Their combined discharge was probably the primary source of water for the proglacial Wabash River system. Rich prairie soils extend over central Indiana. Some clays in east-central Indiana are compact with poor drainage and frequent ponding of water. Till (material deposited directly by glaciers) forms flat



to hummocky plains that dominate the central portion of the state. The thickness of the glacial deposits ranges from 100 to 400 feet throughout Clinton County.

The Site and surrounding region is immediately underlain by Fincastle-Crosby soils. This is a silty loam with slow infiltration rates (Class C) and is somewhat poorly drained. The area is characterized by swell and swale topography. Fincastle soils are typically observed on rises and have a brown silt loam surface layer, and yellowish brown, mottled silty clay loam to clay loam subsoil. Crosby soils are found on high rises and have a brown silt loam surface layer, and yellowish brown, mottled silty clay loam, clay loam, and loam subsoil.

Fill materials are generally present in the upper 18 – 24 inches of the onsite soil strata. Borings performed as part of the Hazardous Waste Pile Closure (1998 – 2000) identified fill materials in depths of up to 5 feet below ground surface in the northern portion of the Site. Shallow geoprobe borings (4 feet to 8 feet in depth) performed by Exide at the request of the USEPA, (see Appendix K: *Summary of Soil Sampling Results Letter* (Advanced GeoServices April 4, 2014)) identified silty clay soils in a majority of borings. Sandy fill materials were identified in borings performed near the rail road embankment on the south portion of the Site, beneath Old Formation, and beneath the former WWTP. All of these locations were described as likely to have had grading or fill placement performed.

Debris (brick/masonry fragments, piping, wire) was observed in the UST-2 removal excavation performed in 2014, but was not observed in geoprobe borings elsewhere onsite. The deepest boring performed onsite during the Initial Site Characterization Report – UST# 201404505 (Advanced GeoServices July 29, 2014) (Appendix I) and Limited Subsurface Investigation Report – UST# 201404509 (Advanced GeoServices August 21, 2014) (Appendix H) investigation reached a depth of twenty (20) feet below ground surface. Bedrock was not encountered.

The Site appears to fall near the divide between Devonian and Silurian bedrock units. Devonian formations typically have a carbonaceous shale on the upper portion and are underlain by limestone, dolostone and shale. Silurian bedrock contains the latter rock types. Indiana bedrock



geology features a broad anticline with a slight plunge to the northwest. Bedrock beneath the Site is located at approximately 550 feet MSL; or approximately 300 feet below ground surface (bgs).

### 3.6 HYDROGEOLOGY

The Tipton Complex Aquifer System is characterized by unconsolidated deposits that are quite variable in materials and thickness. Aquifers within the system range from thin to thick and include single or multiple intra-till sands and gravels. The aquifers are highly variable in depth and lateral extent and are typically confined by thick clay layers. The total unconsolidated thickness of the Tipton Complex Aquifer System generally ranges from about 200 feet to over 400 feet in Clinton County. The potentiometric surface of the regional unconsolidated aquifer is approximately 800 feet MSL; or approximately 50 feet bgs.

This system is capable of meeting the needs of domestic and most high-capacity users in the county. Aquifer layers utilized in the Tipton Complex Aquifer System are generally 5 to 10 feet thick sands and/or gravels. These sands and gravels are overlain by a till cap which is commonly 65 to 190 feet thick with thin intratill sand and gravel layers. Wells in this system are typically completed at depths ranging from 68 to 195 feet. Domestic well yields are commonly 15 to 65 gallons per minute (gpm) and static water levels are generally 15 to 35 feet below the surface. There are 8 registered significant ground-water withdrawal facilities (29 wells) in this system in Clinton County. High-capacity well yields of up to 1,200 gpm are reported.

The Tipton Complex Aquifer System is generally not susceptible to contamination because it is typically overlain by thick clay deposits. However, in places surficial clay thickness is thin or not present. These are at moderate to high risk to contamination by surface sources.

### 3.7 GROUNDWATER MONITORING AND USE

Only limited groundwater monitoring was performed on the site prior to the RFI. It is unknown whether the groundwater was ever used to supply facility water needs during earlier periods.



However, for at least the latter part of the operational history (1980 and later) the Facility was only supplied with potable water from multiple City of Frankfort municipal supply lines. The municipal water supply lines were cut and capped in October 22, 2012 as part of the demolition.

During the 2014 UST removal, depth to groundwater measurements were variable, with depth to water measurements observed in temporary geoprobe well borings on July 1, 2014 at approximately 11-12 feet below ground surface. However later on that same day groundwater seepage into the excavation was observed at depths as shallow as approximately 3 feet bgs. During excavation of the USTs saturated material was typically observed at a depth of approximately 6 feet. This is indicative of perched water conditions above shallow clay lenses.

The hydraulic gradient observed in the borings performed as part of the UST removal, and eventually in the RFI mimic the site topography and flows in a north-northeast direction. The unnamed tributary to Prairie Creek (approximately 300 feet north of the Site) is reported to be intermittent.

In 2014, during the UST removal a review of the Indiana Department of Natural Resources – Division of Water Well Record Database was performed. The review indicated that there are eighty-five (85) high capacity (greater than 70 gallons per minute) and municipal water supply wells within a 2-mile radius of the Site. In addition, there are thirty-three (33) wells with a capacity of less than 70 gallons per minute located within a one (1) mile radius of the Site. IDEM provided a determination on May 12, 2014 that the Site is not located within a wellhead protection area (WHPA). The closest private well appears to be approximately 1,000 feet east of the Site. Residences in the immediate vicinity of the Site are supplied with municipal water. Copies of individual well construction records and a map with the location was provided in the Current Conditions Report (Advanced GeoServices dated July 6, 2017).





## 4.0 SOURCE CHARACTERIZATION

### 4.1 FACILITY STATUS AS A RCRA HAZARDOUS WASTE FACILITY

On August 18, 1980, General Battery submitted a Notification of Hazardous Waste Activity for hazardous waste generation; and treatment, storage, and disposal of hazardous wastewater and associated sludge. On November 19, 1980, General Battery filed a Part A Hazardous waste permit application for the on-site wastewater treatment facility and for storage of wastewater treatment sludge in an enclosed building. The filing was made because the waste materials generated on-site could be characteristically hazardous under RCRA for lead (D008) and/or acidity (D002). On October 18, 1982, the facility requested that the wastewater treatment unit be eliminated from the Part A application, because the RCRA amendments no longer required a RCRA permit for such units. On December 8, 1982, EPA approved the withdrawal of the wastewater treatment unit from the Part A application. In June 1986 General Battery implemented a closure plan for the indoor waste pile, and water treatment sludge was subsequently accumulated in roll-off containers thus eliminating regulatory requirements that the facility be regulated as a RCRA Hazardous Waste - treatment storage and disposal facility. Clean closure certification of the waste pile was approved by IDEM in November 1986. On February 19, 1987, General Battery requested that IDEM withdraw the RCRA Part A permit application in its entirety. On April 29, 1987, IDEM determined that the facility qualified as a generator only and approved withdrawal of the permit application. On August 24, 1988, the facility revised their Notification of Hazardous Waste Activity to reflect generation of waste naphtha.

### 4.2 SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN

The Site was used for the manufacture of lead-acid batteries from 1963 – 1997 (and possibly as early as the 1940s), with other types of manufacturing present at the Site dating back to the early 1900's. In March 1988, IDEM conducted a Preliminary Review/Visual Site Inspection (PR/VSI) at the Site. The PR/VSI identified five SWMUs (SWMU 1 through 5), as follows:



- SWMU-1: Former Waste Pile #1 (Sludge Storage Area)\* (clean closed 1986);
- SWMU-2: Sludge Storage Tank\*;
- SWMU-3: Baghouses;
- SWMU-4: Hazardous Waste Accumulation Area; and
- SWMU-5: WWTP and Sump\*

Four additional units (SWMUs 6, 7, 8, and 9) and three areas of concern (AOCs 1, 2 and 3) were added to this list as a result of the November 28, 2011 USEPA File review (REPA4-2531-012). The additional SWMUs and AOCs, are as follows:

- SWMU-6: Filter Buildings
- SWMU-7: Roll-Off Container\*
- SWMU-8: Former Waste Pile #2
- SWMU-9: Parts Cleaner in Basement
- AOC-1: Loading Dock Area
- AOC-2: Casting/Grid Building Area RR Track
- AOC-3: USTs 2 and 3

Note: SWMUs denoted with an asterisk (\*) were all located at the former wastewater treatment building.

### 4.3 SWMU/AOC DESCRIPTIONS

The following section discusses the five SWMUs identified in the 1988 PR/VSI, plus the four additional units (SWMUs 6, 7, 8, and 9) and three areas of concern (AOCs) that were added to this list as a result of the November 2011 USEPA File review.

#### 4.3.1 SWMU-1: Former Waste Pile #1 (Sludge Storage Area)

The Former Waste Pile #1, also referred to as the “Sludge Storage Area”, was located on the concrete floor in the wastewater treatment building (Figure 2). The waste pile was used for



accumulation (less than 90 days) of dewatered calcium sulfate sludge (D008 hazardous waste) from wastewater treatment operations at the facility. Prior to June 1986, the calcium sulfate sludge was dewatered in a vacuum pan filter, and temporarily accumulated in waste piles. Approximately 324 tons of dewatered sludge were generated each year and transported off site for disposal at the Adams Center Landfill in Fort Wayne, Indiana.

At the time of the 1988 PR/VSI, the waste pile no longer existed. The waste pile underwent closure in accordance with an ISBH-approved closure plan in 1986. No history of any releases from this waste pile has been identified because the waste pile was located indoors in an enclosed area on a concrete floor. When in use, the leachate generated from the waste pile was collected and transferred to the wastewater treatment system for processing.

According to the approved 1986 closure plan, sludge remaining in the waste pile at the time of closure was placed in a roll-off container and transported to the Adams Center Landfill in Fort Wayne, Indiana for disposal. The concrete walls and floors of the sludge storage area and adjacent areas were washed to remove contaminants. The building was subsequently modified to enable sludge to drop directly from dewatering equipment into a roll-off container (SWMU-7). Exide submitted closure certifications for the Sludge Storage Area to ISBH in June and July 1986. ISBH issued a completion of closure letter to the facility in November 1986.

Based on the November 28, 2011 USEPA File Review Letter Report (REPA4-2531-012), no data gaps remained for SWMU-1 at the time of the RFI.

#### 4.3.2 SWMU-2: Sludge Storage Tank

The sludge storage tank was located inside the wastewater treatment building (Figure 2) on a concrete slab and was used in conjunction with wastewater treatment operations at the facility. The sludge storage tank was used for temporary accumulation of liquid calcium sulfate sludge prior to dewatering. Sludge was withdrawn from the wastewater treatment system's clarification tank and pumped to this sludge storage tank for holding prior to dewatering. The sludge was



classified as D008 hazardous waste for its toxicity for lead. After dewatering, the filtrate/liquid was transferred back to the wastewater treatment system's reaction tank; the dewatered sludge was routed to the Former Waste Pile #1 (SWMU 1) until June 1986, and subsequently to the roll-off container (SWMU-7) used to hold dewatered sludge from the plate and frame filter press. After battery manufacturing operations ceased in 1997, use of SWMU 2 was limited to handling solids suspended in storm water collected by floor drains within the buildings.

The tank was in active operation at the time of the PR/VSI in 1988; however, no recommendations were provided for this unit in the PR/VSI report. Spilled material would have been contained by the building. No history of any releases has been identified with the sludge storage tank.

The tank was emptied, pressure washed, demolished and sent for disposal during site wide facility decontamination and demolition in December 2012. RFI focused borings F-1 through F-3 were performed to provide sample results in vicinity of former wastewater treatment facility (including SWMU-2).

#### 4.3.3 SWMU-3: Baghouses

The baghouses were located outside the plant building, as shown on Figure 2. When the facility was used to manufacture batteries, lead fumes from molten lead and lead oxide dusts were vented to the baghouses. Dust that accumulated in the baghouses was classified as D008 hazardous waste due to its lead content. The baghouse dust was transferred to drums, accumulated in the hazardous waste accumulation area (SWMU 4) for less than 90 days and shipped to an Exide lead smelter facility in Pennsylvania for reclamation. The PR/VSI described the ground beneath the baghouses as appearing dark, and speculated possible contamination from lead dust. The VSI recommended that soil samples be collected from several depths beneath all baghouses and analyzed for lead. Use of the baghouses ended in 1997, when the facility ceased manufacturing batteries.



A CEI conducted by IDEM in June 2001 indicated that cleanup of the baghouses had been completed, and that Heritage Environmental Services had removed and disposed of the waste generated from the cleanup activities. A boring was completed in the footprint of the baghouses as presented in the Summary of Soil Sampling Results Letter (Advanced GeoServices, April 4, 2014). During the RFI Focused borings F-4 and F-5 were performed on either end of the former baghouse footprint.

#### 4.3.4 SWMU-4: Hazardous Waste Accumulation Area

The hazardous waste accumulation area was located inside the south -central end of the plant building, as shown on Figure 2. The area was approximately 15 feet by 20 feet. When the facility was manufacturing batteries, this hazardous waste accumulation area was used for accumulation (less than 90 days) of drums containing lead-contaminated dust (D008 waste) from the baghouses, prior to off-site transport to Exide's secondary lead smelter in Pennsylvania for recycling. Used air filters from the filter building (placed on pallets and shrink-wrapped) and drums of used gloves, respirators, and floor sweepings were also accumulated in the hazardous waste accumulation area and transported off site as D008 waste to Reading, Pennsylvania for recycling. Approximately 125 tons of lead-containing materials were generated in 1984.

There are no documented releases from this unit, but spilled material would likely have been contained by the building. No violations associated with this unit were noted during the June 2001 and June 2010 CEIs. No hazardous waste was being accumulated in the hazardous waste accumulation area at the time of the June 2010 CEI.

Based on the November 28, 2011 USEPA Letter Report, no data gaps were identified for SWMU-4, although a soil boring (B-12) was placed through the floor of the unit during the Limited Subsurface Investigation (Advanced GeoServices, September 21, 2014)



#### 4.3.5 SWMU-5: Wastewater Treatment Unit and Sump

The wastewater treatment facility was installed in 1970 and is located in the north end of the property. The wastewater treatment facility contained SWMUs 1, 2 and 7. Battery manufacturing operations generated approximately 35,000 gallons of wastewater containing dilute sulfuric acid and lead (D002 and/or D008 waste) per day. Process wastewater was collected in a series of floor drains in the plant buildings and piped to the on-site treatment facility. At the treatment facility, wastewater was initially collected in a sump and pumped to one of two aboveground holding tanks for equalization. The holding tanks were located outside the treatment facility, and each tank held approximately 6,350 gallons of wastewater. From the holding tanks, wastewater was pumped into a three-stage reaction tank where lime was added for pH neutralization and precipitation of lead. The reaction tank had a design capacity of 48,000 gallons/day.

In April 1984, an 865,700-gallon clarification tank located outside the wastewater treatment building was placed into operation and was used in the treatment scheme for solids and liquids separation. Solids consisted primarily of calcium sulfate from the lime neutralization process that had settled to the bottom of the clarification tank. Treated and clarified liquid from the clarification tank was discharged under a permit to the city sewer system. Semi-solid sludge at the bottom of the clarifier was withdrawn and pumped to a sludge tank (SWMU 2) for temporary holding prior to dewatering in a filter press. Filtrate from the sludge dewatering operations was collected and pumped back into the reaction tank for subsequent treatment. Dewatered sludge from the filter press was accumulated in a roll-off container (SWMU 7) prior to off-site transport to Adams Center Landfill for disposal. Prior to June 1986, the sludge was dewatered in a vacuum pan filter and dewatered sludge was accumulated in a waste pile (SWMU 1) in an enclosed building before being transported off site for disposal.

The aboveground wastewater treatment holding tanks were located outside on a concrete pad. The system's sump and reactor tanks were located inside the facility. There are no documented releases from either the sump or the wastewater treatment system itself. It is expected that a significant



release of hazardous sludge or wastewater from this unit would have been noted in the file material, as it likely would have interrupted process operations at the facility.

No information was found in the available file material on the integrity of the sump located inside the wastewater treatment building. RFI focused borings F-1 through F-3 were performed to provide sample results in vicinity of former wastewater treatment facility (including SWMU-5).

#### 4.3.6 SWMU-6: Filter Building

This unit was not previously assigned a SWMU number at the time of the PR/VSI, but was assigned a SWMU number for purposes of the November 28, 2011 USEPA File Review Letter Report (REPA4-2531-012). The text of the USEPA File Review Letter Report did not identify the specific location for the Filter Building, but based on a review of facility drawings and conversations there were actually two such areas existed, as shown on Figure 2. The Filter Buildings functioned like a baghouse during the plant's manufacturing operations. Air from inside the plant building was sucked into the filter building where dust was caught in a system of filters. The clean air was then recycled back into the plant. The filters were cleaned or replaced as necessary. Old filters were treated as hazardous waste (D008), accumulated in the hazardous waste accumulation area for less than 90 days, and sent to Exide's secondary lead smelter in Pennsylvania for recycling. Lead-contaminated dust (D008 waste) from the filters was collected in 55-gallon drums that were also accumulated in the hazardous waste accumulation area for less than 90 days and transported to Exide's secondary lead smelter in Pennsylvania for recycling.

The filter system was totally encapsulated and there are no documented releases from the unit. Old filters were shrink-wrapped in plastic before being placed on pallets to prevent residual dust from falling off the used filters. Based on the November 28, 2011 USEPA File Review Letter Report, no data gaps remained for SWMU-6, although focused boring F-6 and random boring R-47 were placed in the middle of the southern and northern filter buildings, respectively.



#### 4.3.7 SWMU-7: Roll-off Container

This unit was not previously assigned a SWMU number at the time of the PR/VSI, but was assigned a SWMU number for purposes of the November 28, 2011 USEPA File Review Letter Report (REPA4-2531-012). This unit was a roll-off container located in the wastewater treatment building beneath the filter press. This unit was used for less than 90-day accumulation of dewatered wastewater treatment sludge carrying the D008 hazardous waste code. The use of the SWMU 7 roll-off container for collection of dewatered sludge essentially ended in 1997, when battery manufacturing operations ceased at the Exide facility and solids generation was limited to suspended solids in storm water collected within the buildings (from leaking roofs).

The PR/VSI indicated that the facility was practicing good housekeeping and no concerns with this unit were identified in compliance inspections conducted at the facility. There are no documented releases from this unit, although by virtue of being in the former wastewater treatment building focused borings F-1 through 3 are in the vicinity of SWMU-7.

#### 4.3.8 SWMU-8: Former Waste Pile #2

This unit did not exist at the time of the 1988 PR/VSI, but was assigned a SWMU number in the November 28, 2011 USEPA File Review Letter Report (REPA4-2531-012). This unit was a 30-foot by 30-foot waste soil pile that was located in the northeast portion of the facility that included soil that was characteristically hazardous for lead (D008). The waste pile contained lead-contaminated soil that was reportedly excavated during the course of a remodeling project conducted at the facility in 1996. Approximately 123 cubic yards of lead-contaminated soil were placed directly on the ground surface at this unit. All wastes managed in the waste pile were removed from the area and disposed at a permitted off-site disposal facility in February 1996. An additional 6 inches of soil beneath the waste pile was also removed during this operation. Reportedly, there were no indications of spillage or run-off outside the defined 30-foot by 30-foot pile footprint. Sampling, characterization, and removal of wastes and soil were conducted by Clean Harbors of Chicago, Illinois.





The waste pile came to the attention of IDEM during a routine CEI conducted in June 1997. Following the inspection, IDEM issued a NOV to Exide for creating a hazardous waste pile without a permit and for failure to meet the general requirements for a waste pile such as run-on/run-off management, wind dispersal controls, and leachate collection.

Exide collected soil samples from four soil borings advanced within the former waste pile footprint and analyzed the soil samples for total lead in August 1998. The soil samples were collected every 6 inches to a depth of 3 feet bgs, and then again at 4 feet bgs and at 5 feet bgs, for a total of 24 samples. Total lead concentrations ranged from 11 to 3,800 milligrams per kilogram (mg/kg). The concentrations decreased with depth before increasing in fill materials near the 5-foot depth. Based on the sampling results, IDEM directed Exide to submit a closure plan for the hazardous waste pile. The Closure Plan and Addendas No. 1, 2, and 3 were approved by IDEM in March 2000.

On March 22, 2000, Exide conducted soil sampling to establish background lead concentrations for shallow fill materials in the vicinity of the former waste pile in accordance with Addendum No. 3 to the hazardous waste pile closure plan. Six soil samples were collected of fill materials to a maximum depth of 18 inches bgs and analyzed for total lead. Total lead concentrations ranged from 165 to 2,970 mg/kg. In November 2000, Exide removed a uniform layer of 18 inches of soil in an area with dimensions of 40 feet by 40 feet in accordance with the approved closure plan. The excavation area was expanded by 5 feet on each side of the original footprint of the waste pile. No confirmatory samples were collected at the bottom of the excavation because previous sampling events in the proposed excavation area indicated that lead levels below 18 inches bgs were below the RISC Tier 1 Residential values. However, lead levels around 5 feet bgs increased to levels above RISC Tier 1 Residential values.

Fate and transport analysis (SOLUTE model) was performed by Advanced GeoServices during the development of the closure plan Addenda. The model assumptions were very conservative (over-estimation of lead mobility). The model results indicated that dissolved lead migration from the waste piles was not able to have a discernable impact on groundwater or deeper soil. Lead



impacts observed in deeper soils around the waste pile area were likely due to the presence of various fill materials observed at depths of up to 5 feet bgs.

On November 8, 2000, the excavation was backfilled with clean soil imported from Paddock Brothers, Inc. of Frankfort, Indiana. The excavated soils were characterized as hazardous for lead prior to disposal. Approximately 246 tons of excavated materials were treated such that leachable levels of lead were below RCRA TCLP concentrations and disposed at Max Environmental Inc.'s Mill Services TSD facility in Yukon, Pennsylvania. Exide submitted the Hazardous Waste Pile Closure Report to IDEM on January 9, 2001. IDEM approved the closure report on February 14, 2001.

#### 4.3.9 SWMU-9: Parts Cleaners

This unit was not documented in the PR/VSI, but was assigned a SWMU number for purposes of the November 28, 2011 USEPA File Review Letter Report (REPA4-2531-012). This unit consisted of two parts cleaners located in the maintenance area in the basement of the plant building. The parts cleaners generated waste naphtha, which was disposed off-site by Safety-Kleen. Inspections conducted in 2001 and 2010 did not reveal the presence of the parts cleaners on site.

The parts cleaners were located inside the plant building on concrete slab. Spilled material would have been contained by the building. Moreover, because the waste naphtha was a valuable recyclable commodity, it would have made economic sense for both Exide and Safety-Kleen to ensure unit integrity and promptly clean up and containerize any waste naphtha that was spilled. Accordingly, there are no documented releases from this unit.

Based on the November 28, 2011 USEPA Letter Report, no data gaps remained for SWMU-9 when the RFI Work Plan was prepared.



#### 4.3.10 AOC-1: Loading Dock Area

This AOC was not identified in the PR/VSI, but was assigned an AOC number for purposes of November 28, 2011 USEPA File Review Letter Report (REPA4-2531-012). This AOC was identified by IDEM during a RCRA Compliance Inspection conducted on April 3, 1986. On July 18, 1986, IDEM issued General Battery an NOV (V-137) for depositing waste from spent batteries on the ground in the battery loading area. The loading dock was used for loading spent batteries. The area of contamination was a 35-foot by 45-foot area located east of the loading dock.

On January 19, 1988, Exide collected 32 soil samples in a 10-foot grid pattern throughout the 35-foot by 45-foot area east of the battery loading dock. Soil samples were randomly collected at depths up to 5 feet to support determination of background lead and cadmium concentrations in soil. Lead concentrations ranged from 12 to 9,300 mg/kg, and cadmium concentrations ranged from 0.11 to 13 mg/kg. Six samples were also analyzed for leachable levels of lead and cadmium, as measured using TCLP. TCLP lead concentrations ranged from 2.4 to 15 milligrams per liter (mg/L). TCLP concentrations greater than 5.0 mg/L of lead are considered characteristic hazardous waste (D008). The TCLP cadmium concentrations ranged from non-detect (ND) to 0.02 mg/L, which were below the TCLP regulatory level of 1.0 mg/L for cadmium.

Based on the sampling results, Exide proposed to excavate the 35-foot by 45-foot area to a depth of 6 inches bgs and collect confirmation samples to ensure that the cleanup level of 2,000 mg/kg for lead was successfully achieved. However, IDEM disagreed with the proposed 2,000 mg/kg cleanup level and required that a site-specific cleanup standard be established based on the mean range of a minimum of three background samples collected at least 100 feet from any roadway or process area. In November 1988, IDEM met with Exide to identify appropriate background sample locations. On July 17, 1989, IDEM informed Exide that the site-specific cleanup level would be 78 mg/kg for lead based on the results of the background samples collected by Pollution Control Systems, Inc. In a meeting at the site on July 18, 1989, IDEM and Exide agreed to excavate 1 foot of soil from the surface of the 35-foot by 45-foot spill area and apply a lime buffer to the



bottom of the excavation before backfilling to control pH. In August 1992, IDEM issued a notice of compliance for NOV (V-327), which included the area now designated as AOC 1.

Based on the fact that IDEM determined that compliance was achieved for this AOC, it is assumed that Exide executed the cleanup plan that IDEM and Exide agreed upon on July 18, 1989. Available file documentation confirms that IDEM issued a notice of compliance for this AOC.

#### 4.3.11 AOC-2: Castings/Grid Building Area – RR Track

This AOC was not identified in the PR/VSI, but was assigned an AOC number for purposes of November 28, 2011 USEPA File Review Letter Report (REPA4-2531-012). This AOC was identified by IDEM during a RCRA Compliance Inspection conducted on April 3, 1986. On July 18, 1986, IDEM issued General Battery a NOV (V-137) for depositing oil-contaminated boiler blow-down waste on the ground next to the castings/grid building. During the inspection, oil spillage was noted on the railroad tracks outside of the casting department. According to a facility employee, the oil was from air compressor blow-out. The outfall pipe for “chiller water” was in the same area. Water from the outfall pipe flowed approximately 500 feet through the area and into a loading dock drain. In response to the July 1986 NOV, the facility collected a sample of soil from the stained area, and then excavated soil in the stained area to a depth of approximately 2 feet bgs, where the soil was visibly clean. The facility collected a soil sample at the bottom of this excavation. Both samples were analyzed for lead, cadmium, oil, and grease. Information regarding the excavation was submitted to IDEM in January 1987.

In a Notice of Inadequacy dated March 27, 1987, IDEM requested further explanation for the 2-foot depth of excavation and asked that the samples of excavated materials also be analyzed for PCBs and total halides. In response to the Notice of Inadequacy, the facility collected another sample of the excavated material and a confirmatory soil sample at the 2-foot depth of the excavation. The samples were analyzed for PCBs and total halides, but no data were found in the available file material. In a response letter dated May 29, 1987, the facility indicated it was their understanding (based on phone conversations with IDEM) that it was only necessary to excavate



to a depth where the soil was free of any “visible” stain. Exide also indicated that, based on the analytical results, they planned to dispose of the excavated material as non-hazardous, special waste in a RCRA landfill approved by IDEM.

In August 1992, IDEM issued a notice of compliance for violations associated with AOC 2, including the release of oil-contaminated boiler blow-down waste in the Castings/Grid Building Area (Ref. E-56).

#### 4.3.12 AOC-3: Underground Petroleum Storage Tanks

During the 2012 facility decommissioning project, USEPA visited the Site and inquired about the status of three USTs believed to be located onsite. Exide subsequently performed a Site reconnaissance and a review of internal records. It was determined that three USTs existed onsite although the descriptions of the contents and locations varied somewhat between different documents.

- 10,000 gallon #2 fuel (heating) oil UST (unregulated) that was not closed; this UST is identified as UST-1 in closure documents submitted to IDEM in 2014 and herein.
- 10,000 gallon diesel fuel UST that was taken out of service in 1991 but not closed. This UST is identified as UST-2 in closure documents submitted to IDEM in 2014 and herein. UST-2 was constructed of steel with galvanized steel piping around 1981, last used in October 1990, and permanently taken out of service in December 1991
- 20,000 gallon #2 fuel (heating) oil UST that was closed in place in 1988 (referred to as UST-3 herein).

The exact locations of the 10,000 gallon USTs (UST-1 and 2) were identified based on conversations with facility personnel and subsequent removal. The location of the 20,000 gallon Heating Oil Tank (UST-3) was originally thought to be located along near the fuel shed and UST-



2, however; upon further review of historic documents we now believe the 20,000 gallon Heating Oil Tank was in the vicinity of the “fuel oil pump house” seen on several historic facility drawings.

On March 2, 1987, as a follow-up to a citizen complaint, Indiana’s Environmental Resource Bureau (ERB) filed an Incident Report indicating that fuel oil had been detected in a residential basement and two storm sewer manholes in close proximity to the General Battery facility. The incident report also referenced a 20,000-gallon fuel oil tank (UST-3) “located approximately 50 feet from an affected manhole”. As a result of the incident, ERB requested that Exide perform tightness testing on its three USTs. Tightness testing was conducted on March 4 and 10, 1987, and all three tanks failed the tightness criteria of <0.05 gallons of leakage per hour. Although the source of the fuel oil in the manhole and basement was not determined, based on the tightness testing results and the fact that UST-3 was the nearest facility tank to the complainant’s house, Exide decided to close the 20,000-gallon #2 fuel oil UST in April 1987. UST-3 was closed in place in April 1987, in accordance with Indiana Fire Marshall regulations in effect at that time. During closure, the UST was emptied of residual fuel oil, cleaned, inspected by the Fire Marshall, and filled with clean fill. According to the maintenance supervisor, no evidence of release was observed during the tank closure. In addition, the 10,000-gallon diesel tank (UST-2) was permanently taken out of service in December 1991.

UST-1 and UST-2 were removed on April 16, 2014. The tanks appeared to be intact at the time of the removal. No damage, holes, or penetrations were observed prior to removal. No free product was observed during the removal. However, hydrocarbon odors and soil discoloration were observed in soils surrounding the tanks. The suspected releases were reported to IDEM LUST section on April 17, 2014. LUST #201404509 was assigned to the UST-1 release and LUST #201404505 was assigned to the UST-2 release.

Soils immediately around the tanks consisted of a non-native sand backfill. Native silty clay soils were observed further away from the tank. Real time soil screening with a photo-ionization detector (PID) was performed during the excavation and post-excavation confirmation samples were collected from the bottoms and sidewalls of the excavations. Analysis for poly-cyclic



aromatic hydrocarbons (PAHs), semi-volatile organic compounds (SVOCs), and volatile organic compounds (VOCs) was performed. On May 5-8, 2014 additional soil excavation and post-excavation sampling was performed. Approximately 1,092 tons of petroleum impacted soils (as determined by direct observation, PID screening, and/or laboratory data) were removed and disposed of as part of the UST-1 and UST-2 removal. On July 28–August 1, 2014 the excavations were dewatered and backfilled.

The final post-excavation soil samples for UST-1 indicated no exceedances of the 2014 IDEM RISC residential direct contact screening limits of migration to groundwater screening limits. Water collected within the excavation on April 16, 2014 had exceedances of the 2014 IDEM RISC residential tap water screening limits for “naptha compounds” such as: naphthalene, 1-methylnaphthalene, 2-methylnaphthalene, acenaphthene, benzo(a)anthracene, benzo(b)fluoranthene, and fluorine. However, a sample of excavation water in July 2014 did not have any such exceedances (likely due to source removal).

Based on the soil and water data presented during the UST removal, IDEM required that a limited subsurface investigation (LSI) be performed consisting of three groundwater samples collected within twenty feet of the UST-1 excavation. No exceedances of 2014 IDEM RISC screening limits for residential tap water or vapor exposure were detected.

The final post-excavation soil samples for UST-2 indicated no exceedances of the 2014 IDEM RISC residential direct contact screening limits. However four soil samples collected from sidewalls and offset trenches detected exceedances of the migration to groundwater (MTG) standard for naphthalene. One soil sidewall samples also indicated an exceedance of the MTG standard for 1-methylnaphthalene. IDEM required that an initial Site Characterization be performed. Samples of water collected from within the UST-2 excavation on April 16, 2014 and May 7, 2014 indicated exceedances of the 2014 IDEM RISC residential tap water screening limits for naphthalene and vinyl chloride. The excavation water sample collected on May 7, 2014 also detected exceedances for cis-1,2-DCE, trans-1,2-DEC, and trichloroethene (TCE). The detections



of chlorinated solvents were unexpected and would not be attributed to petroleum USTs. These detections were reported to IDEM and an Initial Site Characterization (ISC) was required.

As part of the ISC three (3) additional soil borings and three (3) additional temporary well geoprobe borings were performed within 20 feet of UST-2. Soil sample results continued to note exceedances of the MTG standards for vinyl chloride, cis-1,2-DCE, and/or TCE in deeper intervals (10 – 12 feet depth and/or 15 – 16 feet depth). All three groundwater samples indicated detections of the various chlorinated solvent compounds at concentrations exceeding the 2014 IDEM RISC residential tap water standard. 1,1-DCA, TCE, and vinyl chloride were also detected at concentrations exceeding the screening limits for vapor exposure.





## 5.0 NATURE OF CONTAMINATION

Constituents of Concern (COCs) identified during previous soil and sediment sampling at the former Exide Frankfort battery plant Site are lead in soil and in groundwater are chlorinated VOCs. In addition, petroleum hydrocarbons were considered COCs in the vicinity of the former USTs and in the area of the surface staining along the railroad spur at the casting/grid casting area (AOC-2)

### 5.1 LEAD

A number of the materials formerly used at the facility have toxic characteristics, however; the principal material of concern is lead. Lead is a common metal and can be found at an average concentration in excess of 30 mg/kg in natural soils and 1-10 micrograms per liter (ug/L) in surface water. Most lead salts are fairly insoluble in water, however the solubility depends on the pH, with solubility increasing in more acidic conditions. Movement of lead in soils depends on its adsorption, chelation with organic matter, and the precipitation of less soluble salts. In general, lead reacts with soils anions or clays to form insoluble complexes, inhibiting its mobility. Lead can be ingested or adsorbed by inhalation. Poisoning from acute exposure to lead is uncommon. The primary toxic effects from chronic exposure are on the blood and the nervous system.

Based on the documented operational history and an understanding of the character of lead mobility and transport, the most significant potential sources of contamination at the facility during its operational history were erosion and transport of lead-bearing solids by storm water runoff; fugitive dust emissions from traffic and production areas; uncovered waste pile areas or miscellaneous spills. In addition, those areas that were either unpaved or not covered by a building within the active manufacturing areas could represent an area where lead contaminated sediment or dust could have accumulated and were subsequently covered with pavement or structure.



## 5.2 CHLORINATED SOLVENTS

Chlorinated solvents have properties that make them useful for degreasing fats, oils, waxes, and resins. They are widely used and have been manufactured in large quantities. No specific use of chlorinated solvents in large quantities has been identified onsite. Chlorinated solvents are not typically associated with petroleum-derived fuel compounds. However, the presence of chlorinated solvents was identified in the vicinity of the UST-2 removal.

Chlorinated solvents are generally harmful to human and ecological health. They are suspected of causing cancer and are toxic or harmful to aquatic organisms. These contaminants can be present in the subsurface in the form of non-aqueous phase liquids (NAPL, free product), as dissolved contaminants in groundwater, within sediments in the aquifer, and as vapors in the unsaturated zone. The density of chlorinated solvents is greater than water so they tend to sink in groundwater systems (DNAPL).

Microbial degradation of chlorinated solvents can occur whereby the breakdown of parent compounds results in daughter compounds. It is common to see varying concentrations of multiple chlorinated solvents at a given location depending on the original parent product and the level of microbial degradation that has occurred

### 5.2.1 Trichloroethylene (TCE)

In general industry, TCE was widely used in the dry cleaning industry until it was replaced by PCE in the 1950s. It has also been used to extract vegetable oils from plants and as an anesthetic. However, the greatest use of TCE is as a degreaser for metal parts and in the manufacture of fluorocarbon refrigerants. TCE is a daughter product of the microbial degradation of PCE. TCE is not known to have been used or stored onsite in small or large quantities. TCE has been detected in soil and groundwater onsite in the vicinity of AOC-3/UST-2.



### 5.2.2 Dichloroethane (DCA)

1,1-DCA is produced industrially in large volumes as a feed stock for chemical synthesis. It is also used as a solvent for plastics, oils and fats; and as a degreaser. It is also used as a fumigant in insecticide sprays, halon fire extinguishers, and in rubber cement. 1,1-DCE is not specifically known to have been used onsite in large or small quantities. 1,1-DCA is a daughter product of the microbial degradation of TCE. 1,1-DCA has been detected in onsite groundwater in the vicinity of UST-2.

### 5.2.3 Dichloroethene (DCE)

1,1-DCE does not have a large industrial use. Prior to 2004 it was used in the production of cling wrap (i.e., Saran wrap). Health effects from exposure to 1,1-DCE are primarily on the central nervous system. It is considered a potential occupational carcinogen by the National Institute for Occupational Safety and Health (NIOSH). 1,1-DCE has been detected in groundwater onsite in the vicinity of UST-2. 1,1-DCE is not specifically known to have been used onsite in large or small quantities. 1,1-DCE is a daughter product of the microbial degradation of TCE.

1,2-DCE has two isomers: *cis*-1,2-DCE and *trans*-1,2-DCE. Both isomers are daughter products of TCE degradation and are also prevalent by-products of industrial vinyl chloride production. However 1,2-DCE is typically found as a mix of the two isomers. It is a highly flammable colorless liquid with a sharp, harsh odor. It has modest solubility in water. 1,2-DCE does not have many industrial applications. *Trans*-1,2-DCE is used in limited precision cleaning applications for certain metals and electronics. 1,2-DCE is not known to have been used onsite, but has been detected in groundwater onsite. 1,2-DCE is a daughter product of the microbial degradation of TCE.



#### 5.2.4 Vinyl Chloride

Vinyl Chloride is a colorless industrial chemical that is produced in the United States on a vast scale. It is a chemical intermediate and not a final product. It is chiefly used in the production of polyvinyl chloride (PVC) plastics. Vinyl chloride is normally a gas at atmospheric temperatures and pressures. It has a sweet odor. It is highly toxic, flammable, and carcinogenic. Prior to 1974, vinyl chloride was used as an aerosol spray propellant. Vinyl chloride is the daughter product of the microbial degradation of 1,2-DCE; and is the final chlorinated daughter product in the degradation chain. Further break down of vinyl chloride results in ethene. Vinyl chloride has been detected in remaining onsite soils at concentrations of up to 0.115 mg/kg; and in onsite groundwater at a maximum concentration of 8,520 ug/L.

#### 5.3 PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons (TPH) is a term used for mixtures of hydrocarbons that are found in crude oil. Because there are so many different types of chemical compounds in crude oil and related products like mineral oils, gasoline, diesel fuel, heating oil, etc.; it is not always practical to measure each one separately. TPH is the sum of volatile petroleum hydrocarbons (VPH) and extractable petroleum hydrocarbons (EPH). Chemicals that can occur in TPH include hexane, benzene, toluene, xylenes, naphthalene, and fluorene. VPH is also known as gasoline range organics (GRO) and includes hydrocarbons from G6-C10. Diesel Range Organics (DRO) include hydrocarbons from C10-C28. Underground Storage Tanks used on the Site were known to historically contain gasoline, diesel fuel, and heating oil. TPH analysis performed on RFI samples included DRO and GRO analysis.



## 6.0 SCOPE OF INVESTIGATION

### 6.1 INTRODUCTION

This section summarizes the scope of work for the RFI on the entire site. Sampling activities and drilling supervision were conducted by Advanced GeoServices and laboratory analysis were performed by Pace Analytical (Pace) of Indianapolis, Indiana. Field activities were performed in accordance with the approved RFI Work Plan (Advanced GeoServices, Revised February 26, 2018).

### 6.2 SOIL SAMPLING

Soil samples were collected between April 23, 2018 and May 3, 2018 at a total of eighty three (83) onsite locations designated as MW-1 through MW-8, U-1 through U-10, F-1 through F-10 and R-1 through R-55 (Figure 4). Several offset samples were collected due to below grade obstructions at boring locations R-21 and R-38. The samples with an “R” designation were collected from the site-wide Random grid borings at 0-1 ft, 1-2 ft, 3-4 ft, 5-6 ft, or 7-8 ft intervals. The samples with a “U” designations were collected from borings targeting the form UST locations at intervals of 0-4 ft and 4-8 ft. The samples with an “F” designation were collected from Focused/Targeted borings at intervals of 0-1 ft, 1-2 ft, 3-4 ft, 5-6 ft, 7-8 ft expect for F-7, F-8 and F-9 which were collected at 0-2 ft and 2-4 ft intervals. The soil samples with a “MW” designation correspond to groundwater monitoring wells, and were collected at varying intervals based on the depth to groundwater and well construction. Soil boring logs indicating sample intervals are provided in Appendix A.

For soil sample locations, a Geoprobe was used to penetrate the pavement and concrete, where present, and collect the samples. Soil was removed from the Geoprobe disposable acetate sleeve using disposable nitrile gloves. The sample was then homogenized in a disposable aluminum tray and placed into a laboratory-supplied jar. The samples were placed on ice and submitted to Pace Analytical to be analyzed for select parameters. Table 2 presents a list of analytes evaluated by the RFI sampling (although not all samples were analyzed for all analytes). In most cases soil



samples were only analyzed for RCRA metals. Samples for VOC and SVOC analysis were performed on borings targeting the former UST locations (“U” borings) Groundwater Monitoring Wells, and focused locations (“F” borings) in the vicinity of the grid/parts casting area – RR track. The specific samples selected for VOC/SVOC analysis were chosen based on the highest observed field screening result measured utilizing a Photo-ionization detector (PID). Soil samples for VOC/SVOC analysis from the Random grid locations (“R” borings), were collected when field screening with a PID detected VOC levels >10 ppm above ambient conditions and at the discretion of the sampler. Soil samples for VOC/SVOC analysis collected from the former UST boring locations were selected by the sampler from within the 0 to 4 ft and 4 to 8 ft intervals. When no PID hits were observed in the monitoring wells soil samples were taken from within the saturated zone. The specific samples selected for VOC/SVOC analysis from AOC-2 were taken at the 1 to 2 ft and 3 to 4 ft increments. The single exception to the above approach was that in boring U-8, one of two borings added during the course of the field work, only one sample was collected because of a shortage of VOC/SVOC sample containers.

Prior to collection of each soil sample on-site, all downhole and homogenizing equipment that was reused was decontaminated using the following procedures:

- Wash equipment thoroughly with a non-phosphate detergent (Alconox) and water using a brush to remove any particulate matter or surface film;
- Rinse equipment with distilled water; and
- Air dry equipment.

### 6.3 RUNOFF POINT SOIL SAMPLING

Three (3) sample locations were selected to coincide with low points where surface run-off was identified to exit the Site. The samples, designated with an SS, were collected from the 0-6” and 6-12” intervals using a disposal plastic scoop at the locations shown on Figure 5. These samples were analyzed for RCRA 8 metals. The soil was removed from each interval and placed directly



into a laboratory supplied jar. Each sample was placed on ice and submitted to Pace Analytical. The results of these soil samples can be found in Table 5A.

#### 6.4 SEDIMENT SAMPLING

Sediment samples, designated with an SED were collected from four (4) manhole locations within the Site storm drainage piping system. The stormwater manholes and pipes were flushed during site demolition to remove accumulations of sediment. As a result of previous cleaning, the pipes and manhole structures were relatively clean. When possible, the sediment sample was collected from the outflow pipe from the manhole, but when the outflow pipe was free of sediment, the sample was collected from the bottom of the manhole. The sediment samples were designated as MH-3-SED, MH-4-SED, MH-5-SED and MH-8-SED and are presented on Figure 5. Sediment was collected using disposable plastic scoops, gloved hand and placed directly into a laboratory supplied jar. Each sample was placed on ice and submitted to Pace Analytical to be analyzed for eight RCRA metals (SW-846 6010). The results of these soil samples can be found in Table 5B.

A video camera inspection of the subsurface piping was performed by April 27, 2018 by Commercial Sewer Cleaning Co., Inc. of Indianapolis, IN. The video inspection of the below grade pipe network demonstrated that a thin layer (<1 inch) of sediment was present at the bottom of manholes and in a majority of the pipes onsite. The pipes from the manhole located at the north east end of the site appear to discharge offsite into a manhole along Kelley Avenue and then towards then to the north towards Washington Avenue. The pipes from the manhole located at the northwest corner of the Site appear to discharge towards Washington Avenue towards the north as shown on Figure 5.



## 6.5 WELL INSTALLATION ACTIVITIES

### 6.5.1 Introduction

As specified by the RFI Work Plan, Advanced Geoservices installed eight shallow monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, and MW-8 at the site between April 30 and May 2, 2018 by American Drilling Services (ADS) of Indianapolis, Indiana. The locations of the on-site monitoring wells are shown on Figure 3. The depth and final disposition of well borings completed on-site is presented in Table 1 and shown on the monitoring well installation logs in Appendix B.

### 6.5.2 Drilling Methods

All drilling activities for the Exide facility RFI were conducted by American Drilling Services of Indianapolis, Indiana. Borings were advanced using hollow stem auger (HSA) techniques and continuous direct push macro-core sampling techniques. The 6-inch outer diameter (OD) borehole was advanced using augers into the aquitard clay unit that underlies the perched, saturated zone on-site. The bottom 2 feet of the boring was sealed with bentonite and a 2-inch ID PVC screen and casing were set. The wells were logged and designed by an Indiana Licensed Professional Geologist. Copies of the logs are provided in Appendix B.

### 6.5.3 Well Construction

All monitoring wells constructed as part of the RFI activities consist of 2-inch ID, flush-threaded, Schedule 40 PVC riser with a factory-slotted 0.010-inch PVC well screen. A minimum 2-foot thick bentonite seal was placed on top of the sand pack. All of the wells had a 10 feet long well screen, except MW-5 where a 5-foot slotted screen was installed because the depth to the aquiclude dictated the use of a shorter screen length to allow adequate sealing above the sand pack. A sand pack was placed to 2 feet above the top of the monitoring well screen with No. 1 sand. The annulus of the borehole above the sand was sealed to 3 feet below the ground surface using





bentonite. All monitoring wells installed as part of the RFI activities were completed with a 6-inch cylindrical steel protective casing with a locking cap. The protective casing extends from an approximate depth of 3 feet bgs to approximately 2 feet above ground. A neat cement seal was placed around the protective casing beginning at the top of the bentonite seal. A 2 x 2 foot square well pad was installed so that the surface slopes away from the well. See Table 1 for details on the monitoring well construction for the eight (8) monitoring wells installed in April and May 2018.

#### 6.5.4 Well Development

Monitoring wells installed during the RFI were developed using the surge-block and pump method. Monitoring wells were first surged using a plunger-type surge block assembly. This provides the necessary turbulence in and near the well screen to remove fine grained material and to properly develop the well. Groundwater recovery was very slow and water in the wells was pumped dry during development, requiring the well to be left to recover before development could resume. A turbidity meter was used during development with the objective of achieving values of < 25 nephelometric turbidity units (NTUs). However, in most wells development was deemed complete when 3 volumes of water was achieved, because recovery took several hours in most wells. Development water was pumped into drums and sampled for disposal.

### 6.6 GROUNDWATER SAMPLING

#### 6.6.1 Well Evacuation

Groundwater samples were collected from site monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7 and MW-8, using the low-flow sampling technique to more accurately determine the potential for site-related constituents to have entered groundwater. The construction and water level readings conducted during the installation and groundwater sampling events are presented in Table 1. The depth to water in each monitoring well was determined from the construction logs and the purge volume calculated. This provided the sampling team with an estimate of when stabilization of purging parameters would occur. Monitoring wells were purged



and sampled from the suspected least contaminated well to the most contaminated well to minimize the potential for cross-contamination.

The wells were purged using a stainless steel low-flow bladder pump placed at the midpoint of the screen in each well. The wells were purged at a flow rate ranging from 100 to 130 milliliters per minute, ml/min, depending on the yield of the well. A flow-through cell was used to measure pH, temperature, conductivity, redox potential, and dissolved oxygen prior to contact with oxygen at 3 to 5 minute intervals during purging. Turbidity was also measured at the same interval. The wells were purged until the field parameters stabilize to within 10% over three readings and pH readings differed less than 0.1 unit. A record of these parameters are found on purge sheets for the May and July 2018 groundwater sampling events in Appendix C.

Purge water was contained in 55-gallon drums until analytical results of the purge were evaluated for off-site disposal. Drums were labeled with the location and date of generation (i.e., purge water, 5/21/18) and remained onsite within the fenced Site until disposal.

#### 6.6.2 Sample Collection

Once the field parameters had stabilized, the flow rate was reduced to 100 ml/min. to collect volatile organic compounds (VOC) samples and 100 to 130 ml/min. for the remaining parameters. Samples were collected directly from the pump discharge line into laboratory-supplied bottles containing the necessary preservatives.

Samples were packed on ice and a courier picked up the samples from the site and delivered them to Pace Analytical for analysis of eight RCRA metals (total and dissolved), TPH and TCL VOCs/SVOCs.



## 6.7 SUPPLEMENTAL SURVEY

Randall Miller & Associates, Inc., an Indiana licensed surveyor, located all soil sampling locations between April 24, 2018 and May 7, 2018 for the purpose of accurately representing the horizontal datum of the sampling locations in the state-plane coordinate system. In addition, the newly installed monitoring wells were surveyed for vertical and horizontal datum in the state-plane coordinate system.

## 6.8 SUPPLEMENTAL GROUNDWATER SAMPLING

Although not specified or planned in the RFI Work Plan, Exide proposed and implemented supplemental groundwater sampling using hydro-punch sampling techniques. The hydro-punch sampling was conducted by American Drilling Services of Indianapolis, Indiana using direct push drilling techniques. The sampling was proposed by Exide for the purpose of investigating elevated VOC concentrations in the groundwater observed at MW-4. A total of 9 hydro-punch borings (P2A through P2H, and P2J; no boring “P2I” was performed) were completed at the locations shown on Figure 15. Borings were advanced into the first saturated soil horizon capable of producing water, the sampler was retracted and the resulting space allowed to fill with water and the samples were retrieved using disposable tubing that transferred directly into laboratory supplied sample containers.



## 7.0 RESULTS

### 7.1 INTRODUCTION

As defined in the RFI Work Plan, the Indiana Department of Environmental Management IDEM RISC non-residential direct contact standards were used to establish the impact of potential soil and sediment contamination on potential Site receptors, and the IDEM 2018 RCG Groundwater Tap Limits and 2009 TPH Closure Limits were utilized for groundwater. These Constituents of Potential Concern (COPCs) of the RFI investigation, and their corresponding IDEM non-residential direct contact soil and tapwater groundwater values are listed in Tables 3A and 3B.

### 7.2 SOIL INVESTIGATION

#### 7.2.1 Site Specific Geology

Based on results of the RFI activities, the shallow subsurface geology at the site is consistent with the regional geology described in Section 3.5. Eighty three (83) borings were advanced on-site to depths ranging from 8 feet to 25 feet bgs during the RFI to characterize subsurface conditions. Borings MW-1 through MW-8 were constructed to serve as groundwater monitoring wells as discussed in Section 6.5.

Nearly the entire site is covered by pavement or building pads that were associated with previous site manufacturing operations. Evidence of shallow filling (typically less than 1 to 2 feet) was observed beneath most of the paved areas and building pads typically in the form of crushed stone that is consistent with material that would be utilized for pavement and building pad subbase. The former Assembly building basement, was backfilled with crushed brick and concrete (e.g. masonry rubble) during the demolition. The masonry rubble in the former basement is up to 8 ft thick. Masonry rubble was utilized to fill in sumps and pits during the demolition. The original basement floor and the bottom of sumps and pits were cleaned and then broken before placement of the



masonry rubble to prevent accumulation of water. The remaining areas where fill thicknesses were noted to exceed 2 feet were:

- Borings performed where floor slabs were elevated relative to outside grades (i.e. former pot rooms and formation);
- Borings immediately adjacent to building foundation locations (i.e. where there may have been deeper excavations during construction of the foundations);
- Borings in the southeast corner of the site where it appears deeper filling was required to fill areas of lower natural grades to accommodate the rail spur.

### 7.2.2 RCRA Metals Sampling

Results of the RCRA metals analysis for soil samples collected during the RFI and other investigations completed since 2014 are presented on Table 4A and summary statistics are presented on Tables 9A and 9B. The validated analytical results are included in Appendix D. As shown on Table 9A, 322 soil samples were analyzed for RCRA metals (As, Ba, Cd, Cr, Pb, Hg, Se and Ag), and an additional 155 samples were analyzed for lead only. Lead and arsenic were the only inorganic COCs in soil samples with detections exceeding the screening levels established in the RFI Work Plan. Figures 8 and Figure 9 present the lead and arsenic results within 0 to 1' and 1' to 2' depth intervals, respectively.

Tables 9A and 9B provide a summary of sample statistics for RCRA Metals analysis for all soil samples (Table 9A) and 0 to 2 feet (Table 9B). As shown on Table 9A, lead was detected above the IDEM RISC Non-Residential Direct Contact Standard (800 mg/kg) in 33 of the 477 samples analyzed, and had an average concentration of 400 mg/kg and median concentration of 14 mg/kg. When evaluated exclusively for the upper 2 feet (Table 9B), lead was detected above the IDEM RISC Non-Residential Direct Contact Standard (800 mg/kg) in 31 of the 219 samples analyzed, and had an average concentration of 809 mg/kg and median concentration of 33 mg/kg. The highest observed result was 24,500 mg/kg (R-14 at 0-1 ft).



Also as shown on Table 9A, arsenic was detected above the IDEM RISC Non-Residential Direct Contact Standard (30 mg/kg) in 2 of the 322 samples analyzed, and had an average concentration of 9.1 mg/kg and median concentration of 7.8 mg/kg. When evaluated exclusively for the upper 2 feet (Table 9B), it can be seen that both exceedances for arsenic were within the upper 2 feet. The average and median arsenic concentration concentrations in the upper 2 feet were 10.3 mg/kg and median concentration of 8.1 mg/kg. The highest observed arsenic result was 171 mg/kg (R-6 at 0-1 ft).

### 7.2.3 Volatile Organic Compounds

Soil samples were field screened for VOC impacts utilizing a photo-ionization detector (PID). Samples for laboratory VOC/SVOC analysis from the Random (“R”) borings were collected when VOC levels measured with the PID in were >10 ppm above ambient conditions, or when the sampler believed that observed conditions warranted analysis. Soil samples for VOC/SVOC analysis were also collected from borings targeting the former UST locations (AOC-3) (“U” borings), Groundwater Monitoring Wells (“MW” borings), and focused locations in the vicinity of the AOC-2 (F-7 through F-9). The specific samples selected for VOC/SVOC analysis from the U, MW and F borings were chosen based on the highest observed PID field screening result measured. When no PID hits were observed, the MW samples were taken from within the saturated zone; the samples in AOC-3 were collected from locations selected by the sampler within the 0 to 4 ft and 4 to 8 ft intervals; and from AOC-2 at the 1 to 2 ft and 3 to 4 ft increments. The single exception to the above approach was that in boring U-8, one of two borings added during the course of the field work, only one sample was collected because of a shortage of VOC/SVOC sample containers.

VOC and SVOC soil results are presented on Table 4B. As shown thereon, detections above the Reporting Limits included 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethen, , cis-1,2-dichloroethene, toluene, trichloroethane and vinyl chloride. No VOC detections in soils were above the IDEM RISC Residential Direct Contact Standard. No SVOCs were detected above the Reporting Limits.



#### 7.2.4 Total Petroleum Hydrocarbons

Geoprobe borings were conducted at six (6) locations (U-1 through U-6) along Kelley Avenue in the vicinity of the former fuel shed area around AOC-3. These borings were intended to determine if TPH contamination was present in the vicinity of former UST-2. In addition to RCRA 8 metals and VOC/SVOC analyses, samples at these locations were also analyzed for DRO/GRO TPH. These borings were advanced to eight (8) feet and the soil samples were screened with a PID and the highest reading observed was 46.5 ppm at the U-3 location at a depth of 5-6 feet bgs. No visual contamination or odor was observed in the soils from these borings. Detections of DRO ranged from ND to 92.2 mg/kg and detections of GRO ranged from ND to 71.5 mg/kg in the U-1 to U-6 locations. No soil samples that were analyzed for TPH exceeded the 2018 RCG Soil Direct Contact Non-Residential Limits.

#### 7.3 SEDIMENT

The analytical results for the surface soil samples collected at runoff locations are presented on Figure 5. The analytical results for the sediment samples collected within the stormwater piping network (MH-3-SED, MH-4-SED, MH-5-SED and MH-8-SED) and at low spots on the pavement in the southeast corner of the site (SED-1 through SED-3) are presented on Table 5B. The sediment and the surface soil samples collected at surface water runoff locations were analyzed for RCRA metals. Samples SED-01, SED-02 and SED-03 all exceeded the IDEM RISC Non-Residential Direct Contact Standard for lead with concentrations of 5,580 mg/kg, 4,710 mg/kg and 4,730 mg/kg, respectively. Samples MH-5-SED and MH-8-SED exceeded the IDEM RISC Non-Residential Direct Contact Standard for lead (800 mg/kg) with concentrations of 4,460 mg/kg and 6,990 mg/kg, respectively. The volume of sediment observed in the storm water piping was very small and proved difficult to collect sufficient quantity for sampling.

Three (3) surface soil samples at surface water runoff locations were collected from the northwest corner of the Site outside of the paved portion of the Site. Samples SS-1, SS-2 and SS-3 were collected for the 0-0.5 ft. interval as well as the 0.5-1.0 ft. interval. One SS sample exceeded the



IDEM RISC Non-Residential Direct Contact Standard for lead (SS-1 at the 0-0.5 ft. interval with a concentration of 1,660 mg/kg).

## 7.4 HYDROGEOLOGIC INVESTIGATION

### 7.4.1 Site Specific Hydrogeology

Shallow groundwater encountered at the Site represents local perched zones of saturation in sand and silt layers. The depth and thickness of the saturated layers varied from 4 to 10 feet bgs, and appear to be laterally discontinuous. The underlining aquiclude was encountered in all of the groundwater monitoring well locations and consisted of a very stiff to hard gray clayey Silt to silty Clay with trace amounts of sand and/or gravel. The potentiometric surface for the perched groundwater on-site is approximately 10 feet bgs, and flow in the shallow on-site wells appears to be to the north towards Michigantown Road. The saturated layers produce very little water to the point that groundwater monitoring wells would pump dry during development and require several hours to recover.

### 7.4.2 Well Location

Eight (8) shallow zone monitoring wells were installed during the RFI. The groundwater wells are shown on Figure 3. Water levels were measured during groundwater sampling and a potentiometric maps are provided on Figures 6 and 7.

### 7.4.3 Groundwater Quality

#### 7.4.3.1 **First Sampling Event (May 2018)**

The analytical results and Validation Report for samples, collected from the on-site wells for the first groundwater sampling event in between May 23 to May 25, 2018, and are presented on Table 6 and summarized in Appendix E. A potentiometric surface map for the May 2018 sampling event





is shown on Figure 6. These monitoring wells were purged and sampled with low-flow sampling techniques. Arsenic is the only inorganic constituent that was detected above the 2018 RCG GW Tap Limit (10 ug/L), RISC TPH Closure Limits. Total arsenic was detected at a concentration of 20.8 ug/L and dissolved arsenic was detected at a concentration of 19.4 ug/L in MW-4.

Trichloroethene (TCE) was detected at concentrations above the 2018 RCG GW Tap Limit (5 ug/L), RISC TPH Closure Limits at three (3) of the monitoring well locations MW-1, MW-4 and MW-7 during the May 2018 groundwater sampling event. The concentrations detected were 15.8 ug/L at MW-1, 357,000 ug/L at MW-4 and 16 ug/L at MW-7. TCE was detected in MW-6 with a concentration of 106 ug/L but the result was issued a “R-qualifer” stating that the result was unusable and that the analyte may or may not be present in the sample. It is believed that the TCE detection at MW-6 in May 2018 was due to residual TCE on sampling equipment from MW-4 which was sampled immediately prior to MW-6. The sampling equipment was decontaminated between MW-4 and MW-6 but due to the high concentration of TCE in MW-4, residual TCE may have carried over in the sampling equipment at MW-6. TCE was also detected with a J-qualifier in the equipment blank sample named EB-1-052518 with a concentration of 4 ug/L.

Several other VOCs were detected in the sample collected at MW-4 including 1,1-Dichloroethane at 900 ug/L, 1,1-Dichloroethene at 609 ug/L, 1,2-Dichloroethane at 89.9 ug/L, Benzene at 14.6 ug/L, cis-1,2-Dichloroethene at 273,000 ug/L, trans-1,2-Dichloroethene at 1,730 ug/L and Vinyl Chloride at 18,100 ug/L. 1-4-Dioxane (p-Dioxane) was detected at a concentration of 11.3 ug/L at the MW-8 location but was not detected in any of the other seven (7) wells onsite.

TPH was analyzed in monitoring wells MW-3, MW-4 and MW-6 to determine if petroleum compounds were present in the groundwater in the vicinity of UST-2 within AOC-3 on the east end of the Site along Kelley Avenue. Gasoline Range Organics (GRO) was detected above the 2018 RCG GW Tap Limit, 2009 RISC TPH Closure Limits (2,500 ug/L) with a concentration of 214,000 ug/L at MW-4. TPH's were not detected at any of the other seven (7) other monitoring wells during the first groundwater sampling event.



#### 7.4.3.2 Second Sampling Event (July 2018)

The analytical results and Validation Report for samples collected from the on-site wells for the second groundwater sampling event from July 7 to July 9, 2018 and are presented on Table 7 and summarized in Appendix F. These monitoring wells were purged and sampled with the low-flow sampling techniques. A potentiometric surface map for the July 2018 groundwater sampling event is shown as Figure 7. Arsenic is the only inorganic site constituents of concern (COC) that was detected above the 2018 RCG GW Tap Limit, RISC Closure Limits (10 ug/L). Total arsenic was detected at a concentration of 36 ug/L and dissolved arsenic was detected at a concentration of 33.6 ug/L in MW-4.

Similar to the May 2018 groundwater sampling event, trichloroethene (TCE) was detected at concentrations above the 2018 RCG GW Tap Limit, RISC Closure Limits at three (3) of the monitoring well locations MW-1, MW-4 and MW-7 during the July 2018 groundwater sampling event. The concentrations that were detected were 19.8 ug/L at MW-1, 214,000 ug/L at MW-4 and 9.9 ug/L at MW-7. TCE was not detected at MW-6 in the second groundwater sampling event supporting the belief that the results observed in the first sampling event were the result of equipment cross-contamination from the MW-4 sampling event. An equipment blank collected during the course of sampling and prior to sampling at MW-4 was below detection for TCE, indicating that equipment decontamination was satisfactory for routine sampling. A follow up equipment blank collected after MW-4 sampling detected a J-qualified TCE concentration of 25.7 ug/L, suggesting that for future sampling, alternate/more robust decontamination procedures or dedicated equipment should be considered.

Several other VOCs were also detected in the sample collected at MW-4 including 1,1-Dichloroethane at 1,070 ug/L, 1,1-Dichloroethene at 712 ug/L, 1,2-Dichloroethane at 99.7 ug/L, Benzene at 16.1 ug/L, cis-1,2-Dichloroethene at 218,000 ug/L, trans-1,2-Dichloroethene at 2,480 ug/L and Vinyl Chloride at 19,500 ug/L. 1,4-Dioxane (p-Dioxane) was detected at a concentration of 8.4 ug/L at the MW-8 location but was not detected in any of the other seven (7) wells onsite.



Naphthalene was detected at a concentration of 1.8 ug/L narrowly exceeding the 2018 RCG GW Tap Limit, RISC TPH Closure Limits of 1.7 ug/L at the MW-4 location.

Total Petroleum Hydrocarbons (TPH) were also analyzed and a concentration of Gasoline Range Organics (GRO) was detected above the 2018 RCG GW Tap Limit, RISC TPH Closure Limits at 278 ug/L at MW-4. TPH's were not detected at any of the other seven (7) other monitoring wells during the second groundwater sampling event.

Due to high concentrations of TCE and other VOCs found in the groundwater at the MW-4 location, Advanced GeoServices and Exide decided that additional investigation in the area surrounding MW-4 was warranted to determine the impacts of a potential TCE release. Details and results of the hydropunch groundwater sampling event conducted on July 17, 2018 are found in Section 7.5 of this RFI report.

## 7.5 HYDROPUNCH SAMPLING

Advanced GeoServices and Exide agreed that additional investigation was needed after the first round of groundwater sampling identified elevated TCE results at MW-4. Advanced GeoServices selected hydropunch sampling as the method to collect localized, discreet groundwater samples to assist in the delineation of elevated TCE concentrations. Hydropunch sampling work took place on July 17, 2018.

Hydropunch samples were collected using a 2" direct push geoprobe rig. The geoprobe was able to penetrate the concrete and asphalt at the surface. All non-disposable tools and equipment used for the hydropunch sampling were cleaned and decontaminated prior to the first hydropunch location and in between each subsequent location. Water, soil, disposable tubing and PPE used during the hydropunch sampling was placed in 55 gallon drums for sampling and characterization; and ultimately disposal.



Nine (9) hydropunch locations were performed and groundwater was collected for VOC analyses only. Groundwater at the hydropunch locations (see Figure 15) was typically encountered at approximately 8 to 10 feet bgs with the exception of sample location P2G where groundwater was encountered at approximately 4 feet bgs. A similar pocket of groundwater was encountered at 4 feet bgs during the installation of MW-4 and coincides with the interface between fill and the low permeability native soil. TCE concentrations in groundwater sampled by hydropunch ranged from 89.8 ug/L at location P2F to 75,400 ug/L at location P2E. TCE in the groundwater pocket at 4 feet bgs in P2G was 347 ug/L versus MW-4, less than 5 feet away where the TCE during the July 2018 groundwater sampling event was 214,000 ug/L. The P2G results indicate that the groundwater pocket at 4 feet bgs in MW-4 and P2G is not the source of the TCE and related VOCs observed at 8 to 10 feet bgs in the surrounding hydropunch locations. Based on the observed VOC concentrations and geologic conditions it does not appear that the waters observed at a depth of 4 feet bgs in P2G are interconnected with deeper perched waters observed at other locations. The P2G sample did not extend past a depth of 4 feet bgs and the screened interval was restored with a bentonite to further prevent interconnection. The MW-4 screened interval does not begin until a depth of 8 ft bgs and it is sealed with bentonite above the screen to prevent interconnection with shallower perched intervals.



## 8.0 SITE CHARACTERIZATION SUMMARY

### 8.1 GROUNDWATER

Groundwater was encountered on-site in wet saturated seams at depths ranging from 4 to 10 feet bgs. Depth to groundwater in monitoring wells during sampling events ranged from 4.3 to 10.8 feet bgs. Figure 6 and Figure 7 displays the potentiometric surface for the shallow onsite wells based on data collected during the first and second groundwater sampling events. To the extent that the perched groundwater zone is contiguous, groundwater flow in the shallow on-site wells appears to be to the north towards Michigantown Road and an average hydraulic gradient is on the order of 0.01 ft/ft.

The hydraulic conductivity in these regional silt and clay deposits is low which makes these deposits semi-pervious. Consequently, the shallow groundwater on the site is a perched zone that extends across the site, and the underlying thick layers of clays and silts serve to restrict infiltration to the regional semi-confined water bearing zone.

Groundwater was collected from the shallow wells onsite during the two groundwater sampling events. Arsenic was detected above the RCG tapwater standard in both total and dissolved fractions at MW-4 during both sampling events (as well as at MW-7 during the July event). There was very little difference between the total and dissolved arsenic results. The maximum detection was 36 ug/L at MW-4 as compared to a RCG tapwater standard of 10 ug/L. Lead was not detected above the RCG tapwater standards in either event; nor were any other potential inorganic contaminants detected above RCG tapwater standards.

Chlorinated solvents including TCE, DCE, DCA, and Vinyl Chloride were detected at concentrations exceeding the RCG tapwater standard at MW-4; during both groundwater sampling events. Results for fuel-related analytes such as benzene and TPH were also observed in MW-4 water at concentrations above the RCG tapwater standards during both events. Groundwater at



MW-1 and MW-7 also had low-level detections of TCE in both sampling events at concentrations that did exceed the RCG tapwater standards.

## 8.2 SOIL

As part of the RFI sampling activities, onsite soil was collected from eighty three (83) on-site locations at depths varying from 0-18 feet bgs. Lead concentrations above the IDEM RISC Non-Residential Direct Contact Standard (800 mg/kg) were almost exclusively in site surficial soils (0-1 foot bgs and 1-2 foot bgs) and are distributed as shown by the isoconcentration lines shown on Figure 8 and Figure 9. Average lead concentrations within the surficial soil was 809 mg/kg and the median lead concentration was 33 mg/kg. Arsenic was above the IDEM RISC Non-Residential Direct Contact Standard (30 mg/kg) in 2 locations both of which were in the surficial soils. The average and median arsenic concentrations in the surficial soils were 10.3 mg/kg and 8.1 mg/kg, respectively.

## 8.3 SEDIMENT

Sediment samples collected from the stormwater piping network indicated concentrations of lead in 2 of 4 locations in excess of the IDEM RISC Non-Residential Direct Contact Standard (800 mg/kg). Figure 5 illustrates the lead concentrations for sediment collected within the pipes. The pipes were cleaned at the time of facility demolition and the site surface was vacuum cleaned and pressure washed. A video inspection of the subsurface pipe network performed by Commercial Sewer Cleaning Co. Inc. of Indianapolis, IN on April 27, 2018 demonstrated that a small amount of sediment had been deposited since that time. The source of the lead is believed to be incomplete removal at the time of previous cleaning.



## 8.4 AREAS OF CONCERN (AOCs)

The following section includes a discussion of the three onsite AOCs and how the sample data generated during the RFI process relates to each area.

- AOC-1: AOC-1 is the Loading Dock Area located in the former Send Out area in the north and central section of the former manufacturing area. Lead and arsenic results in the soil were relatively low with maximum concentrations of 130 mg/kg and 8 mg/kg respectively found in near surface soils (0-1 ft.) in the area surrounding AOC-1. No groundwater contamination was suspected and no monitoring wells were installed in the proximity of AOC-1.
- AOC-2: AOC-2 is the Castings/Grid Building Area – RR Track located in the railroad spur adjacent to the former Parts Casting and North Pot Room portions of the former manufacturing area. Lead results in the soils within AOC-2 were generally low with concentrations between 6.1 mg/kg and 45.8 mg/g in the 0-2 foot interval. The maximum concentration of lead within AOC-2 was 1,380 mg/kg at the R-33 boring location at a depth of 1-2 feet bgs. Elevated lead results exist in the shallow soils in borings to the north and east of AOC-2 ranging from 4,250 mg/kg in boring R-23 and 24,500 mg/kg in boring R-14. These borings are located outside of the AOC-2 footprint. VOC/SVOC analysis of soils samples within and immediately adjacent to AOC-2 (F-7, 8 and 9) were below the reporting limits except for isopropylbenzene, methylcyclohexane and xylene detected in F-8 in a sample collected at 1 to 2 feet bgs; and 1,1-dichloroethane, cis-1,2-DCE and TCE detected in F-9 in a sample collected at 3 to 4 feet bgs, where the results were above the reporting limits but significantly below their respective IDEM screening levels.
- AOC-3: AOC-3 are the Underground Petroleum Storage Tanks areas. Former UST-1 was located in the center of the site just to the south of the Old Formation portion of the former manufacturing facility. Former UST-2 and UST-3 tanks were located



in the north east end of the site near the eastern fence line. These tanks were removed in 2014 and soil and contaminated groundwater was removed shipped offsite for disposal. Lead and arsenic results in the soil in the area surrounding UST-1 were relatively low with concentrations of 452 mg/kg and 14.9 mg/kg respectively in the 0-1 ft interval at the R-22 boring location located to the east of the UST-1 excavation. Lead and arsenic concentrations in the area to the south and west of the UST-2 and UST-3 excavation location exhibited maximum concentrations of lead at 456 mg/kg at the R-2 boring location and arsenic at 20.5 mg/kg at the U-7 location in the shallow fill soils. Chlorinated solvents observed during the UST-2 and UST-3 were also detected in the groundwater to the south of the previous excavation area. VOCs were detected in borings U-5 and U-6 surrounding MW-4 which is located south of the former UST-2 and UST-3 area. TCE was detected in the soils in the 7 to 8 foot interval at a concentration of 7 mg/kg at boring location U-5 and 8.9 mg/kg at boring location U-6. These detections in the soil correspond to the groundwater TCE detections observed in the groundwater sampling events and hydropunch sampling results in the area surrounding MW-4.

## 8.5 SWMUs

The following section includes a discussion of the nine onsite SWMUs and how the sample data generated during the RFI process relates to each area.

- SWMU-1: SWMU-1 is the Former Waste Pile #1 (Sludge Storage Area) and is located in the north and west end of the Site. Lead and arsenic concentrations in boring F-10, located immediately to the west of SWMU-1, were 22 mg/kg and 6.4 mg/kg respectively in the 0-1 ft. interval. Samples results in other borings surrounding this area were found in similar concentrations in the shallow fill (0-2 ft.) soils.





- SWMU-2: SWMU-2 is the Sludge Storage Tank located in the former wastewater treatment building in the northwest end of the Site and is contained within the limits of SWMU-5. Lead and arsenic concentrations in boring F-1, located on the north end of SWMU-2, were 54.6 mg/kg and 8.1 mg/kg respectively in the 0-1 ft. interval. Soil boring B-13 in 2014, located near the F-1 location, yielded a lead concentration of 13,200 mg/kg in the 1.5 to 2 ft. interval and refusal was encountered at 2 feet. The lead concentration in the 1 to 2 ft. sample interval at boring location F-1 had a concentration of 46.1 mg/kg. It is unclear on why the 2014 lead sample concentration was much higher.
- SWMU-3: SWMU-3 is the Baghouses located in the northwest corner of the Site outside of the manufacturing facility. Lead and arsenic concentrations in boring R-47, located within the SWMU-3 footprint, were 319 mg/kg and 7.9 mg/kg respectively. Surrounding borings yielded similar concentrations and historical borings located in this area had maximum lead detections of 510 mg/kg. No borings in this area had lead detections which exceeded the IDEM RISC screening level.
- SWMU-4: SWMU-4 is the Hazardous Waste Accumulation Area located inside of the former plant building in the south and central portion of the Site. Hazardous waste stored in this area was completely removed by June 2010. Soil borings located in this area had lead concentrations ranging between 15.9 mg/kg at boring R-34 and 61.3 mg/kg in boring R-43. There are no documented releases or spills in this area.
- SWMU-5: SWMU-5 is the Wastewater Treatment Unit and Sump located in the northwestern corner of the property. Lead and arsenic concentrations in boring F-3, located on the south end of SWMU-5, were 330 mg/kg and 64.1 mg/kg respectively in the 0-1 ft. interval. Similar to SWMU-2, boring B-13 in 2014 located in the vicinity of SWMU-5 yielded a much higher concentration of lead in the 1.5 to 2 ft. interval. The lead concentration at the 1 to 2 ft. sample interval at boring location F-3 had a concentration of 74.8 mg/kg.



- SWMU-6: SWMU-6 is the Filter Building located immediately east of the Dry Charge and Hydro Set sections of the former manufacturing building. Elevated lead concentrations were observed in the 0-1 foot interval at boring locations R-41 with a result of 3,350 mg/kg and boring location F-6 with a result of 8,070 mg/kg. The soil lead concentrations dropped significantly in the 1-2 ft. interval were 12.9 mg/kg at the R-41 location and 14.3 mg/kg at the F-6 location.
- SWMU-7: SWMU-7 is the Roll-off Container located inside of the wastewater treatment plant building and placed on the concrete floor. Soil borings in the vicinity of SWMU-7 show arsenic concentrations ranging from 6.4 mg/kg to 64.1 mg/kg and lead concentrations ranging from 22 mg/kg to 330 mg/kg. It does not appear that a release from the roll-off occurred historically.
- SWMU-8: SWMU-8 is the Former Waste Pile #2 located in the grass area on the northeast corner of the Site. Lead and arsenic concentrations in boring R-10, located within the 30-foot by 30-ft pile footprint, were 283 mg/kg and 8.1 mg/kg respectively in the 0-1 ft. interval. In 1996, the waste pile spoils were removed and approximately 6-inches of soil were removed from the area. There are no indications of spillage or run-off from the waste pile.
- SWMU-9: SWMU-9 is the Parts Cleaner area which was located on the plant building within the basement of the Assembly area located along the northeastern fence line. Lead and arsenic concentrations in boring R-48, located on the east end of SWMU-9, were 5.1 mg/kg and 7.9 mg/kg respectively in the 0-1 ft. interval. There are no indications of spillage from the Parts Cleaner area.



## 9.0 CONCLUSIONS

The following conclusions can be drawn from the findings of the RFI:

### Groundwater

- Arsenic was the only inorganic COCs for the site that are in detected in groundwater in excess of the IDEM RCG tapwater standard.
- Groundwater sampling was limited to the perched groundwater zone.
- Groundwater flow in the perched zone is towards the north.
- TCE (and other VOC compounds found onsite) appears to be limited to the area immediately around MW-4. The hydropunch groundwater samples confirm that TCE observed in MW-4 is localized and is delineated downgradient by MW-3. The specific source is unknown.
- TCE found in MW-1 and MW-7 were found in relatively low concentrations. The source of this TCE is unknown.

### Soil

- Elevated lead in soil generally exists on-site to the south and east of the manufacturing areas, in addition to the manufacturing portion of the site. The detections found above the IDEM RISC Non-Residential Direct Contact Standard are only found within the top two feet below the surface in shallow fill.
- The average concentration of lead in surficial soils is just slightly above the IDEM RISC Non-Residential Direct Contact Standard 809 mg/kg versus 800 mg/kg. In



addition the surficial soils are protected against direct contact by pavement and building pads.

- Arsenic concentrations are below IDEM RISC Non-Residential Direct Contact Standard, with the exception of 2 individual samples found within the top two feet below the surface in shallow fill.

### Sediment

- Elevated lead was found in sediment in the underground pipe network as well as in surface soil samples in unpaved areas where stormwater leaves the Site.



## 10.0 RECOMMENDATIONS

### 10.1 INTRODUCTION

The approved RFI Work Plan included sampling and evaluations to characterize the nature and extent of contamination in groundwater, soil and sediment at the Exide site. The RFI activities have provided information to allow a characterization of contaminants for the various media on-site.

Advanced GeoServices believes that some additional investigation and evaluation is necessary prior to selection and implementation of any Corrective Action alternatives.

### 10.2 GROUNDWATER

RFI activities have identified a shallow perched groundwater zone beneath the Exide facility. Arsenic concentrations above the IDEM 2018 RCG groundwater tap limits were detected in the shallow groundwater at MW-4 and MW-7. Shallow perched groundwater is not utilized as a groundwater source on-site or in the surrounding area. Elevated VOC detections, including TCE, were observed in the area surrounding MW-4. TCE at slightly elevated levels was also noted in MW-1 and MW-7. Additional investigation to further refine the delineation of VOCs at MW-4 should be considered.

### 10.3 SOIL

RFI activities have identified that elevated surficial lead levels are concentrated in areas immediately adjacent to the manufacturing areas. Elevated lead levels at depth (1 to 2 ft bgs), are limited to the a few samples to the south and west of the manufacturing area. Based on these findings, Advanced GeoServices does not feel that additional on-site soil sampling for inorganic COCs is necessary. However, limited delineation sampling around locations with elevated concentrations may be undertaken. Corrective Action alternatives should be evaluated to address



the lead in soil concentrations observed in surficial soils. Such an evaluation may include completion of a Site Specific Risk Assessment that could produce a higher acceptable soil lead concentrations (e.g. >800 mg/kg), performance of selective soil removal to achieve an average surficial soil lead concentration <800 mg/kg, maintaining current site surface as a long term cap with institutional controls. Such an evaluation may take the form of a formal CMS or use of a less formal presumptive remedy process.

We believe that limited soil investigation in the vicinity of MW-4 may be necessary to supplement the design of Corrective Action alternatives related to VOC impacts. Such sampling may include porosity and permeability testing if interim measures will include such options of AS/SVE, oxidation or similar in-situ techniques.

#### 10.4 SEDIMENT

RFI activities have identified elevated lead in sediment within the site storm sewer system. That sediment has the potential to migrate from the site to the storm sewer systems in Michigantown Road and Kelley Avenue. Corrective Action alternatives should be considered to address the sediment found in the manholes. This may include flushing the piping and structures to remove sediment and installation of sediment traps at the inlet locations to prevent entry of additional sediment.

Elevated lead in the shallow surface soils at the surface water discharge locations should be delineated and removed, or stabilized using silt fence or similar techniques as Corrective Action alternatives.

#### 10.5 ADDITIONAL INVESTIGATION

Advanced GeoServices and Exide propose to initiate development of a supplemental work plan for additional investigation onsite. The supplemental work plan will be provided to USEPA within 90-days of submission of this RFI Report (i.e., on or around December 6, 2018). To the extent



that comments to the RFI Report are provided by USEPA prior to submission they will be incorporated into the supplemental work plan to the extent possible or Exide may request additional time to do so.

The supplemental work plan is anticipated to include the following items:

- Additional sampling around MW-4 to further delineate the extent of soils and groundwater impacted by VOCs. Sampling around MW-4 will also seek to better identify the extents of the perched water zone and obtain useful geologic/hydrogeologic data that can be used to design and implement a future remedy in that area.
- Perform additional shallow soil sampling in the southeast portion of the site to delineate areas with the highest observed lead concentrations (vicinity of borings R-14 and R-15).



## **TABLES**



Table 1  
 Exide-Frankfort RFI  
 Monitoring Well Construction Information

Well ID	Date Installed	Construction Type	Inner Casing Diameter (in.)	Outer Casing Diameter (in.)	Well Depth (f.b.g.s.)	DTW (f.b.g.s.) May 2018	DTW (f.b.g.s.) July 2018	Ground Surface Elevation (ft.)	TOIC Elevation (ft.)	Screen Interval (ft.)	Comments
MW-1	5/2/2018	Hollow Stem Auger	2	6	18	8.08	7.97	849.27	851.26	10 (8-18 ft. bgs)	0.0 PID readings
MW-2	5/2/2018	Hollow Stem Auger	2	6	18	10.24	10.83	846.97	848.92	10 (8-18 ft. bgs)	0.0 PID readings
MW-3	5/1/2018	Hollow Stem Auger	2	6	16	7.23	7.10	849.43	851.45	10 (6-16 ft. bgs)	0.0 PID readings
MW-4	4/30/2018	Hollow Stem Auger	2	6	18	4.74	4.33	851.19	853.17	10 (8-18 ft. bgs)	1.2 PID reading
MW-5	5/2/2018	Hollow Stem Auger	2	6	13	5.28	5.15	853.95	856.05	5 (8-13 ft. bgs)	0.0 PID readings
MW-6	4/30/2018	Hollow Stem Auger	2	6	18	4.31	4.25	853.24	855.47	10 (8-18 ft. bgs)	0.0 PID readings
MW-7	5/1/2018	Hollow Stem Auger	2	6	22	7.16	6.97	845.86	847.70	10 (12-22 ft. bgs)	0.0 PID readings
MW-8	5/2/2018	Hollow Stem Auger	2	6	18	6.12	6.13	851.76	853.73	10 (8-18 ft. bgs)	0.0 PID readings

**TABLE 2**  
**Site Analyte List**  
Exide Technologies  
Frankfort, Indiana

Analysis	CAS Number
<b>Volatile Organic Compounds</b>	
Acetone	67-64-1
Benzene	71-43-2
Bromodichloromethane	75-27-4
Bromoform	75-25-2
Bromomethane	74-83-9
Bromochloromethane	74-97-5
2-Butanone (MEK)	78-93-3
Carbon disulfide	75-15-0
Carbon tetrachloride	56-23-5
Chlorobenzene	108-90-7
Chloroethane (Ethyl Chloride)	75-00-3
Chloroform	67-66-3
Chloromethane	74-87-3
Cyclohexane	110-82-7
Dibromochloromethane	124-48-1
1,2-Dibromoethane (EDB)	106-93-4
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8
1,2-Dichlorobenzene	95-50-1
1,3-Dichlorobenzene	541-73-1
1,4-Dichlorobenzene	106-46-7
Dichlorodifluoromethane	75-71-8
1,1-Dichloroethane	75-34-3
1,2-Dichloroethane (EDC)	107-06-2
1,1-Dichloroethene	75-35-4
<i>cis</i> -1,2-Dichloroethene	156-59-2
<i>trans</i> -1,2-Dichloroethene	156-60-5
<i>1,4 - Dioxane (p-Dioxane) (Soil)</i>	123-91-1
1,2-Dichloropropane	78-87-5
<i>cis</i> -1,3-Dichloropropene	10061-01-5
<i>trans</i> -1,3-Dichloropropene	10061-02-6
Ethylbenzene	100-41-4
2-Hexanone	591-78-6
Isopropylbenzene (Cumene)	98-82-8
Methylacetate	79-20-9
Methylcyclohexane	108-87-2
Methylene Chloride	75-09-2
4-Methyl-2-pentanone (MIBK)	108-10-1
Methyl-tert-butyl-Ether (MTBE)	1634-04-4
Styrene	100-42-5
1,1,2,2-Tetrachloroethane	79-34-5
Tetrachloroethene (PCE)	127-18-4
Toluene	108-88-3
1,2,3-Trichlorobenzene	87-61-6
1,2,4-Trichlorobenzene	120-82-1
1,1,1-Trichloroethane (TCA)	71-55-6
1,1,2-Trichloroethane	79-00-5
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1
Trichloroethene (TCE)	79-01-6
Trichlorofluoromethane	75-69-4
Vinyl Chloride	75-01-4
Xylenes, Total	1330-20-7
<b>Semivolatiles Organic Compounds</b>	
Acenaphthene	83-32-9

**TABLE 2**  
**Site Analyte List**  
Exide Technologies  
Frankfort, Indiana

Analysis	CAS Number
Acenaphthylene	208-96-8
Acetophenone	98-86-2
Anthracene	120-12-7
Atrazine	1912-24-9
Benzaldehyde	100-52-7
Benzo[a]anthracene	56-55-3
Benzo[a]pyrene	50-32-8
Benzo[b]fluoranthene	205-99-2
Benzo[g,h,i]perylene	191-24-2
Benzo[k]fluoranthene	207-08-9
1,1-Biphenyl	92-52-4
Bis(2-chloroethoxy) methane	111-91-1
Bis(2-chloroethyl) ether	111-44-4
Bis(2-ethylhexyl) phthalate	117-81-7
4-Bromophenyl phenyl ether	101-55-03
Butyl benzyl phthalate	85-68-7
Caprolactam	105-60-2
Carbazole	86-74-8
4-Chloroaniline	106-47-8
4-Chloro-3-methylphenol	59-50-7
2-Chloronaphthalene	91-58-7
2-Chlorophenol	95-57-8
4-Chlorophenyl phenyl ether	7005-72-3
Chrysene	218-01-9
1,4 - Dioxane (p-Dioxane) (Water)	123-91-1
Dibenz[a,h]anthracene	53-70-3
Dibenzofuran	132-64-9
Di- <i>n</i> -butyl phthalate	84-74-2
3,3'-Dichlorobenzidine	91-94-1
2,4-Dichlorophenol	120-83-2
Diethyl phthalate	84-66-2
2,4-Dimethylphenol	105-67-9
Dimethylphthalate	131-11-3
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	534-52-1
2,4-Dinitrophenol	51-28-5
2,4-Dinitrotoluene	121-14-2
2,6-Dinitrotoluene	606-20-2
Di- <i>n</i> -octyl phthalate	117-84-0
Fluoranthene	206-44-0
Fluorene	86-73-7
Hexachlorobenzene	118-74-1
Hexachloro-1,3-butadiene	87-68-3
Hexachlorocyclopentadiene	77-47-4
Hexachloroethane	67-72-1
Indeno[1,2,3-cd]pyrene	193-39-5
Isophorone	78-59-1
2-Methylphenol (o-Cresol)	95-48-7
3 & 4-Methylphenol (m & p Cresols)	108-39-4, 106-44-5
2-Methylnaphthalene	91-57-6
<i>N</i> -Nitroso-di- <i>n</i> -propylamine	621-64-7
<i>N</i> -Nitrosodiphenylamine	86-30-6
Naphthalene	91-20-3
2-Nitroaniline	88-74-4
3-Nitroaniline	99-09-2

**TABLE 2**  
**Site Analyte List**  
 Exide Technologies  
 Frankfort, Indiana

Analysis	CAS Number
4-Nitroaniline	100-01-6
Nitrobenzene	98-95-3
2-Nitrophenol	88-75-5
4-Nitrophenol	100-02-7
2,2'-Oxybis(1-Chloropropane)	108-60-1
Pentachlorophenol	87-86-5
Phenanthrene	85-01-8
Phenol	108-95-2
Pyrene	129-00-0
1,2,4,5-Tetrachlorobenzene	95-94-3
2,3,4,6-Tetrachlorophenol	58-90-2
2,4,5-Trichlorophenol	95-95-4
2,4,6-Trichlorophenol	88-06-2
Inorganics	
Arsenic	7440-38-2
Barium	7440-39-3
Cadmium	7440-43-9
Chromium	7440-47-3
Lead	7439-92-1
Mercury	7439-97-6
Selenium	7782-49-2
Silver	7440-22-4
Analysis	CAS Number
Total Petroleum Hydrocarbons	
Gasoline Range Organics C5-C12	NA
Diesel Range Organics C8-C28	NA

**TABLE 3A**  
**IDEM Groundwater Screening and Closure Level**  
**Exide Technologies**  
**Frankfort, Indiana**

Analysis	Units	CAS Number	2018 RCG Ground Water Tap Limit
<b>Volatile Organic Compounds</b>			
1,1,1-Trichloroethane (TCA)	ug/L	71-55-6	200
1,1,2,2-Tetrachloroethane	ug/L	79-34-5	0.76
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	76-13-1	10000
1,1,2-Trichloroethane	ug/L	79-00-5	5
1,1-Dichloroethane	ug/L	75-34-3	28
1,1-Dichloroethene	ug/L	75-35-4	7
1,2,3-Trichlorobenzene	ug/L	87-61-6	7
1,2,4-Trichlorobenzene	ug/L	120-82-1	70
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	96-12-8	0.2
1,2-Dibromoethane (EDB)	ug/L	106-93-4	0.05
1,2-Dichlorobenzene	ug/L	95-50-1	600
1,2-Dichloroethane (EDC)	ug/L	107-06-2	5
1,2-Dichloropropane	ug/L	78-87-5	5
1,3-Dichlorobenzene	ug/L	541-73-1	NC
1,4-Dichlorobenzene	ug/L	106-46-7	75
2-Butanone (MEK)	ug/L	78-93-3	5600
2-Hexanone	ug/L	591-78-6	38
4-Methyl-2-pentanone (MIBK)	ug/L	108-10-1	6300
Acetone	ug/L	67-64-1	14000
Benzene	ug/L	71-43-2	5
Bromochloromethane	ug/L	74-97-5	83
Bromodichloromethane	ug/L	75-27-4	80
Bromoform	ug/L	75-25-2	80
Bromomethane	ug/L	74-83-9	7.5
Carbon disulfide	ug/L	75-15-0	810
Carbon tetrachloride	ug/L	56-23-5	5
Chlorobenzene	ug/L	108-90-7	100
Chloroethane (Ethyl Chloride)	ug/L	75-00-3	21000
Chloroform	ug/L	67-66-3	80
Chloromethane	ug/L	74-87-3	190
<i>cis</i> -1,2-Dichloroethene	ug/L	156-59-2	70
<i>cis</i> -1,3-Dichloropropene	ug/L	10061-01-5	4.7
Cyclohexane	ug/L	110-82-7	13000
Dibromochloromethane	ug/L	124-48-1	80
Dichlorodifluoromethane	ug/L	75-71-8	200
Ethylbenzene	ug/L	100-41-4	700
Isopropylbenzene (Cumene)	ug/L	98-82-8	450
Methylacetate	ug/L	79-20-9	20000
Methylcyclohexane	ug/L	108-87-2	NC
Methylene Chloride	ug/L	75-09-2	5
Methyl-tert-butyl-Ether (MTBE)	ug/L	1634-04-4	140
Styrene	ug/L	100-42-5	100
Tetrachloroethene (PCE)	ug/L	127-18-4	5
Toluene	ug/L	108-88-3	1000
<i>trans</i> -1,2-Dichloroethene	ug/L	156-60-5	100
<i>trans</i> -1,3-Dichloropropene	ug/L	10061-02-6	4.7
Trichloroethene (TCE)	ug/L	79-01-6	5
Trichlorofluoromethane	ug/L	75-69-4	5200
Vinyl Chloride	ug/L	75-01-4	2
Xylenes, Total	ug/L	1330-20-7	10000
<b>Semivolatiles Organic Compounds</b>			
1,1-Biphenyl	ug/L	92-52-4	0.83
1,2,4,5-Tetrachlorobenzene	ug/L	95-94-3	1.7

**TABLE 3A**  
**IDEM Groundwater Screening and Closure Level**  
**Exide Technologies**  
**Frankfort, Indiana**

Analysis	Units	CAS Number	2018 RCG Ground Water Tap Limit
1,4 - Dioxane (p-Dioxane)	ug/L	123-91-1	4.6
2,2'-Oxybis(1-Chloropropane)	ug/L	108-60-1	NC
2,3,4,6-Tetrachlorophenol	ug/L	58-90-2	240
2,4,5-Trichlorophenol	ug/L	95-95-4	1200
2,4,6-Trichlorophenol	ug/L	88-06-2	12
2,4-Dichlorophenol	ug/L	120-83-2	46
2,4-Dimethylphenol	ug/L	105-67-9	360
2,4-Dinitrophenol	ug/L	51-28-5	39
2,4-Dinitrotoluene	ug/L	121-14-2	2.4
2,6-Dinitrotoluene	ug/L	606-20-2	0.49
2-Chloronaphthalene	ug/L	91-58-7	750
2-Chlorophenol	ug/L	95-57-8	91
2-Methylnaphthalene	ug/L	91-57-6	36
2-Methylphenol (o-Cresol)	ug/L	95-48-7	930
2-Nitroaniline	ug/L	88-74-4	190
2-Nitrophenol	ug/L	88-75-5	NC
3 & 4-Methylphenol (m & p Cresols)	ug/L	108-39-4, 106-44-5	930
3,3'-Dichlorobenzidine	ug/L	91-94-1	1.3
3-Nitroaniline	ug/L	99-09-2	NC
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	ug/L	534-52-1	1.5
4-Bromophenyl phenyl ether	ug/L	101-55-03	NC
4-Chloro-3-methylphenol	ug/L	59-50-7	1400
4-Chloroaniline	ug/L	106-47-8	3.7
4-Chlorophenyl phenyl ether	ug/L	7005-72-3	NC
4-Nitroaniline	ug/L	100-01-6	38
4-Nitrophenol	ug/L	100-02-7	NC
Acenaphthene	ug/L	83-32-9	530
Acenaphthylene	ug/L	208-96-8	NC
Acetophenone	ug/L	98-86-2	1900
Anthracene	ug/L	120-12-7	1800
Atrazine	ug/L	1912-24-9	3
Benzaldehyde	ug/L	100-52-7	190
Benzo[a]anthracene	ug/L	56-55-3	0.12
Benzo[a]pyrene	ug/L	50-32-8	0.2
Benzo[b]fluoranthene	ug/L	205-99-2	0.34
Benzo[g,h,i]perylene	ug/L	191-24-2	NC
Benzo[k]fluoranthene	ug/L	207-08-9	3.4
Bis(2-chloroethoxy) methane	ug/L	111-91-1	59
Bis(2-chloroethyl) ether	ug/L	111-44-4	0.14
Bis(2-ethylhexyl) phthalate	ug/L	117-81-7	6
Butyl benzyl phthalate	ug/L	85-68-7	160
Caprolactam	ug/L	105-60-2	9900
Carbazole	ug/L	86-74-8	NC
Chrysene	ug/L	218-01-9	3.4
Dibenz[a,h]anthracene	ug/L	53-70-3	0.034
Dibenzofuran	ug/L	132-64-9	7.9
Diethyl phthalate	ug/L	84-66-2	15000
Dimethylphthalate	ug/L	131-11-3	NC
Di-n -butyl phthalate	ug/L	84-74-2	900
Di-n -octyl phthalate	ug/L	117-84-0	200
Fluoranthene	ug/L	206-44-0	800
Fluorene	ug/L	86-73-7	290
Hexachloro-1,3-butadiene	ug/L	87-68-3	1.4
Hexachlorobenzene	ug/L	118-74-1	1

**TABLE 3A**  
**IDEM Groundwater Screening and Closure Level**  
**Exide Technologies**  
**Frankfort, Indiana**

<b>Analysis</b>	<b>Units</b>	<b>CAS Number</b>	<b>2018 RCG Ground Water Tap Limit</b>
Hexachlorocyclopentadiene	ug/L	77-47-4	50
Hexachloroethane	ug/L	67-72-1	3.3
Isophorone	ug/L	78-59-1	780
Indeno[1,2,3-cd]pyrene	ug/L	193-39-5	0.34
Naphthalene	ug/L	91-20-3	1.7
Nitrobenzene	ug/L	98-95-3	1.4
<i>N</i> -Nitroso-di- <i>n</i> -propylamine	ug/L	621-64-7	0.11
<i>N</i> -Nitrosodiphenylamine	ug/L	86-30-6	120
Pentachlorophenol	ug/L	87-86-5	1
Phenanthrene	ug/L	85-01-8	NC
Phenol	ug/L	108-95-2	5800
Pyrene	ug/L	129-00-0	120
<b>Inorganics</b>			
Arsenic	ug/L	7440-38-2	10
Barium	ug/L	7440-39-3	2000
Cadmium	ug/L	7440-43-9	5
Chromium	ug/L	7440-47-3	100
Lead	ug/L	7439-92-1	15
Mercury	ug/L	7439-97-6	2
Selenium	ug/L	7782-49-2	50
Silver	ug/L	7440-22-4	94
<b>Analysis</b>	<b>Units</b>	<b>CAS Number</b>	<b>2009 RISC Closure Level<sup>1</sup></b>
<b>Total Petroleum Hydrocarbons</b>			
Gasoline Range Organics C5-C12	mg/L	NA	14
Diesel Range Organics C8-C28	mg/L	NA	2.5

Notes:

<sup>1</sup>TPH Closure Level - RISC Announcements July 06, 2009

NA - Not Applicable

NC - No Criteria

ug/L - microgram per liter

mg/L - miligram per liter

RCG - Remediation Closure Guide

**TABLE 3B**  
**IDEM Soil Screening and Closure Level**  
 Exide Technologies  
 Frankfort, Indiana

Analysis	Units	CAS Number	2018 RCG Soil Direct Contact Non-Residential Limit
<b>Volatile Organic Compounds</b>			
1,1,1-Trichloroethane (TCA)	mg/Kg	71-55-6	640
1,1,2,2-Tetrachloroethane	mg/Kg	79-34-5	27
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/Kg	76-13-1	910
1,1,2-Trichloroethane	mg/Kg	79-00-5	6.3
1,1-Dichloroethane	mg/Kg	75-34-3	160
1,1-Dichloroethene	mg/Kg	75-35-4	1000
1,2,3-Trichlorobenzene	mg/Kg	87-61-6	930
1,2,4-Trichlorobenzene	mg/Kg	120-82-1	260
1,2-Dibromo-3-chloropropane (DBCP)	mg/Kg	96-12-8	0.64
1,2-Dibromoethane (EDB)	mg/Kg	106-93-4	1.6
1,2-Dichlorobenzene	mg/Kg	95-50-1	380
1,2-Dichloroethane (EDC)	mg/Kg	107-06-2	20
1,2-Dichloropropane	mg/Kg	78-87-5	66
1,3-Dichlorobenzene	mg/Kg	541-73-1	NC
1,4 - Dioxane (p-Dioxane)	mg/Kg	123-91-1	240
1,4-Dichlorobenzene	mg/Kg	106-46-7	110
2-Butanone (MEK)	mg/Kg	78-93-3	28000
2-Hexanone	mg/Kg	591-78-6	1300
4-Methyl-2-pentanone (MIBK)	mg/Kg	108-10-1	3400
Acetone	mg/Kg	67-64-1	100000
Benzene	mg/Kg	71-43-2	51
Bromochloromethane	mg/Kg	74-97-5	630
Bromodichloromethane	mg/Kg	75-27-4	13
Bromoform	mg/Kg	75-25-2	860
Bromomethane	mg/Kg	74-83-9	30
Carbon disulfide	mg/Kg	75-15-0	740
Carbon tetrachloride	mg/Kg	56-23-5	29
Chlorobenzene	mg/Kg	108-90-7	760
Chloroethane (Ethyl Chloride)	mg/Kg	75-00-3	2100
Chloroform	mg/Kg	67-66-3	14
Chloromethane	mg/Kg	74-87-3	460
<i>cis</i> -1,2-Dichloroethene	mg/Kg	156-59-2	2300
<i>cis</i> -1,3-Dichloropropene	mg/Kg	10061-01-5	82
Cyclohexane	mg/Kg	110-82-7	120
Dibromochloromethane	mg/Kg	124-48-1	390
Dichlorodifluoromethane	mg/Kg	75-71-8	370
Ethylbenzene	mg/Kg	100-41-4	250
Isopropylbenzene (Cumene)	mg/Kg	98-82-8	270
Methylacetate	mg/Kg	79-20-9	29000
Methylcyclohexane	mg/Kg	108-87-2	NC
Methylene Chloride	mg/Kg	75-09-2	3200
Methyl-tert-butyl-Ether (MTBE)	mg/Kg	1634-04-4	2100
Styrene	mg/Kg	100-42-5	870
Tetrachloroethene (PCE)	mg/Kg	127-18-4	170
Toluene	mg/Kg	108-88-3	820
<i>trans</i> -1,2-Dichloroethene	mg/Kg	156-60-5	1900
<i>trans</i> -1,3-Dichloropropene	mg/Kg	10061-02-6	82
Trichloroethene (TCE)	mg/Kg	79-01-6	19
Trichlorofluoromethane	mg/Kg	75-69-4	1200
Vinyl Chloride	mg/Kg	75-01-4	17
Xylenes, Total	mg/Kg	1330-20-7	260
<b>Semivolatiles Organic Compounds</b>			
1,1-Biphenyl	mg/kg	92-52-4	200



**TABLE 3B**  
**IDEM Soil Screening and Closure Level**  
 Exide Technologies  
 Frankfort, Indiana

<b>Analysis</b>	<b>Units</b>	<b>CAS Number</b>	<b>2018 RCG Soil Direct Contact Non-Residential Limit</b>
1,2,4,5-Tetrachlorobenzene	mg/kg	95-94-3	350
2,2'-Oxybis(1-Chloropropane)	mg/kg	108-60-1	1000
2,3,4,6-Tetrachlorophenol	mg/kg	58-90-2	25000
2,4,5-Trichlorophenol	mg/Kg	95-95-4	82000
2,4,6-Trichlorophenol	mg/Kg	88-06-2	820
2,4-Dichlorophenol	mg/Kg	120-83-2	2500
2,4-Dimethylphenol	mg/Kg	105-67-9	16000
2,4-Dinitrophenol	mg/Kg	51-28-5	1600
2,4-Dinitrotoluene	mg/Kg	121-14-2	74
2,6-Dinitrotoluene	mg/Kg	606-20-2	15
2-Chloronaphthalene	mg/Kg	91-58-7	60000
2-Chlorophenol	mg/Kg	95-57-8	5800
2-Methylnaphthalene	mg/Kg	91-57-6	3000
2-Methylphenol (o-Cresol)	mg/Kg	95-48-7	41000
2-Nitroaniline	mg/Kg	88-74-4	8000
2-Nitrophenol	mg/Kg	88-75-5	NC
3 & 4-Methylphenol (m & p Cresols)	mg/Kg	108-39-4, 106-44-5	NC
3,3'-Dichlorobenzidine	mg/Kg	91-94-1	51
3-Nitroaniline	mg/Kg	99-09-2	NC
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	mg/Kg	534-52-1	66
4-Bromophenyl phenyl ether	mg/Kg	101-55-03	NC
4-Chloro-3-methylphenol	mg/Kg	59-50-7	82000
4-Chloroaniline	mg/Kg	106-47-8	110
4-Chlorophenyl phenyl ether	mg/Kg	7005-72-3	NC
4-Nitroaniline	mg/Kg	100-01-6	1100
4-Nitrophenol	mg/Kg	100-02-7	NC
Acenaphthene	mg/Kg	83-32-9	45000
Acenaphthylene	mg/Kg	208-96-8	NC
Acetophenone	mg/kg	98-86-2	2500
Anthracene	mg/Kg	120-12-7	100000
Atrazine	mg/kg	1912-24-9	100
Benzaldehyde	mg/kg	100-52-7	1200
Benzo[a]anthracene	mg/Kg	56-55-3	210
Benzo[a]pyrene	mg/Kg	50-32-8	21
Benzo[b]fluoranthene	mg/Kg	205-99-2	210
Benzo[g,h,i]perylene	mg/Kg	191-24-2	NC
Benzo[k]fluoranthene	mg/Kg	207-08-9	2100
Bis(2-chloroethoxy) methane	mg/Kg	111-91-1	2500
Bis(2-chloroethyl) ether	mg/Kg	111-44-4	10
Bis(2-ethylhexyl) phthalate	mg/Kg	117-81-7	1600
Butyl benzyl phthalate	mg/Kg	85-68-7	12000
Caprolactam	mg/kg	105-60-2	100000
Carbazole	mg/kg	86-74-8	NC
Chrysene	mg/Kg	218-01-9	21000
Dibenz[a,h]anthracene	mg/Kg	53-70-3	21
Dibenzofuran	mg/Kg	132-64-9	1000
Diethyl phthalate	mg/Kg	84-66-2	100000
Dimethylphthalate	mg/Kg	131-11-3	NC
Di-n-butyl phthalate	mg/Kg	84-74-2	82000
Di-n-octyl phthalate	mg/Kg	117-84-0	8200
Fluoranthene	mg/Kg	206-44-0	30000
Fluorene	mg/Kg	86-73-7	30000
Hexachloro-1,3-butadiene	mg/Kg	87-68-3	17
Hexachlorobenzene	mg/Kg	118-74-1	9.6

**TABLE 3B**  
**IDEM Soil Screening and Closure Level**  
 Exide Technologies  
 Frankfort, Indiana

Analysis	Units	CAS Number	2018 RCG Soil Direct Contact Non-Residential Limit
Hexachlorocyclopentadiene	mg/Kg	77-47-4	7.5
Hexachloroethane	mg/Kg	67-72-1	80
Isophorone	mg/Kg	78-59-1	24000
Indeno[1,2,3-cd]pyrene	mg/Kg	193-39-5	210
Naphthalene	mg/Kg	91-20-3	170
Nitrobenzene	mg/Kg	98-95-3	220
<i>N</i> -Nitroso-di- <i>n</i> -propylamine	mg/Kg	621-64-7	3.3
<i>N</i> -Nitrosodiphenylamine	mg/Kg	86-30-6	4700
Pentachlorophenol	mg/Kg	87-86-5	40
Phenanthrene	mg/Kg	85-01-8	NC
Phenol	mg/Kg	108-95-2	100000
Pyrene	mg/Kg	129-00-0	23000
<b>Inorganics</b>			
Arsenic	mg/Kg	7440-38-2	30
Barium	mg/Kg	7440-39-3	100000
Cadmium	mg/Kg	7440-43-9	980
Chromium	mg/Kg	7440-47-3	NC
Lead	mg/Kg	7439-92-1	800
Mercury	mg/Kg	7439-97-6	3.1
Selenium	mg/Kg	7782-49-2	5800
Silver	mg/Kg	7440-22-4	5800
Analysis	Units	CAS Number	2009 RISC Closure Level <sup>1</sup>
<b>Total Petroleum Hydrocarbons</b>			
Gasoline Range Organics C5-C12	mg/Kg	NA	4300
Diesel Range Organics C8-C28	mg/Kg	NA	5800

Notes:

<sup>1</sup>TPH Closure Level - RISC Announcements July 06, 2009

NA - Not Applicable

NC - No Criteria

mg/kg - milligram per kilogram

RCG - Remediation Closure Guide

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	R1-0-1			R1-1-2			R1-3-4			R1-5-6			R2-0-1			R2-1-2			R2-3-4			R2-5-6			R3-0-1				
Lab ID		50195862042	50195862043	50195862044	50195862045	50195862036	50195862037	50195862038	50195862039	50195774063																				
Sample Date	5/1/2018	5/1/2018	5/1/2018	5/1/2018	5/1/2018	5/1/2018	5/1/2018	5/1/2018	4/30/2018																					
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil																					
Remarks																														
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL				
<b>Total Metals</b>																														
Arsenic	30	mg/kg	10.6		1.1	7		1	12.8		1.1	7.9		1.2	7		1.1	6.7	J	1.1	12		1.2	7.8		1.2	5.6	J	1	
Barium	100000	mg/kg	104		1.1	83.6		1	93.8		1.1	68.1		1.2	284		1.1	437		1.1	297		1.2	246		1.2	210		1	
Cadmium	980	mg/kg	11.6		0.55	0.47	J	0.51	0.39	J	0.55			U	0.61	12.3		0.56	0.69		0.54	0.53	J	0.61	0.85		0.62	0.75		0.51
Chromium	NC	mg/kg	244	J	1.1	13.4	J	1	18.7	J	1.1	17.3	J	1.2	21.4		1.1	13.5	J	1.1	13	J	1.2	16	J	1.2	9.2	J	1	
Lead	800	mg/kg	142	J	1.1	<b>2070</b>	J	1	12.1	J	1.1	10.1	J	1.2	569	J	1.1	70.7	J	1.1	43.2	J	1.2	126	J	1.2	323	J	1	
Mercury	3.1	mg/kg	0.029	J	0.25	0.21	J	0.25	0.019	J	0.24			U	0.26	0.11	J	0.24	0.031	J	0.25	0.032	J	0.26	0.055	J	0.27		UJ	0.22
Selenium	5800	mg/kg			U	1.1		U	1		U	1.1		U	1.2	0.67	J	1.1		U	1.1	1	J	1.2	0.86	J	1.2	0.57	J	1
Silver	5800	mg/kg	17.5		0.55			U	0.51		U	0.55		U	0.61	139		0.56	0.72		0.54		U	0.61	0.88		0.62	0.42	J	0.51
<b>Conventionals</b>																														
Percent Moisture	NC	%	16		0.1	16.6		0.1	15		0.1	19.2		0.1	14.7		0.1	16.6		0.1	21.2		0.1	27.3		0.1	11.2		0.1	
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA				NA			NA			NA			NA	

J - Denotes an estimated reporting limit  
mg/kg - milligram per kilogram  
NA - Not Analyzed for this parameter  
Q - Qualifier  
RL - Reporting Limit  
R - Rejected  
U - Analyte was not detected at or above the reporting limit  
UJ - Denotes an estimated reporting limit  
NC - No Criteria  
RCG - Remediation Closure Guide  
**Bolding indicates exceedances of IDEM 2018 RCG**  
**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	R3-1-2			R3-3-4			R3-5-6			R3-7-8			R4-0-1			R4-1-2			R4-3-4			R4-5-6			R4-7-8			
Lab ID		50195774064	50195774065			50195774066			50195774067			50195774057			50195774058			50195774059			50195774060			50195774062					
Sample Date		4/30/2018			4/30/2018			4/30/2018			4/30/2018			4/30/2018			4/30/2018			4/30/2018			4/30/2018			4/30/2018			
Matrix		Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			
Remarks																													
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL			
<b>Total Metals</b>																													
Arsenic	30	mg/kg	10.9	J	1.1	8.5	J	1.2	16.9	J	1.2	10.3	J	1.1	19.3		1	11.1		0.99	5.6		1.4	11.2		1.3	9.2		1.2
Barium	100000	mg/kg	282		1.1	115		1.2	159	J	1.2	123		1.1	223	J	1	272	J	0.99	183	J	1.4	136	J	1.3	114	J	1.2
Cadmium	980	mg/kg	5		0.57			0.6		U	0.59			0.54	0.7		0.51	2		0.49	0.54	J	0.7	0.48	J	0.66		U	0.59
Chromium	NC	mg/kg	15.6	J	1.1	18.3	J	1.2	20.3	J	1.2	19.8	J	1.1	12.5		1	15.9		0.99	16.1		1.4	19.4		1.3	18.6		1.2
Lead	800	mg/kg	190	J	1.1	17.3	J	1.2	16.6	J	1.2	12.5	J	1.1	341		1	<b>896</b>		0.99	26.3		1.4	11.2		1.3	12.2		1.2
Mercury	3.1	mg/kg	0.17	J	0.24	0.062	J	0.27	0.034	J	0.26	0.04	J	0.24	0.064	J	0.22	0.078	J	0.25	0.059	J	0.28	0.032	J	0.29	0.039	J	0.25
Selenium	5800	mg/kg	0.63	J	1.1			1.2		U	1.2			U	1.1		1		U	0.99		U	1.4		U	1.3		U	1.2
Silver	5800	mg/kg	9.2		0.57	14.9		0.6	2.4		0.59	1.4		0.54	0.53		0.51	3.2		0.49		U	0.7		U	0.66		U	0.59
<b>Conventionals</b>																													
Percent Moisture	NC	%	18.4		0.1	23.3		0.1	21.4	J	0.1	18.1		0.1	11.1		0.1	14.9		0.1	30.8		0.1	31.9		0.1	19.1		0.1
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA	

J - Denotes an estimated reporting limit  
mg/kg - milligram per kilogram  
NA - Not Analyzed for this parameter  
Q - Qualifier  
RL - Reporting Limit  
R - Rejected  
U - Analyte was not detected at or above the reporting limit  
UJ - Denotes an estimated reporting limit  
NC - No Criteria  
RCG - Remediation Closure Guide  
**Bolding indicates exceedances of IDEM 2018 RCG**  
**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	R5-0-1			R5-1-2			R5-3-4			R5-5-6			R6-0-1			R6-1-2			R6-3-4			R6-5-6			R7-0-1				
Lab ID		50195670064	50195670065			50195670066			50195670067			50195670058			50195670059			50195670060			50195670061			50195862078						
Sample Date		4/27/2018			4/27/2018			4/27/2018			4/27/2018			4/27/2018			4/27/2018			4/27/2018			5/2/2018							
Matrix		Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil							
Remarks																														
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL				
<b>Total Metals</b>																														
Arsenic	30	mg/kg	9.9		1.1	11.8		1.2	10.2		1.2	8.6		1.1	<b>171</b>		1.1	17.9		1.1	11.8		1.3	4.9		1.1	9.3		1	
Barium	100000	mg/kg	494		1.1	803		1.2	157		1.2	71.8		1.1	835		1.1	658		1.1	240		1.3	155		1.1	83.4		1	
Cadmium	980	mg/kg	1.6		0.57	10.2		0.6	0.64		0.58	0.5	J	0.53	3.1		0.56	6		0.56	1.2		0.63		U	0.57		U	0.5	
Chromium	NC	mg/kg	12.7		1.1	18.8		1.2	21.5		1.2	14.3		1.1	13.8		1.1	16.3		1.1	17.5		1.3	18.4		1.1	19		1	
Lead	800	mg/kg	<b>873</b>	J	1.1	456	J	1.2	633	J	1.2	253	J	1.1	<b>1600</b>	J	1.1	<b>2690</b>	J	1.1	228	J	1.3	18.6	J	1.1	47.7	J	1	
Mercury	3.1	mg/kg	0.071	J	0.23	0.099	J	0.27	0.058	J	0.24	0.016	J	0.23	0.083	J	0.24	0.052	J	0.24	0.07	J	0.24	0.05	J	0.25	0.036	J	0.22	
Selenium	5800	mg/kg		U	1.1	0.92	J	1.2		U	1.2		U	1.1		U	1.1		U	1.1		U	1.3		U	1.1		U	1	
Silver	5800	mg/kg	1.5		0.57	5.3		0.6		U	0.58		U	0.53		U	0.56		U	0.56		U	0.63		U	0.57		U	0.5	
<b>Conventionals</b>																														
Percent Moisture	NC	%	14.3		0.1	21.9		0.1	17		0.1	14.8		0.1	11.3		0.1	12.7		0.1	22.5		0.1	22.6		0.1	12.4		0.1	
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA		NA

J - Denotes an estimated reporting limit  
mg/kg - milligram per kilogram  
NA - Not Analyzed for this parameter  
Q - Qualifier  
RL - Reporting Limit  
R - Rejected  
U - Analyte was not detected at or above the reporting limit  
UJ - Denotes an estimated reporting limit  
NC - No Criteria  
RCG - Remediation Closure Guide  
**Bolding indicates exceedances of IDEM 2018 RCG**  
**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential Parameter Limit	Units	R7-1-2			R7-3-4			R7-5-6			R8-0-1			R8-1-2			R8-3-4			R8-5-6			R9-0-1			R9-1-2		
Lab ID			50195862079	50195862080	50195862081	50195862072	50195862073	50195862074	50195862075	50195862099	50195862100																		
Sample Date			5/2/2018	5/2/2018	5/2/2018	5/2/2018	5/2/2018	5/2/2018	5/2/2018	5/2/2018	5/2/2018																		
Matrix			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil																		
Remarks																													
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL			
<b>Total Metals</b>																													
Arsenic	30	mg/kg	8.8		1	12.6		1.2	8.7		1	4.4		1.2	16.7		1.2	7.9		1.2	16.4		1.3	8.8		1.4	7.4		1.1
Barium	100000	mg/kg	132		1	94	J	1.2	54.1	J	1	67.2	J	1.2	53.7		1.2	87.8		1.2	484		1.3	74.7	J	1.4	66.2	J	1.1
Cadmium	980	mg/kg	0.54		0.51		U	0.59		U	0.52		U	0.62		U	0.58	0.33	J	0.59	1.1		0.63		U	0.7		U	0.54
Chromium	NC	mg/kg	13.7		1	19.9	J	1.2	9.8	J	1	13.2		1.2	13.7		1.2	13.6		1.2	19.6		1.3	15.8	J	1.4	13.3	J	1.1
Lead	800	mg/kg	60.2	J	1	12.1	J	1.2	6.4	J	1	17.7	J	1.2	14.6	J	1.2	21.5	J	1.2	15	J	1.3	102	J	1.4	22.2	J	1.1
Mercury	3.1	mg/kg	0.058	J	0.24	0.035	J	0.22		U	0.21	0.023	J	0.29	0.023	J	0.26	0.071	J	0.23	0.031	J	0.25	0.025	J	0.3	0.024	J	0.25
Selenium	5800	mg/kg		U	1		U	1.2		U	1		U	1.2	0.8	J	1.2		U	1.2		U	1.3		U	1.4		U	1.1
Silver	5800	mg/kg		U	0.51		U	0.59		U	0.52		U	0.62		U	0.58		U	0.59		U	0.63		U	0.7		U	0.54
<b>Conventionals</b>																													
Percent Moisture	NC	%	17.7		0.1	15.9		0.1	9.5		0.1	28.2		0.1	22.4		0.1	18.4		0.1	21.3		0.1	31.5		0.1	16		0.1
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA	

J - Denotes an estimated reporting limit  
 mg/kg - milligram per kilogram  
 NA - Not Analyzed for this parameter  
 Q - Qualifier  
 RL - Reporting Limit  
 R - Rejected  
 U - Analyte was not detected at or above the reporting limit  
 UJ - Denotes an estimated reporting limit  
 NC - No Criteria  
 RCG - Remediation Closure Guide  
**Bolding indicates exceedances of IDEM 2018 RCG**  
**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG	R9-3-4			R9-5-6			R10-0-1			R10-1-2			R10-3-4			R10-5-6			R11-0-1			R11-1-2			R11-3-4				
Lab ID		Soil Direct	50195862101	50195862102	50195862047	50195862048	50195862049	50195862050	50195862031	50195862032	50195862033																			
Sample Date	Contact Non-Residential	5/2/2018	5/2/2018	5/1/2018	5/1/2018	5/1/2018	5/1/2018	5/1/2018	5/1/2018	5/1/2018																				
Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil																			
Remarks	Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL			
<b>Total Metals</b>																														
Arsenic	30	mg/kg	6.2		1.1	6.8		1.2	8.1		1.1	7.7		0.99	6.9		0.98	7.3		1.1	7.5		0.97	6.6		1	5.9		1.1	
Barium	100000	mg/kg	66.1	J	1.1	97.2	J	1.2	176		1.1	48.6		0.99	66.1		0.98	40.4		1.1	48.4		0.97	21.4		1	23		1.1	
Cadmium	980	mg/kg		U	0.56	0.32	J	0.59	2		0.53	0.45	J	0.49	0.34	J	0.49		U	0.55		U	0.49		U	0.5		U	0.54	
Chromium	NC	mg/kg	13.1		1.1	13.2		1.2	14.6	J	1.1	12.6	J	0.99	12.5	J	0.98	10.9	J	1.1	8.7	J	0.97	7	J	1	10	J	1.1	
Lead	800	mg/kg	10.1	J	1.1	17.2	J	1.2	283	J	1.1	31.4	J	0.99	14.6	J	0.98	6.6	J	1.1	129	J	0.97	5.6	J	1	14	J	1.1	
Mercury	3.1	mg/kg	0.025	J	0.25	0.035	J	0.25	0.039	J	0.24		U	0.22		U	0.22	0.021	J	0.22		U	0.21		U	0.21		U	0.24	
Selenium	5800	mg/kg		U	1.1		U	1.2		U	1.1		U	0.99		U	0.98		U	1.1		U	0.97		U	1		U	1.1	
Silver	5800	mg/kg		U	0.56		U	0.59	5		0.53		U	0.49		U	0.49		U	0.55		U	0.49		U	0.5		U	0.54	
<b>Conventionals</b>																														
Percent Moisture	NC	%	15.4		0.1	16.4		0.1	16	J	0.1	11.9		0.1	14.2		0.1	13.6		0.1	7.7		0.1	6.8		0.1	11.6		0.1	
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA		NA

J - Denotes an estimated reporting limit  
mg/kg - milligram per kilogram  
NA - Not Analyzed for this parameter  
Q - Qualifier  
RL - Reporting Limit  
R - Rejected  
U - Analyte was not detected at or above the reporting limit  
UJ - Denotes an estimated reporting limit  
NC - No Criteria  
RCG - Remediation Closure Guide  
**Bolding indicates exceedances of IDEM 2018 RCG**  
**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	R11-5-6			R12-0-1			R12-1-2			R12-3-4			R12-5-6			R13-0-1			R13-1-2			R13-3-4			R13-5-6				
Lab ID		50195862034	50195862001	50195862002	50195862003	50195862004	50195774052	50195774053	50195774054	50195774055																				
Sample Date	5/1/2018	5/1/2018	5/1/2018	5/1/2018	5/1/2018	4/30/2018	4/30/2018	4/30/2018	4/30/2018																					
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil																					
Remarks																														
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL				
<b>Total Metals</b>																														
Arsenic	30	mg/kg	10.5		1.1	2.2		0.97	7.1		0.99	5.7		1	10.2		1.1	7.4		1.1	6		1.2	11.5		1.2	12		1.1	
Barium	100000	mg/kg	107		1.1	7.9	J	0.97	32.6		0.99	30.4		1	92.6		1.1	284	J	1.1	105	J	1.2	118	J	1.2	125	J	1.1	
Cadmium	980	mg/kg	0.28	J	0.56		U	0.49			U	0.5		U	0.52		U	0.53		1.1	0.53		U	0.6		U	0.59		U	0.53
Chromium	NC	mg/kg	20.4	J	1.1	2.8		0.97	8.5		0.99	7.3		1	23.2		1.1	7.9		1.1	16		1.2	23.6		1.2	20.2		1.1	
Lead	800	mg/kg	11.1	J	1.1	5	J	0.97	5.5		0.99	3.6		1	9.3		1.1	<b>2190</b>		1.1	12.7		1.2	11.6		1.2	17.9		1.1	
Mercury	3.1	mg/kg	0.04	J	0.26		U	0.21			U	0.21		U	0.23	0.034	J	0.25	0.034	J	0.22	0.046	J	0.24	0.055	J	0.26	0.062	J	0.25
Selenium	5800	mg/kg		U	1.1		U	0.97			U	0.99		U	1		U	1.1		U	1.1		U	1.2		U	1.2		U	1.1
Silver	5800	mg/kg		U	0.56		U	0.49			U	0.5		U	0.52		U	0.53		U	0.53		U	0.6		U	0.59		U	0.53
<b>Conventionals</b>																														
Percent Moisture	NC	%	19.1		0.1	10.4	J	0.1	10.2		0.1	11	J	0.1	20.9		0.1	6.9		0.1	18.7		0.1	21		0.1	22.1		0.1	
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA		NA

J - Denotes an estimated reporting limit  
mg/kg - milligram per kilogram  
NA - Not Analyzed for this parameter  
Q - Qualifier  
RL - Reporting Limit  
R - Rejected  
U - Analyte was not detected at or above the reporting limit  
UJ - Denotes an estimated reporting limit  
NC - No Criteria  
RCG - Remediation Closure Guide  
**Bolding indicates exceedances of IDEM 2018 RCG**  
**Soil Direct Contact Non-Residential**



TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG	R14-0-1			R14-1-2			R14-3-4			R14-5-6			R15-0-1			R15-1-2			R15-3-4			R15-5-6			R16-0-1				
Lab ID		Soil Direct	50195774001	50195774002	50195774003	50195774004	50195670053	50195670054	50195670055	50195670056	50195670006	Sample Date	4/30/2018	4/30/2018	4/30/2018	4/30/2018	4/27/2018	4/27/2018	4/27/2018	4/27/2018	4/27/2018	4/27/2018	4/27/2018	4/27/2018	4/27/2018	4/27/2018				
Matrix	Contact Non-Residential	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil				
Remarks	Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL			
<b>Total Metals</b>																														
Arsenic	30	mg/kg	13.3		1.2	9.6		1.2	11.3		1.2	9.9		1.2	9.1		1.1	9.3		1	7.3		1.2	9.3		1.3	8.7		1.2	
Barium	100000	mg/kg	121		1.2	138		1.2	146		1.2	118		1.2	941		1.1	1150	J	1	99.2	J	1.2	286		1.3	216		1.2	
Cadmium	980	mg/kg	3		0.59		U	0.62	0.33	J	0.59	0.35	J	0.6	1.8		0.54	2.3		0.51		U	0.59	1.2		0.63	0.87		0.61	
Chromium	NC	mg/kg	19.6		1.2	14.5		1.2	22.8		1.2	23.3		1.2	10.8		1.1	13.1	J	1	19.5		1.2	27.6		1.3	17.4		1.2	
Lead	800	mg/kg	<b>24500</b>		118	210		1.2	12.1		1.2	20		1.2	<b>21600</b>	J	10.8	<b>10000</b>	J	2.1	22.4		1.2	347	J	1.3	23.7	J	1.2	
Mercury	3.1	mg/kg	0.11	J	0.24	0.095	J	0.27	0.045	J	0.26	0.045	J	0.25	0.047	J	0.21	0.043	J	0.23	0.04	J	0.25	0.025	J	0.26		U	0.24	
Selenium	5800	mg/kg	0.63	J	1.2		UJ	1.2		UJ	1.2		UJ	1.2		U	1.1	0.62	J	1		U	1.2		U	1.3	0.7	J	1.2	
Silver	5800	mg/kg	0.83		0.59		U	0.62		U	0.59		U	0.6		U	0.54	0.47	J	0.51		U	0.59		U	0.63		U	0.61	
<b>Conventionals</b>																														
Percent Moisture	NC	%	17.1		0.1	23		0.1	21.5		0.1	20.2		0.1	8.4		0.1	16		0.1	23		0.1	24.2		0.1	21.9		0.1	
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA		NA

J - Denotes an estimated reporting limit  
mg/kg - milligram per kilogram  
NA - Not Analyzed for this parameter  
Q - Qualifier  
RL - Reporting Limit  
R - Rejected  
U - Analyte was not detected at or above the reporting limit  
UJ - Denotes an estimated reporting limit  
NC - No Criteria  
RCG - Remediation Closure Guide  
**Bolding indicates exceedances of IDEM 2018 RCG**  
**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	R16-1-2			R16-3-4			R16-5-6			R17-0-1			R17-1-2			R17-3-4			R17-5-6			R18-0-1			R18-1-2			
Lab ID		50195670007	50195670008	50195670009	50195862083	50195862084	50195862085	50195862086	50195862093	50195862094																			
Sample Date	4/27/2018	4/27/2018	4/27/2018	5/2/2018	5/2/2018	5/2/2018	5/2/2018	5/2/2018	5/2/2018																				
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil																				
Remarks																													
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL			
<b>Total Metals</b>																													
Arsenic	30	mg/kg	4.8		1.3	6		1.2	5.6		1.2	9.8		1.1	10.7		1.2	7.1		1.1	8		1.1	7.9		1.1	10.6		1.1
Barium	100000	mg/kg	151		1.3	118		1.2	144		1.2	75.5	J	1.1	85.7	J	1.2	33.6	J	1.1	36.6	J	1.1	81.1	J	1.1	94	J	1.1
Cadmium	980	mg/kg	0.41	J	0.63	0.41	J	0.59	0.49	J	0.6		U	0.56		U	0.62		U	0.54		U	0.54		U	0.53		U	0.55
Chromium	NC	mg/kg	17.2		1.3	17.3		1.2	17.2		1.2	20.7	J	1.1	22.3	J	1.2	9.7	J	1.1	11	J	1.1	14.1	J	1.1	17.6	J	1.1
Lead	800	mg/kg	10.9	J	1.3	13.3	J	1.2	24.1	J	1.2	11.4	J	1.1	30.1	J	1.2	6.8	J	1.1	8.4	J	1.1	17	J	1.1	10.3	J	1.1
Mercury	3.1	mg/kg	0.035	J	0.25	0.028	J	0.25	0.027	J	0.25	0.03	J	0.23	0.056	J	0.25		U	0.23		U	0.23	0.044	J	0.24	0.04	J	0.24
Selenium	5800	mg/kg		U	1.3		U	1.2		U	1.2		U	1.1		U	1.2		U	1.1		U	1.1		U	1.1		U	1.1
Silver	5800	mg/kg		U	0.63		U	0.59		U	0.6		U	0.56		U	0.62		U	0.54		U	0.54		U	0.53		U	0.55
<b>Conventionals</b>																													
Percent Moisture	NC	%	22.5		0.1	18.3		0.1	21.2		0.1	16.8		0.1	20.4		0.1	11.1		0.1	12.8		0.1	14		0.1	15.8	J	0.1
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA	

J - Denotes an estimated reporting limit  
mg/kg - milligram per kilogram  
NA - Not Analyzed for this parameter  
Q - Qualifier  
RL - Reporting Limit  
R - Rejected  
U - Analyte was not detected at or above the reporting limit  
UJ - Denotes an estimated reporting limit  
NC - No Criteria  
RCG - Remediation Closure Guide  
**Bolding indicates exceedances of IDEM 2018 RCG**  
**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non- Residential	R18-3-4			R18-5-6			R19-0-1			R19-1-2			R19-3-4			R19-5-6			R20-0-1			R20-1-2			R20-3-4				
Lab ID		50195862095			50195862096			50195862052			50195862053			50195862054			50195862055			50195862026			50195862027			50195862028				
Sample Date		5/2/2018			5/2/2018			5/1/2018			5/1/2018			5/1/2018			5/1/2018			5/1/2018			5/1/2018			5/1/2018				
Matrix		Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil				
Remarks																														
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL				
<b>Total Metals</b>																														
Arsenic	30	mg/kg	8.3		1.1	8		1.1	7.1		1.1	7.9		1	8.7		0.98	6.7		1	6.3		1	7.1		1.1	5.5		0.98	
Barium	100000	mg/kg	50.8	J	1.1	37.3	J	1.1	124		1.1	33.5		1	36		0.98	36		1	20.4	J	1	24.6	J	1.1	48.5	J	0.98	
Cadmium	980	mg/kg	0.31	J	0.54		U	0.55	0.34	J	0.53	1.1		0.52	0.35	J	0.49	0.29	J	0.52		U	0.5		U	0.55	0.3	J	0.49	
Chromium	NC	mg/kg	13.3	J	1.1	11.6	J	1.1	15.2	J	1.1	8.1	J	1	6.1	J	0.98	11.1		1	7.3		1	9.3		1.1	7.1		0.98	
Lead	800	mg/kg	6.3	J	1.1	6.7	J	1.1	41.7	J	1.1	26.4	J	1	11.5	J	0.98	8.2	J	1	5.6	J	1	7.3	J	1.1	48	J	0.98	
Mercury	3.1	mg/kg		UJ	0.22		UJ	0.22	0.063	J	0.23		U	0.2		U	0.22		U	0.22		U	0.21		U	0.24		U	0.23	
Selenium	5800	mg/kg		U	1.1		U	1.1		U	1.1		U	1		U	0.98		U	1		U	1		U	1.1		U	0.98	
Silver	5800	mg/kg		U	0.54		U	0.55		U	0.53		U	0.52		U	0.49		U	0.52		U	0.5		U	0.55		U	0.49	
<b>Conventionals</b>																														
Percent Moisture	NC	%	13.1		0.1	11		0.1	13.8		0.1	7.4		0.1	9.8		0.1	12.1		0.1	7.3		0.1	15.2		0.1	9.4		0.1	
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			11.3	J	0.1	8.4	J	0.1	7.9	J	0.1

J - Denotes an estimated reporting limit  
mg/kg - milligram per kilogram  
NA - Not Analyzed for this parameter  
Q - Qualifier  
RL - Reporting Limit  
R - Rejected  
U - Analyte was not detected at or above the reporting  
UJ - Denotes an estimated reporting limit  
NC - No Criteria  
RCG - Remediation Closure Guide  
**Bolding indicates exceedances of IDEM 2018 RCG  
Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non- Residential	Units	R20-5-6			R21-0-1			R21-1-2			R21-3-4			R21-5-6			R22-0-1			R22-1-2			R22-3-4			R22-5-6			R22	
Lab ID			Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	
Sample Date			5/1/2018			5/1/2018			5/1/2018			5/1/2018			5/1/2018			4/30/2018			4/30/2018			4/30/2018			4/30/2018			4/30	
Matrix			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			S	
Remarks																															
Parameter	Limit																														
<b>Total Metals</b>																															
Arsenic	30	mg/kg	11.9		0.99	6.9		0.98	5.7		1	5		1.1	6.6		1	14.9		1	12.1		1.1	7.8		1	9.4		1.1	11.2	
Barium	100000	mg/kg	143	J	0.99	16.5	J	0.98	19.2	J	1	20.3	J	1.1	19.8	J	1	158	J	1	116	J	1.1	51.1	J	1	64.6	J	1.1	557	
Cadmium	980	mg/kg	1.2		0.5		U	0.49			U	0.51		U	0.54		U	0.52	0.45	J	0.51		U	0.57		U	0.51		U	0.54	6.9
Chromium	NC	mg/kg	15.8		0.99	6		0.98	12.9		1	6.3		1.1	8.2		1	10.5		1	22.6		1.1	10.3		1	14.6		1.1	16	
Lead	800	mg/kg	71.6	J	0.99	6	J	0.98	5.1	J	1	18.6	J	1.1	10.1	J	1	452		1	15.6		1.1	6.5		1	9.3		1.1	<b>4250</b>	
Mercury	3.1	mg/kg	0.075	J	0.23		U	0.21		U	0.24		U	0.23		U	0.22	0.025	J	0.22	0.017	J	0.24		UJ	0.22	0.027	J	0.23	0.14	
Selenium	5800	mg/kg		U	0.99		U	0.98		U	1		U	1.1		U	1		U	1		U	1.1		U	1		U	1.1		
Silver	5800	mg/kg		U	0.5		U	0.49		U	0.51		U	0.54		U	0.52		U	0.51		U	0.57		U	0.51		U	0.54		
<b>Conventionals</b>																															
Percent Moisture	NC	%	14.7		0.1	7.4		0.1	10.6		0.1	8.8		0.1	12		0.1	13.1		0.1	19		0.1	10.8		0.1	14		0.1	20.1	
pH at 25 Degrees C	NC	Std. Units	8	J	0.1	8.4	J	0.1	8	J	0.1	7.9	J	0.1	10.9	J	0.1		NA			NA			NA			NA			

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non- Residential	3-0-1			R23-1-2			R23-3-4			R23-5-6			R24-0-1			R24-1-2			R24-3-4			R24-5-6			R25-0-1			R25-1-2		
Lab ID		774006	50195774007			50195774008			50195774009			50195670048			50195670049			50195670050			50195670051			50195670011			5019567001				
Sample Date	4/2018	4/30/2018			4/30/2018			4/30/2018			4/27/2018			4/27/2018			4/27/2018			4/27/2018			4/27/2018			4/27/2018					
Matrix	oil	Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil					
Remarks																															
Parameter	Limit	Units	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL			
<b>Total Metals</b>																															
Arsenic	30	mg/kg		1.1	7.6		1.1	9		1.1	7		1.1	9.2		1	6.7		1	7.2		0.9	7.1		1.1	10.5		1.1	7.6		
Barium	100000	mg/kg		1.1	142	J	1.1	177		1.1	54.6		1.1	50.8	J	1	32.6	J	1	93.2	J	0.9	1100	J	1.1	87.7		1.1	166	J	
Cadmium	980	mg/kg		0.57		UJ	0.55		U	0.57	0.31	J	0.55		U	0.5		U	0.52	0.29	J	0.45	1.5		0.54	1		0.54	0.57		
Chromium	NC	mg/kg		1.1	19.4		1.1	16.3		1.1	10.7		1.1	11.3		1	8.5		1	9.6		0.9	9.6		1.1	15.1		1.1	13		
Lead	800	mg/kg		1.1	15	J	1.1	16.2		1.1	10.4		1.1	9.6		1	6.1		1	38.6		0.9	297		1.1	45.8	J	1.1	21.6	J	
Mercury	3.1	mg/kg	J	0.24	0.025	J	0.25	0.041	J	0.24		U	0.23	0.018	J	0.21	0.019	J	0.23		U	0.21	0.13	J	0.24		U	0.24	0.025	J	
Selenium	5800	mg/kg	UJ	1.1		UJ	1.1		UJ	1.1		UJ	1.1		U	1		U	1		U	0.9		U	1.1	0.9	J	1.1	U		
Silver	5800	mg/kg	U	0.57		U	0.55		U	0.57		U	0.55		U	0.5		U	0.52		U	0.45		U	0.54		U	0.54	U		
<b>Conventionals</b>																															
Percent Moisture	NC	%	J	0.1	20		0.1	18.9		0.1	13.8		0.1	9.5		0.1	10.7		0.1	6.5		0.1	19.4		0.1	15.2		0.1	17.3		
pH at 25 Degrees C	NC	Std. Units	NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	

J - Denotes an estimated reporting limit  
mg/kg - milligram per kilogram  
NA - Not Analyzed for this parameter  
Q - Qualifier  
RL - Reporting Limit  
R - Rejected  
U - Analyte was not detected at or above the reporting limit  
UJ - Denotes an estimated reporting limit  
NC - No Criteria  
RCG - Remediation Closure Guide  
**Bolding indicates exceedances of IDEM 2018 RCG  
Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	R25-3-4			R25-5-6			R26-0-1			R26-1-2			R26-3-4			R26-5-6			R27-0-1			R27-1-2			R27-3-4					
Lab ID		2	50195670013			50195670014			50195862088			50195862089			50195862090			50195862091			50195862104			50195862105			50195862106				
Sample Date			4/27/2018			4/27/2018			5/2/2018			5/2/2018			5/2/2018			5/2/2018			5/2/2018			5/2/2018			5/2/2018				
Matrix			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil				
Remarks																															
Parameter	Limit	Units	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL				
<b>Total Metals</b>																															
Arsenic	30	mg/kg	1	8.7		1.2	9.2		1.1	10.2		1	6.2		1.1	12.7		1.1	7.5		1.1	13.2		1.1	12		1.3	7.1		0.94	
Barium	100000	mg/kg	1	111		1.2	89.8		1.1	83.7	J	1	91.2	J	1.1	88		1.1	48.8	J	1.1	96.7	J	1.1	186	J	1.3	41.8	J	0.94	
Cadmium	980	mg/kg	0.5		U	0.58		U	0.56	0.45	J	0.51		U	0.56		U	0.55		U	0.54	0.41	J	0.65	0.24	J	0.47				
Chromium	NC	mg/kg	1	20.6		1.2	17		1.1	11.8	J	1	13.6	J	1.1	15.3		1.1	12.6	J	1.1	23.2		1.1	25.3		1.3	11.1		0.94	
Lead	800	mg/kg	1	9.6	J	1.2	9.2	J	1.1	145	J	1	83.2	J	1.1	20		1.1	6.3	J	1.1	14.8	J	1.1	17.9	J	1.3	5.6	J	0.94	
Mercury	3.1	mg/kg	0.25	0.034	J	0.27		U	0.23	0.023	J	0.23	0.023	J	0.25	0.034	J	0.23		U	0.23	0.024	J	0.23	0.058	J	0.28		UJ	0.22	
Selenium	5800	mg/kg	1		U	1.2		U	1.1		U	1		U	1.1		U	1.1		U	1.1		U	1.1		U	1.3		U	0.94	
Silver	5800	mg/kg	0.5		U	0.58		U	0.56		U	0.51		U	0.56		U	0.55		U	0.54		U	0.54		U	0.65		U	0.47	
<b>Conventionals</b>																															
Percent Moisture	NC	%	0.1	20.4		0.1	16.6		0.1	9		0.1	17.5		0.1	19		0.1	11.5		0.1	17.1		0.1	24.6		0.1	11.5		0.1	
pH at 25 Degrees C	NC	Std. Units			NA			NA			NA			NA			NA			NA			NA			NA			NA		NA

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non- Residential Limit	R27-5-6			R28-0-1			R28-1-2			R28-3-4			R28-5-6			R29-0-1			R29-1-2			R29-3-4			R30-0-1			R30-1-2			
Lab ID		50195862107			50195862057			50195862058			50195862059			50195862060			50195862023			50195862024			50195862025			50195862012			501958620			
Sample Date		5/2/2018			5/1/2018			5/1/2018			5/1/2018			5/1/2018			5/1/2018			5/1/2018			5/1/2018			5/1/2018			5/1/2018			
Matrix		Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			
Remarks																																
Parameter	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	
<b>Total Metals</b>																																
Arsenic	30	mg/kg	7.1		0.98	6.9		1	8.4		1	6.3		1.1	7		1.1	5.8		1	5.5		0.99	8.1		0.94	6.1		0.94	5.8		
Barium	100000	mg/kg	66.4	J	0.98	16.7		1	50.1		1	30.8		1.1	34.4		1.1	13.4	J	1	17.2	J	0.99	23.7	J	0.94	16.1	J	0.94	22.1	J	
Cadmium	980	mg/kg		U	0.49		U	0.5	0.75		0.51	4.5		0.55		U	0.55		U	0.5		U	0.5		U	0.47		U	0.47		U	
Chromium	NC	mg/kg	17.5		0.98	5.8		1	15.2		1	26.4		1.1	9.6		1.1	5.6		1	5.7		0.99	8.6		0.94	7.7		0.94	7.8		
Lead	800	mg/kg	11.3	J	0.98	12.4		1	9.8	J	1	5.3	J	1.1	41.6	J	1.1	12.1	J	1	4.8	J	0.99	10.2	J	0.94	6	J	0.94	8.6	J	
Mercury	3.1	mg/kg		UJ	0.24	0.019	J	0.2		U	0.23		U	0.25		U	0.23		U	0.22		U	0.22		U	0.22		U	0.22		U	
Selenium	5800	mg/kg		U	0.98		U	1		U	1		U	1.1		U	1.1		U	1		U	0.99		U	0.94		U	0.94		U	
Silver	5800	mg/kg		U	0.49		U	0.5		U	0.51		U	0.55		U	0.55		U	0.5		U	0.5		U	0.47		U	0.47		U	
<b>Conventionals</b>																																
Percent Moisture	NC	%	14.2		0.1	5	J	0.1	11.7		0.1	19		0.1	10.9		0.1	6.5		0.1	8.3		0.1	9.7		0.1	10.1		0.1	8.7		
pH at 25 Degrees C	NC	Std. Units		NA		7	J	0.1	7	J	0.1	7.3	J	0.1	7.9	J	0.1	7.6	J	0.1	7.5	J	0.1	7.6	J	0.1	8.7	J	0.1	8.2	J	

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non- Residential	R30-3-4			R30-5-6			R31-0-1			R31-1-2			R31-3-4			R31-5-6			R32-0-1			R32-1-2			R32-3-4				
Lab ID		13	50195862014			50195862015			50195774042			50195774043			50195774044			50195774045			50195774012			50195774013			50195774014			
Sample Date		5/1/2018			5/1/2018			4/30/2018			4/30/2018			4/30/2018			4/30/2018			4/30/2018			4/30/2018			4/30/2018				
Matrix		Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil				
Remarks																														
Parameter	Limit	Units	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL			
<b>Total Metals</b>																														
Arsenic	30	mg/kg	0.98	6.5		1	6.9		1.1	7.3		1	7.1		0.98	7.4		1	7.6		1	10.2		1.1	11		1.2	10.2		1.1
Barium	100000	mg/kg	0.98	18.9	J	1	158	J	1.1	47.4	J	1	39	J	0.98	41.4	J	1	43.8	J	1	200		1.1	103		1.2	159		1.1
Cadmium	980	mg/kg	0.49	0.34	J	0.52	3.2		0.57	0.26	J	0.51		U	0.49		U	0.51		U	0.5	0.45	J	0.57		U	0.59	0.33	J	0.56
Chromium	NC	mg/kg	0.98	8.4		1	13.4		1.1	9.4		1	9.1		0.98	9.3		1	9.7		1	12.7		1.1	23.9		1.2	17.3		1.1
Lead	800	mg/kg	0.98	5.7	J	1	313	J	1.1	8.3		1	6.8		0.98	5.9		1	5.9		1	223		1.1	13.4		1.2	21.2		1.1
Mercury	3.1	mg/kg	0.23		U	0.21	0.088	J	0.23		U	0.21		U	0.22		UJ	0.24		UJ	0.22	0.025	J	0.23	0.043	J	0.26	0.038	J	0.23
Selenium	5800	mg/kg	0.98		U	1		U	1.1		U	1		U	0.98		U	1		U	1		UJ	1.1		UJ	1.2		UJ	1.1
Silver	5800	mg/kg	0.49		U	0.52	24.6		0.57		U	0.51		U	0.49		U	0.51		U	0.5		U	0.57		U	0.59		U	0.56
<b>Conventionals</b>																														
Percent Moisture	NC	%	0.1	8.3		0.1	13.1		0.1	8.7		0.1	9.1		0.1	10.1		0.1	9.6		0.1	16.8		0.1	19.5		0.1	16.6		0.1
pH at 25 Degrees C	NC	Std. Units	0.1	8.3	J	0.1	7.5	J	0.1		NA			NA			NA			NA			NA			NA			NA	

J - Denotes an estimated reporting limit  
mg/kg - milligram per kilogram  
NA - Not Analyzed for this parameter  
Q - Qualifier  
RL - Reporting Limit  
R - Rejected  
U - Analyte was not detected at or above the reporting limit  
UJ - Denotes an estimated reporting limit  
NC - No Criteria  
RCG - Remediation Closure Guide  
**Bolding indicates exceedances of IDEM 2018 RCG  
Soil Direct Contact Non-Residential**



TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	R32-5-6			R33-0-1			R33-1-2			R33-3-4			R33-5-6			R34-0-1			R34-1-2			R34-3-4			R34-5-6					
Lab ID		50195774015	50195670043			50195670044			50195670045			50195670046			50195670017			50195670018			50195670019			50195670020							
Sample Date		4/30/2018			4/27/2018			4/27/2018			4/27/2018			4/27/2018			4/27/2018			4/27/2018			4/27/2018			4/27/2018					
Matrix		Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil					
Remarks																															
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL					
<b>Total Metals</b>																															
Arsenic	30	mg/kg	8.5		1	7.2		1.1	10		1.2	12.7		1.3	13.7		1.2	6.4		1	5.4		1.1	6.7		1.1	8.4		1.1		
Barium	100000	mg/kg	132		1	94.6	J	1.1	78	J	1.2	96.4	J	1.3	142	J	1.2	39.7		1	62.3		1.1	120		1.1	97.4		1.1		
Cadmium	980	mg/kg	0.28	J	0.52			U	0.54			U	0.59		U	0.63	0.41	J	0.61		U	0.52		U	0.55		U	0.56		U	0.55
Chromium	NC	mg/kg	15.2		1	13.5		1.1	17.2		1.2	17.2		1.3	21.4		1.2	7.9		1	11.1		1.1	14.5		1.1	15.3		1.1		
Lead	800	mg/kg	28		1	19.4		1.1	<b>1380</b>		1.2	10		1.3	30.5		1.2	15.9	J	1	12.9	J	1.1	11.7	J	1.1	11.1	J	1.1		
Mercury	3.1	mg/kg	0.025	J	0.23	0.039	J	0.23	0.035	J	0.25	0.045	J	0.27	0.056	J	0.26		U	0.23		U	0.25		U	0.24	0.016	J	0.23		
Selenium	5800	mg/kg			UJ	1		U	1.1		U	1.2		U	1.3		U	1.2		U	1		U	1.1		U	1.1		U	1.1	
Silver	5800	mg/kg			U	0.52		U	0.54		U	0.59		U	0.63		U	0.61		U	0.52		U	0.55		U	0.56		U	0.55	
<b>Conventionals</b>																															
Percent Moisture	NC	%	13.5		0.1	16.3		0.1	16.8		0.1	22		0.1	21.5		0.1	9.1		0.1	18.5		0.1	18.5		0.1	19.2		0.1		
pH at 25 Degrees C	NC	Std. Units			NA			NA			NA			NA			NA			NA			NA			NA		NA		NA	

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	R35-0-1			R35-1-2			R35-3-4			R35-5-6			R36-0-1			R36-1-2			R36-3-4			R36-5-6			R37-0-1				
Lab ID		50195670001	50195670002	50195670003	50195670004	50195862130	50195862131	50195862132	50195862133	50196014001																				
Sample Date	4/27/2018	4/27/2018	4/27/2018	4/27/2018	5/2/2018	5/2/2018	5/2/2018	5/2/2018	5/3/2018																					
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil																					
Remarks																														
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL				
<b>Total Metals</b>																														
Arsenic	30	mg/kg	6.8		1.2	5.9		1.2	8.3		1.1	6.9		1.1	8.5		0.98	9.1		1	6.5		1.2	15		1	9.8		1.2	
Barium	100000	mg/kg	177		1.2	131		1.2	101		1.1	51		1.1	54.7		0.98	305		1	113		1.2	70.4		1	532		1.2	
Cadmium	980	mg/kg	0.33	J	0.58		U	0.59			U	0.53		U	0.53	0.54		0.49	1.4		0.51	0.34	J	0.58	0.5	J	0.51	1.9	0.62	
Chromium	NC	mg/kg	15.4		1.2	13.8		1.2	16.1		1.1	12.7		1.1	14.6		0.98	12.8		1	18.9		1.2	11		1	45.9		1.2	
Lead	800	mg/kg	38.4	J	1.2	23	J	1.2	8.1	J	1.1	6.3	J	1.1	630	J	0.98	70.6	J	1	13.6	J	1.2	11.1	J	1	779		1.2	
Mercury	3.1	mg/kg	0.029	J	0.24	0.022	J	0.25		U	0.25		U	0.24	0.063	J	0.23	0.04	J	0.22	0.049	J	0.23		U	0.23	0.79	0.24		
Selenium	5800	mg/kg		U	1.2		U	1.2		U	1.1		U	1.1		U	0.98	0.53	J	1		U	1.2		U	1	0.79	J	1.2	
Silver	5800	mg/kg		U	0.58		U	0.59		U	0.53		U	0.53		U	0.49	1.1		0.51		U	0.58		U	0.51	1.4		0.62	
<b>Conventionals</b>																														
Percent Moisture	NC	%	17.5		0.1	20.5		0.1	18		0.1	11.8		0.1	7.7		0.1	13		0.1	19.6		0.1	12.9	J	0.1	19.9		0.1	
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA		NA

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	R37-1-2			R37-3-4			R37-5-6			R37-7-8			R38-0-1			R38-1-2			R38-2-3			R38-3-4			R38-5-6				
Lab ID		50196014002	50196014003	50196014004	50196014005	50195431013	50195431014	50195431015	50195431016	50195431017																				
Sample Date	5/3/2018	5/3/2018	5/3/2018	5/3/2018	4/26/2018	4/26/2018	4/26/2018	4/26/2018	4/26/2018																					
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil																					
Remarks																														
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL				
<b>Total Metals</b>																														
Arsenic	30	mg/kg	11.8		1	8.9		1.3	15.7		1.2	11.5		5.9	4.9		1.2	6.6		0.93	8.4		1.1	7.1		1	5.5		1.1	
Barium	100000	mg/kg	599		1	138		1.3	132		1.2	61.3		5.9	94.3		1.2	39.7		0.93	34.6		1.1	41.1		1	12		1.1	
Cadmium	980	mg/kg	3.8		0.52		U	0.64			U	0.6		1.2		U	0.62		U	0.47	0.33	J	0.55	0.26	J	0.51		U	0.57	
Chromium	NC	mg/kg	25.9		1	26.6		1.3	22		1.2	16.4		5.9	4.9		1.2	9.2		0.93	10		1.1	7.3		1	5		1.1	
Lead	800	mg/kg	232		1	22.4		1.3	26.2		1.2	16.4		5.9	299		1.2	15.5	J	0.93	6.5		1.1	5.5		1	4.8		1.1	
Mercury	3.1	mg/kg	0.045	J	0.26	0.026	J	0.24		U	0.25		U	0.24	0.078	J	0.26		U	0.23		U	0.23		U	0.22		U	0.24	
Selenium	5800	mg/kg		U	1		U	1.3		U	1.2		U	2.4		U	1.2		U	0.93		U	1.1		U	1		U	1.1	
Silver	5800	mg/kg	2.5		0.52		U	0.64		U	0.6		U	1.2		U	0.62		U	0.47		U	0.55		U	0.51		U	0.57	
<b>Conventionals</b>																														
Percent Moisture	NC	%	20.4		0.1	22.1		0.1	17.8		0.1	20.2		0.1	21.7		0.1	10.2		0.1	10.4		0.1	9.8		0.1	15.7		0.1	
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA		NA

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	R38-7-8			R39-0-1			R39-1-2			R39-3-4			R39-5-6			R40-0-1			R40-1-2			R40-3-4			R40-5-6				
Lab ID		50195431018	50195862017	50195862018	50195862019	50195862020	50195774037	50195774038	50195774039	50195774040																				
Sample Date	4/26/2018	5/1/2018	5/1/2018	5/1/2018	5/1/2018	4/30/2018	4/30/2018	4/30/2018	4/30/2018																					
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil																					
Remarks																														
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL				
<b>Total Metals</b>																														
Arsenic	30	mg/kg	7.5		1.1	12.1		1.1	10.8	J	1.1	8.1		1.2	13.9		1.2	10.5		1	5.5		1.1	7.9		1.1	10.4		1	
Barium	100000	mg/kg	28.8		1.1	632		1.1	90.8	J	1.1	2580	J	3.5	76.6	J	1.2	18.8	J	1	98.3	J	1.1	151	J	1.1	74.3	J	1	
Cadmium	980	mg/kg		U	0.57	1.9		0.54	2.7	J	0.56	7.2		0.58		U	0.61		U	0.52		U	0.53		U	0.53	0.32	J	0.51	
Chromium	NC	mg/kg	10.1		1.1	38.4	J	1.1	6.2	J	1.1	26.8		1.2	19.5		1.2	5.3		1	11.1		1.1	15.7		1.1	14.8		1	
Lead	800	mg/kg	6		1.1	<b>7450</b>	J	2.1	<b>1970</b>	J	1.1	302	J	1.2	16.9	J	1.2	5.6	J	1	16.6		1.1	6.7		1.1	8.2		1	
Mercury	3.1	mg/kg		U	0.24	0.084	J	0.25	0.19	J	0.24	0.055	J	0.25	0.051	J	0.24	0.021	J	0.22	0.58		0.24	0.034	J	0.23		U	0.23	
Selenium	5800	mg/kg		U	1.1	0.73	J	1.1		U	1.1		U	1.2		U	1.2		U	1		U	1.1		U	1.1		U	1	
Silver	5800	mg/kg		U	0.57	2.8		0.54	0.48	J	0.56		U	0.58		U	0.61		U	0.52		U	0.53		U	0.53		U	0.51	
<b>Conventionals</b>																														
Percent Moisture	NC	%	19.4		0.1	13.6	J	0.1	12.7		0.1	16.4		0.1	20.3		0.1	13.6		0.1	18.1		0.1	15.3		0.1	12		0.1	
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA		0.1

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	R41-0-1			R41-1-2			R41-3-4			R41-5-6			R42-0-1			R42-1-2			R42-3-4			R42-5-6			R43-0-1				
Lab ID		50195774017	50195774018	50195774019	50195774020	50195670038	50195670039	50195670040	50195670041	50195670022																				
Sample Date	4/30/2018	4/30/2018	4/30/2018	4/30/2018	4/27/2018	4/27/2018	4/27/2018	4/27/2018	4/27/2018																					
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil																					
Remarks																														
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL				
<b>Total Metals</b>																														
Arsenic	30	mg/kg	8.4		0.97	5.8		1.2	10.5		1.1	6.5		1.1	14.8		1	10.4		1.2	5.4		1.1	6.7		1.1	5.3		1.1	
Barium	100000	mg/kg	193		0.97	115		1.2	108		1.1	114		1.1	61.6	J	1	86.5	J	1.2	157	J	1.1	171	J	1.1	84.1		1.1	
Cadmium	980	mg/kg	0.75		0.49		U	0.61		U	0.55		U	0.53		U	0.51		U	0.61		U	0.57	0.3	J	0.55		U	0.54	
Chromium	NC	mg/kg	13.5		0.97	21.8		1.2	16.8		1.1	21.1		1.1	29.3		1	17.2		1.2	18.3		1.1	26.9		1.1	12.1		1.1	
Lead	800	mg/kg	<b>3530</b>		0.97	12.9		1.2	19.6		1.1	32.5		1.1	96.8		1	12.2		1.2	10.2		1.1	7.8		1.1	27.3	J	1.1	
Mercury	3.1	mg/kg	0.25		0.22	0.043	J	0.26	0.031	J	0.24	0.028	J	0.23		U	0.22		U	0.27	0.032	J	0.25		U	0.24	0.02	J	0.24	
Selenium	5800	mg/kg		UJ	0.97		UJ	1.2		UJ	1.1		U	1.1	0.82	J	1		U	1.2		U	1.1		U	1.1		U	1.1	
Silver	5800	mg/kg		U	0.49		U	0.61		U	0.55		U	0.53	0.66		0.51		U	0.61		U	0.57		U	0.55		U	0.54	
<b>Conventionals</b>																														
Percent Moisture	NC	%	9.1		0.1	22.6		0.1	19.3		0.1	16.8		0.1	13.9		0.1	24.7		0.1	19.1		0.1	19.2		0.1	14.4		0.1	
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA		0.1

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	R43-1-2			R43-3-4			R43-5-6			R44-0-1			R44-1-2			R44-3-4			R44-5-6			R45-0-1			R45-1-2				
Lab ID		50195670023	50195670024	50195670025	50195431036	50195431037	50195431038	50195431039	50195431025	50195431026																				
Sample Date	4/27/2018	4/27/2018	4/27/2018	4/26/2018	4/26/2018	4/26/2018	4/26/2018	4/26/2018	4/26/2018																					
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil																					
Remarks																														
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL				
<b>Total Metals</b>																														
Arsenic	30	mg/kg	6.7		1.1	8.5		1.2	7.6		1.2	7.4		1.1	6.1		1.2	10.9		1.1	9.8		1.2	9.2		1.1	9.6		1.2	
Barium	100000	mg/kg	60.6		1.1	87.5		1.2	91.1		1.2	276		1.1	106		1.2	132		1.1	33.6		1.2	147		1.1	134		1.2	
Cadmium	980	mg/kg		U	0.56			U	0.62		U	0.58	1.1		0.55	2.3		0.61	0.33	J	0.53	0.35	J	0.58	0.3	J	0.53	0.37	J	0.61
Chromium	NC	mg/kg	15.8		1.1	20.2		1.2	19.7		1.2	13.2		1.1	14.6		1.2	19		1.1	8.5		1.2	21.8		1.1	20.4		1.2	
Lead	800	mg/kg	10.1	J	1.1	11	J	1.2	9.2	J	1.2	61.3	J	1.1	23.8	J	1.2	12.1	J	1.1	6.1	J	1.2	11.5		1.1	10.5		1.2	
Mercury	3.1	mg/kg		U	0.24	0.035	J	0.27	0.026	J	0.26	0.044	J	0.24	0.021	J	0.24	0.025	J	0.26		U	0.24	0.035	J	0.25		U	0.26	
Selenium	5800	mg/kg		U	1.1			U	1.2		U	1.2	0.75	J	1.1		U	1.2		U	1.1		U	1.2		U	1.1		U	1.2
Silver	5800	mg/kg		U	0.56			U	0.62		U	0.58		U	0.55		U	0.61		U	0.53		U	0.58		U	0.53		U	0.61
<b>Conventionals</b>																														
Percent Moisture	NC	%	17.8		0.1	25.2		0.1	19.9		0.1	19.2		0.1	19.7		0.1	21.5		0.1	13.9		0.1	20.9		0.1	20.9		0.1	
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA		NA

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	R45-3-4			R45-5-6			R46-0-1			R46-1-2			R46-3-4			R46-5-6			R46-7-8			R47-0-1			R47-1-2			
Lab ID		50195431027	50195431028	50196014017	50196014018	50196014019	50196014020	50196014021	50196014012	50196014013																			
Sample Date	4/26/2018	4/26/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018																				
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil																				
Remarks																													
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL			
<b>Total Metals</b>																													
Arsenic	30	mg/kg	7.8		1	8.3		1	8.8		0.98	9.8		1	7.7		1.3	10.3		1.1	9.8		1.1	7.9		1.2	8.7		1.1
Barium	100000	mg/kg	54.2		1	53		1	70.3	J	0.98	179	J	1	137	J	1.3	113	J	1.1	155	J	1.1	156	J	1.2	127	J	1.1
Cadmium	980	mg/kg	0.32	J	0.5		U	0.51	0.37	J	0.49	5.4		0.5	0.67		0.64		U	0.56	0.3	J	0.54	1.3		0.58	1.1		0.53
Chromium	NC	mg/kg	10.6		1	12		1	6.9	J	0.98	6.5	J	1	15	J	1.3	19.7	J	1.1	15.3	J	1.1	12.9	J	1.2	15.7	J	1.1
Lead	800	mg/kg	6.3		1	7.3	J	1	117	J	0.98	46.7	J	1	16.8	J	1.3	10.5	J	1.1	9.8	J	1.1	319	J	1.2	90.6	J	1.1
Mercury	3.1	mg/kg		U	0.24		U	0.24	0.067	J	0.21		U	0.22	0.036	J	0.25	0.03	J	0.24	0.035	J	0.25	0.14	J	0.23	0.035	J	0.22
Selenium	5800	mg/kg		U	1		U	1		U	0.98	0.94	J	1	1	J	1.3		U	1.1		U	1.1		U	1.2		U	1.1
Silver	5800	mg/kg		U	0.5		U	0.51		U	0.49		U	0.5		U	0.64		U	0.56		U	0.54	1.4		0.58	1.1		0.53
<b>Conventionals</b>																													
Percent Moisture	NC	%	10.9		0.1	11.2		0.1	8.6		0.1	12.7		0.1	24.7		0.1	19.1		0.1	21.1		0.1	15.4		0.1	13.4		0.1
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA	

J - Denotes an estimated reporting limit  
mg/kg - milligram per kilogram  
NA - Not Analyzed for this parameter  
Q - Qualifier  
RL - Reporting Limit  
R - Rejected  
U - Analyte was not detected at or above the reporting limit  
UJ - Denotes an estimated reporting limit  
NC - No Criteria  
RCG - Remediation Closure Guide  
**Bolding indicates exceedances of IDEM 2018 RCG**  
**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	R47-3-4				R47-5-6				R47-7-8				R48-0-1				R48-1-2				R48-3-4				R48-5-6				R48-7-8				R49-0-1			
Lab ID		50196014014	50196014015	50196014016	50195431008	50195431009	50195431010	50195431011	50195431012	50195431001																											
Sample Date	5/3/2018	5/3/2018	5/3/2018	4/26/2018	4/26/2018	4/26/2018	4/26/2018	4/26/2018	4/26/2018																												
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil																												
Remarks																																					
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL								
<b>Total Metals</b>																																					
Arsenic	30	mg/kg	3.1		1.4	3.1		1.2	2.8		1.1	7.9		1.1	6.8		1.1	7.8		1.1	5.5		1	5.6		1	7		1								
Barium	100000	mg/kg	147	J	1.4	78.9	J	1.2	43.1	J	1.1	38.3		1.1	34.3		1.1	43.6		1.1	28.6		1	35.8		1	264	J	1								
Cadmium	980	mg/kg		U	0.68		U	0.58	0.41	J	0.56		U	0.53	0.29	J	0.54		U	0.55	0.25	J	0.5		U	0.52	0.65		0.52								
Chromium	NC	mg/kg	18.5	J	1.4	12.9	J	1.2	10.5	J	1.1	8.6		1.1	8.5		1.1	9.9		1.1	8.8		1	8.9		1	10.2		1								
Lead	800	mg/kg	10.8	J	1.4	11.4	J	1.2	9	J	1.1	5.1		1.1	4.7		1.1	19.8		1.1	5.8		1	5.6		1	188	J	1								
Mercury	3.1	mg/kg	0.07	J	0.28	0.037	J	0.26		U	0.26		U	0.22		U	0.22		U	0.22		U	0.21		U	0.21	0.11	J	0.23								
Selenium	5800	mg/kg	1.1	J	1.4		U	1.2	1.8		1.1		U	1.1		U	1.1		U	1.1	0.68	J	1		U	1		U	1								
Silver	5800	mg/kg		U	0.68		U	0.58		U	0.56		U	0.53		U	0.54		U	0.55		U	0.5		U	0.52	6.6		0.52								
<b>Conventionals</b>																																					
Percent Moisture	NC	%	30.4		0.1	21.5		0.1	21.7		0.1	9.8		0.1	10.3		0.1	12.6		0.1	9.9		0.1	9.7		0.1	13.8		0.1								
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA		NA							

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**



TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	R49-1-2			R49-2-3			R49-3-4			R49-5-6			R49-7-8			R50-0-1			R50-1-2			R50-3-4			R50-5-6			
Lab ID		50195431002	50195431003	50195431004	50195431005	50195431006	50195774032	50195774033	50195774034	50195774035																			
Sample Date	4/26/2018	4/26/2018	4/26/2018	4/26/2018	4/26/2018	4/30/2018	4/30/2018	4/30/2018	4/30/2018																				
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil																				
Remarks																													
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL			
<b>Total Metals</b>																													
Arsenic	30	mg/kg	7.3		1	7.6		1	7.2		0.98	7.6		1.1	6.7		1.1	10.1		1.1	11.1		1.2	13.4		1.1	5.4		1.1
Barium	100000	mg/kg	53.6	J	1	55.2	J	1	40	J	0.98	39.4	J	1.1	227	J	1.1	118	J	1.1	113	J	1.2	64.7	J	1.1	110	J	1.1
Cadmium	980	mg/kg	0.28	J	0.51	0.31	J	0.5	0.25	J	0.49		U	0.54	0.58		0.53		U	0.54	0.33	J	0.58		U	0.57		U	0.54
Chromium	NC	mg/kg	10.5		1	9.5		1	10.5		0.98	10.6		1.1	10.9		1.1	19.8		1.1	18.6		1.2	22.2		1.1	22.7		1.1
Lead	800	mg/kg	14.9	J	1	12.2	J	1	5.9	J	0.98	6.4	J	1.1	108	J	1.1	8.2	J	1.1	10.4	J	1.2	11	J	1.1	9.2	J	1.1
Mercury	3.1	mg/kg		U	0.23		U	0.23		U	0.22		U	0.22	0.032	J	0.24	0.04	J	0.23	0.04	J	0.26	0.038	J	0.25	0.021	J	0.25
Selenium	5800	mg/kg		U	1		U	1		U	0.98		U	1.1		U	1.1		U	1.1		U	1.2		U	1.1		U	1.1
Silver	5800	mg/kg		U	0.51		U	0.5		U	0.49		U	0.54	27.1		0.53		U	0.54		U	0.58		U	0.57		U	0.54
<b>Conventionals</b>																													
Percent Moisture	NC	%	11		0.1	9.6		0.1	10.1		0.1	10.3		0.1	12.1		0.1	17.9		0.1	19.4		0.1	17.8		0.1	20		0.1
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA	

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	R50-7-8			R51-0-1			R51-1-2			R51-3-4			R51-5-6			R52-0-1			R52-1-2			R52-3-4			R52-5-6			
Lab ID		50195774036	50195774027	50195774028	50195774029	50195774030	50195670032	50195670033	50195670034	50195670035																			
Sample Date		4/30/2018	4/30/2018	4/30/2018	4/30/2018	4/30/2018	4/27/2018	4/27/2018	4/27/2018	4/27/2018																			
Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil																				
Remarks																													
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL			
<b>Total Metals</b>																													
Arsenic	30	mg/kg	6.6		0.98	10		1.2	9.5		1.1	6.5		1	7.2		0.99	10.1		1.2	10.7		1.2	11.2		1.2	10.4		1.2
Barium	100000	mg/kg	43.7	J	0.98	134	J	1.2	55	J	1.1	40.6	J	1	37.4	J	0.99	121	J	1.2	94.6	J	1.2	94.6	J	1.2	130	J	1.2
Cadmium	980	mg/kg	0.29	J	0.49		U	0.59		U	0.57		U	0.52		U	0.49		U	0.6		U	0.6		U	0.61		U	0.58
Chromium	NC	mg/kg	9.5		0.98	19.5		1.2	19.6		1.1	10.2		1	10.8		0.99	18.4		1.2	23		1.2	17.3		1.2	19.5		1.2
Lead	800	mg/kg	5.5	J	0.98	12.8	J	1.2	13.7	J	1.1	11.6	J	1	170	J	0.99	13.4		1.2	9.5	J	1.2	10.8		1.2	11.9		1.2
Mercury	3.1	mg/kg		U	0.21	0.042	J	0.26	0.021	J	0.23		U	0.22		U	0.21		U	0.24	0.026	J	0.24		U	0.24	0.019	J	0.25
Selenium	5800	mg/kg		U	0.98		U	1.2		U	1.1		U	1		U	0.99		U	1.2		U	1.2		U	1.2		U	1.2
Silver	5800	mg/kg		U	0.49		U	0.59		U	0.57		U	0.52		U	0.49		U	0.6		U	0.6		U	0.61		U	0.58
<b>Conventionals</b>																													
Percent Moisture	NC	%	9.8		0.1	18.8		0.1	16.7		0.1	11.5		0.1	9.6		17.9	19	J	0.1	20.3		0.1	18.6		0.1	18.3		0.1
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA	

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	R53-0-1			R53-1-2			R53-3-4			R53-5-6			R54-0-1			R54-1-2			R54-3-4			R54-5-6			R55-0-1				
Lab ID		50195670027	50195670028	50195670029	50195670030	50195431030	50195431031	50195431032	50195431033	50195431020																				
Sample Date	4/27/2018	4/27/2018	4/27/2018	4/27/2018	4/26/2018	4/26/2018	4/26/2018	4/26/2018	4/26/2018																					
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil																					
Remarks																														
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL				
<b>Total Metals</b>																														
Arsenic	30	mg/kg	16		1.3	7.8		1.2	5.4		1.2	5.2		1.1	7.5		1	5.5		1.2	4.9		1.1	4.2		1.2	8.4		1.2	
Barium	100000	mg/kg	113		1.3	206		1.2	94.7		1.2	121	J	1.1	53.3		1	76.8		1.2	138		1.1	107		1.2	131		1.2	
Cadmium	980	mg/kg		U	0.63	0.36	J	0.6			U	0.62		U	0.57	0.33	J	0.52		U	0.58	0.36	J	0.56		U	0.6	2.3		0.58
Chromium	NC	mg/kg	12.1		1.3	11.7		1.2	13		1.2	17.8		1.1	12.9		1	12.9		1.2	15		1.1	13.6		1.2	16		1.2	
Lead	800	mg/kg	30.8	J	1.3	17.2	J	1.2	16.3	J	1.2	10.3		1.1	7.7	J	1	18.8	J	1.2	9	J	1.1	9.4	J	1.2	87.4		1.2	
Mercury	3.1	mg/kg		U	0.27	0.021	J	0.28	0.022	J	0.25	0.023	J	0.25		U	0.23		U	0.23	0.025	J	0.25	0.019	J	0.23	0.029	J	0.24	
Selenium	5800	mg/kg	0.63	J	1.3		U	1.2		U	1.2		U	1.1		U	1		U	1.2		U	1.1		U	1.2		U	1.2	
Silver	5800	mg/kg		U	0.63		U	0.6		U	0.62		U	0.57		U	0.52		U	0.58		U	0.56		U	0.6		U	0.58	
<b>Conventionals</b>																														
Percent Moisture	NC	%	21.3		0.1	24.4		0.1	22.8		0.1	20.8		0.1	14.4		0.1	17.6		0.1	19.1		0.1	18.7		0.1	19.9		0.1	
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA		NA

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	R55-1-2			R55-3-4			R55-5-6			U1-3-4			U1-5-6			U2-2-3			U2-4-5			U3-3-4			U3-5-6				
Lab ID		50195431021	50195431022	50195431023	50195325003	50195325004	50195325001	50195325002	50195325005	50195325006	Sample Date	4/26/2018	4/26/2018	4/26/2018	4/25/2018	4/25/2018	4/25/2018	4/25/2018	4/25/2018	4/25/2018	4/25/2018	4/25/2018	4/25/2018	4/25/2018	4/25/2018	4/25/2018	4/25/2018			
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Remarks																														
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	
<b>Total Metals</b>																														
Arsenic	30	mg/kg	5.9		1.1	6.7		1.1	13.5		1.1	9.2		1	7.7		1	7		1.1	8.6		1	10.6		1.2	17.1		1.1	
Barium	100000	mg/kg	114		1.1	102		1.1	109		1.1	35.7		1	36.3		1	39		1.1	40.5		1	115		1.2	92.2		1.1	
Cadmium	980	mg/kg	0.36	J	0.55	0.45	J	0.55			U	0.55		U	0.51		U	0.52		U	0.53		U	0.52		U	0.58	0.31	J	0.55
Chromium	NC	mg/kg	14.5		1.1	17.5		1.1	19.3		1.1	10.9		1	11		1	10.1		1.1	10.2		1	21.2		1.2	17.3		1.1	
Lead	800	mg/kg	12.5		1.1	10.1		1.1	13.6		1.1	6.2		1	5.7		1	5.2		1.1	6.5		1	14.6		1.2	13.9		1.1	
Mercury	3.1	mg/kg	0.054	J	0.24	0.02	J	0.26	0.029	J	0.24			U	0.22		U	0.22		U	0.22		U	0.22		U	0.26	0.019	J	0.24
Selenium	5800	mg/kg			U	1.1		U	1.1		U	1.1		U	1		U	1		U	1.1		U	1		U	1.2		U	1.1
Silver	5800	mg/kg			U	0.55		U	0.55		U	1.1		U	0.51		U	0.52		U	0.53		U	0.52		U	0.58		U	0.55
<b>Conventionals</b>																														
Percent Moisture	NC	%	20.1		0.1	17.5		0.1	18.5		0.1	9.8		0.1	9.4		0.1	9.8		0.1	9.9		0.1	20.3		0.1	16.3		0.1	
pH at 25 Degrees C	NC	Std. Units			NA			NA			NA			NA			NA			NA			NA			NA			NA	

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG	U4-3-4			U4-7-8			U5-3-4			U5-7-8			U6-3-4			U6-7-8			U7-0-1			U7-1-2			U8-0-1					
Lab ID		Soil Direct	50195325007	50195325008	50195325009	50195325010	50195325011	50195325012	50196014027	50196014028	50196014030	Sample Date	4/25/2018	4/25/2018	4/25/2018	4/25/2018	4/25/2018	4/25/2018	5/3/2018	5/3/2018	5/3/2018	Matrix	Soil	Soil	Soil	Soil	Soil	Soil			
Remarks	Contact Non-Residential	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL		
<b>Total Metals</b>																															
Arsenic	30	mg/kg	4.1		1.1	5.8		1.1	17.9		1.2	8.1		1	8.7		1.2	11.3		1.1	20.5		1.1	14.1		1.1	9.2		1.1		
Barium	100000	mg/kg	13.4		1.1	37.4		1.1	186		1.2	39.6		1	123		1.2	64		1.1	235		1.1	198		1.1	173		1.1		
Cadmium	980	mg/kg		U	0.54			U	0.53		U	0.62		U	0.5		U	0.59		U	0.56	1.6		0.57	1.1		0.55	0.86		0.57	
Chromium	NC	mg/kg	5.4		1.1	10.2		1.1	22.7		1.2	8.9		1	20.5		1.2	14.6		1.1	16.1	J	1.1	15.5	J	1.1	14	J	1.1		
Lead	800	mg/kg	4.4		1.1	12.9		1.1	14.2		1.2	5.3		1	13.6		1.2	8.3		1.1	410	J	1.1	90.7	J	1.1	68	J	1.1		
Mercury	3.1	mg/kg		U	0.22			U	0.22		U	0.24		U	0.21	0.046		J	0.24		U	0.26	0.061	J	0.25	0.048	J	0.25	0.049	J	0.24
Selenium	5800	mg/kg		U	1.1			U	1.1		U	1.2		U	1		U	1.2		U	1.1	0.7	J	1.1	0.58	J	1.1	0.66	J	1.1	
Silver	5800	mg/kg		U	0.54			U	0.53		U	0.62		U	0.5		U	0.59		U	0.56	1.3		0.57		U	0.55		U	0.57	
<b>Conventionals</b>																															
Percent Moisture	NC	%	9.8		0.1	11.3		0.1	21.4		0.1	10.1		0.1	17.6		0.1	18	J	0.1	18.2		0.1	19.3		0.1	17.3		0.1		
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA		NA	

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG	U8-1-2				F1-0-1			F1-1-2			F1-3-4			F1-5-6			F2-0-1			F2-1-2			F2-3-4			F2-5-6			
Lab ID		Soil Direct	50196014031				50195862120			50195862121			50195862122			50195862123			50195862125			50195862126			50195862127			50195862128		
Sample Date	Contact Non-Residential	5/3/2018				5/2/2018			5/2/2018			5/2/2018			5/2/2018			5/2/2018			5/2/2018			5/2/2018						
Matrix		Soil				Soil			Soil			Soil			Soil			Soil			Soil			Soil						
Remarks		Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL			
<b>Total Metals</b>																														
Arsenic	30	mg/kg	12		1.2	8.1		1.1	8.3		1.1	7.2		1	12.2		1.1	2.6		0.96	9.6		1.1	3		1	4.8		1.1	
Barium	100000	mg/kg	592		1.2	153		1.1	97.3		1.1	43.1		1	85.9		1.1	6.8		0.96	363		1.1	55.6		1	95.4		1.1	
Cadmium	980	mg/kg	5.5		0.59	0.42	J	0.53			U	0.57	0.28	J	0.52	0.57		0.53		U	0.48	1		0.56		U	0.52		U	0.54
Chromium	NC	mg/kg	19.1	J	1.2	15.5		1.1	23.2		1.1	10		1	15.9		1.1	3.2		0.96	15		1.1	9		1	14.4		1.1	
Lead	800	mg/kg	623	J	1.2	54.6	J	1.1	46.1	J	1.1	7.2	J	1	10.5	J	1.1	13.8	J	0.96	143	J	1.1	7.7	J	1	28	J	1.1	
Mercury	3.1	mg/kg	0.11	J	0.23	0.11	J	0.23	0.022	J	0.25		U	0.22		U	0.25		U	0.22	1.4		0.25		U	0.24	0.032	J	0.22	
Selenium	5800	mg/kg	0.7	J	1.2		U	1.1		U	1.1		U	1		U	1.1		U	0.96	0.72	J	1.1		U	1		U	1.1	
Silver	5800	mg/kg	1.3		0.59		U	0.53		U	0.57		U	0.52		U	0.53		U	0.48	3.5		0.56		U	0.52		U	0.54	
<b>Conventionals</b>																														
Percent Moisture	NC	%	18.2		0.1	16.4		0.1	16.5		0.1	10.4		0.1	17.6		0.1	5.4		0.1	17.5		0.1	11.3		0.1	15.5		0.1	
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA		NA

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG	F3-0-1			F3-1-2			F3-3-4			F3-5-6			F4-0-1			F4-1-2			F4-3-4			F4-5-6			F4-7-8				
Lab ID		Soil Direct	50195862109			50195862110			50195862111			50195862112			50196014006			50196014007			50196014008			50196014009			50196014010			
Sample Date	Contact Non-Residential	5/2/2018			5/2/2018			5/2/2018			5/2/2018			5/3/2018			5/3/2018			5/3/2018			5/3/2018							
Matrix		Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL			
Remarks	Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil								
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL				
<b>Total Metals</b>																														
Arsenic	30	mg/kg	<b>64.4</b>		1	6.8		1.1	9.3		0.99	14.9		1.1	3.1		1	6.6		1.1	4.6		1.2	6		1.3	11.3		1.2	
Barium	100000	mg/kg	400	J	1	99.7	J	1.1	89.5	J	0.99	84.7	J	1.1	64.2	J	1	936	J	1.1	367	J	1.2	77.2	J	1.3	114	J	1.2	
Cadmium	980	mg/kg	1.3		0.52		U	0.53	0.31	J	0.5	0.41	J	0.56		U	0.52	2.3		0.56	3		0.62		U	0.63	0.4	J	0.62	
Chromium	NC	mg/kg	16.3		1	12.2		1.1	16.8		0.99	14.6		1.1	11.7	J	1	17.1	J	1.1	21	J	1.2	16.7	J	1.3	19.5	J	1.2	
Lead	800	mg/kg	330	J	1	74.8	J	1.1	13.4	J	0.99	11.9	J	1.1	34.7	J	1	140	J	1.1	102	J	1.2	32.6	J	1.3	19.3	J	1.2	
Mercury	3.1	mg/kg	0.085	J	0.24	0.018	J	0.24		U	0.25	0.023	J	0.25		U	0.23	1.1	J	0.23	0.043	J	0.28	0.028	J	0.26	0.026	J	0.27	
Selenium	5800	mg/kg		U	1		U	1.1		U	0.99		U	1.1		U	1	1.7		1.1	0.88	J	1.2	0.68	J	1.3		U	1.2	
Silver	5800	mg/kg	1.8		0.52		U	0.53		U	0.5		U	0.56		U	0.52		U	0.56		U	0.62		U	0.63		U	0.62	
<b>Conventionals</b>																														
Percent Moisture	NC	%	14		0.1	17.9		0.1	15.9		0.1	15.4		0.1	12.8		0.1	16.7	J	0.1	23.9		0.1	24.6		0.1	25		0.1	
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA		NA

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	F5-0-1			F5-1-2			F5-3-4			F5-5-6			F5-7-8			F6-0-1			F6-1-2			F6-3-4			F6-5-6				
Lab ID		50196014022	50196014023	50196014024	50196014025	50196014026	50195774022	50195774023	50195774024	50195774025	50195774026	50195774022	50195774023	50195774024	50195774025	50195774026	50195774022	50195774023	50195774024	50195774025	50195774026	50195774022	50195774023	50195774024	50195774025	50195774026				
Sample Date	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018				
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil				
Remarks																														
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL				
<b>Total Metals</b>																														
Arsenic	30	mg/kg	11.9		1.1	13.6		1.1	17.7		1.1	16		1.2	6.3		0.99	7.3		1	9.1		1	8.7		1.1	7		1.1	
Barium	100000	mg/kg	1050	J	1.1	144	J	1.1	104	J	1.1	114	J	1.2	35.7		0.99	115	J	1	76.4	J	1	48.4	J	1.1	41.7	J	1.1	
Cadmium	980	mg/kg	18		0.54	1.1		0.56	1.1		0.54	0.8		0.59			U	0.49	0.56		0.51		U	0.52		U	0.53		U	0.54
Chromium	NC	mg/kg	28.4	J	1.1	18.2	J	1.1	18.3	J	1.1	20.7	J	1.2	7.9	J	0.99	10.9		1	15.2		1	9.9		1.1	9		1.1	
Lead	800	mg/kg	168	J	1.1	23.8	J	1.1	45.6	J	1.1	21.5	J	1.2	5	J	0.99	<b>8070</b>	J	2	14.3	J	1	7	J	1.1	12.9	J	1.1	
Mercury	3.1	mg/kg	1.2		0.26			U	0.23		0.034	J	0.25		0.036	J	0.27		U	0.23	0.054	J	0.23		U	0.22		U	0.22	
Selenium	5800	mg/kg	3.4		1.1			U	1.1		U	1.1		U	1.2		U	0.99	0.68	J	1		U	1		U	1.1		U	1.1
Silver	5800	mg/kg	1.3		0.54	0.48	J	0.56			U	0.54		U	0.59		U	0.49		U	0.51		U	0.52		U	0.53		U	0.54
<b>Conventionals</b>																														
Percent Moisture	NC	%	19.3		0.1	17.7		0.1	20.6		0.1	25.4		0.1	10.4		0.1	14.5		0.1	14.8		0.1	10.8		0.1	10.1		0.1	
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA		NA

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**



TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	F10-0-1			F10-1-2			F10-3-4			F10-5-6			MW-1-2-3			MW-1-5-5-6.5			MW-1-10-10.5			MW-1-13-13.5			MW-1-16.5-17.5				
Lab ID		50195862114	50195862115	50195862116	50195862117	50195862062	50195862063	50195862064	50195862065	50195862066																				
Sample Date	5/2/2018	5/2/2018	5/2/2018	5/2/2018	5/2/2018	5/2/2018	5/2/2018	5/2/2018	5/2/2018																					
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil																					
Remarks																														
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL				
<b>Total Metals</b>																														
Arsenic	30	mg/kg	6.4		1.1	11.3		1.1	6.5		0.94	7.4		0.95	7.6		1	7.7		1	5.5		1	4.5		1	5.1		0.97	
Barium	100000	mg/kg	113	J	1.1	87	J	1.1	41	J	0.94	47.5	J	0.95	35.2		1	42.3		1	35.2		1	30.1		1	25.2		0.97	
Cadmium	980	mg/kg		U	0.57		U	0.55		U	0.47		U	0.47		U	0.51	0.29	J	0.52		U	0.52	0.39	J	0.51	0.25	J	0.48	
Chromium	NC	mg/kg	12.9		1.1	23.1		1.1	10.1		0.94	10.1		0.95	8.5		1	10.4		1	8.6		1	8.8		1	8		0.97	
Lead	800	mg/kg	22	J	1.1	11.3	J	1.1	6	J	0.94	5.6	J	0.95	12.9	J	1	5.4	J	1	132	J	1	6.7	J	1	5.7	J	0.97	
Mercury	3.1	mg/kg	0.057	J	0.24	0.024	J	0.25		U	0.22		U	0.21		U	0.24		U	0.23	0.034	J	0.24		U	0.22		U	0.23	
Selenium	5800	mg/kg		U	1.1		U	1.1		U	0.94		U	0.95		U	1		U	1		U	1		U	1		U	0.97	
Silver	5800	mg/kg		U	0.57		U	0.55		U	0.47		U	0.47		U	0.51		U	0.52		U	0.52		U	0.51		U	0.48	
<b>Conventionals</b>																														
Percent Moisture	NC	%	17.3	J	0.1	16.7		0.1	9.5		0.1	11.7		0.1	15		0.1	11.3		0.1	14.8	J	0.1		10.6		0.1	10.9		0.1
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA		0.1

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG	MW-2-1-2			MW-2-6-7			MW-2-8-9			MW2-12-13			MW-2-16-17			MW-3-1-2			MW-3-6.5-7			MW-3-8-9			MW-3-10.5-11.5				
Lab ID		Soil Direct	50195862067			50195862068			50195862069			50195862070			50195862071			50195621014			50195621015			50195621016			50195621017			
Sample Date	Contact Non-Residential	5/2/2018			5/2/2018			5/2/2018			5/2/2018			5/2/2018			4/30/2018			4/30/2018			4/30/2018			4/30/2018				
Matrix		Soil	Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil						
Remarks	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	
<b>Total Metals</b>																														
Arsenic	30	mg/kg	10.7		1.1	7.6		1.1	8.9		1.1	4.4		0.97	6.5		1.1	6.6		1.2	6.9		1.1	3.9		0.95	4		1.1	
Barium	100000	mg/kg	118		1.1	73.8		1.1	49.9		1.1	21.1		0.97	28.3	J	1.1	77.9		1.2	24.4		1.1	26.8		0.95	18		1.1	
Cadmium	980	mg/kg		U	0.56			U	0.57			U	0.56			U	0.54	1.8		0.58		U	0.56		U	0.47		U	0.53	
Chromium	NC	mg/kg	20.7		1.1	16.7		1.1	13.8		1.1	8.2		0.97	8.8	J	1.1	14.8		1.2	8.4		1.1	8.4		0.95	7.5		1.1	
Lead	800	mg/kg	15.9	J	1.1	8.7	J	1.1	10.2	J	1.1	4.8	J	0.97	5.1	J	1.1	31.2	J	1.2	7.7	J	1.1	6.2	J	0.95	5	J	1.1	
Mercury	3.1	mg/kg	0.023	J	0.24	0.037	J	0.24	0.02	J	0.23		U	0.22		U	0.22		U	0.25		U	0.23		U	0.22		U	0.21	
Selenium	5800	mg/kg		U	1.1		U	1.1		U	1.1		U	0.97		U	1.1		U	1.2		U	1.1	1.9	J	0.95		U	1.1	
Silver	5800	mg/kg		U	0.56		U	0.57		U	0.56		U	0.48		U	0.54	2.1		0.58		U	0.56		U	0.47		U	0.53	
<b>Conventionals</b>																														
Percent Moisture	NC	%	17.3		0.1	17.9		0.1	18.2		0.1	10.9		0.1	14.5		0.1	15.4		0.1	11.7		0.1	11.1	J	0.1	8.4		0.1	
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA		NA

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	MW-3-17-18			MW-4-1-2			MW-4-5-6			MW-4-9-10			MW-4-13-14			MW-4-18-19			MW-5-1-2			MW-5-5-6			MW-5-10.5-11.5			
Lab ID		50195621019	50195621007	50195621008	50195621009	50195621010	50195621012	50195836007	50195836008	50195836009																			
Sample Date	4/30/2018	4/30/2018	4/30/2018	4/30/2018	4/30/2018	4/30/2018	5/2/2018	5/2/2018	5/2/2018																				
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil																				
Remarks																													
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL			
<b>Total Metals</b>																													
Arsenic	30	mg/kg	6.3		1.1	7.6		1	9.6		1.2	9		1.1	5		1	5.2		1.1	6.4		1.1	6.2		1.1	3.5		1
Barium	100000	mg/kg	30.6		1.1	175		1	188		1.2	61		1.1	33.4		1	44		1.1	37.2	J	1.1	37	J	1.1	21.4	J	1
Cadmium	980	mg/kg		U	0.55	8.4		0.5	0.33	J	0.59		U	0.57	0.28	J	0.5		U	0.53		U	0.55		U	0.53		U	0.5
Chromium	NC	mg/kg	11.1		1.1	22		1	20.7		1.2	11.5		1.1	9.2		1	9.6		1.1	9.8		1.1	9.6		1.1	8.2		1
Lead	800	mg/kg	5.2	J	1.1	205	J	1	16.7	J	1.2	10	J	1.1	13.6	J	1	5	J	1.1	10.4	J	1.1	5.2	J	1.1	5.9	J	1
Mercury	3.1	mg/kg		U	0.22	0.31		0.25	0.046	J	0.25		U	0.25		U	0.21		U	0.23		U	0.22		U	0.22		U	0.21
Selenium	5800	mg/kg		U	1.1		U	1		U	1.2		U	1.1		U	1		U	1.1		U	1.1		U	1.1	0.57	J	1
Silver	5800	mg/kg		U	0.55	23.7		0.5	2.6		0.59	0.5	J	0.57	3.9		0.5		U	0.53		U	0.55		U	0.53		U	0.5
<b>Conventionals</b>																													
Percent Moisture	NC	%	10.5		0.1	15.9		0.1	22.2		0.1	17.3		0.1	10		0.1	8.6		0.1	11.7		0.1	9.9		0.1	9		0.1
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA	

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG	MW-5-13.5-14.5			MW-6-1.5-2.5			MW-6-5-6			MW-6-11-12			MW-6-15-16			MW-6-17-18			MW-7-1.5-2.5			MW-7-5.5-6.5			MW-7-10-11					
Lab ID		Soil Direct	50195836010			50195621001			50195621002			50195621003			50195621004			50195621005			50195782001			50195782002			50195782003				
Sample Date	Contact Non-Residential	5/2/2018			4/30/2018			4/30/2018			4/30/2018			4/30/2018			4/30/2018			5/1/2018			5/1/2018			5/1/2018					
Matrix		Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL		
Remarks	Limit	Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil					
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL		
<b>Total Metals</b>																															
Arsenic	30	mg/kg	4.8		1	11.5		1.1	3.9		1.1	6.3		1	4.2		0.94	4.1		0.99	8.2		1	5.1		1.3	12.8		2.5		
Barium	100000	mg/kg	22.2	J	1	282		1.1	43.1		1.1	54.3		1	29.7		0.94	34.5		0.99	591		1	151		1.3	570		2.5		
Cadmium	980	mg/kg		U	0.5	1.4		0.53			0.54		U	0.52			U	0.47		U	0.49	0.79		0.51	0.43	J	0.66		U	1.3	
Chromium	NC	mg/kg	7.6		1	14.4		1.1	11.5		1.1	9.1		1	7.3		0.94	5		0.99	11.6		1	19		1.3	13.7		2.5		
Lead	800	mg/kg	4.2	J	1	<b>4460</b>	J	2.1	15.1	J	1.1	10.9	J	1	3.7	J	0.94	3.6	J	0.99	174		1	16		1.3	32.1		2.5		
Mercury	3.1	mg/kg		U	0.21	0.032	J	0.25			U	0.24		U	0.21		U	0.21		U	0.22		U	0.25	0.077	J	0.27	0.053	J	0.54	
Selenium	5800	mg/kg		U	1	1.7		1.1			U	1.1		U	1		U	0.94		U	0.99	0.97		J	1		U	1.3	2.4	J	2.5
Silver	5800	mg/kg		U	0.5	0.76		0.53			U	0.54		U	0.52		U	0.47		U	0.49		U	0.51		U	0.66		U	1.3	
<b>Conventionals</b>																															
Percent Moisture	NC	%	6.1		0.1	20.6		0.1	16.7		0.1	10.8		0.1	9.9		0.1	9.4		0.1	15.9		0.1	28.3		0.1	63.1		0.1		
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA			NA		NA	

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG**

**Soil Direct Contact Non-Residential**

TABLE 4A  
RFI SOIL BORINGS- INORGANICS  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non- Residential	MW-7-14-15			MW-7-18-19			MW-7-20.5-21.5			MW-8-1.5-2.5			MW-8-4-5			MW-8-7-8			MW-8-12-13			MW-8-17.5-18.5			
Lab ID		50195782004			50195782005			50195782006			50195836001			50195836002			50195836003			50195836004			50195836005			
Sample Date		5/1/2018			5/1/2018			5/1/2018			5/2/2018			5/2/2018			5/2/2018			5/2/2018			5/2/2018			
Matrix		Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			
Remarks																										
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL			
<b>Total Metals</b>																										
Arsenic	30	mg/kg	5.9		1.7	7.9		1.4	9.4		1.4	7.8		1.2	10.9		1.2	5.9		1	5.3		0.92	5.3		1.1
Barium	100000	mg/kg	134		1.7	117		1.4	184		1.4	188	J	1.2	135	J	1.2	26.6	J	1	19.8	J	0.92	43.7	J	1.1
Cadmium	980	mg/kg	0.43	J	0.84	0.43	J	0.68	0.49	J	0.69		U	0.59	0.54	J	0.59		U	0.5	0.27	J	0.46		U	0.54
Chromium	NC	mg/kg	15.5		1.7	15.3		1.4	15.4		1.4	15.2		1.2	21.8		1.2	6.3		1	7.1		0.92	8.6		1.1
Lead	800	mg/kg	9.7		1.7	10.2		1.4	18.6		1.4	449	J	1.2	<b>1140</b>	J	1.2	4.8	J	1	5.4	J	0.92	353	J	1.1
Mercury	3.1	mg/kg	0.03	J	0.36	0.024	J	0.3	0.024	J	0.31	0.024	J	0.26	0.026	J	0.26		U	0.21		U	0.23		U	0.22
Selenium	5800	mg/kg	1.8		1.7	0.86	J	1.4	0.99	J	1.4		U	1.2		U	1.2		U	1		U	0.92		U	1.1
Silver	5800	mg/kg		U	0.84		U	0.68		U	0.69		U	0.59		U	0.59		U	0.5		U	0.46		U	0.54
<b>Conventionals</b>																										
Percent Moisture	NC	%	48.2		0.1	34.4		0.1	34		0.1	18.1		0.1	19.1		0.1	9.9		0.1	9.1		0.1	14.7	J	0.1
pH at 25 Degrees C	NC	Std. Units		NA			NA			NA			NA			NA			NA			NA			NA	

J - Denotes an estimated reporting limit  
mg/kg - milligram per kilogram  
NA - Not Analyzed for this parameter  
Q - Qualifier  
RL - Reporting Limit  
R - Rejected  
U - Analyte was not detected at or above the reporting limit  
UJ - Denotes an estimated reporting limit  
NC - No Criteria  
RCG - Remediation Closure Guide  
**Bolding indicates exceedances of IDEM 2018 RCG**  
**Soil Direct Contact Non-Residential**



TABLE 4B  
RFI Soil Sampling- Organics  
Exide Technologies  
Frankfort, Indiana

Sample Location		R38-2-3			R40-1-2			R47-3-4			R48-0-1			R49-0-1			R49-1-2			R49-2-3			R49-3-4		
Lab ID		50195431015			50195774038			50196014014			50195431008			50195431001			50195431002			50195431003			50195431004		
Sample Date		4/26/2018			43220			5/3/2018			4/26/2018			4/26/2018			4/26/2018			4/26/2018			4/26/2018		
Matrix		Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil		
PID Result (ppm)		<1			445.7			12.3			<1			<1			55.3			1.5			<1		
Parameter	Residential Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL		
2,4,5-Trichlorophenol	82000	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
2,4,6-Trichlorophenol	820	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
2,4-Dichlorophenol	2500	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
2,4-Dimethylphenol	16000	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
2,4-Dinitrophenol	1600	mg/kg	U		1.8	NA			NA			U		1.8	U		1.9	U		1.8	U		1.8		
2,4-Dinitrotoluene	74	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
2,6-Dinitrotoluene	15	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
2-Chloronaphthalene	60000	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
2-Chlorophenol	5800	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
2-Methylnaphthalene	3000	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
2-Methylphenol(o-Cresol)	41000	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
2-Nitroaniline	8000	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
2-Nitrophenol	NC	mg/kg	U		0.37	NA			NA			U		0.36	UJ		0.38	UJ		0.37	UJ		0.36		
3&4-Methylphenol(m&p Cresol)	NC	mg/kg	U		0.74	NA			NA			U		0.73	U		0.77	U		0.74	U		0.73		
3,3'-Dichlorobenzidine	51	mg/kg	U		0.74	NA			NA			U		0.73	U		0.77	U		0.74	U		0.73		
3-Nitroaniline	NC	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
4,6-Dinitro-2-methylphenol	66	mg/kg	U		0.74	NA			NA			U		0.73	U		0.77	U		0.74	U		0.73		
4-Bromophenylphenyl ether	NC	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
4-Chloro-3-methylphenol	82000	mg/kg	U		0.74	NA			NA			U		0.73	U		0.77	U		0.74	U		0.73		
4-Chloroaniline	110	mg/kg	U		0.74	NA			NA			U		0.73	U		0.77	U		0.74	U		0.73		
4-Chlorophenylphenyl ether	NC	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
4-Nitroaniline	1100	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
4-Nitrophenol	NC	mg/kg	U		1.8	NA			NA			U		1.8	U		1.9	U		1.8	U		1.8		
Acenaphthene	45000	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Acenaphthylene	NC	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Acetophenone	2500	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Anthracene	100000	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Atrazine	100	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Benzaldehyde	1200	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Benzo(a)anthracene	210	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Benzo(a)pyrene	21	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Benzo(b)fluoranthene	210	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Benzo(g,h,i)perylene	NC	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Benzo(k)fluoranthene	2100	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Biphenyl (Diphenyl)	200	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
bis(2-Chloroethoxy)methane	2500	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
bis(2-Chloroethyl) ether	10	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
bis(2-Ethylhexyl)phthalate	1600	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Butylbenzylphthalate	12000	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Caprolactam	100000	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Carbazole	NC	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Chrysene	21000	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Dibenz(a,h)anthracene	21	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Dibenzofuran	1000	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Diethylphthalate	100000	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Dimethylphthalate	NC	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Di-n-butylphthalate	82000	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Di-n-octylphthalate	8200	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Fluoranthene	30000	mg/kg	U		0.37	NA			NA			U		0.36	0.35		J	0.38	U		0.37	U		0.36	
Fluorene	30000	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Hexachloro-1,3-butadiene	17	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Hexachlorobenzene	9.6	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Hexachlorocyclopentadiene	7.5	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Hexachloroethane	80	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Indeno(1,2,3-cd)pyrene	210	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		
Isophorone	24000	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36		

TABLE 4B  
RFI Soil Sampling- Organics  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	R38-2-3			R40-1-2			R47-3-4			R48-0-1			R49-0-1			R49-1-2			R49-2-3			R49-3-4				
Lab ID		50195431015			50195774038			50196014014			50195431008			50195431001			50195431002			50195431003			50195431004				
Sample Date		4/26/2018			4/26/2018			5/3/2018			4/26/2018			4/26/2018			4/26/2018			4/26/2018			4/26/2018				
Matrix		Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil				
PID Result (ppm)		<1			445.7			12.3			<1			<1			55.3			1.5			<1				
Parameter	Residential Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	
Naphthalene	170	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36	U		0.36	
Nitrobenzene	220	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36	U		0.36	
N-Nitroso-di-n-propylamine	3.3	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36	U		0.36	
N-Nitrosodiphenylamine	4700	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36	U		0.36	
Pentachlorophenol	40	mg/kg	U		1.8	NA			NA			U		1.8	U		1.9	U		1.8	U		1.8	U		1.8	
Phenanthrene	NC	mg/kg	U		0.37	NA			NA			U		0.36	0.24	J	0.38	U		0.37	U		0.36	U		0.36	
Phenol	100000	mg/kg	U		0.37	NA			NA			U		0.36	U		0.38	U		0.37	U		0.36	U		0.36	
Pyrene	23000	mg/kg	U		0.37	NA			NA			U		0.36	0.24	J	0.38	U		0.37	U		0.36	U		0.36	
<b>Total Petroleum Hydrocarbons</b>																											
Diesel Range Organics (C8-C28)	5800	mg/kg			NA				NA					NA				NA		NA				NA		NA	
Gasoline Range Organics	4300	mg/kg			NA				NA					NA				NA		NA				NA		NA	
<b>Conventionals</b>																											
Percent Moisture	NC	%	10.4		0.1	18.1		0.1	30.4		0.1	9.8		0.1	13.8		0.1	11		0.1		9.6		0.1	10.1		0.1

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG Soil Direct**

**Contact Non-Residential, 2009 RISC TPH Closure Limits**





TABLE 4B  
RFI Soil Sampling- Organics  
Exide Technologies  
Frankfort, Indiana

Sample Location			U1-3-4			U1-5-6			U2-2-3			U2-4-5			U3-3-4			U3-5-6			U4-3-4			U4-7-8		
Lab ID			50195325003			50195325004			50195325001			50195325002			50195325005			50195325006			50195325007			50195325008		
Sample Date			4/25/2018			4/25/2018			4/25/2018			4/25/2018			4/25/2018			4/25/2018			4/25/2018			4/25/2018		
Matrix			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil		
PID Result (ppm)			<1			<1			<1			<1			17.3			46.5			<1			<1		
Parameter	Residential Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL
2,4,5-Trichlorophenol	82000	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
2,4,6-Trichlorophenol	820	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
2,4-Dichlorophenol	2500	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
2,4-Dimethylphenol	16000	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
2,4-Dinitrophenol	1600	mg/kg	U		1.8	U		1.8	U		1.8	U		1.8	U		2	U		1.9	U		1.8	U		1.8
2,4-Dinitrotoluene	74	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
2,6-Dinitrotoluene	15	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
2-Chloronaphthalene	60000	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
2-Chlorophenol	5800	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
2-Methylnaphthalene	3000	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	0.31	J	0.39	U		0.36	U		0.37
2-Methylphenol(o-Cresol)	41000	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
2-Nitroaniline	8000	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
2-Nitrophenol	NC	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
3&4-Methylphenol(m&p Cresol)	NC	mg/kg	U		0.73	U		0.73	U		0.73	U		0.73	U		0.83	U		0.79	U		0.73	U		0.74
3,3'-Dichlorobenzidine	51	mg/kg	U		0.73	U		0.73	U		0.73	U		0.73	U		0.83	U		0.79	U		0.73	U		0.74
3-Nitroaniline	NC	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
4,6-Dinitro-2-methylphenol	66	mg/kg	U		0.73	U		0.73	U		0.73	U		0.73	U		0.83	U		0.79	U		0.73	U		0.74
4-Bromophenylphenyl ether	NC	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
4-Chloro-3-methylphenol	82000	mg/kg	U		0.73	U		0.73	U		0.73	U		0.73	U		0.83	U		0.79	U		0.73	U		0.74
4-Chloroaniline	110	mg/kg	U		0.73	U		0.73	U		0.73	U		0.73	U		0.83	U		0.79	U		0.73	U		0.74
4-Chlorophenylphenyl ether	NC	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
4-Nitroaniline	1100	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
4-Nitrophenol	NC	mg/kg	U		1.8	U		1.8	U		1.8	U		1.8	U		2	U		1.9	U		1.8	U		1.8
Acenaphthene	45000	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Acenaphthylene	NC	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Acetophenone	2500	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Anthracene	100000	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Atrazine	100	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Benzaldehyde	1200	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Benzo(a)anthracene	210	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Benzo(a)pyrene	21	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Benzo(b)fluoranthene	210	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Benzo(g,h,i)perylene	NC	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Benzo(k)fluoranthene	2100	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Biphenyl (Diphenyl)	200	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
bis(2-Chloroethoxy)methane	2500	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
bis(2-Chloroethyl) ether	10	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
bis(2-Ethylhexyl)phthalate	1600	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Butylbenzylphthalate	12000	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Caprolactam	100000	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Carbazole	NC	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Chrysene	21000	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Dibenz(a,h)anthracene	21	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Dibenzofuran	1000	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Diethylphthalate	100000	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Dimethylphthalate	NC	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Di-n-butylphthalate	82000	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Di-n-octylphthalate	8200	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Fluoranthene	30000	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Fluorene	30000	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Hexachloro-1,3-butadiene	17	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Hexachlorobenzene	9.6	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Hexachlorocyclopentadiene	7.5	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Hexachloroethane	80	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Indeno(1,2,3-cd)pyrene	210	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37
Isophorone	24000	mg/kg	U		0.37	U		0.36	U		0.36	U		0.36	U		0.41	U		0.39	U		0.36	U		0.37

TABLE 4B  
RFI Soil Sampling- Organics  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	U1-3-4			U1-5-6			U2-2-3			U2-4-5			U3-3-4			U3-5-6			U4-3-4			U4-7-8				
Lab ID		50195325003			50195325004			50195325001			50195325002			50195325005			50195325006			50195325007			50195325008				
Sample Date		4/25/2018			4/25/2018			4/25/2018			4/25/2018			4/25/2018			4/25/2018			4/25/2018			4/25/2018				
Matrix		Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil				
PID Result (ppm)		<1			<1			<1			<1			17.3			46.5			<1			<1				
Parameter	Residential Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	
Naphthalene	170	mg/kg	U	0.37	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.41	0.24	J	0.39	U	0.36	U	0.37	U	0.37		
Nitrobenzene	220	mg/kg	U	0.37	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.41	U	0.39	U	0.36	U	0.36	U	0.37	U	0.37	
N-Nitroso-di-n-propylamine	3.3	mg/kg	U	0.37	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.41	U	0.39	U	0.36	U	0.36	U	0.37	U	0.37	
N-Nitrosodiphenylamine	4700	mg/kg	U	0.37	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.41	U	0.39	U	0.36	U	0.36	U	0.37	U	0.37	
Pentachlorophenol	40	mg/kg	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	2	U	1.9	U	1.8	U	1.8	U	1.8	U	1.8	
Phenanthrene	NC	mg/kg	U	0.37	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.41	U	0.39	U	0.36	U	0.36	U	0.37	U	0.37	
Phenol	100000	mg/kg	U	0.37	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.41	U	0.39	U	0.36	U	0.36	U	0.37	U	0.37	
Pyrene	23000	mg/kg	U	0.37	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.41	U	0.39	U	0.36	U	0.36	U	0.37	U	0.37	
<b>Total Petroleum Hydrocarbons</b>																											
Diesel Range Organics (C8-C28)	5800	mg/kg	3.7	J	11.1	4	J	11	3.8	J	10.9	16.9	U	11.1	7.8	J	12.5	92.2	U	11.9	3.7	J	10.9	4	J	11.2	
Gasoline Range Organics	4300	mg/kg	U	0.79	U	0.78	U	0.78	U	0.89	U	0.91	0.79	J	1.2	71.5	U	47.5	U	0.83	0.081	J	0.85	U	0.85	U	0.85
<b>Conventionals</b>																											
Percent Moisture	NC	%	9.8	U	0.1	9.4	U	0.1	9.8	U	0.1	9.9	U	0.1	20.3	U	0.1	16.3	U	0.1	9.8	U	0.1	11.3	U	0.1	

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG Soil Direct**

**Contact Non-Residential, 2009 RISC TPH Closure Limits**



TABLE 4B  
RFI Soil Sampling- Organics  
Exide Technologies  
Frankfort, Indiana

Sample Location			U5-3-4			U5-7-8			U6-3-4			U6-7-8			U7-7-8			U8-5.5-6.5			F7-1-2			F7-3-4		
Lab ID			50195325009			50195325010			50195325011			50195325012			50196014029			50196014032			50195325013			50195325014		
Sample Date			4/25/2018			4/25/2018			4/25/2018			4/25/2018			5/3/2018			5/3/2018			4/25/2018			4/25/2018		
Matrix			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil		
PID Result (ppm)			<1			4.9			<1			1.5			<1			11.1			2			1		
Parameter	Residential Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL
2,4,5-Trichlorophenol	82000	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
2,4,6-Trichlorophenol	820	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
2,4-Dichlorophenol	2500	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
2,4-Dimethylphenol	16000	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
2,4-Dinitrophenol	1600	mg/kg	U	2		U	1.8		U	1.9		U	2		NA			NA			U	2		U	2	
2,4-Dinitrotoluene	74	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
2,6-Dinitrotoluene	15	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
2-Chloronaphthalene	60000	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
2-Chlorophenol	5800	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
2-Methylnaphthalene	3000	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA		0.25	J	0.41		U	0.41	
2-Methylphenol(o-Cresol)	41000	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
2-Nitroaniline	8000	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
2-Nitrophenol	NC	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
3&4-Methylphenol(m&p Cresol)	NC	mg/kg	U	0.83		U	0.73		U	0.8		U	0.81		NA			NA			U	0.82		U	0.82	
3,3'-Dichlorobenzidine	51	mg/kg	U	0.83		U	0.73		U	0.8		U	0.81		NA			NA			U	0.82		U	0.82	
3-Nitroaniline	NC	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
4,6-Dinitro-2-methylphenol	66	mg/kg	U	0.83		U	0.73		U	0.8		U	0.81		NA			NA			U	0.82		U	0.82	
4-Bromophenylphenyl ether	NC	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
4-Chloro-3-methylphenol	82000	mg/kg	U	0.83		U	0.73		U	0.8		U	0.81		NA			NA			U	0.82		U	0.82	
4-Chloroaniline	110	mg/kg	U	0.83		U	0.73		U	0.8		U	0.81		NA			NA			U	0.82		U	0.82	
4-Chlorophenylphenyl ether	NC	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
4-Nitroaniline	1100	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
4-Nitrophenol	NC	mg/kg	U	2		U	1.8		U	1.9		U	2		NA			NA			U	2		U	2	
Acenaphthene	45000	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Acenaphthylene	NC	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Acetophenone	2500	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Anthracene	100000	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Atrazine	100	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Benzaldehyde	1200	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Benzo(a)anthracene	210	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Benzo(a)pyrene	21	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Benzo(b)fluoranthene	210	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Benzo(g,h,i)perylene	NC	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Benzo(k)fluoranthene	2100	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Biphenyl (Diphenyl)	200	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
bis(2-Chloroethoxy)methane	2500	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
bis(2-Chloroethyl) ether	10	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
bis(2-Ethylhexyl)phthalate	1600	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA		0.27	J	0.41		U	0.41	
Butylbenzylphthalate	12000	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Caprolactam	100000	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Carbazole	NC	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Chrysene	21000	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Dibenz(a,h)anthracene	21	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Dibenzofuran	1000	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Diethylphthalate	100000	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Dimethylphthalate	NC	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Di-n-butylphthalate	82000	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Di-n-octylphthalate	8200	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Fluoranthene	30000	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Fluorene	30000	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Hexachloro-1,3-butadiene	17	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Hexachlorobenzene	9.6	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Hexachlorocyclopentadiene	7.5	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Hexachloroethane	80	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Indeno(1,2,3-cd)pyrene	210	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	
Isophorone	24000	mg/kg	U	0.42		U	0.36		U	0.4		U	0.4		NA			NA			U	0.41		U	0.41	

TABLE 4B  
RFI Soil Sampling- Organics  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non-Residential	U5-3-4			U5-7-8			U6-3-4			U6-7-8			U7-7-8			U8-5-5-6-5			F7-1-2			F7-3-4				
Lab ID		50195325009			50195325010			50195325011			50195325012			50196014029			50196014032			50195325013			50195325014				
Sample Date		4/25/2018			4/25/2018			4/25/2018			4/25/2018			5/3/2018			5/3/2018			4/25/2018			4/25/2018				
Matrix		Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil				
PID Result (ppm)		<1			4.9			<1			1.5			<1			11.1			2			1				
Parameter	Residential Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	
Naphthalene	170	mg/kg	U		0.42	U		0.36	U		0.4	U		0.4	NA		NA	U		0.41	U		0.41	U		0.41	
Nitrobenzene	220	mg/kg	U		0.42	U		0.36	U		0.4	U		0.4	NA		NA	U		0.41	U		0.41	U		0.41	
N-Nitroso-di-n-propylamine	3.3	mg/kg	U		0.42	U		0.36	U		0.4	U		0.4	NA		NA	U		0.41	U		0.41	U		0.41	
N-Nitrosodiphenylamine	4700	mg/kg	U		0.42	U		0.36	U		0.4	U		0.4	NA		NA	U		0.41	U		0.41	U		0.41	
Pentachlorophenol	40	mg/kg	U		2	U		1.8	U		1.9	U		2	NA		NA	U		2	U		2	U		2	
Phenanthrene	NC	mg/kg	U		0.42	U		0.36	U		0.4	U		0.4	NA		NA	U		0.41	U		0.41	U		0.41	
Phenol	100000	mg/kg	U		0.42	U		0.36	U		0.4	U		0.4	NA		NA	U		0.41	U		0.41	U		0.41	
Pyrene	23000	mg/kg	U		0.42	U		0.36	U		0.4	U		0.4	NA		NA	U		0.41	U		0.41	U		0.41	
<b>Total Petroleum Hydrocarbons</b>																											
Diesel Range Organics (C8-C28)	5800	mg/kg	U		12.6	6.1	J	11	7.1	J	12.1	3.8	J	12.2	NA		NA	NA		NA		NA		NA		NA	
Gasoline Range Organics	4300	mg/kg	U		1.1	1.1		0.79	U		1.1	1.8		0.98	NA		NA	NA		NA		NA		NA		NA	
<b>Conventionals</b>																											
Percent Moisture	NC	%	21.4		0.1	10.1		0.1	17.6		0.1	18	J	0.1	10.5		0.1	27.6		0.1	20.3		0.1	20.4		0.1	

J - Denotes an estimated reporting limit  
 mg/kg - milligram per kilogram  
 NA - Not Analyzed for this parameter  
 Q - Qualifier  
 RL - Reporting Limit  
 R - Rejected  
 U - Analyte was not detected at or above the reporting limit  
 UJ - Denotes an estimated reporting limit  
 NC - No Criteria  
 RCG - Remediation Closure Guide  
**Bolding indicates exceedances of IDEM 2018 RCG Soil Direct Contact Non-Residential, 2009 RISC TPH Closure Limits**







TABLE 4B  
RFI Soil Sampling- Organics  
Exide Technologies  
Frankfort, Indiana

Sample Location			F8-1-2			F8-3-4			F9-1-2			F9-3-4			MW-1-13-13.5			MW-2-16-17			MW-3-13.0-14.0			MW-4-16-17			
Lab ID			50195325015			50195325016			50195325017			50195325018			50195862065			50195862071			50195621018			50195621011			
Sample Date			4/25/2018			4/25/2018			4/25/2018			4/25/2018			5/2/2018			5/2/2018			4/30/2018			4/30/2018			
Matrix			Soil			Soil			Soil			Soil			Soil			Soil			Soil			Soil			
PID Result (ppm)			10.2			3.7			<1			<1			<1			<1			<1			<1			
Parameter	Residential Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	
Naphthalene	170	mg/kg	U		0.41	U		0.41	U		0.42	U		0.4	U		0.36	U		0.38	U		0.35	U		0.37	
Nitrobenzene	220	mg/kg	U		0.41	U		0.41	U		0.42	U		0.4	U		0.36	U		0.38	U		0.35	U		0.37	
N-Nitroso-di-n-propylamine	3.3	mg/kg	U		0.41	U		0.41	U		0.42	U		0.4	U		0.36	U		0.38	U		0.35	U		0.37	
N-Nitrosodiphenylamine	4700	mg/kg	U		0.41	U		0.41	U		0.42	U		0.4	U		0.36	U		0.38	U		0.35	U		0.37	
Pentachlorophenol	40	mg/kg	U		2	U		2	U		2	U		1.9	U		1.8	U		1.9	U		1.7	U		1.8	
Phenanthrene	NC	mg/kg	U		0.41	U		0.41	U		0.42	0.23	J	0.4	U		0.36	U		0.38	U		0.35	U		0.37	
Phenol	100000	mg/kg	U		0.41	U		0.41	U		0.42	U		0.4	U		0.36	U		0.38	U		0.35	U		0.37	
Pyrene	23000	mg/kg	U		0.41	U		0.41	U		0.42	0.22	J	0.4	U		0.36	U		0.38	U		0.35	U		0.37	
<b>Total Petroleum Hydrocarbons</b>																											
Diesel Range Organics (C8-C28)	5800	mg/kg			NA			NA			NA			NA			NA			NA			NA			NA	
Gasoline Range Organics	4300	mg/kg			NA			NA			NA			NA			NA			NA			NA			NA	
<b>Conventionals</b>																											
Percent Moisture	NC	%	18.8		0.1	20.7		0.1	21.5		0.1	17.9		0.1	10.6		0.1	14.5		0.1	7.1	J	0.1	10.1		0.1	

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG Soil Direct**

**Contact Non-Residential, 2009 RISC TPH Closure Limits**

TABLE 4B  
RFI Soil Sampling- Organics  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non Residential Limit	Units	MW-5-10.5-11.5			MW-6-18-19			MW-7-22.5-23.5			MW-8-17.5-18.5		
Lab ID			50195836009			50195621006			50195782007			50195836005		
Sample Date			5/2/2018			4/30/2018			5/1/2018			5/2/2018		
Matrix			Soil			Soil			Soil			Soil		
PID Result (ppm)			<1			<1			<1			<1		
Parameter	Residential Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL
<b>Volatiles</b>														
1,1,1-Trichloroethane	640	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
1,1,2,2-Tetrachloroethane	27	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
1,1,2-Trichloroethane	6.3	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
1,1,2-Trichlorotrifluoroethane	910	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
1,1-Dichloroethane	160	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
1,1-Dichloroethene	1000	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
1,2,3-Trichlorobenzene	930	mg/kg		UJ	0.0038		UJ	0.0042		UJ	0.0046		UJ	0.0038
1,2,4-Trichlorobenzene	260	mg/kg		UJ	0.0038		UJ	0.0042		UJ	0.0046		UJ	0.0038
1,2-Dibromo-3-chloropropane	0.64	mg/kg		U	0.0076		UJ	0.0084		U	0.0092		U	0.0076
1,2-Dibromoethane (EDB)	1.6	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
1,2-Dichlorobenzene	380	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
1,2-Dichloroethane	20	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
1,2-Dichloropropane	66	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
1,3-Dichlorobenzene	NC	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
1,4-Dichlorobenzene	110	mg/kg		U	0.0038		UJ	0.0042		UJ	0.0046		U	0.0038
1,4-Dioxane (p-Dioxane)	240	mg/kg		U	0.38		UJ	0.42		U	0.46		U	0.38
2-Butanone (MEK)	28000	mg/kg		U	0.019		UJ	0.021		U	0.023		U	0.019
2-Hexanone	1300	mg/kg		U	0.076		UJ	0.084		U	0.092		U	0.076
4-Methyl-2-pentanone (MIBK)	3400	mg/kg		U	0.019		UJ	0.021		U	0.023		U	0.019
Acetone	100000	mg/kg		U	0.076		UJ	0.084	0.0042	J	0.092		U	0.076
Benzene	51	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Bromochloromethane	630	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Bromodichloromethane	13	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Bromoform	860	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Bromomethane	30	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Carbon disulfide	740	mg/kg		U	0.0076		UJ	0.0084		U	0.0092		U	0.0076
Carbon tetrachloride	29	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Chlorobenzene	760	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Chloroethane	2100	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Chloroform	14	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Chloromethane	460	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
cis-1,2-Dichloroethene	2300	mg/kg		U	0.0038	0.0011	J	0.0042		U	0.0046		U	0.0038
cis-1,3-Dichloropropene	82	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Cyclohexane	120	mg/kg		U	0.076		UJ	0.084		U	0.092		U	0.076
Dibromochloromethane	390	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Dichlorodifluoromethane	370	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Ethylbenzene	250	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Isopropylbenzene (Cumene)	270	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Methyl acetate	29000	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Methylcyclohexane	NC	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Methylene Chloride	3200	mg/kg		U	0.015		UJ	0.017		U	0.018		U	0.015
Methyl-tert-butyl ether	2100	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Styrene	870	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Tetrachloroethene	170	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Toluene	820	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
trans-1,2-Dichloroethene	1900	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
trans-1,3-Dichloropropene	82	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Trichloroethene	19	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Trichlorofluoromethane	1200	mg/kg	0.00069	J	0.0038		UJ	0.0042		U	0.0046	0.0036	J	0.0038
Vinyl chloride	17	mg/kg		U	0.0038		UJ	0.0042		U	0.0046		U	0.0038
Xylene (Total)	260	mg/kg		UJ	0.0076		UJ	0.0084		U	0.0092		UJ	0.0076
<b>Semivolatiles</b>														
1,2,4,5-Tetrachlorobenzene	350	mg/kg		U	0.36		U	0.38		U	0.39		U	0.38
2,2'-Oxybis(1-chloropropane)	NC	mg/kg		U	0.36		U	0.38		U	0.39		U	0.38
2,3,4,6-Tetrachlorophenol	25000	mg/kg		U	0.36		U	0.38		U	0.39		U	0.38

TABLE 4B  
RFI Soil Sampling- Organics  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non Residential Limit	Units	MW-5-10.5-11.5			MW-6-18-19			MW-7-22.5-23.5			MW-8-17.5-18.5		
Lab ID			50195836009			50195621006			50195782007			50195836005		
Sample Date			5/2/2018			4/30/2018			5/1/2018			5/2/2018		
Matrix			Soil			Soil			Soil			Soil		
PID Result (ppm)	<1			<1			<1			<1				
Parameter	Residential Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL
2,4,5-Trichlorophenol	82000	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
2,4,6-Trichlorophenol	820	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
2,4-Dichlorophenol	2500	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
2,4-Dimethylphenol	16000	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
2,4-Dinitrophenol	1600	mg/kg	U		1.7	U		1.8	U		1.9	U		1.9
2,4-Dinitrotoluene	74	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
2,6-Dinitrotoluene	15	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
2-Chloronaphthalene	60000	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
2-Chlorophenol	5800	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
2-Methylnaphthalene	3000	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
2-Methylphenol(o-Cresol)	41000	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
2-Nitroaniline	8000	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
2-Nitrophenol	NC	mg/kg	U		0.36	UJ		0.38	UJ		0.39	U		0.38
3&4-Methylphenol(m&p Cresol)	NC	mg/kg	U		0.72	U		0.76	U		0.78	U		0.77
3,3'-Dichlorobenzidine	51	mg/kg	U		0.72	U		0.76	U		0.78	U		0.77
3-Nitroaniline	NC	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
4,6-Dinitro-2-methylphenol	66	mg/kg	U		0.72	UJ		0.76	U		0.78	U		0.77
4-Bromophenylphenyl ether	NC	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
4-Chloro-3-methylphenol	82000	mg/kg	U		0.72	U		0.76	U		0.78	U		0.77
4-Chloroaniline	110	mg/kg	U		0.72	U		0.76	U		0.78	U		0.77
4-Chlorophenylphenyl ether	NC	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
4-Nitroaniline	1100	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
4-Nitrophenol	NC	mg/kg	U		1.7	U		1.8	U		1.9	U		1.9
Acenaphthene	45000	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Acenaphthylene	NC	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Acetophenone	2500	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Anthracene	100000	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Atrazine	100	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Benzaldehyde	1200	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Benzo(a)anthracene	210	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Benzo(a)pyrene	21	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Benzo(b)fluoranthene	210	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Benzo(g,h,i)perylene	NC	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Benzo(k)fluoranthene	2100	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Biphenyl (Diphenyl)	200	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
bis(2-Chloroethoxy)methane	2500	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
bis(2-Chloroethyl) ether	10	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
bis(2-Ethylhexyl)phthalate	1600	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Butylbenzylphthalate	12000	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Caprolactam	100000	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Carbazole	NC	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Chrysene	21000	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Dibenz(a,h)anthracene	21	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Dibenzofuran	1000	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Diethylphthalate	100000	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Dimethylphthalate	NC	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Di-n-butylphthalate	82000	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Di-n-octylphthalate	8200	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Fluoranthene	30000	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Fluorene	30000	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Hexachloro-1,3-butadiene	17	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Hexachlorobenzene	9.6	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Hexachlorocyclopentadiene	7.5	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Hexachloroethane	80	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Indeno(1,2,3-cd)pyrene	210	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38
Isophorone	24000	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38

TABLE 4B  
RFI Soil Sampling- Organics  
Exide Technologies  
Frankfort, Indiana

Sample Location				MW-5-10.5-11.5			MW-6-18-19			MW-7-22.5-23.5			MW-8-17.5-18.5		
Lab ID				50195836009			50195621006			50195782007			50195836005		
Sample Date				5/2/2018			4/30/2018			5/1/2018			5/2/2018		
Matrix				Soil			Soil			Soil			Soil		
PID Result (ppm)				<1			<1			<1			<1		
Parameter	2018 RCG Soil Residential Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	
Naphthalene	170	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38	
Nitrobenzene	220	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38	
N-Nitroso-di-n-propylamine	3.3	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38	
N-Nitrosodiphenylamine	4700	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38	
Pentachlorophenol	40	mg/kg	U		1.7	U		1.8	U		1.9	U		1.9	
Phenanthrene	NC	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38	
Phenol	100000	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38	
Pyrene	23000	mg/kg	U		0.36	U		0.38	U		0.39	U		0.38	
<b>Total Petroleum Hydrocarbons</b>															
Diesel Range Organics (C8-C28)	5800	mg/kg			NA			NA			NA			NA	
Gasoline Range Organics	4300	mg/kg			NA			NA			NA			NA	
<b>Conventionals</b>															
Percent Moisture	NC	%	9		0.1	13.9		0.1	15.2		0.1	14.7	J	0.1	

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG Soil Direct  
Contact Non-Residential, 2009 RISC TPH Closure Limits**

TABLE 5A  
RFI Surface Soil Samples  
Exide Technologies  
Frankfort, Indiana

Sample Location		SS-1-0-0.5	SS-1-0.5-1	SS-2-0-0.5	SS-2-0.5-1	SS-3-0-0.5	SS-3-0.5-1													
Lab ID	<b>2018 RCG Soil</b>	50196014037	50196014038	50196014039	50196014040	50196014041	50196014042													
Sample Date	<b>Direct Contact</b>	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018	5/3/2018													
Matrix	<b>Non-Residential</b>	Soil	Soil	Soil	Soil	Soil	Soil													
Remarks																				
Parameter	<b>Limit</b>	<b>Units</b>	<b>Result</b>	<b>Q</b>	<b>RL</b>	<b>Result</b>	<b>Q</b>	<b>RL</b>	<b>Result</b>	<b>Q</b>	<b>RL</b>	<b>Result</b>	<b>Q</b>	<b>RL</b>	<b>Result</b>	<b>Q</b>	<b>RL</b>			
<b>Total Metals</b>																				
Arsenic	30	mg/kg	10.5		1.2	4.9		0.97	7.1		1.1	7.6		0.99	6.1		1.1	6.3		1
Barium	100000	mg/kg	414		1.2	305		0.97	77.1		1.1	78		0.99	49.6		1.1	43.1		1
Cadmium	980	mg/kg	1.7		0.6	0.66		0.49	0.37	J	0.55	0.36	J	0.49		U	0.54		U	0.52
Chromium	NC	mg/kg	16.7	J	1.2	7.6	J	0.97	10.2	J	1.1	11.2	J	0.99	8.9	J	1.1	9.1	J	1
Lead	800	mg/kg	<b>1660</b>	J	1.2	334	J	0.97	215	J	1.1	218	J	0.99	140	J	1.1	69.1	J	1
Mercury	3.1	mg/kg	0.097	J	0.24	0.074	J	0.23	0.032	J	0.21	0.028	J	0.21	0.026	J	0.23	0.017	J	0.23
Selenium	5800	mg/kg	1.1	J	1.2		U	0.97		U	1.1		U	0.99		U	1.1		U	1
Silver	5800	mg/kg	7.7		0.6	1.4		0.49		U	0.55		U	0.49		U	0.54		U	0.52
<b>Conventionals</b>																				
Percent Moisture		%	17.6		0.1	12.2		0.1	11.7		0.1	7.7		0.1	10.8		0.1	11.5		0.1

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Shading indicates exceedances of IDEM 2018 RCG Soil Direct Contact Non-Residential Limit**

TABLE 5B  
RFI Sediment Samples  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG Soil Direct Contact Non- Residential	SED-01				SED-02			SED-03			MH-3-SED			MH-4-SED			MH-5-SED			MH-8-SED		
Lab ID		50196014034				50196014035			50196014036			50196014043			50196014045			50196014044			50196014046		
Sample Date		5/3/2018				5/3/2018			5/3/2018			5/3/2018			5/3/2018			5/3/2018			5/3/2018		
Matrix		Sediment				Sediment			Sediment			Sediment			Sediment			Sediment			Sediment		
Remarks																							
Parameter	Limit	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL
<b>Total Metals</b>																							
Arsenic	30	mg/kg	22.1		1.2	20		1	18.8		0.97	2.1		1.1	3		0.95	9.2		1.2	10.4		1.2
Barium	100000	mg/kg	132		1.2	123		1	138		0.97	34.9		1.1	62.6		0.95	81.9		1.2	121		1.2
Cadmium	980	mg/kg	3.5		0.61	3.2		0.52	3		0.48	0.76		0.55	0.33	J	0.47	1.3		0.59	3.1		0.62
Chromium	NC	mg/kg	32	J	1.2	28	J	1	39.9	J	0.97	9.7	J	1.1	9	J	0.95	28.2	J	1.2	33.9	J	1.2
Lead	800	mg/kg	<b>5850</b>	J	1.2	<b>4710</b>	J	1	<b>4730</b>	J	0.97	196	J	1.1	146	J	0.95	<b>4460</b>	J	1.2	<b>6990</b>	J	2.5
Mercury	3.1	mg/kg	0.096	J	0.26	0.062	J	0.22	0.043	J	0.22		U	0.23	0.05	J	0.29	0.12	J	0.25	0.28	J	0.29
Selenium	5800	mg/kg	2.5		1.2	2.4		1	1.9		0.97		U	1.1		U	0.95	1.2	J	1.2	1.1	J	1.2
Silver	5800	mg/kg	0.48	J	0.61			U	0.52		U	0.48		U	0.55		U	0.47		U	0.59	0.68	0.62
<b>Conventionals</b>																							
Percent Moisture		%	20		0.1	12.5		0.1	12		0.1	16.1		0.1	25.5		0.1	21.2		0.1	28.4		0.1

J - Denotes an estimated reporting limit

mg/kg - milligram per kilogram

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG Soil Direct Contact Non-Residential**

TABLE 6  
RFI Groundwater May Sampling Event  
Exide Technologies  
Frankfort, Indiana

Sample Location			MW-1			MW-2			MW-3			MW-4			MW-5			MW-6			MW-7			MW-8			
Lab ID	2018 RCG GW Tap Limit, 2009 RISC TPH Closure Limits		50197684004	50197684005	50197684006	50197684007	50197684001	50197684008	50197684003	50197684002																	
Sample Date		5/24/2018	5/24/2018	5/24/2018	5/24/2018	5/23/2018	5/25/2018	5/24/2018	5/24/2018																		
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater																		
Remarks		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater																		
Parameter	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL		
<b>Volatiles</b>																											
1,1,1-Trichloroethane	200	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
1,1,2,2-Tetrachloroethane	0.76	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
1,1,2-Trichloroethane	5	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
1,1,2-Trichlorotrifluoroethane	10000	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
1,1-Dichloroethane	28	ug/L		U	5		U	5		U	5		900		50		U	5		U	5		U	5		U	5
1,1-Dichloroethene	7	ug/L		U	5		U	5		U	5		609		50		U	5		U	5		U	5		U	5
1,2,3-Trichlorobenzene	7	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
1,2,4-Trichlorobenzene	70	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
1,2-Dibromo-3-chloropropane	0.2	ug/L		U	10		U	10		U	10		U	100		U	10		U	10		U	10		U	10	
1,2-Dibromoethane (EDB)	0.05	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
1,2-Dichlorobenzene	600	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
1,2-Dichloroethane	5	ug/L		U	5		U	5		U	5		89.9		50		U	5		U	5		U	5		U	5
1,2-Dichloropropane	5	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
1,3-Dichlorobenzene	NC	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
1,4-Dichlorobenzene	75	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
2-Butanone (MEK)	5600	ug/L		UJ	25		U	25		U	25		UJ	250		UJ	25		U	25		UJ	25		UJ	25	
2-Hexanone	38	ug/L		U	25		U	25		U	25		U	250		U	25		U	25		U	25		U	25	
4-Methyl-2-pentanone (MIBK)	6300	ug/L		U	25		U	25		U	25		U	250		U	25		U	25		U	25		U	25	
Acetone	14000	ug/L		UJ	100	4.5	J	100	4.9	J	100		UJ	1000		UJ	100	2.5	J	100	49.7	J	100		UJ	100	
Benzene	5	ug/L		U	5		U	5		U	5		14.6	J	50		U	5		U	5		U	5		U	5
Bromochloromethane	83	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
Bromodichloromethane	80	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
Bromoform	80	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
Bromomethane	7.5	ug/L		UJ	5		UJ	5		UJ	5		UJ	50		UJ	5		UJ	5		UJ	5		UJ	5	
Carbon disulfide	810	ug/L		U	10		U	10		U	10		U	100		U	10		U	10		U	10		U	10	
Carbon tetrachloride	5	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
Chlorobenzene	100	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
Chloroethane	21000	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
Chloroform	80	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
Chloromethane	190	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
cis-1,2-Dichloroethene	70	ug/L	6.6		5		U	5	1.1	J	5	273000		5000		U	5	22.5	J	5	4.1	J	5	0.68	J	5	
cis-1,3-Dichloropropene	4.7	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
Cyclohexane	13000	ug/L		U	100		U	100		U	100		U	1000		U	100		U	100		U	100		U	100	
Dibromochloromethane	80	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
Dichlorodifluoromethane	200	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
Ethylbenzene	700	ug/L		U	5		U	5		U	5		39.1	J	50		U	5		U	5		U	5		U	5
Isopropylbenzene (Cumene)	450	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
Methyl acetate	20000	ug/L		U	50		U	50		U	50		U	500		U	50		U	50		U	50		U	50	
Methylcyclohexane	NC	ug/L		U	50		U	50		U	50		U	500		U	50		U	50		U	50		U	50	
Methylene Chloride	5	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
Methyl-tert-butyl ether	140	ug/L		U	4		U	4		U	4		U	40		U	4		U	4		U	4		U	4	
Styrene	100	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
Tetrachloroethene	5	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
Toluene	1000	ug/L		U	5		U	5		U	5		268		50		U	5		U	5		U	5		U	5
trans-1,2-Dichloroethene	100	ug/L		U	5		U	5		U	5		1730		50		U	5		U	5		U	5		U	5
trans-1,3-Dichloropropene	4.7	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
Trichloroethene	5	ug/L	15.8		5	2.9	J	5	3.6	J	5	357000		5000		U	5	106	R	5	16		5		U	5	
Trichlorofluoromethane	5200	ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
Vinyl chloride	2	ug/L		U	2		U	2		U	2		18100		2000		U	2		U	2		U	2		U	2
Xylene (Total)	10000	ug/L		U	10		U	10		U	10		U	100		U	10		U	10		U	10		U	10	
<b>Semivolatiles</b>																											
1,2,4,5-Tetrachlorobenzene	1.7	ug/L		U	10		U	10		U	10		U	10		U	10		U	10		U	10		U	10	
2,2'-Oxybis(1-chloropropane)	NC	ug/L		U	10		U	10		U	10		U	10		U	10		U	10		U	10		U	10	
2,3,4,6-Tetrachlorophenol	240	ug/L		U	10		U	10		U	10		U	10		U	10		U	10		U	10		U	10	
2,4,5-Trichlorophenol	1200	ug/L		U	10		U	10		U	10		U	10		U	10		U	10		U	10		U	10	

TABLE 6  
RFI Groundwater May Sampling Event  
Exide Technologies  
Frankfort, Indiana

Sample Location		MW-1			MW-2			MW-3			MW-4			MW-5			MW-6			MW-7			MW-8					
Lab ID	2018 RCG GW Tap Limit, 2009 RISC TPH Closure Limits	50197684004			50197684005			50197684006			50197684007			50197684001			50197684008			50197684003			50197684002					
Sample Date		5/24/2018			5/24/2018			5/24/2018			5/24/2018			5/23/2018			5/25/2018			5/24/2018			5/24/2018					
Matrix		Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			Groundwater					
Remarks																												
Parameter		Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL		
2,4,6-Trichlorophenol	12	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
2,4-Dichlorophenol	46	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
2,4-Dimethylphenol	360	ug/L	U	10			U	10			U	10	12.3		U	10			U	10			U	10				
2,4-Dinitrophenol	39	ug/L	U	50			U	50			U	50			U	50			U	50			U	50				
2,4-Dinitrotoluene	2.4	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
2,6-Dinitrotoluene	0.49	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
2-Chloronaphthalene	750	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
2-Chlorophenol	91	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
2-Methylphenol(o-Cresol)	930	ug/L	U	10			U	10			U	10	36.8		U	10			U	10			U	10				
2-Nitroaniline	190	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
2-Nitrophenol	NC	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
3&4-Methylphenol(m&p Cresol)	930	ug/L	U	10			U	10			U	10	31.3		U	10			U	10			U	10				
3,3'-Dichlorobenzidine	1.3	ug/L	U	20			U	20			U	20			U	20			U	20			U	20				
3-Nitroaniline	NC	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
4,6-Dinitro-2-methylphenol	1.5	ug/L	U	20			U	20			U	20			U	20			U	20			U	20				
4-Bromophenylphenyl ether	NC	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
4-Chloro-3-methylphenol	1400	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
4-Chloroaniline	3.7	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
4-Chlorophenylphenyl ether	NC	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
4-Nitroaniline	38	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
4-Nitrophenol	NC	ug/L	U	50			U	50			U	50			U	50			U	50			U	50				
Acetophenone	1900	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
Atrazine	3	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
Benzaldehyde	190	ug/L	U	50			U	50			U	50			U	50			U	50			U	50				
Biphenyl (Diphenyl)	0.83	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
bis(2-Chloroethoxy)methane	59	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
bis(2-Chloroethyl) ether	0.14	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
bis(2-Ethylhexyl)phthalate	6	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
Butylbenzylphthalate	160	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
Caprolactam	9900	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
Carbazole	NC	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
Dibenzofuran	7.9	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
Diethylphthalate	15000	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
Dimethylphthalate	NC	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
Di-n-butylphthalate	900	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
Di-n-octylphthalate	200	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
Hexachloro-1,3-butadiene	1.4	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
Hexachlorobenzene	1	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
Hexachlorocyclopentadiene	50	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
Hexachloroethane	3.3	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
Isophorone	780	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
Nitrobenzene	1.4	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
N-Nitroso-di-n-propylamine	0.11	ug/L	U	50			U	50			U	50			U	50			U	50			U	50				
N-Nitrosodiphenylamine	120	ug/L	U	10			U	10			U	10			U	10			U	10			U	10				
Pentachlorophenol	1	ug/L	U	50			U	50			U	50			U	50			U	50			U	50				
Phenol	5800	ug/L	U	10			U	10			U	10	5.8	J	U	10			U	10			U	10				
<b>Semivolatiles SIMs</b>																												
1,4-Dioxane (p-Dioxane)	4.6	ug/L	U	3		R	3			U	3	1.2	J	3			U	3			U	3		U	3	11.3	3	
2-Methylnaphthalene	36	ug/L	U	1		U	1			U	1	0.51	J	1			U	1			U	1		U	1		U	1
Acenaphthene	530	ug/L	U	1		U	1			U	1	0.078	J	1			U	1			U	1		U	1		U	1
Acenaphthylene	NC	ug/L	U	1		U	1			U	1		U	1			U	1			U	1		U	1		U	1
Anthracene	1800	ug/L	U	0.1		U	0.1			U	0.1		U	0.1			U	0.1			U	0.1		U	0.1		U	0.1
Benzo(a)anthracene	0.12	ug/L	U	0.1		U	0.1			U	0.1		U	0.1			U	0.1			U	0.1		U	0.1		U	0.1
Benzo(a)pyrene	0.2	ug/L	U	0.1		U	0.1			U	0.1		U	0.1			U	0.1			U	0.1		U	0.1		U	0.1
Benzo(b)fluoranthene	0.34	ug/L	U	0.1		U	0.1			U	0.1		U	0.1			U	0.1			U	0.1		U	0.1		U	0.1
Benzo(g,h,i)perylene	NC	ug/L	U	0.1		U	0.1			U	0.1		U	0.1			U	0.1			U	0.1		U	0.1		U	0.1



TABLE 6  
RFI Groundwater May Sampling Event  
Exide Technologies  
Frankfort, Indiana

Sample Location			MW-1			MW-2			MW-3			MW-4			MW-5			MW-6			MW-7			MW-8		
Lab ID	2018 RCG GW Tap Limit, 2009 RISC TPH Closure Limits		50197684004			50197684005			50197684006			50197684007			50197684001			50197684008			50197684003			50197684002		
Sample Date			5/24/2018			5/24/2018			5/24/2018			5/24/2018			5/23/2018			5/25/2018			5/24/2018			5/24/2018		
Matrix			Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			Groundwater		
Remarks																										
Parameter	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	
Benzo(k)fluoranthene	3.4	ug/L		UJ	0.1		UJ	0.1		UJ	0.1		UJ	0.1		UJ	0.1		UJ	0.1		UJ	0.1		UJ	0.1
Chrysene	3.4	ug/L		U	0.5		U	0.5		U	0.5		U	0.5		U	0.5		U	0.5		U	0.5		U	0.5
Dibenz(a,h)anthracene	0.034	ug/L		UJ	<b>0.1</b>		UJ	<b>0.1</b>		UJ	<b>0.1</b>		UJ	<b>0.1</b>		UJ	<b>0.1</b>		UJ	<b>0.1</b>		UJ	<b>0.1</b>		UJ	<b>0.1</b>
Fluoranthene	800	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
Fluorene	290	ug/L		U	1		U	1		U	1	0.09	J	1		U	1		U	1		U	1		U	1
Indeno(1,2,3-cd)pyrene	0.34	ug/L		UJ	0.1		UJ	0.1		UJ	0.1		UJ	0.1		UJ	0.1		UJ	0.1		UJ	0.1		UJ	0.1
Naphthalene	1.7	ug/L		U	1		U	1		U	1	1	J	1		U	1		U	1		U	1		U	1
Phenanthrene	NC	ug/L		UJ	1		UJ	1		UJ	1	0.2	J	1		UJ	1		UJ	1		UJ	1		UJ	1
Pyrene	120	ug/L		U	1		U	1		U	1		U	1		U	1		U	1		U	1		U	1
<b>Total Petroleum Hydrocarbons</b>																										
Diesel Range Organics (C8-C28)	14	mg/L		NA			NA		0.18		0.1	3.9		0.1		NA		0.07	J	0.1		NA			NA	
Gasoline Range Organics	2.5	mg/L		NA			NA			U	0.2	<b>214</b>		<b>20</b>		NA			U	0.2		NA			NA	
<b>Total Metals</b>																										
Arsenic	10	ug/L		U	10		U	10	4	J	10	<b>20.8</b>		10		U	10		U	10	5.5	J	10		U	10
Barium	2000	ug/L	26.6	J	10	75.8	J	10	137		10	558		10	43.6	J	10	92.8	J	10	466	J	10	52.9	J	10
Cadmium	5	ug/L	0.54	J	2	0.43	J	2	0.52	J	2	0.64	J	2	0.28	J	2	0.21	J	2	0.5	J	2	0.55	J	2
Chromium	100	ug/L	0.63	J	10	0.53	J	10	9.3	J	10		U	10		U	10		U	10		U	10		U	10
Lead	15	ug/L		U	10		U	10	4.1	J	10		U	10		U	10		U	10		U	10		U	10
Mercury	2	ug/L		U	2		U	2		U	2		U	2		U	2		U	2		U	2		U	2
Selenium	50	ug/L		U	10		U	10		U	10		U	10		U	10		U	10		U	10		U	10
Silver	94	ug/L		U	10		U	10		U	10		U	10		U	10		U	10		U	10		U	10
<b>Dissovled Metals</b>																										
Arsenic, Dissolved	10	ug/L		U	10		U	10		U	10	<b>19.4</b>		10		U	10		U	10		U	10		U	10
Barium, Dissolved	2000	ug/L	37.6	J	10	68.3	J	10	99.9		10	560		10	38.8	J	10	86.7	J	10	414	J	10	51.9	J	10
Cadmium, Dissolved	5	ug/L	0.34	J	2		U	2		U	2	0.49	J	2	0.3	J	2	0.28	J	2	0.26	J	2		U	2
Chromium, Dissolved	100	ug/L	1.3	J	10	1.6	J	10	1.6	J	10	1.8	J	10		U	10	0.95	J	10	1.4	J	10	1.8	J	10
Lead, Dissolved	15	ug/L		U	10		U	10		U	10		U	10		U	10		U	10		U	10		U	10
Mercury, Dissolved	2	ug/L		UJ	2		UJ	2		UJ	2		UJ	2		UJ	2		UJ	2		UJ	2		UJ	2
Selenium, Dissolved	50	ug/L		U	10		U	10		U	10		U	10		U	10	3.5	J	10		U	10		U	10
Silver, Dissolved	94	ug/L		U	10		U	10		U	10		U	10		U	10		U	10		U	10		U	10

J - Denotes an estimated reporting limit

ug/L - microgram per liter

mg/l - milligram per liter

NA - Not Analyzed for this parameter

Q - Qualifier

RL - Reporting Limit

R - Rejected

U - Analyte was not detected at or above the reporting limit

UJ - Denotes an estimated reporting limit

NC - No Criteria

RCG - Remediation Closure Guide

**Bolding indicates exceedances of IDEM 2018 RCG GW Tap Limit, 2009 RISC TPH Closure Limit:**

TABLE 7  
RFI Groundwater July Sampling Event  
Exide Technologies  
Frankfort, Indiana

Sample Location		2018 RCG GW Tap Limit, 2009 RISC TPH Closure Limits																								
Lab ID	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8																		
Sample Date	50200737006	50200737002	50200737001	50200737010	50200737003	50200737007	50200737005	50200737004																		
Matrix	7/8/2018	7/7/2018	7/7/2018	7/9/2018	7/8/2018	7/8/2018	7/8/2018	7/8/2018																		
Remarks	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater																		
Parameter	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	
<b>Volatiles</b>																										
1,1,1-Trichloroethane	200 ug/L	1	J	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
1,1,2,2-Tetrachloroethane	0.76 ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
1,1,2-Trichloroethane	5 ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
1,1,2-Trichlorotrifluoroethane	10000 ug/L		U	5		U	5		U	5		U	50		U	5		U	5		U	5		U	5	
1,1-Dichloroethane	28 ug/L	2.2	J	5		U	5		U	5	1070		50		U	5		U	5		U	5		U	5	
1,1-Dichloroethene	7 ug/L		U	5		U	5		U	5	712		50		U	5		U	5		U	5		U	5	
1,2,3-Trichlorobenzene	7 ug/L		U	5		U	5		U	5			50		U	5		U	5		U	5		U	5	
1,2,4-Trichlorobenzene	70 ug/L		U	5		U	5		U	5			50		U	5		U	5		U	5		U	5	
1,2-Dibromo-3-chloropropane	0.2 ug/L		U	10		U	10		U	10			100		U	10		U	10		U	10		U	10	
1,2-Dibromoethane (EDB)	0.05 ug/L		U	5		U	5		U	5			50		U	5		U	5		U	5		U	5	
1,2-Dichlorobenzene	600 ug/L		U	5		U	5		U	5			50		U	5		U	5		U	5		U	5	
1,2-Dichloroethane	5 ug/L		U	5		U	5		U	5	99.7		50		U	5		U	5		U	5		U	5	
1,2-Dichloropropane	5 ug/L		U	5		U	5		U	5			50		U	5		U	5		U	5		U	5	
1,3-Dichlorobenzene	NC ug/L		U	5		U	5		U	5			50		U	5		U	5		U	5		U	5	
1,4-Dichlorobenzene	75 ug/L		U	5		U	5		U	5			50		U	5		U	5		U	5		U	5	
2-Butanone (MEK)	5600 ug/L		U	25		U	25		U	25	41.7	J	250		U	25		U	25		U	25		U	25	
2-Hexanone	38 ug/L		U	25		U	25		U	25			250		U	25		U	25		U	25		U	25	
4-Methyl-2-pentanone (MIBK)	6300 ug/L		U	25		U	25		U	25			250		U	25		U	25		U	25		U	25	
Acetone	14000 ug/L		U	100		U	100		U	100	18.4	J	1000		U	100		U	100		U	100	3.8	J	100	
Benzene	5 ug/L		U	5		U	5		U	5	16.1	J	50		U	5		U	5		U	5		U	5	
Bromochloromethane	83 ug/L		U	5		U	5		U	5			50		U	5		U	5		U	5		U	5	
Bromodichloromethane	80 ug/L		U	5		U	5		U	5			50		U	5		U	5		U	5		U	5	
Bromoform	80 ug/L		U	5		U	5		U	5			50		U	5		U	5		U	5		U	5	
Bromomethane	7.5 ug/L		U	5		U	5		U	5			50		U	5		U	5		U	5		U	5	
Carbon disulfide	810 ug/L		U	10		U	10		U	10			100		U	10		U	10		U	10		U	10	
Carbon tetrachloride	5 ug/L		U	5		U	5		U	5			50		U	5		U	5		U	5		U	5	
Chlorobenzene	100 ug/L		U	5		U	5		U	5			50		U	5		U	5		U	5		U	5	
Chloroethane	21000 ug/L		U	5		U	5		U	5	24.8	J	50		U	5		U	5		U	5		U	5	
Chloroform	80 ug/L		U	5		U	5		U	5			50		U	5		U	5		U	5		U	5	
Chloromethane	190 ug/L		UJ	5		UJ	5		UJ	5			50		UJ	5		UJ	5		UJ	5		UJ	5	
cis-1,2-Dichloroethene	70 ug/L	8.9		5		U	5		U	5	218000		5000		U	5	2.1	J	5		2.6	J	5		U	5
cis-1,3-Dichloropropene	4.7 ug/L		U	5		U	5		U	5			50		U	5		U	5		U	5		U	5	
Cyclohexane	13000 ug/L		U	100		U	100		U	100			1000		U	100		U	100		U	100		U	100	
Dibromochloromethane	80 ug/L		U	5		U	5		U	5			50		U	5		U	5		U	5		U	5	
Dichlorodifluoromethane	200 ug/L		UJ	5		UJ	5		UJ	5			50		UJ	5		UJ	5		UJ	5		UJ	5	
Ethylbenzene	700 ug/L		U	5		U	5		U	5	40.1	J	50		U	5		U	5		U	5		U	5	
Isopropylbenzene (Cumene)	450 ug/L		U	5		U	5		U	5			50		U	5		U	5		U	5		U	5	
Methyl acetate	20000 ug/L		U	50		U	50		U	50			500		U	50		U	50		U	50		U	50	
Methylcyclohexane	NC ug/L		U	50		U	50		U	50			500		U	50		U	50		U	50		U	50	
Methylene Chloride	5 ug/L		U	5		U	5		U	5			50		U	5		U	5		U	5		U	5	
Methyl-tert-butyl ether	140 ug/L		U	4		U	4		U	4			40		U	4		U	4		U	4		U	4	
Styrene	100 ug/L		U	5		U	5		U	5			50		U	5		U	5		U	5		U	5	
Tetrachloroethene	5 ug/L		U	5		U	5		U	5			50		U	5		U	5		U	5		U	5	
Toluene	1000 ug/L		U	5		U	5		U	5	313		50		U	5		U	5		U	5		U	5	
trans-1,2-Dichloroethene	100 ug/L		U	5		U	5		U	5	2480		500		U	5		U	5		U	5		U	5	
trans-1,3-Dichloropropene	4.7 ug/L		U	5		U	5		U	5			50		U	5		U	5		U	5		U	5	
Trichloroethene	5 ug/L	19.8		5	1.1	J	5	0.72	U	5	214000		5000		U	5		U	5		9.9		5		U	5
Trichlorofluoromethane	5200 ug/L		UJ	5		UJ	5		UJ	5			50		UJ	5		UJ	5		UJ	5		UJ	5	
Vinyl chloride	2 ug/L		U	2		U	2		U	2	19500		200		U	2		U	2		U	2		U	2	
Xylene (Total)	10000 ug/L		U	10		U	10		U	10	50.4	J	100		U	10		U	10		U	10		U	10	
<b>Semivolatiles</b>																										
1,2,4,5-Tetrachlorobenzene	1.7 ug/L		U	10		U	10		U	10			10		U	10		U	10		U	10		U	10	
2,2'-Oxybis(1-chloropropane)	NC ug/L		U	10		U	10		U	10			10		U	10		U	10		U	10		U	10	
2,3,4,6-Tetrachlorophenol	240 ug/L		U	10		U	10		U	10			10		U	10		U	10		U	10		U	10	
2,4,5-Trichlorophenol	1200 ug/L		U	10		U	10		U	10			10		U	10		U	10		U	10		U	10	

TABLE 7  
RFI Groundwater July Sampling Event  
Exide Technologies  
Frankfort, Indiana

Sample Location	2018 RCG GW Tap Limit, 2009 RISC TPH Closure Limits	MW-1			MW-2			MW-3			MW-4			MW-5			MW-6			MW-7			MW-8			
Lab ID		50200737006	50200737002	50200737001	50200737010	50200737003	50200737007	50200737005	50200737004	7/8/2018	7/7/2018	7/7/2018	7/9/2018	7/8/2018	7/8/2018	7/8/2018	7/8/2018	7/8/2018	7/8/2018	7/8/2018	7/8/2018	7/8/2018	7/8/2018			
Sample Date																										
Matrix		Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			
Remarks																										
Parameter	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	
2,4,6-Trichlorophenol	12	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
2,4-Dichlorophenol	46	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
2,4-Dimethylphenol	360	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
2,4-Dinitrophenol	39	ug/L		U 50			U 50			U 50			U 50			U 50			U 50			U 50			U 50	
2,4-Dinitrotoluene	2.4	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
2,6-Dinitrotoluene	0.49	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
2-Chloronaphthalene	750	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
2-Chlorophenol	91	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
2-Methylphenol(o-Cresol)	930	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
2-Nitroaniline	190	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
2-Nitrophenol	NC	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
3&4-Methylphenol(m&p Cresol)	930	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
3,3'-Dichlorobenzidine	1.3	ug/L		U 20			U 20			U 20			U 20			U 20			U 20			U 20			U 20	
3-Nitroaniline	NC	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
4,6-Dinitro-2-methylphenol	1.5	ug/L		U 20			U 20			U 20			U 20			U 20			U 20			U 20			U 20	
4-Bromophenylphenyl ether	NC	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
4-Chloro-3-methylphenol	1400	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
4-Chloroaniline	3.7	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
4-Chlorophenylphenyl ether	NC	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
4-Nitroaniline	38	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
4-Nitrophenol	NC	ug/L		U 50			U 50			U 50			U 50			U 50			U 50			U 50			U 50	
Acetophenone	1900	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
Atrazine	3	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
Benzaldehyde	190	ug/L		U 50			U 50			U 50			U 50			U 50			U 50			U 50			U 50	
Biphenyl (Diphenyl)	0.83	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
bis(2-Chloroethoxy)methane	59	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
bis(2-Chloroethyl) ether	0.14	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
bis(2-Ethylhexyl)phthalate	6	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
Butylbenzylphthalate	160	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
Caprolactam	9900	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
Carbazole	NC	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
Dibenzofuran	7.9	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
Diethylphthalate	15000	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
Dimethylphthalate	NC	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
Di-n-butylphthalate	900	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
Di-n-octylphthalate	200	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
Hexachloro-1,3-butadiene	1.4	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
Hexachlorobenzene	1	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
Hexachlorocyclopentadiene	50	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
Hexachloroethane	3.3	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
Isophorone	780	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
Nitrobenzene	1.4	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
N-Nitroso-di-n-propylamine	0.11	ug/L		U 50			U 50			U 50			U 50			U 50			U 50			U 50			U 50	
N-Nitrosodiphenylamine	120	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
Pentachlorophenol	1	ug/L		U 50			U 50			U 50			U 50			U 50			U 50			U 50			U 50	
Phenol	5800	ug/L		U 10			U 10			U 10			U 10			U 10			U 10			U 10			U 10	
<b>Semivolatiles SIMs</b>																										
1,4-Dioxane (p-Dioxane)	4.6	ug/L		U 3			U 3			U 3			U 3			U 3			U 3			U 3			8.7	U 3
2-Methylnaphthalene	36	ug/L		U 1			U 1			U 1			U 1			U 1			U 1			U 1			U 1	U 1
Acenaphthene	530	ug/L		U 1			U 1			U 1			U 1			U 1			U 1			U 1			U 1	U 1
Acenaphthylene	NC	ug/L		U 1			U 1			U 1			U 1			U 1			U 1			U 1			U 1	U 1
Anthracene	1800	ug/L		U 0.1			U 0.1			U 0.1			U 0.1			U 0.1			U 0.1			U 0.1			U 0.1	U 0.1
Benzo(a)anthracene	0.12	ug/L		U 0.1			U 0.1			U 0.1			U 0.1			U 0.1			U 0.1			U 0.1			U 0.1	U 0.1
Benzo(a)pyrene	0.2	ug/L		U 0.1			U 0.1			U 0.1			U 0.1			U 0.1			U 0.1			U 0.1			U 0.1	U 0.1
Benzo(b)fluoranthene	0.34	ug/L		U 0.1			U 0.1			U 0.1			U 0.1			U 0.1			U 0.1			U 0.1			U 0.1	U 0.1
Benzo(g,h,i)perylene	NC	ug/L		U 0.1			U 0.1			U 0.1			U 0.1			U 0.1			U 0.1			U 0.1			U 0.1	U 0.1

TABLE 7  
RFI Groundwater July Sampling Event  
Exide Technologies  
Frankfort, Indiana

Sample Location			MW-1			MW-2			MW-3			MW-4			MW-5			MW-6			MW-7			MW-8			
Lab ID			50200737006			50200737002			50200737001			50200737010			50200737003			50200737007			50200737005			50200737004			
Sample Date			7/8/2018			7/7/2018			7/7/2018			7/9/2018			7/8/2018			7/8/2018			7/8/2018			7/8/2018			
Matrix			Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			Groundwater			
Remarks	2018 RCG GW Tap Limit, 2009 RISC TPH Closure Limits																										
Parameter		Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	
Benzo(k)fluoranthene	3.4	ug/L		U	0.1		U	0.1		U	0.1		U	0.1		U	0.1		U	0.1		U	0.1		U	0.1	
Chrysene	3.4	ug/L		U	0.5		U	0.5		U	0.5		U	0.5		U	0.5		U	0.5		U	0.5		U	0.5	
Dibenz(a,h)anthracene	0.034	ug/L		U	<b>0.1</b>		U	<b>0.1</b>		U	<b>0.1</b>		U	<b>0.1</b>		U	<b>0.1</b>		U	<b>0.1</b>		U	<b>0.1</b>		U	<b>0.1</b>	
Fluoranthene	800	ug/L		U	1		U	1		U	1	0.13	J	1		U	1		U	1		U	1		U	1	
Fluorene	290	ug/L		U	1		U	1		U	1	0.1	J	1		U	1		U	1		U	1		U	1	
Indeno(1,2,3-cd)pyrene	0.34	ug/L		U	0.1		U	0.1		U	0.1		U	0.1		U	0.1		U	0.1		U	0.1		U	0.1	
Naphthalene	1.7	ug/L		U	1		U	1		U	1	<b>1.8</b>		1		U	1		U	1		U	1		U	1	
Phenanthrene	NC	ug/L		U	1		U	1		U	1	0.24	J	1		U	1		U	1		U	1		U	1	
Pyrene	120	ug/L		U	1		U	1		U	1	0.068	J	1		U	1		U	1		U	1		U	1	
<b>Total Petroleum Hydrocarbons</b>																											
Diesel Range Organics (C8-C28)	14	mg/L		NA			NA		0.18	U	0.1	3.8	J	0.1		NA		0.12	U	0.11		NA			NA		
Gasoline Range Organics	2.5	mg/L		NA			NA			U	0.2	<b>278</b>		<b>10</b>		NA			U	0.2		NA			NA		
<b>Total Metals</b>																											
Arsenic	10	ug/L		U	10		U	10		U	10	<b>36</b>		10		U	10		U	10	<b>16.6</b>		10		U	10	
Barium	2000	ug/L	23.5		10	64.6		10	80		10	578		10	56.4		10	98.2		10	562		10	51.3		10	
Cadmium	5	ug/L	0.54	J	2		U	2		U	2	0.59	J	2		U	2		U	2	0.47	J	2	0.54	J	2	
Chromium	100	ug/L		U	10		U	10		U	10		U	10		U	10		U	10	1.2	J	10		U	10	
Lead	15	ug/L		U	10		U	10		U	10		U	10		U	10		U	10		U	10		U	10	
Mercury	2	ug/L		U	2		U	2		U	2		U	2		U	2		U	2		U	2		U	2	
Selenium	50	ug/L		U	10		U	10		U	10		U	10		U	10		U	10		U	10		U	10	
Silver	94	ug/L		U	10		U	10		U	10		U	10		U	10		U	10		U	10		U	10	
<b>Dissolved Metals</b>																											
Arsenic, Dissolved	10	ug/L		U	5		U	5		U	5	<b>33.6</b>		5		U	5		U	5	<b>12.2</b>		5		U	5	
Barium, Dissolved	2000	ug/L	24.7		10	65		10	79.8		10	583		10	54.4		10	99.8		10	553		10	53.5		10	
Cadmium, Dissolved	5	ug/L		U	3		U	3		U	3		U	3		U	3		U	3		U	3		U	3	
Chromium, Dissolved	100	ug/L		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5	
Lead, Dissolved	15	ug/L		U	5		U	5		U	5		U	5		U	5		U	5		U	5		U	5	
Mercury, Dissolved	2	ug/L		U	2		U	2		U	2		U	2		U	2		U	2		U	2		U	2	
Selenium, Dissolved	50	ug/L		U	10		U	10		U	10		U	10		U	10		U	10		U	10		U	10	
Silver, Dissolved	94	ug/L		U	6		U	6		U	6		U	6		U	6		U	6		U	6		U	6	

J - Denotes an estimated reporting limit  
ug/L - microgram per liter  
mg/l - milligram per liter  
NA - Not Analyzed for this parameter  
Q - Qualifier  
RL - Reporting Limit  
R - Rejected  
U - Analyte was not detected at or above the reporting limit  
UJ - Denotes an estimated reporting limit  
NC - No Criteria  
RCG - Remediation Closure Guide  
**Bolding indicates exceedances of IDEM 2018 RCG GW Tap Limit, 2009 RISC TPH Closure Limit:**

TABLE 8  
RFI Groundwater Hydropunch Sampling Event  
Exide Technologies  
Frankfort, Indiana

Sample Location				P2A			P2B			P2C			P2D			P2E			P2F			P2G			P2H			P2J						
Lab ID	2018 RCG GW Tap Limit, 2009 RISC TPH Closure Limits			50201366003		50201366001		50201366005		50201366006		50201366007		50201366008		50201366004		50201366009		50201366010		50201366010		50201366010		50201366010		50201366010		50201366010				
Sample Date				7/17/2018		7/17/2018		7/17/2018		7/17/2018		7/17/2018		7/17/2018		7/17/2018		7/17/2018		7/17/2018		7/17/2018		7/17/2018		7/17/2018		7/17/2018		7/17/2018				
Matrix				Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		Groundwater		
Remarks																																		
Parameter		Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL		
Volatiles																																		
1,1,1-Trichloroethane	200	ug/L		U	<b>2500</b>		U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		
1,1,2,2-Tetrachloroethane	0.76	ug/L		U	<b>2500</b>		U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		
1,1,2-Trichloroethane	5	ug/L		U	<b>2500</b>		U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		
1,1,2-Trichlorotrifluoroethane	10000	ug/L		U	<b>2500</b>		U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		
1,1-Dichloroethane	28	ug/L	<b>254</b>	J	<b>2500</b>	9.9		5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>	18.5		5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>	890	J	<b>2500</b>		
1,1-Dichloroethene	7	ug/L		U	<b>2500</b>	8.5		5		U	<b>2500</b>		U	<b>2500</b>	473	J	<b>2500</b>	0.61		J	<b>2500</b>	10.5		U	<b>2500</b>		U	<b>2500</b>	8.3		5		U	<b>2500</b>
1,2,3-Trichlorobenzene	7	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>	
1,2,4-Trichlorobenzene	70	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>	0.53		J	<b>2500</b>		U	<b>2500</b>	0.44		J	<b>2500</b>		U	<b>2500</b>		
1,2-Dibromo-3-chloropropane	0.2	ug/L		U	<b>5000</b>		U	<b>10</b>		U	<b>5000</b>		U	<b>5000</b>		U	<b>5000</b>		U	<b>10</b>		U	<b>10</b>		U	<b>10</b>		U	<b>10</b>		U	<b>5000</b>		
1,2-Dibromoethane (EDB)	0.05	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>	
1,2-Dichlorobenzene	600	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>	
1,2-Dichloroethane	5	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>	
1,2-Dichloropropane	5	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>	
1,3-Dichlorobenzene	NC	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>	
1,4-Dichlorobenzene	75	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>	
2-Butanone (MEK)	5600	ug/L		U	<b>12500</b>			U	25		U	<b>12500</b>		U	<b>12500</b>		U	<b>12500</b>		U	25		U	25		U	25		U	25		U	<b>12500</b>	
2-Hexanone	38	ug/L		U	<b>12500</b>			U	25		U	<b>12500</b>		U	<b>12500</b>		U	<b>12500</b>		U	25		U	25		U	25		U	25		U	<b>12500</b>	
4-Methyl-2-pentanone (MIBK)	6300	ug/L		U	<b>12500</b>			U	25		U	<b>12500</b>		U	<b>12500</b>		U	<b>12500</b>		U	25		U	25		U	25		U	25		U	<b>12500</b>	
Acetone	14000	ug/L		U	<b>50000</b>			U	100		U	<b>50000</b>		U	<b>50000</b>		U	<b>50000</b>		U	100		U	100		U	100		U	100		U	<b>50000</b>	
Benzene	5	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	5		U	5	2.7		J	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>
Bromochloromethane	83	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	5		U	5		U	5		U	5		U	<b>2500</b>	
Bromodichloromethane	80	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	5		U	5		U	5		U	5		U	<b>2500</b>	
Bromoform	80	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	5		U	5		U	5		U	5		U	<b>2500</b>	
Bromomethane	7.5	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	5		U	5		U	5		U	5		U	<b>2500</b>	
Carbon disulfide	810	ug/L		U	<b>5000</b>			U	10		U	<b>5000</b>		U	<b>5000</b>		U	<b>5000</b>		U	10		U	10		U	10		U	10		U	<b>5000</b>	
Carbon tetrachloride	5	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	5		U	5		U	5		U	5		U	<b>2500</b>	
Chlorobenzene	100	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	5		U	5		U	5		U	5		U	<b>2500</b>	
Chloroethane	21000	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	5		U	5		U	5		U	5		U	<b>2500</b>	
Chloroform	80	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	5		U	5		U	5		U	5		U	<b>2500</b>	
Chloromethane	190	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	5		U	5		U	5		U	5		U	<b>2500</b>	
cis-1,2-Dichloroethene	70	ug/L	<b>32300</b>		<b>2500</b>	<b>3820</b>		<b>125</b>	<b>72600</b>		<b>2500</b>	<b>131000</b>		<b>2500</b>	<b>152000</b>	<b>25000</b>	<b>64.5</b>	<b>5</b>	<b>1670</b>	<b>50</b>	<b>2120</b>	<b>250</b>	<b>129000</b>	<b>2500</b>										
cis-1,3-Dichloropropene	4.7	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	5		U	5		U	5		U	5		U	<b>2500</b>	
Cyclohexane	13000	ug/L		U	<b>50000</b>			U	100		U	<b>50000</b>		U	<b>50000</b>		U	<b>50000</b>		U	100		U	100		U	100		U	100		U	<b>50000</b>	
Dibromochloromethane	80	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	5		U	5		U	5		U	5		U	<b>2500</b>	
Dichlorodifluoromethane	200	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	5		U	5		U	5		U	5		U	<b>2500</b>	
Ethylbenzene	700	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	5		U	5		U	5		U	5		U	<b>2500</b>	
Isopropylbenzene (Cumene)	450	ug/L		U	<b>2500</b>			U	5		U	<b>2500</b>		U	<b>2500</b>		U	<b>2500</b>		U	5		U	5		U	5		U	5		U	<b>2500</b>	
Methyl acetate	20000	ug/L		U	<b>25000</b>			U	50		U	<b>25000</b>		U	<b>25000</b>		U	<b>25000</b>		U	50		U	50		U	50		U	50		U	<b>25000</b>	
Methylcyclohexane	NC	ug/L		U																														

**TABLE 9A**  
**RFI RCRA Metal Soils Summary Statistics**  
**Exide Technologies**  
**Frankfort, Indiana**

Parameter	Samples Analyzed	Detections above MDL	Maxium Detection	Median Detection	Average Detection	2018 RCG Soil Direct Contact Non-Residential Limit	Sample Count Exceeded Non-Residential Limit
Arsenic	322	322	171	7.8	9.1	30	2
Barium	322	322	2580	91	140	100,000	0
Cadmium	322	148	18	0.5	1.4	980	0
Chromium	322	322	244	14	15	NC	0
Lead	477	477	24500	14	400	800	33
Mercury	322	186	1.4	0.036	0.074	3.1	0
Selenium	322	41	3.4	0.8	1.0	5,800	0
Silver	322	41	139	1.5	7.9	5,800	0

NC - No Criteria

RCG - Remediation Closure Guide

\*Summary statistics includes all soil samples collected by Exide since 2014.

**TABLE 9B**  
**RFI RCRA Metal Soils Summary Statistics (0-2 Feet)**  
**Exide Technologies**  
**Frankfort, Indiana**

Parameter	Samples Analyzed 0-2 Feet	Detections above MDL 0-2 Feet	Maxium Detection 0-2 Feet	Median Detection 0-2 Feet	Average Detection 0-2 Feet	2018 RCG Soil Direct Contact Non-Residential Limit	Sample Count Exceeded Non- Residential Limit
Arsenic	138	138	171	8.1	10.3	30	2
Barium	138	138	1150	103	176	100,000	0
Cadmium	138	73	18	1.0	2.2	980	0
Chromium	138	138	244	14	16	NC	0
Lead	219	219	24500	33	809	800	31
Mercury	138	97	1.4	0.043	0.107	3.1	0
Selenium	138	25	3.4	0.7	0.9	5,800	0
Silver	138	31	139	1.4	7.9	5,800	0

NC - No Criteria

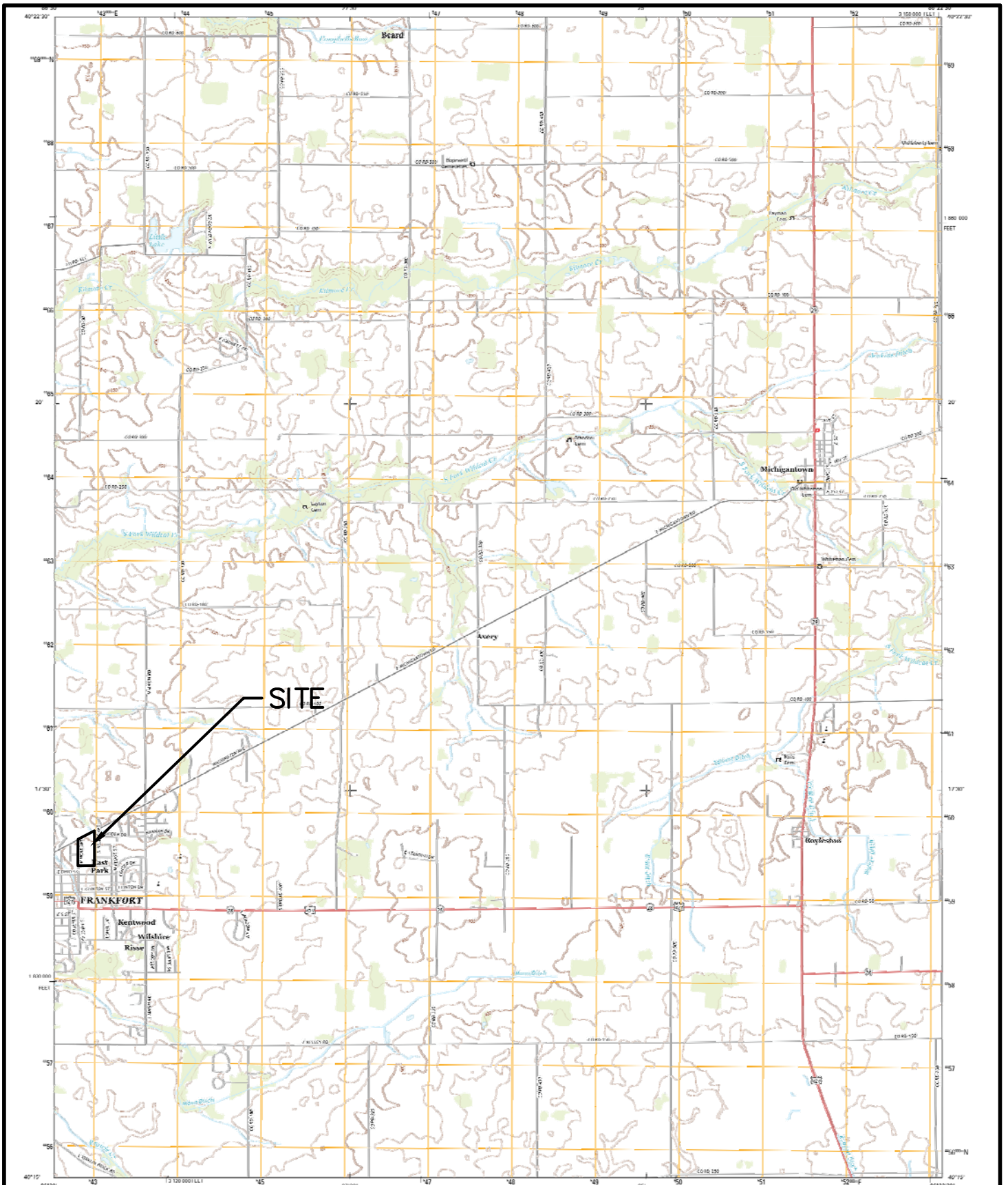
RCG - Remediation Closure Guide

\*Summary statistics includes all soil samples collected by Exide since 2014.



## **FIGURES**





F:\Projects\2011\20112678-Exide Frankfort Decon Demo\Cad\UST Removal\Figure 1 - USGS Topo.dwg



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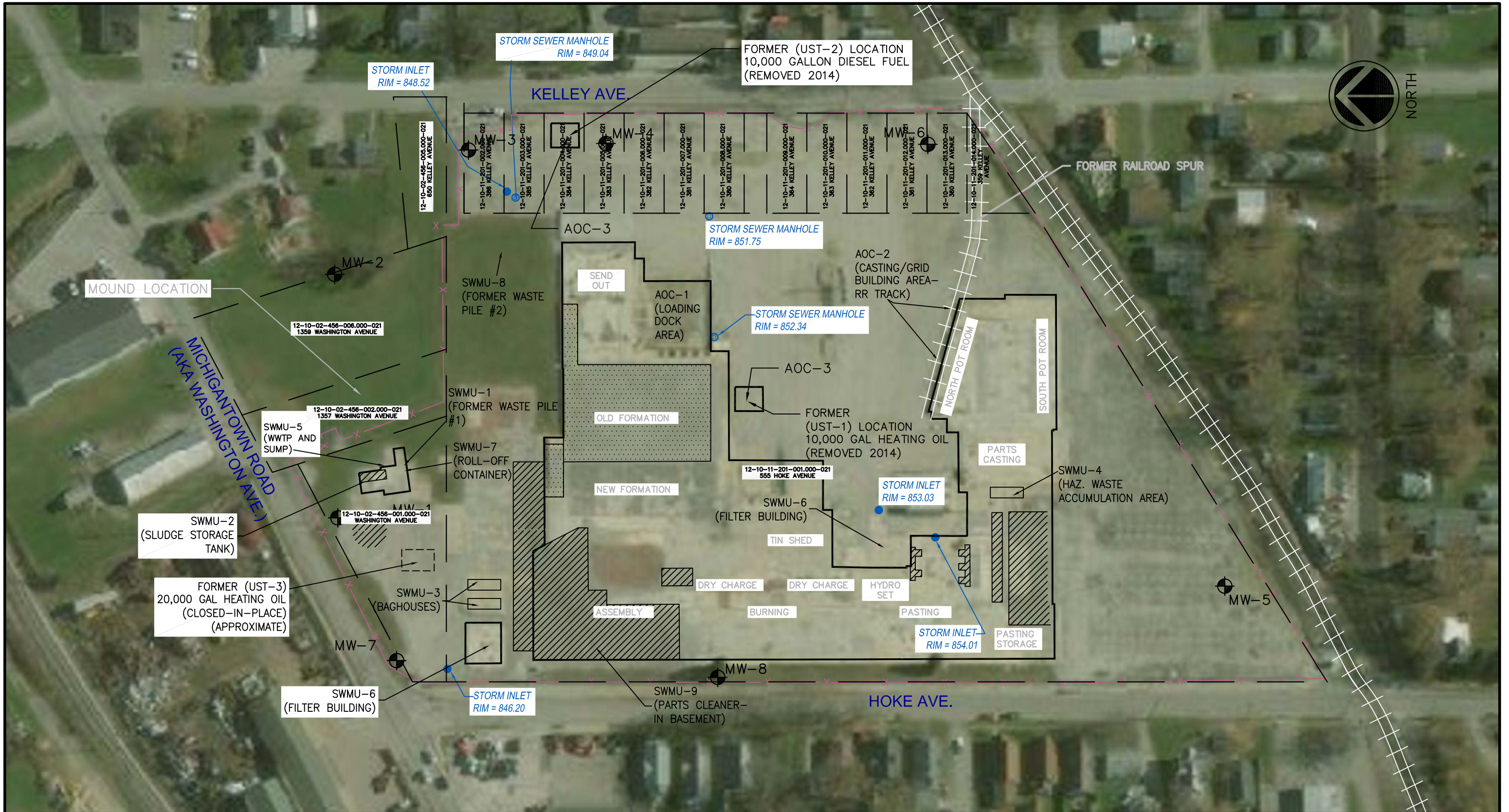
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tel 610.840.9100 fax 610.840.9199 www.advancedgeoservices.com

**USGS TOPOGRAPHIC MAP**



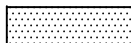


**EXIDE TECHNOLOGIES  
FRANKFORT, INDIANA**




PROJECT ENGINEER:	PGS	SCALE:	NTS
CHECKED BY:	JSD	PROJECT NUMBER:	2011-2678
DRAWN BY:	KEZ	DATE:	FIGURE: 1

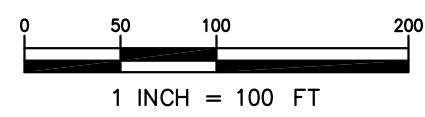




**LEGEND:**

-  REMAINING CONCRETE SLAB PERIMETER
-  CRUSHED RUBBLE/MASONRY FILL
-  GEOMEMBRANE/STONE CAP
-  EXISTING FENCE (LOCATION APPROXIMATE)
-  APPROXIMATE PARCEL BOUNDARY

-  STORM INLET
-  RFI MONITORING WELL LOCATION (INSTALLED MAY 2018)
-  RAILROAD TRACKS
- AOC: AREA OF CONCERN
- SWMU: SOLID WASTE MANAGEMENT UNIT



**EXIDE TECHNOLOGIES**  
 555 HOKE AVENUE  
 FRANKFORT, INDIANA

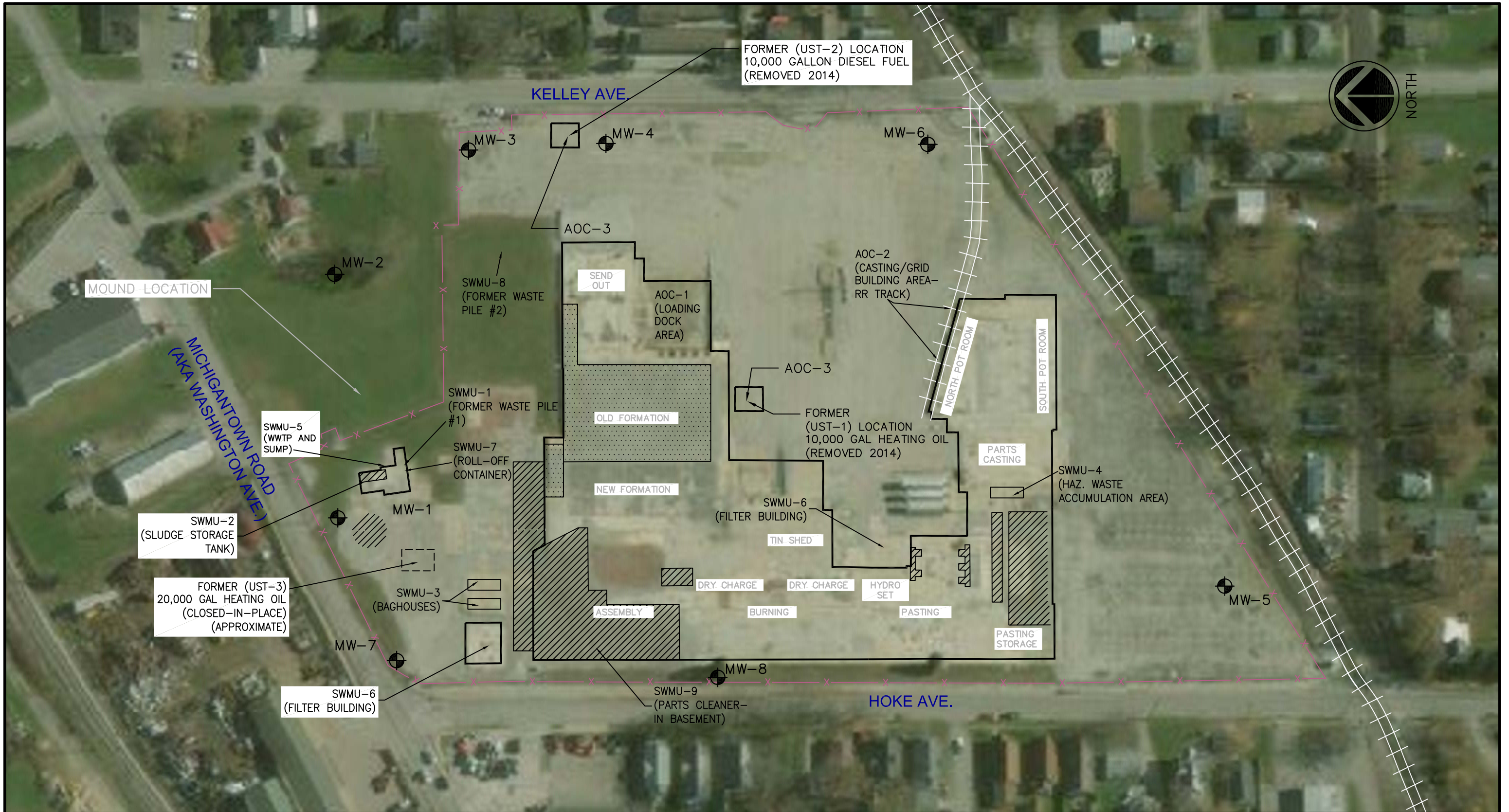
**SITE PLAN**

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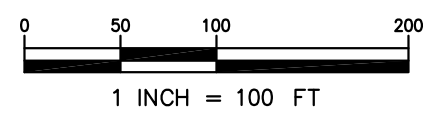
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Drawn By:	S.D.W.
Checked By:	J.S.D.
Project Mgr.:	P.G.S.
Originated By:	S.D.W.
Project No.:	2011-2678
Drawing Date:	6/13/2018
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Revision Number:	0

**FIGURE 2**





**MW-1** RFI MONITORING WELL LOCATION (INSTALLED MAY 2018)



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FRANKFORT, INDIANA

**RFI MONITORING WELL LOCATIONS**

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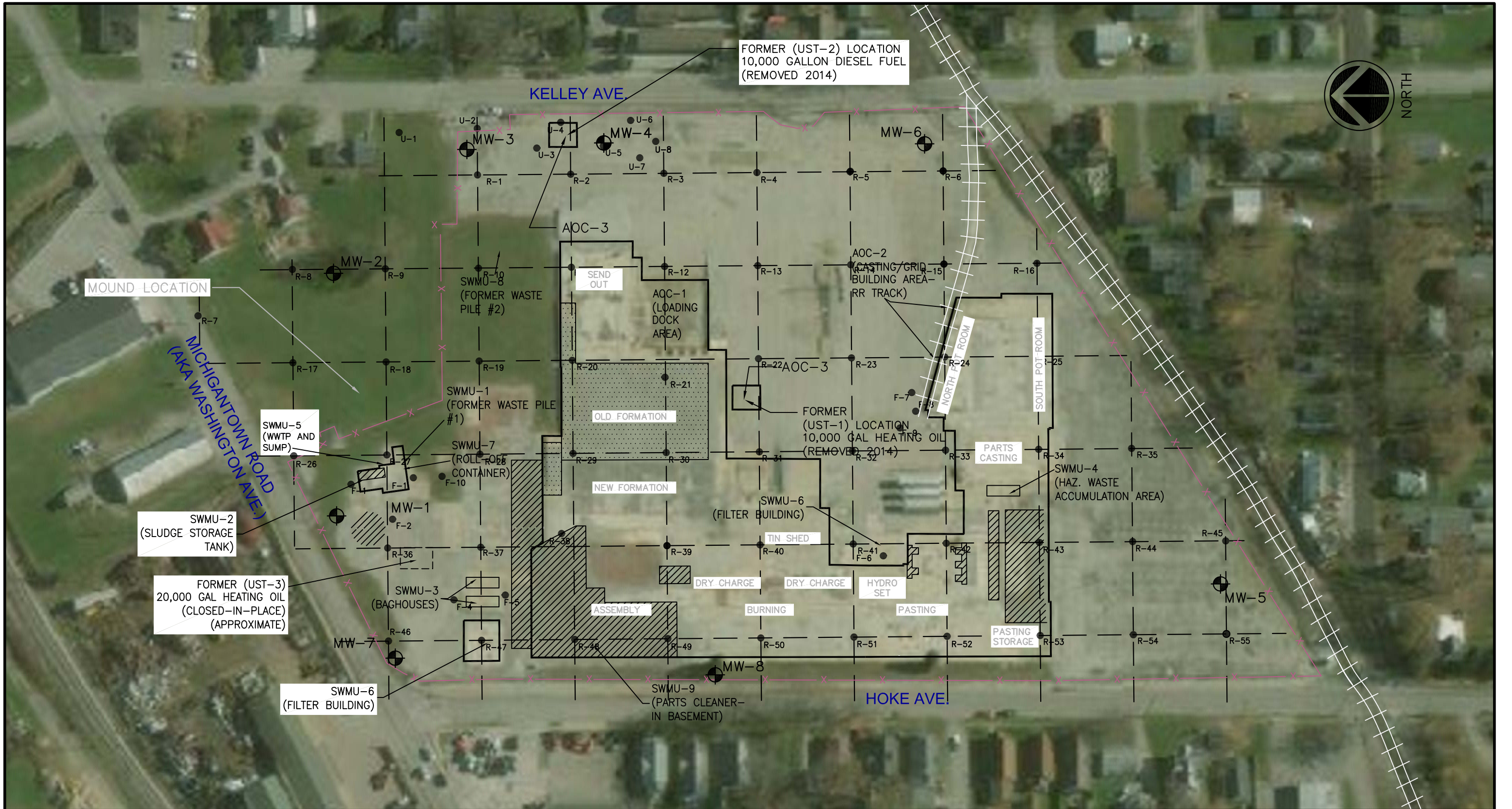
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Project No.:	2011-2678
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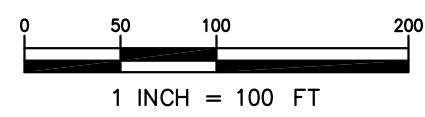
**FIGURE 3**





● R-1 RFI SOIL BORING LOCATION (APRIL/MAY 2018)

⊕ MW-1 RFI MONITORING WELL LOCATION (INSTALLED MAY 2018)



EXIDE TECHNOLOGIES  
555 HOKE AVENUE  
FRANKFORT, INDIANA

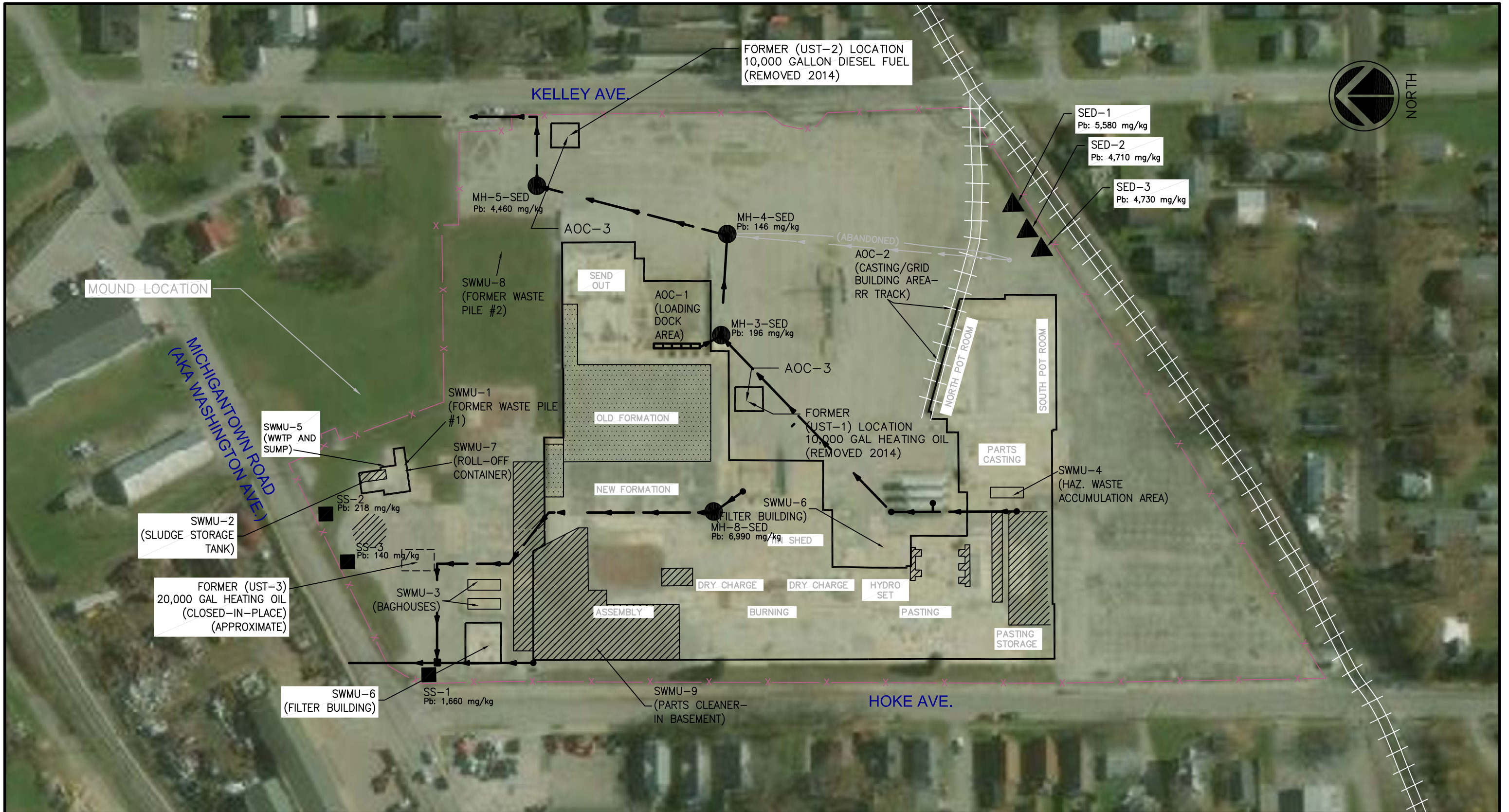
RFI SOIL SAMPLE LOCATIONS

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Checked By:	J.S.D.
Project Mgr.:	P.G.S.
Originated By:	S.D.W.
Project No.:	2011-2678
Drawing Date:	6/13/2018
Sheet No.:	1 OF 1
Revision Number:	0

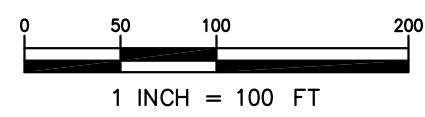
FIGURE 4





- MH-5-SED  
 Pb: 4,460 mg/kg  
 LOCATION OF SEDIMENT SAMPLE COLLECTED IN BOTTOM OF MANHOLE.  
 LEAD CONCENTRATION LISTED IF SAMPLE EXCEEDED 800 mg/kg.
- SED-1  
 Pb: 5,580 mg/kg  
 LOCATION OF SEDIMENT SAMPLE COLLECTED ON SURFACE OF ASPHALT.  
 LEAD CONCENTRATION LISTED IF SAMPLE EXCEEDED 800 mg/kg.
- SS-1  
 Pb: 1,660 mg/kg  
 LOCATION OF SEDIMENT SAMPLE COLLECTED ON BARE SOIL SURFACE (0-1 FT INTERVAL.).  
 LEAD CONCENTRATION LISTED IF SAMPLE EXCEEDED 800 mg/kg.

REMAINING STORMWATER COLLECTION PIPING



**EXIDE TECHNOLOGIES**  
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**RFI SEDIMENT SAMPLE LOCATIONS  
 AND LEAD CONCENTRATIONS**

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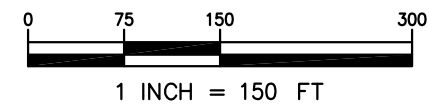
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Checked By:	J.S.D.
Project Mgr.:	P.G.S.
Originated By:	S.D.W.
Project No.:	2011-2678
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**FIGURE 5**





- GROUNDWATER FLOW DIRECTION
- GROUNDWATER CONTOURS
- MONITORING WELL



EXIDE FRANKFORT  
555 HOKE AVENUE  
FRANKFORT, INDIANA

POTENTIOMETRIC SURFACE MAP FOR  
SHALLOW GROUNDWATER- MAY 2018




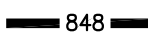

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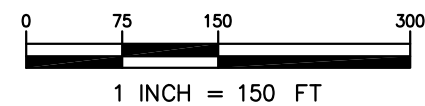
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Originated By:	S.D.W.
Project No.:	2011-2678
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Revision Number:	0

FIGURE 6





-  GROUNDWATER FLOW DIRECTION
-  848 GROUNDWATER CONTOURS
-  MONITORING WELL



EXIDE FRANKFORT  
555 HOKE AVENUE  
FRANKFORT, INDIANA

POTENTIOMETRIC SURFACE MAP FOR  
SHALLOW GROUNDWATER- JULY 2018

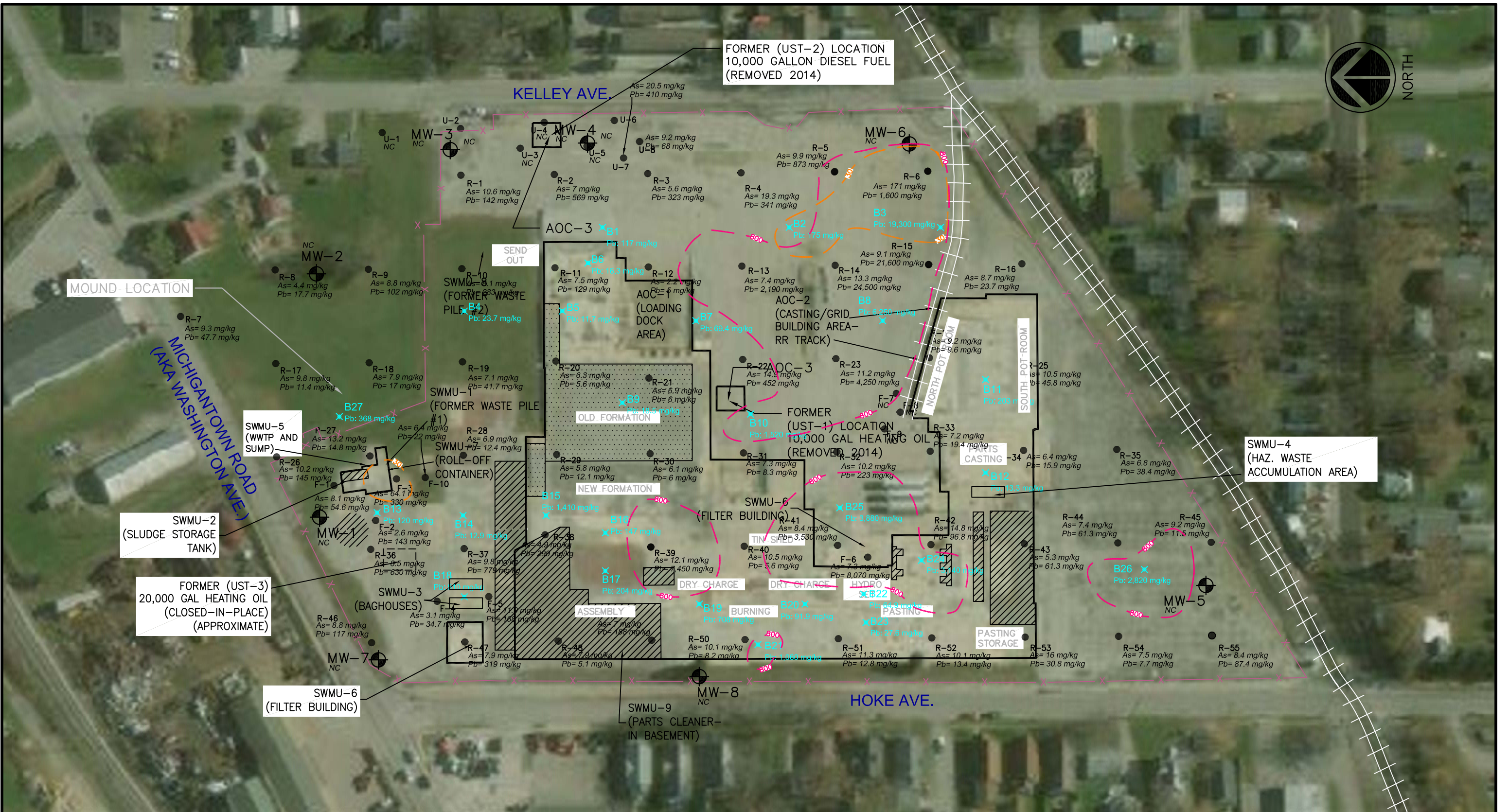


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Project No.:	2011-2678
Drawing Date:	7/19/2018
Sheet No.:	1 OF 1
Revision Number:	0

FIGURE 7





FORMER (UST-2) LOCATION  
10,000 GALLON DIESEL FUEL  
(REMOVED 2014)

MOUND LOCATION

MICHIGANTOWN ROAD  
(AKA WASHINGTON AVE)

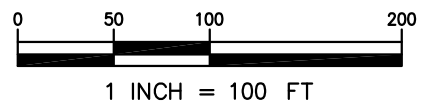
HOKE AVE.

KELLEY AVE

- R-5 RFI SOIL BORING LOCATION (APRIL/MAY 2018)
- F-5 RFI FOCUSED SOIL BORING LOCATION AROUND SWMUs AND AOCs (APRIL/MAY 2018)
- U-5 RFI SOIL BORING LOCATION AROUND FORMER FUEL SHED (APRIL/MAY 2018)
- Pb= 873 mg/kg RFI SOIL BORING METAL CONCENTRATION (mg/kg) (APRIL/MAY 2018)
- NC SAMPLE INTERVAL NOT COLLECTED

- B1 Pb: 117 mg/kg SOIL BORING LOCATION WITH LEAD CONCENTRATION (mg/kg)- (MARCH 2014)
- MW-1 RFI MONITORING WELL LOCATION (INSTALLED MAY 2018)
- Pb: LEAD  
As: ARSENIC  
mg/kg: MILLIGRAMS PER KILOGRAM
- 800- 800 mg/kg LEAD ISOCONCENTRATION LINE
- 30- 30 mg/kg ARSENIC ISOCONCENTRATION LINE

- REMAINING CONCRETE SLAB PERIMETER
- CRUSHED RUBBLE/MASONRY FILL
- GEOMEMBRANE/STONE CAP



EXIDE TECHNOLOGIES  
555 HOKE AVENUE  
FRANKFORT, INDIANA

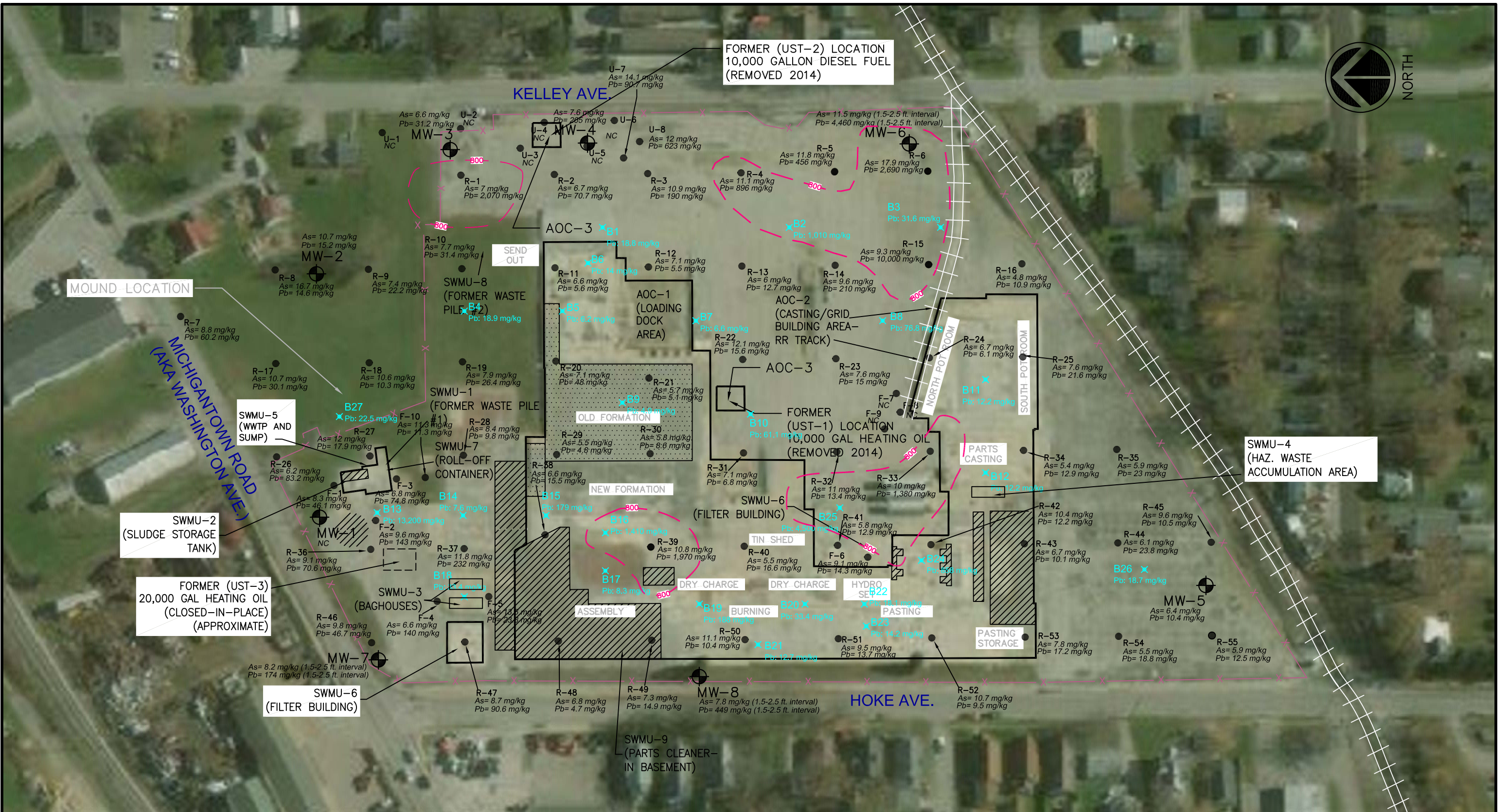
SOIL SAMPLE LEAD AND ARSENIC CONCENTRATIONS (0-1 FOOT BGS)

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Drawn By:	S.D.W.
Checked By:	J.S.D.
Project Mgr.:	P.G.S.
Originated By:	S.D.W.
Project No.:	2011-2678
Drawing Date:	6/13/2018
Sheet No.:	1 OF 1
Revision Number:	0

FIGURE 8





FORMER (UST-2) LOCATION  
10,000 GALLON DIESEL FUEL  
(REMOVED 2014)

MOUND LOCATION

MICHIGANTOWN ROAD  
(AKA WASHINGTON AVE)

SWMU-4  
(HAZ. WASTE  
ACCUMULATION AREA)

SWMU-2  
(SLUDGE STORAGE  
TANK)

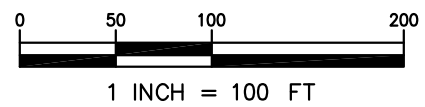
FORMER (UST-3)  
20,000 GAL HEATING OIL  
(CLOSED-IN-PLACE)  
(APPROXIMATE)

SWMU-6  
(FILTER BUILDING)

- R-5 RFI SOIL BORING LOCATION (APRIL/MAY 2018)
- F-5 RFI FOCUSED SOIL BORING LOCATION AROUND SWMUs AND AOCs (APRIL/MAY 2018)
- U-5 RFI SOIL BORING LOCATION AROUND FORMER FUEL SHED (APRIL/MAY 2018)
- Pb= 873 mg/kg RFI SOIL BORING METAL CONCENTRATION (mg/kg) (APRIL/MAY 2018)
- NC SAMPLE INTERVAL NOT COLLECTED

- B1 Pb: 18.8 mg/kg SOIL BORING LOCATION WITH LEAD CONCENTRATION (mg/kg) - (MARCH 2014)
- MW-1 RFI MONITORING WELL LOCATION (INSTALLED MAY 2018)
- Pb: LEAD
- As: ARSENIC
- mg/kg: MILLIGRAMS PER KILOGRAM
- 800- 800 mg/kg LEAD ISOCONCENTRATION LINE

- REMAINING CONCRETE SLAB PERIMETER
- CRUSHED RUBBLE/MASONRY FILL
- GEOMEMBRANE/STONE CAP



EXIDE TECHNOLOGIES  
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FRANKFORT, INDIANA

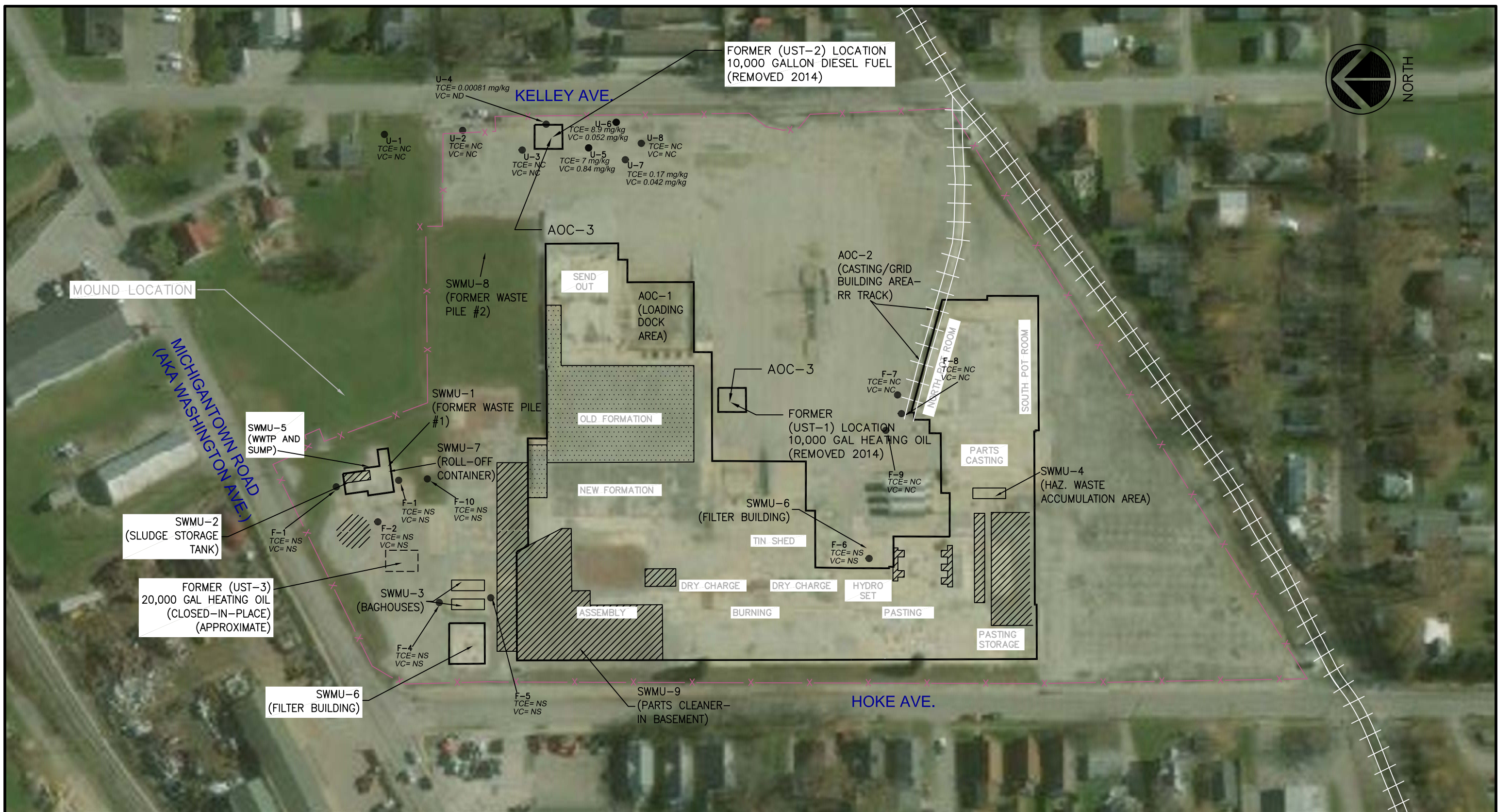
SOIL SAMPLE LEAD AND ARSENIC CONCENTRATIONS (1-2 FEET BGS)

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Originated By:	S.D.W.
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Drawing Date:	6/13/2018
Sheet No.:	1 OF 1
Revision Number:	0

FIGURE 9





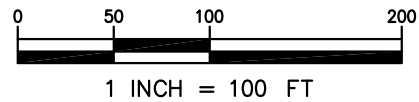
FORMER (UST-2) LOCATION  
10,000 GALLON DIESEL FUEL  
(REMOVED 2014)

MOUND LOCATION

MICHIGANTOWN ROAD  
(AKA WASHINGTON AVE.)

HOKE AVE.

- U-5 RFI SOIL BORING LOCATION AROUND FORMER FUEL SHED AND FOCUSED SAMPLE LOCATIONS (APRIL/MAY 2018)
- TCE= 7 mg/kg RFI SOIL BORING VOC CONCENTRATION (APRIL/MAY 2018)
- NC SAMPLE INTERVAL NOT COLLECTED
- NS NOT SAMPLED
- TCE: TRICHLOROETHENE
- VC: VINYL CHLORIDE
- mg/kg: MILLIGRAMS PER KILOGRAM



EXIDE TECHNOLOGIES  
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SOIL SAMPLE VOC DETECTIONS  
(7-8 FEET BGS)

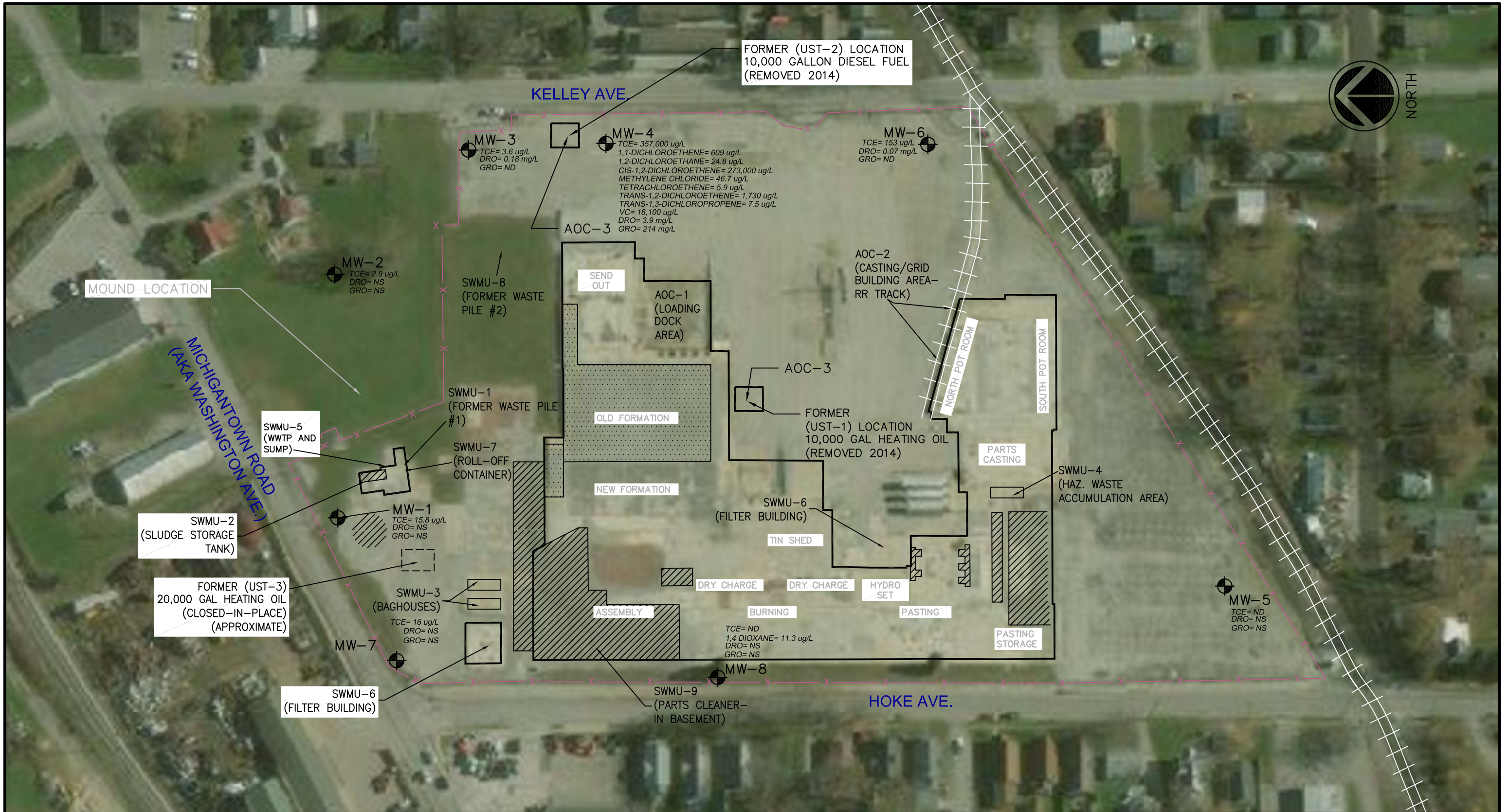



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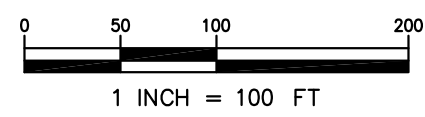
Scale:	1" = 100'
Drawn By:	S.D.W.
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Originated By:	S.D.W.
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Revision Number:	0

FIGURE 10





 MW-1 RFI MONITORING WELL LOCATION (INSTALLED MAY 2018)  
 TCE= 7 ug/L RFI GROUNDWATER SAMPLING VOC CONCENTRATION (MAY 2018)  
 TCE: TRICHLOROETHENE  
 VC: VINYL CHLORIDE  
 ug/L: MICROGRAMS PER LITER  
 ND NOT DETECTED  
 NS NOT SAMPLED



**EXIDE TECHNOLOGIES**  
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**RFI GROUNDWATER SAMPLING**  
 MAY 2018 VOC/SVOC/TPH CONCENTRATIONS

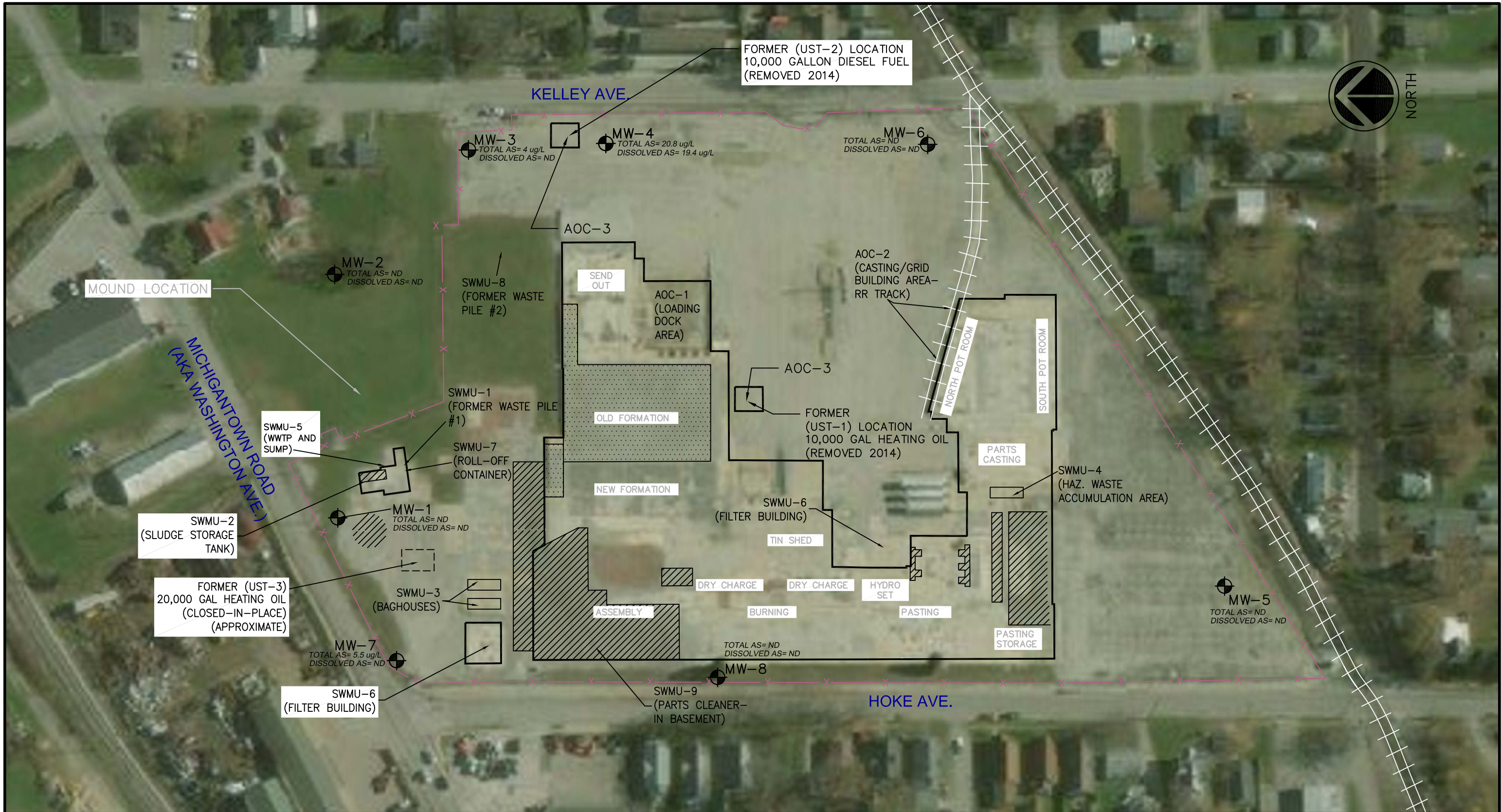



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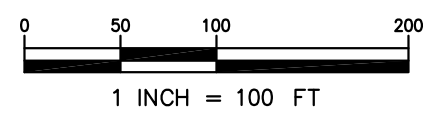
Scale:	1" = 100'
Drawn By:	S.D.W.
Checked By:	J.S.D.
Project Mgr.:	P.G.S.
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FIGURE 11






 MW-1 RFI MONITORING WELL LOCATION (INSTALLED MAY 2018)  
 TOTAL AS= 4 mg/L RFI GROUNDWATER SAMPLING TOTAL METALS CONCENTRATION (MAY 2018)  
 DISSOLVED AS= 19.4 mg/L RFI GROUNDWATER SAMPLING TOTAL METALS CONCENTRATION (MAY 2018)  
 ND mg/L: MILLIGRAMS PER LITER NOT DETECTED



**EXIDE TECHNOLOGIES**  
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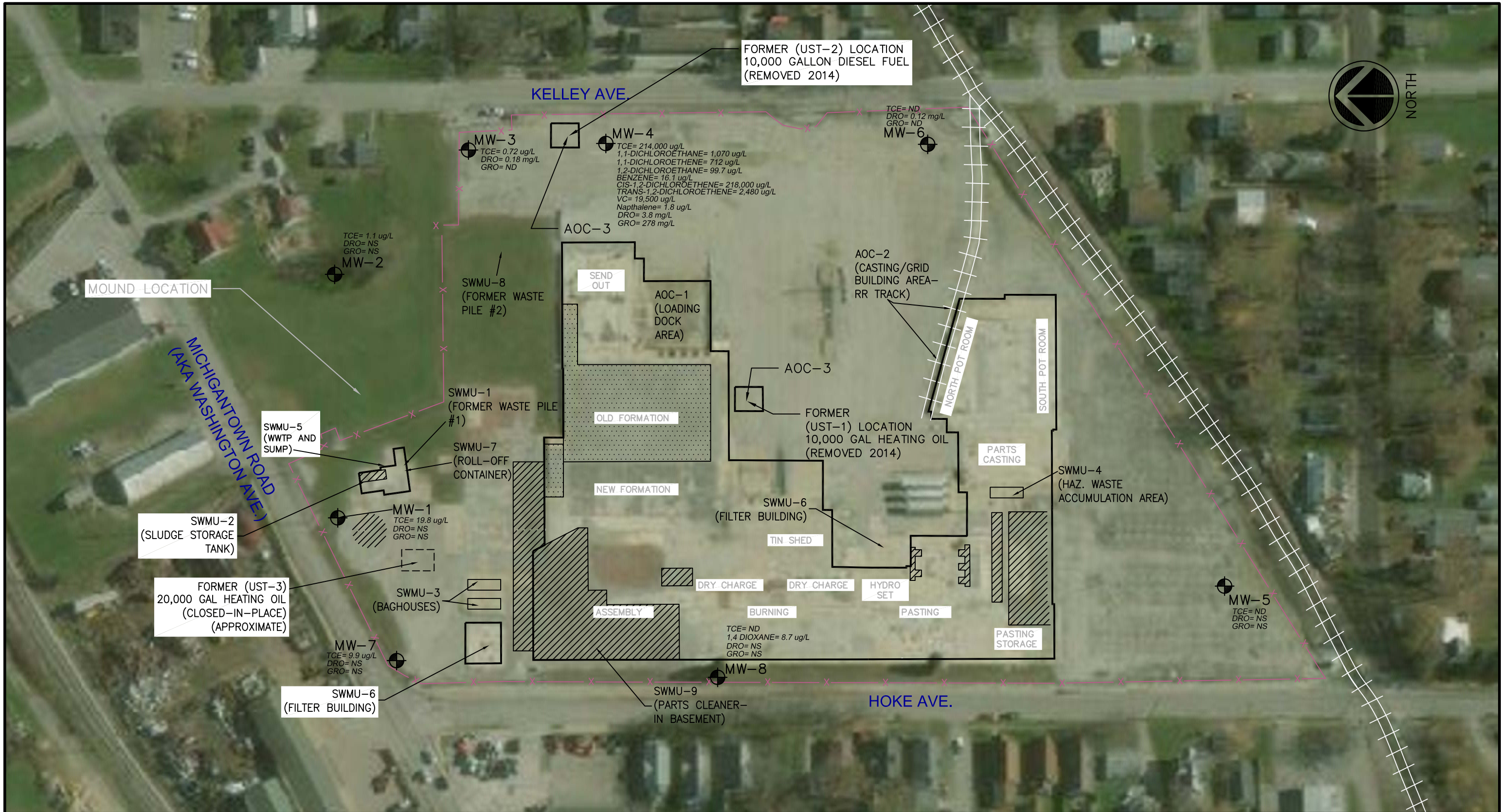
**RFI GROUNDWATER SAMPLING  
 MAY 2018 METAL CONCENTRATIONS**

  
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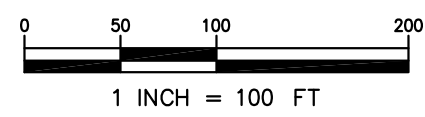
Scale:	1" = 100'
Drawn By:	S.D.W.
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**FIGURE 12**





MW-1 RFI MONITORING WELL LOCATION (INSTALLED MAY 2018)  
 TCE= 7 ug/L RFI GROUNDWATER SAMPLING VOC/TPH CONCENTRATION (JULY 2018)  
 TCE: TRICHLOROETHENE  
 VC: VINYL CHLORIDE  
 ug/L: MICROGRAMS PER LITER  
 ND NOT DETECTED  
 NS NOT SAMPLED



**EXIDE TECHNOLOGIES**  
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 FRANKFORT, INDIANA

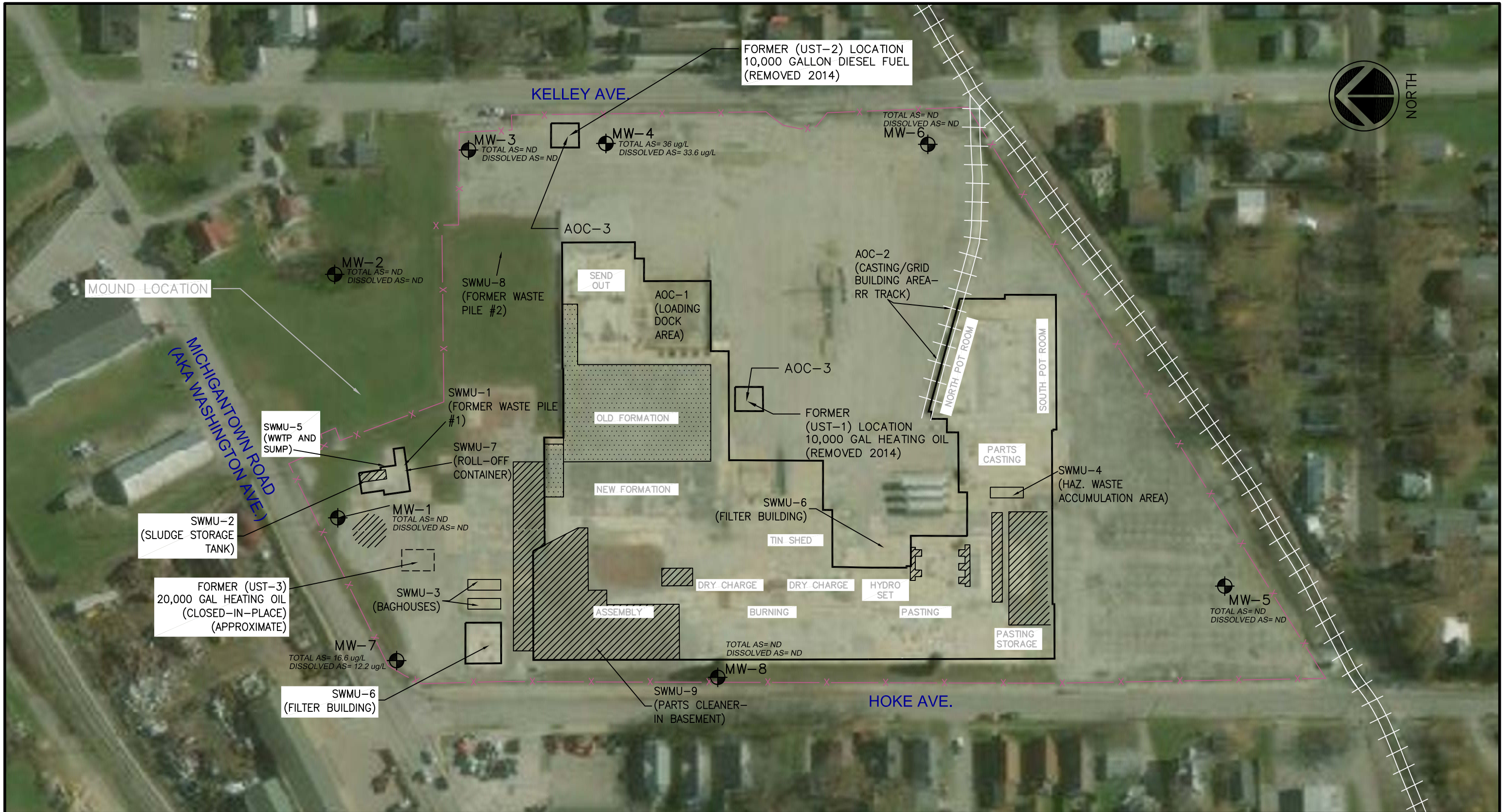
**RFI GROUNDWATER SAMPLING**  
**JULY 2018 VOC/SVOC/TPH CONCENTRATIONS**


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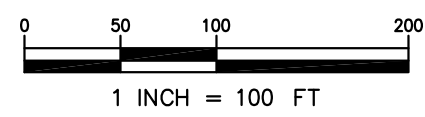
Scale:	1" = 100'
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**FIGURE 13**






 MW-1 RFI MONITORING WELL LOCATION (INSTALLED MAY 2018)  
 TOTAL AS= 4 mg/L RFI GROUNDWATER SAMPLING TOTAL METALS CONCENTRATION (JULY 2018)  
 DISSOLVED AS= 19.4 mg/L RFI GROUNDWATER SAMPLING TOTAL METALS CONCENTRATION (JULY 2018)  
 mg/L: MILLIGRAMS PER LITER  
 ND NOT DETECTED  
 NS NOT SAMPLED



**EXIDE TECHNOLOGIES**  
 555 HOKE AVENUE  
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**RFI GROUNDWATER SAMPLING  
 JULY 2018 METAL CONCENTRATIONS**

  
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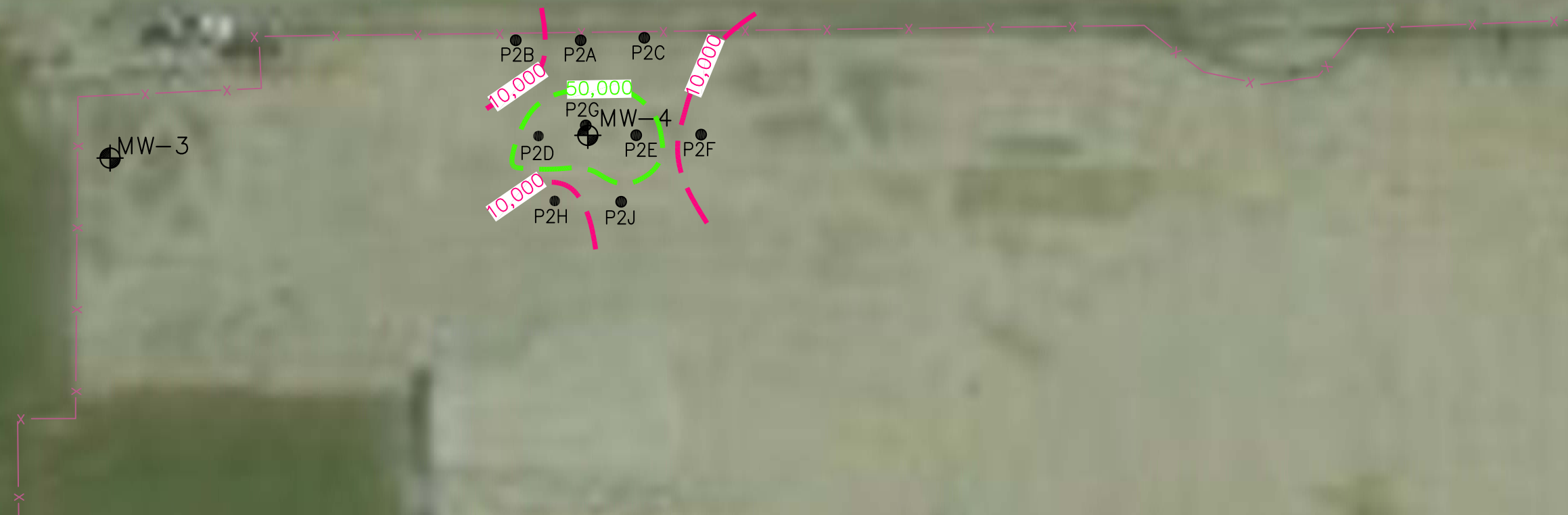
Scale:	1" = 100'
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Checked By:	J.S.D.
Project Mgr.:	P.G.S.
Original By:	S.D.W.
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FIGURE 14



Sample Location		MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8																	
Lab ID	2018 RCG GW Tap Limit, 2009 RISC TPH Closure Limits	50200737006	50200737002	50200737001	50200737010	50200737003	50200737007	50200737005	50200737004																	
Sample Date		7/8/2018	7/7/2018	7/7/2018	7/9/2018	7/8/2018	7/8/2018	7/8/2018	7/8/2018																	
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater																	
Remarks																										
Parameter	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL				
<b>Volatiles</b>																										
Trichloroethene	5	ug/L	19.8		5	1.1	J	5	0.72	J	5	214000		5000		U	5		U	5	9.9		5		U	5

## KELLEY AVE.



Sample Location		P2A	P2B	P2C	P2D	P2E	P2F	P2G	P2H	P2J																			
Lab ID	2018 RCG GW Tap Limit, 2009 RISC TPH Closure Limits	50201366003	50201366001	50201366005	50201366006	50201366007	50201366008	50201366004	50201366009	50201366010																			
Sample Date		7/17/2018	7/17/2018	7/17/2018	7/17/2018	7/17/2018	7/17/2018	7/17/2018	7/17/2018	7/17/2018																			
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater																			
Remarks																													
Parameter	Units	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL							
<b>Volatiles</b>																													
Trichloroethene	5	ug/L	19400		2500	373		125	14600		2500	61600		2500	75400		25000	89.8		5	347		50	188		5	32500		2500

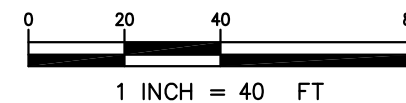
MW-1 RFI MONITORING WELL LOCATION (INSTALLED MAY 2018)

P2A HYDROPUNCH SAMPLE LOCATION

10,000 - 10,000 ug/L TCE ISOCONCENTRATION LINE (EXCLUDES P2G)

50,000 - 50,000 ug/L TCE ISOCONCENTRATION LINE (EXCLUDES P2G)

NOTE: P2G- REPRESENTS ISOLATED GROUNDWATER POCKET IDENTIFIED AT 4 FEET BGS DURING THE INSTALLATION OF MW-4. ALL OTHER RESULTS REPRESENT SATURATED ZONE AT 8 TO 10 FEET BGS.



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**RFI HYDROPUNCH LOCATIONS  
WITH JULY 2018 SAMPLE DATA**



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FIGURE 15





**APPENDIX A**

**RFI Soil Boring Logs**



# LOG OF GEOPROBE BORING GEOPROBE U-1

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/25/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 848.73 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
		<p>2" topsoil.                      2"-6" Brown silty clay.</p>	<p>848.73                      0.17                      848.56</p>	<p>U-1=3-4                       U-1=5-6</p>	
		<p>Brown silty clay, trace sand.</p>	<p>6.5                      842.23</p>		
		<p>END OF BORING @ 8.0 FT.</p>	<p>8.0                      840.73</p>		

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE U-2

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/25/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 849.07 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>0</p> <p>845</p> <p>5</p> <p>840</p> <p>10</p> <p>835</p> <p>15</p> <p>830</p> <p>20</p> <p>825</p> <p>25</p> <p>820</p> <p>30</p> <p>815</p> <p>35</p> </div> </div>		<p>12" asphalt/base and fill.</p> <p>Brown silty sand.</p> <p>Brown sandy silty clay.</p> <p>END OF BORING @ 8 FT.</p>	<p>849.07</p> <p>1.0</p> <p>848.07</p> <p>1.5</p> <p>847.57</p> <p>8.0</p> <p>841.07</p>	<p>U-2=2-3</p> <p>U-2=4-5</p>	

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE U-3

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/25/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 850.27 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID	
850		1.5" asphalt.	850.27			
			1.5			
			1' concrete.	848.77		
				2.5		
			Brown/gray stiff silty clay.	847.77	U-3=3-4	17.3
			Stiff brown silty clay, trace sand.	846.77		
845			Brown medium dense sandy silty clay.	845.27	U-3=5-6	46.5
			5.0			
			8.0		1.2	
		END OF BORING @ 8 FT.	842.27			

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE U-4

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/25/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 850.42 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

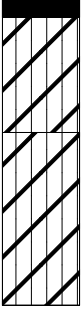
ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
850 845 840 835 830 825 820 815		Modified stone. Brown silty sand to 8', very moist/wet. Moist brown sandy silty clay. END OF BORING @ 8 FT.	850.42 0.25 850.17 6.5 843.92 8.0 842.42	U-4=3-4 U-4=7-8	

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING GEOPROBE U-5

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/25/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 851.12 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
0 850 5 845 10 840 15 835 20 830 25 825 30 820 35 815		Asphalt/base course. Dark gray/brown silty clay. Brown silty clay. END OF BORING @ 8 FT.	851.12 0.5 850.62 3.5 847.62 8.0 843.12	U-5=3-4 U-5=7-8	1.2 4.9

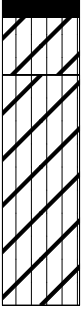
Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE U-6

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/25/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 851.24 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>0</p> <p>850</p> <p>5</p> <p>845</p> <p>10</p> <p>840</p> <p>15</p> <p>835</p> <p>20</p> <p>830</p> <p>25</p> <p>825</p> <p>30</p> <p>820</p> <p>35</p> <p>815</p> </div>  </div>		<p>6" asphalt. 851.24</p> <p>Dark brown silty clay. 0.5</p> <p>Brown silty clay, moist @ 6 ft. 850.74</p> <p>849.24</p> <p>8.0</p> <p>END OF BORING @ 8 FT. 843.24</p>		<p>U-6=3-4</p> <p>U-6=7-8</p>	<p>1.5</p>

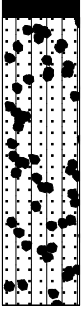
Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE U-7

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/3/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 851.29 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Tony  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
0		Asphalt/fill.	851.29	U-7=0-1	
850		Gray sandy silt with wet gravel.	850.79	U-7=1-2	
5					
845				U-7=7-8	
10		END OF BORING @ 8.0 FT.	843.29		
840					
15					
835					
20					
830					
25					
825					
30					
820					
35					
815					

*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING

## GEOPROBE U-8

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/3/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 852.14 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Tony  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID	
0		Asphalt.	852.14	U-8=0-1		
			0.25			
			Gray-brown mottled clayey sandy silt.	851.89	U-8=1-2	
850						
				4.5		9.8
			Gray sandy silt with organics, wet gravel.	847.64		
5				5.5	U-8=5.5-6.5	11.1
			Gray fine sandy silt.	846.64		30.1
845				8.0		1.1
			END OF BORING @ 8.0 FT.	844.14		
10						
840						
15						
835						
20						
830						
25						
825						
30						
820						
35						

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.



# LOG OF GEOPROBE BORING

## GEOPROBE F-1

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/2/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 849.70 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Tony  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
0		<i>Topsoil.</i>	849.7	<i>F-1=0-1</i>	
		<i>Mottled brown and gray fine silt.</i>	1.0 848.7	<i>F-1=1-2</i>	
		<i>Brown sandy silt.</i>	6.0 843.7	<i>F-1=3-4</i>	
845 5		<i>END OF BORING @ 8.0 FT.</i>	8.0 841.7	<i>F-1=5-6</i>	
				<i>F-1=7-8</i>	
840 10					
835 15					
830 20					
825 25					
820 30					
815 35					

*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING

## GEOPROBE F-2

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/2/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 849.00 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Tony  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <p>0</p> <p>845</p> <p>5</p> <p>840</p> <p>10</p> <p>835</p> <p>15</p> <p>830</p> <p>20</p> <p>825</p> <p>25</p> <p>820</p> <p>30</p> <p>815</p> <p>35</p> </div> <div style="flex: 1;"> </div> </div>		<p>1' stone/fill.</p> <p>Coarse black granular fill and stone.</p> <p>Gray clayey silt with organics.</p> <p>Light gray moist silt.</p> <p>Wet brown fine sandy silt.</p> <p>END OF BORING @ 8.0 FT.</p>	<p>849</p> <p>1.0</p> <p>848</p> <p>1.5</p> <p>847.5</p> <p>3.0</p> <p>846</p> <p>6.5</p> <p>842.5</p> <p>8.0</p> <p>841</p>	<p>F-2=0-1</p> <p>F-2=1-2</p> <p>F-2=3-4</p> <p>F-2=5-6</p> <p>F-2=7-8</p>	

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE F-3

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/2/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 849.34 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Tony  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID	
0		<i>Topsoil, brown sandy silt.</i>	849.34	<i>F-3=0-1</i>		
1.0		<i>Brown and gray fine mottled silt.</i>	848.34	<i>F-3=1-2</i>		
5					<i>F-3=3-4</i>	
845					<i>F-3=5-6</i>	
6.5			<i>Tan sandy silt, moist.</i>	842.84	<i>F-3=7-8</i>	
840		<i>END OF BORING @ 8.0 FT.</i>	841.34			
10						
15						
835						
20						
830						
25						
825						
30						
820						
35						
815						

*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING

## GEOPROBE F-4

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/3/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 849.11 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Tony  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
0 845 5 840 10 835 15 830 20 825 25 820 30 815 35		3" concrete. Black coarse fill, brick @ 1'. Brown gray mottled clayey silt. END OF BORING @ 8.0 FT.	849.11 0.25 848.86 3.5 845.61 8.0 841.11	F-4=0-1 F-4=1-2 F-4=3-4 F-4=5-6 F-4=7-8	

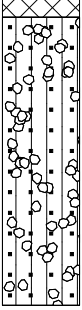
Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE F-5 Offset

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/3/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 849.40 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Tony  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>0</p> <p>845</p> <p>5</p> <p>840</p> <p>10</p> <p>835</p> <p>15</p> <p>830</p> <p>20</p> <p>825</p> <p>25</p> <p>820</p> <p>30</p> <p>815</p> <p>35</p> </div>  </div>		<p><i>Stone/brick fill.</i></p> <p><i>Brown fine sandy silt.</i></p> <p><i>END OF BORING @ 8.0 FT.</i></p>	<p>849.4</p> <p>0.5</p> <p>848.9</p> <p>8.0</p> <p>841.4</p>	<p><i>F-5 Offset=0-1</i></p> <p><i>F-5 Offset=1-2</i></p> <p><i>F-5 Offset=3-4</i></p> <p><i>F-5 Offset=5-6</i></p> <p><i>F-5 Offset=7-8</i></p>	

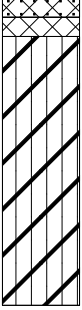
Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE F-6

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/30/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 854.39 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>0</p> <p>850</p> <p>5</p> <p>845</p> <p>10</p> <p>840</p> <p>15</p> <p>835</p> <p>20</p> <p>830</p> <p>25</p> <p>825</p> <p>30</p> <p>820</p> <p>35</p> </div>  </div>		<p>3" concrete, 3" yellow-brown sand (fill).            Coarse black fill.            Dense brown silty clay.</p>	<p>854.39 0.5 853.89 1.0 853.39</p> <p>8.0 846.39</p>	<p>F-6=0-1 F-6=1-2 F-6=3-4 F-6=5-6 F-6=7-8</p>	
		<p>END OF BORING @ 8.0 FT.</p>			


Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE F-7

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/25/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 854.66 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID	
0		<i>Asphalt/base.</i>	854.66			
		<i>Dark brown silty clay.</i>	1.0 853.66		<i>F-7=1-2</i>	2.0 1.2
		<i>END OF BORING @ 4 FT.</i>	4.0 850.66		<i>F-7=3-4</i>	1.0
850 5						
845 10						
840 15						
835 20						
830 25						
825 30						
820 35						

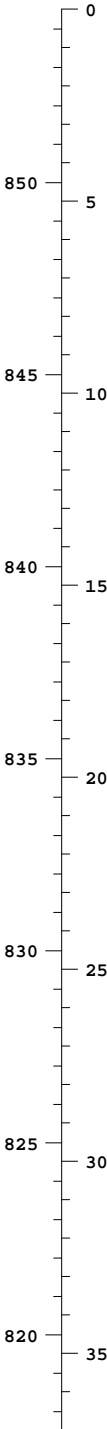
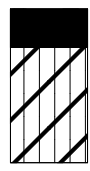
*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING

## GEOPROBE F-8

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/25/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 854.52 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
0  850 5  845 10  840 15  835 20  830 25  825 30  820 35		Asphalt/base. Dark brown silty clay.  END OF BORING @ 4 FT.	854.52 1.0 853.52  4.0 850.52	 F-8=1-2  F-8=3-4	 10.2 20.1 3.7 5.2

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

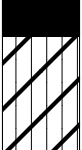


# LOG OF GEOPROBE BORING

## GEOPROBE F-9

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/25/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 854.57 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
0		<i>Asphalt/stone.</i>	854.57		
		<i>Dark brown silty clay.</i>	1.0 853.57		<i>F-9=1-2</i>
850 5			4.0 850.57	<i>F-9=3-4</i>	
845 10		<b>END OF BORING @ 4.0 FT.</b>			
840 15					
835 20					
830 25					
825 30					
820 35					

*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING GEOPROBE F-10

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/2/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 849.98 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Tony  
**INSPECTOR:** D. Benson

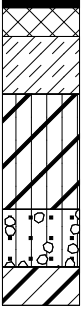
ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID	
0		<i>Topsoil.</i>	849.98			
			1.0			
			<i>Mottled brown and gray fine silt.</i>	848.98		
845					<i>F-10=0-1</i>	
					<i>F-10=1-2</i>	
			6.0			
		<i>Brown sandy silt.</i>	843.98			
			8.0			
		<i>END OF BORING @ 8.0 FT.</i>	841.98			
840						
835						
830						
825						
820						
815						

*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING GEOPROBE R-1

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/1/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 849.38 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>0</p> <p>845</p> <p>5</p> <p>840</p> <p>10</p> <p>835</p> <p>15</p> <p>830</p> <p>20</p> <p>825</p> <p>25</p> <p>820</p> <p>30</p> <p>815</p> <p>35</p> </div>  </div>		<p>Concrete.</p> <p>Brown silty sand fill with brick.</p> <p>Gray clayey silt with organics.</p> <p>Brown silty clay.</p> <p>Brown and gray sandy silt, moist.</p> <p>Moist brown sandy clay.</p> <p>END OF BORING @ 8.0 FT.</p>	<p>849.38</p> <p>0.25</p> <p>849.13</p> <p>1.0</p> <p>848.38</p> <p>2.5</p> <p>846.88</p> <p>5.5</p> <p>843.88</p> <p>7.0</p> <p>842.38</p> <p>8.0</p> <p>841.38</p>	<p>R-1=0-1</p> <p>R-1=1-2</p> <p>R-1=3-4</p> <p>R-1=5-6</p> <p>R-1=7-8</p>	

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE R-2

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** 4.5 ft. (el. 846.12)  
**DATE:** 5/1/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 850.62 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>850</p> <p>5</p> <p>845</p> <p>10</p> <p>840</p> <p>15</p> <p>835</p> <p>20</p> <p>830</p> <p>25</p> <p>825</p> <p>30</p> <p>820</p> <p>35</p> <p>815</p> </div> </div>		<p>3" asphalt.</p> <p>Stone fill with brick gray sandy silt with organics.</p> <p>Wet @ 4.5 ft.</p> <p>Saturated gray silty sand with gravel.</p> <p>Gray sandy silt.</p> <p>END OF BORING @ 8.0 FT.</p>	<p>850.62</p> <p>0.25</p> <p>850.37</p> <p>5.0</p> <p>845.62</p> <p>5.5</p> <p>845.12</p> <p>8.0</p> <p>842.62</p>	<p>R-2=0-1</p> <p>R-2=1-2</p> <p>R-2=3-4</p> <p>R-2=5-6</p> <p>R-2=7-8</p>	

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE R-3

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** 3.0 ft. (el. 849.44 ft.)  
**DATE:** 4/30/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 852.44 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
		<p>4" asphalt, 8" stone/sand fill. <span style="float: right;">852.44</span></p> <p>Dense gray wet clay. <span style="float: right;">1.0</span></p> <p>Wet @ 3.0 ft. <span style="float: right;">851.44</span></p> <p style="text-align: right;">8.0</p> <p>END OF BORING @ 8.0 FT. <span style="float: right;">844.44</span></p>		<p>R-3=0-1</p> <p>R-3=1-2</p> <p>R-3=3-4</p> <p>R-3=5-6</p> <p>R-3=7-8</p>	

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE R-4

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** 3.0 ft. (el. 849.44 ft.)  
**DATE:** 4/30/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 852.44 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID	
0		<i>3" asphalt.</i>	852.44		<i>R-4=0-1</i>	
		<i>Gray and brown mottled clay.</i>	0.25 852.19		<i>R-4=1-2</i>	
850		<i>Black granular coarse sand and wet gravel.</i>	2.5 849.94		<i>R-4=3-4</i>	
		<i>Wet @ 3.0 ft.</i>	3.5 848.94		<i>R-4=5-6</i>	
5		<i>Dense brown clay.</i>			<i>R-4=7-8</i>	
845			8.0			
			<i>END OF BORING @ 8.0 FT.</i>	844.44		
10						
840						
15						
835						
20						
830						
25						
825						
30						
820						
35						

*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING

## GEOPROBE R-5

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** 3.0 ft. (el 849.61 ft.)  
**DATE:** 4/27/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 852.61 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> </div> <div style="flex: 1; padding-left: 10px;"> <p>3" asphalt. 852.61 0.25 Dark gray/black silty clay. 852.36</p> <p>Wet @ 3.0 ft.</p> <p>Mottled brown and gray silty clay to brown silty clay. 5.0 847.61</p> <p>8.0 END OF BORING @ 8.0 FT. 844.61</p> </div> </div>				<p>R-5=0-1</p> <p>R-5=1-2</p> <p>R-5=3-4</p> <p>R-5=5-6</p> <p>R-5=7-8</p>	

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE R-6

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/27/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 853.99 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> </div> <div style="flex: 1;"> <p>0</p> <p>850</p> <p>5</p> <p>845</p> <p>10</p> <p>840</p> <p>15</p> <p>835</p> <p>20</p> <p>830</p> <p>25</p> <p>825</p> <p>30</p> <p>820</p> <p>35</p> </div> </div>		<p><i>3" stone gravel.</i></p> <p><i>Coarse black fill.</i></p> <p><i>Wet coarse black fill.</i></p> <p><i>Dense brown silty clay.</i></p>	<p>853.99</p> <p>0.58</p> <p>853.41</p> <p>2.5</p> <p>851.49</p> <p>3.0</p> <p>850.99</p> <p>8.0</p> <p>845.99</p>	<p><i>R-6=0-1</i></p> <p><i>R-6=1-2</i></p> <p><i>R-6=3-4</i></p> <p><i>R-6=5-6</i></p> <p><i>R-6=7-8</i></p>	
		<p><b>END OF BORING @ 8.0 FT.</b></p>			

*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*



# LOG OF GEOPROBE BORING

## GEOPROBE R-7

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/2/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 844.75 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
		<i>Topsoil.</i> <i>Brown sandy silt with organics.</i>  <i>Brown clayey silt, trace sand.</i> <i>Brown silty sand.</i>  <b>END OF BORING @ 8.0 FT.</b>	844.75 0.67 844.08  4.5 840.25 6.0 838.75 8.0 836.75	R-7=0-1 R-7=1-2  R-7=3-4 R-7=5-6 R-7=7-8	

*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING GEOPROBE R-8

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/2/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 844.72 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
		<p><i>Brown sandy silt with organics.</i></p>	<p>844.72</p>	<p><i>R-8=0-1</i> <i>R-8=1-2</i>  <i>R-8=3-4</i>  <i>R-8=5-6</i>  <i>R-8=7-8</i></p>	
		<p><i>END OF BORING @ 8.0 FT.</i></p>	<p>8.0 836.72</p>		

*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING

## GEOPROBE R-9

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/2/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 847.43 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Tony  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID	
0		<i>Topsoil, brown sandy silt.</i>	847.43			
		<i>Moist, gray-brown fine sandy silt.</i>	0.75 846.68		<i>R-9=0-1</i> <i>R-9=1-2</i>	
845					<i>R-9=3-4</i>	
5			<i>Brick fill.</i>	4.5 842.93	<i>R-9=5-6</i>	
840				8.0	<i>R-9=7-8</i>	
		<i>END OF BORING @ 8.0 FT.</i>	839.43			
10						
835						
15						
830						
20						
825						
25						
820						
30						
815						
35						

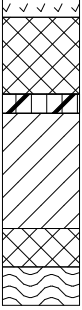
*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING

## GEOPROBE R-10

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/1/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 850.22 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

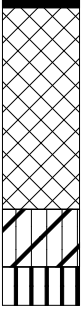
ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
850		Grass and topsoil with dark gray silt with roots.	850.22	R-10=0-1	
0.5					
849.72		Gray-brown sand and concrete fragments, trace gravel.	2.5	R-10=1-2	
847.72					
847.22		Brown silt with clay.	3.0	R-10=3-4	
847.22		Medium brown silty sand with fine gravel.			
845		Saturated sand layer @ 5.5 ft.	6.0	R-10=5-6	
844.22		Black/gray organic odor.	7.0		
843.22		Mottled clayey silt, gray/brown, no odor.	8.0	R-10=7-8	4.3
842.22		END OF BORING @ 8.0 FT.	8.0		7.0

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING GEOPROBE R-11

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/1/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 853.87 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 20px;">0</div> <div style="margin-bottom: 20px;">850</div> <div style="margin-bottom: 20px;">5</div> <div style="margin-bottom: 20px;">845</div> <div style="margin-bottom: 20px;">10</div> <div style="margin-bottom: 20px;">840</div> <div style="margin-bottom: 20px;">15</div> <div style="margin-bottom: 20px;">835</div> <div style="margin-bottom: 20px;">20</div> <div style="margin-bottom: 20px;">830</div> <div style="margin-bottom: 20px;">25</div> <div style="margin-bottom: 20px;">825</div> <div style="margin-bottom: 20px;">30</div> <div style="margin-bottom: 20px;">820</div> <div style="margin-bottom: 20px;">35</div> </div>		<div style="border-bottom: 1px dashed black; padding-bottom: 5px;"> <i>Concrete.</i> </div> <div style="border-bottom: 1px dashed black; padding-bottom: 5px;"> <i>Brown silty sand (fill).</i> </div> <div style="border-bottom: 1px dashed black; padding-bottom: 5px;"> <i>Moist brown silty clay.</i> </div> <div style="border-bottom: 1px dashed black; padding-bottom: 5px;"> <i>Wet brown clayey silt.</i> </div> <div style="padding-bottom: 5px;"> <b>END OF BORING @ 8.0 FT.</b> </div>	<div style="border-bottom: 1px dashed black; padding-bottom: 5px;">853.87</div> <div style="border-bottom: 1px dashed black; padding-bottom: 5px;">0.25</div> <div style="border-bottom: 1px dashed black; padding-bottom: 5px;">853.62</div> <div style="border-bottom: 1px dashed black; padding-bottom: 5px;">5.5</div> <div style="border-bottom: 1px dashed black; padding-bottom: 5px;">848.37</div> <div style="border-bottom: 1px dashed black; padding-bottom: 5px;">7.0</div> <div style="border-bottom: 1px dashed black; padding-bottom: 5px;">846.87</div> <div style="border-bottom: 1px dashed black; padding-bottom: 5px;">8.0</div> <div style="padding-bottom: 5px;">845.87</div>	<div style="border-bottom: 1px dashed black; padding-bottom: 5px;"><i>R-11=0-1</i></div> <div style="border-bottom: 1px dashed black; padding-bottom: 5px;"><i>R-11=1-2</i></div> <div style="border-bottom: 1px dashed black; padding-bottom: 5px;"><i>R-11=3-4</i></div> <div style="border-bottom: 1px dashed black; padding-bottom: 5px;"><i>R-11=5-6</i></div> <div style="border-bottom: 1px dashed black; padding-bottom: 5px;"><i>R-11=7-8</i></div>	

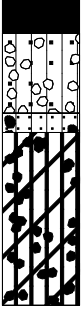
*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING

## GEOPROBE R-12

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/1/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 850.66 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>850</p> <p>5</p> <p>845</p> <p>10</p> <p>840</p> <p>15</p> <p>835</p> <p>20</p> <p>830</p> <p>25</p> <p>825</p> <p>30</p> <p>820</p> <p>35</p> <p>815</p> </div>  </div>	<p>3" asphalt, 8" stone/sand (fill).            Brown fine sandy silt.</p> <p>Coarse sand with gravel and silt.            Clayey silt, trace fine gravel.</p> <p>Wet sand @ 6.0 ft.</p> <p>END OF BORING @ 8.0 FT.</p>	<p>850.66 0.92 849.74</p> <p>3.0 847.66 3.5 847.16</p> <p>8.0 842.66</p>		<p>R-12=0-1 R-12=1-2</p> <p>R-12=3-4</p> <p>R-12=5-6</p> <p>R-12=7-8</p>	

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE R-13

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/30/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 853.05 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID	
0		<i>4" asphalt.</i>	853.05			
		<i>Coarse black fill and stone.</i>	0.33		<i>R-13=0-1</i>	
		<i>Dense gray silty clay.</i>	852.72		<i>R-13=1-2</i>	
850		<i>Dense brown silty clay.</i>	1.0			
			852.05		<i>R-13=3-4</i>	
5			3.0			
			850.05		<i>R-13=5-6</i>	
			8.0		<i>R-13=7-8</i>	
845		<i>END OF BORING @ 8.0 FT.</i>	845.05			
10						
840						
15						
835						
20						
830						
25						
825						
30						
820						
35						

*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING

## GEOPROBE R-14

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/30/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 853.27 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
		3" asphalt. 853.27 Coarse black fill with coarse yellow sand. 853.02		R-14=0-1 R-14=1-2 R-14=3-4 R-14=5-6	
		Dark brown silty clay. 6.5 846.77		R-14=7-8	
		END OF BORING @ 8.0 FT. 8.0 845.27			

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

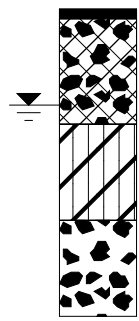


# LOG OF GEOPROBE BORING

## GEOPROBE R-15

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** 2.5 ft. (el. 852.04 ft.)  
**DATE:** 4/27/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 854.54 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>0</p> <p>850</p> <p>5</p> <p>845</p> <p>10</p> <p>840</p> <p>15</p> <p>835</p> <p>20</p> <p>830</p> <p>25</p> <p>825</p> <p>30</p> <p>820</p> <p>35</p> </div>  </div>		<p>3" concrete. 854.54</p> <p>Brown silty sand, trace black coarse fill with gravel. 0.25</p> <p>Wet @ 2.5 ft. 854.29</p> <p>Dense gray silty clay. 3.0</p> <p>Coarse gravel, wet. 851.54</p> <p>5.5</p> <p>849.04</p> <p>8.0</p> <p>846.54</p> <p>END OF BORING @ 8.0 FT.</p>		<p>R-15=0-1</p> <p>R-15=1-2</p> <p>R-15=3-4</p> <p>R-15=5-6</p> <p>R-15=7-8</p>	

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE R-16

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/27/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 853.19 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
		<p>Asphalt/stone. 853.19                      Dark gray medium dense silty clay. 852.69</p> <p>Gray brown mottled medium dense clay. 847.19</p> <p>END OF BORING @ 8.0 FT. 845.19</p>		<p>R-16=0-1                      R-16=1-2                      R-16=3-4                      R-16=5-6                      R-16=7-8</p>	

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE R-17

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** 8.5 ft. (el. 838.30 ft.)  
**DATE:** 5/2/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 846.80 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Tony  
**INSPECTOR:** D. Benson

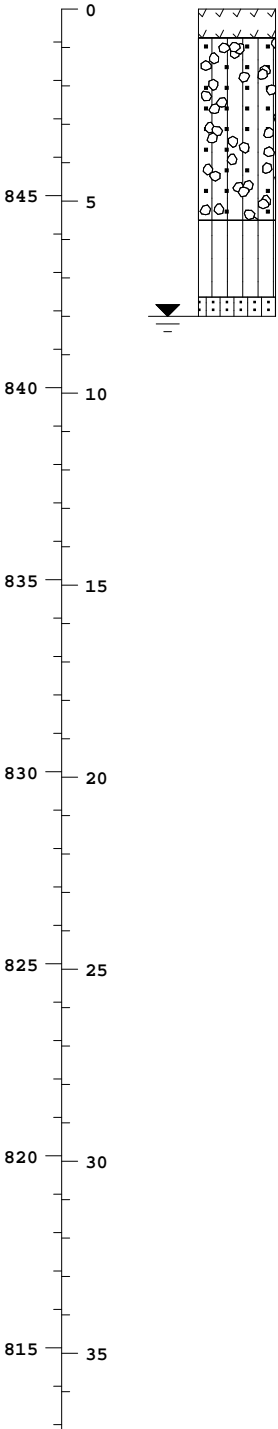
ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID	
0		Grass with topsoil.	846.8	R-17=0-1		
0.75		Dark brown fine sandy silt with gray mottling.	846.05	R-17=1-2		
3.0		Gravel @ 3.0 ft.	843.8	R-17=3-4		
6.5		Gray brown silt, mottled, trace fine gravel.	840.3	R-17=5-6		
8.5		Brown fine sandy silt, trace fine gravel. Moist @ 6.5 ft. Wet @ 8.5 ft.	838.3	R-17=7-8		
10.0		END OF BORING @ 10.0 FT.	836.8			
845						
840						
835						
830						
825						
820						
815						
810						

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING GEOPROBE R-18

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** 8.0 ft. (el. 841.86 ft.)  
**DATE:** 5/2/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 849.86 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Tony  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
		<i>Topsoil, brown silt.</i> <i>Brown sandy silt.</i>	849.86 0.75 849.11	<i>R-18=0-1</i> <i>R-18=1-2</i>  <i>R-18=3-4</i>	
		<i>Brown and gray mottled silt.</i>	5.5 844.36	<i>R-18=5-6</i>	
		<i>Brown silty sand and gravel.</i> <i>Wet @ 8.0 ft.</i> <b>END OF BORING @ 8.0 FT.</b>	7.5 842.36 8.0 841.86	<i>R-18=7-8</i>	

*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING

## GEOPROBE R-19

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/1/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 849.48 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
0		Grass with topsoil.	849.48	R-19=0-1	
0.5		Brown silty coarse sand, dry.	848.98	R-19=1-2	
2.66					
845		Gray sand and fine gravel, wet.	846.82	R-19=3-4	4.0
5		Brown silt with mottling, fine sandy silt.	846.48		
6.0					
840		Wet, brown fine sand, some silt.	843.48	R-19=5-6	4.8
7.0		Brown silty fine sand, trace clay.	842.48	R-19=7-8	5.5
8.0		END OF BORING @ 8.0 FT.	841.48		
815					

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE R-20

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/1/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 853.79 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
		3" concrete.	853.79		
		Brown silty sand (FILL).	0.25		
			853.54		
			6.0		
			847.79		
		Moist brown clayey silt.	8.0		
		END OF BORING @ 8.0 FT.	845.79		

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE R-21

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/1/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 853.76 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
		<p><i>Crushed stone.</i> 853.76</p> <p><i>Plastic sheet/geotextile, brown silty sand moist fill.</i> 0.67 853.09</p> <p><i>Saturated sand and silt fill with gravel fill.</i> 5.0 848.76</p> <p><i>Dry to moist, mottled fine sandy silt, trace gravel.</i> 6.0 847.76</p> <p><i>END OF BORING @ 8.0 FT.</i> 8.0 845.76</p>		<p>R-21=0-1</p> <p>R-21=1-2</p> <p>R-21=3-4</p> <p>R-21=5-6</p> <p>R-21=7-8</p>	

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE R-22

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/30/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 853.33 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
		<p>3" asphalt, 3" stone/sand.</p> <p>Gray-brown clay transitioning to brown clay.</p>	<p>853.33</p> <p>0.5</p> <p>852.83</p> <p>8.0</p> <p>845.33</p>	<p>R-22=0-1</p> <p>R-22=1-2</p> <p>R-22=3-4</p> <p>R-22=5-6</p> <p>R-22=7-8</p>	
		<p>END OF BORING @ 8.0 FT.</p>			

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.



# LOG OF GEOPROBE BORING

## GEOPROBE R-23

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/30/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 853.86 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> </div> <div style="flex: 1; margin-left: 10px;"> <p>0</p> <p>850</p> <p>5</p> <p>845</p> <p>10</p> <p>840</p> <p>15</p> <p>835</p> <p>20</p> <p>830</p> <p>25</p> <p>825</p> <p>30</p> <p>820</p> <p>35</p> </div> </div>		<p><i>Asphalt/stone.</i></p> <p><i>Coarse black fill.</i></p> <p><i>Medium dense gray silty clay.</i></p> <p><i>Dense brown silty clay (moist).</i></p> <p><i>END OF BORING @ 8.0 FT.</i></p>	<p>853.86</p> <p>0.5</p> <p>853.36</p> <p>1.0</p> <p>852.86</p> <p>2.0</p> <p>851.86</p> <p>8.0</p> <p>845.86</p>	<p><i>R-23=0-1</i></p> <p><i>R-23=1-2</i></p> <p><i>R-23=3-4</i></p> <p><i>R-23=5-6</i></p> <p><i>R-23=7-8</i></p>	

*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING

## GEOPROBE R-24

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/27/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 858.23 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>0</p> <p>855</p> <p>5</p> <p>850</p> <p>10</p> <p>845</p> <p>15</p> <p>840</p> <p>20</p> <p>835</p> <p>25</p> <p>830</p> <p>30</p> <p>825</p> <p>35</p> </div> </div>		<p>4" concrete. 858.23</p> <p>Brown silty sand. 0.33</p> <p>857.9</p> <p>3" concrete. 3.0</p> <p>855.23</p> <p>Dense brown silty clay. 4.5</p> <p>853.73</p> <p>8.0</p> <p>END OF BORING @ 8.0 FT. 850.23</p>		<p>R-24=0-1</p> <p>R-24=1-2</p> <p>R-24=3-4</p> <p>R-24=5-6</p> <p>R-24=7-8</p>	

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING GEOPROBE R-25

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/27/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 855.32 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
855 0    850 5    845 10    840 15    835 20    830 25    825 30    820 35		3" concrete. Dense brown silty clay with trace coarse black fill.  Tan sandy clay.  Tan silty clay.  END OF BORING @ 8.0 FT.	855.32 0.25 855.07  5.0 850.32 6.5 848.82 8.0 847.32	R-25=0-1 R-25=1-2  R-25=3-4  R-25=5-6  R-25=7-8	

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE R-26

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/2/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 850.38 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Tony  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID	
850 845 840 835 830 825 820 815		<i>Grass, dark brown silt.</i>	850.38		<i>R-26=0-1</i>	
		<i>Dark brown fine sandy silt.</i>	0.75 849.63		<i>R-26=1-2</i>	
		<i>Brown and gray mottled silt, trace gravel.</i>	2.0 848.38		<i>R-26=3-4</i>	
		<i>Brown firm sandy silt, moist.</i>	4.5 845.88		<i>R-26=5-6</i>	
		<i>END OF BORING @ 8.0 FT.</i>	8.0 842.38		<i>R-26=7-8</i>	

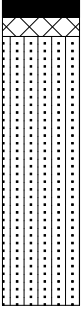
*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING

## GEOPROBE R-27

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/2/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 849.46 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Tony  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID	
0		6" concrete.	849.46	R-27=0-1		
0.5		6" sand fill.	848.96	R-27=1-2		
1.0		Brown gray mottled fine sandy silt, moist @ 3 ft.	848.46		R-27=3-4	
845 5					R-27=5-6	
840 10					R-27=7-8	
835 15						
830 20						
825 25						
820 30						
815 35						
		END OF BORING @ 8.0 FT.	841.46			

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

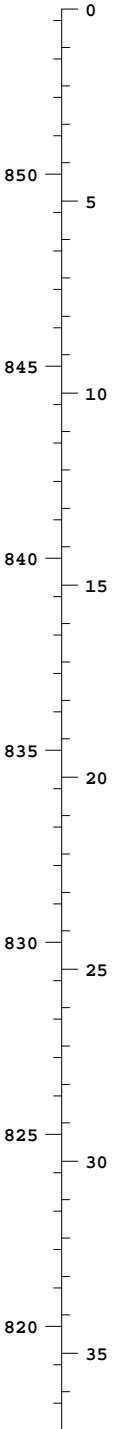



# LOG OF GEOPROBE BORING

## GEOPROBE R-29

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/1/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 854.30 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
0  850 5  845 10  840 15  835 20  830 25  825 30  820 35		Gravel/crushed stone. Brown sand and fine gravel (fill). Plastic fabric @ 1.17 ft.  Black sand layer (asphalt odor) with gray clay clods. REFUSAL ON CONCRETE @ 5.0 FT.	854.3 0.58 853.72  3.75 850.55 5.0 849.3	R-29=0-1 R-29=1-2  R-29=3-4	

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE R-30

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/1/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 854.03 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> </div> <div style="flex: 1;"> <p>0</p> <p>850</p> <p>5</p> <p>845</p> <p>10</p> <p>840</p> <p>15</p> <p>835</p> <p>20</p> <p>830</p> <p>25</p> <p>825</p> <p>30</p> <p>820</p> <p>35</p> </div> </div>		<p><i>Crushed stone.</i> 854.03</p> <p><i>Brown silty sand with gravel (fill).</i> 0.5</p> <p><i>Moist clayey silty sand with gravel (fill).</i> 853.53</p> <p><i>Dark gray clayey silt.</i> 1.5</p> <p><i>Old organic layer (native).</i> 852.53</p> <p><i>Mottled gray and brown silty clay.</i> 3.0</p> <p>851.03</p> <p>4.5</p> <p>849.53</p> <p>6.0</p> <p>848.03</p> <p>8.0</p> <p>846.03</p>		<p><i>R-30=0-1</i></p> <p><i>R-30=1-2</i></p> <p><i>R-30=3-4</i></p> <p><i>R-30=5-6</i></p> <p><i>R-30=7-8</i></p>	
		<i>END OF BORING @ 8.0 FT.</i>			

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.



# LOG OF GEOPROBE BORING GEOPROBE R-31

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/30/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 851.60 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
0		<i>Asphalt/stone.</i>	851.6	<i>R-31=0-1</i>	
850		<i>Brown and gray mottled silty clay.</i>	0.5 851.1	<i>R-31=1-2</i>	
5				<i>R-31=3-4</i>	
845		<i>Brown silty clay.</i>	5.5 846.1	<i>R-31=5-6</i>	
				<i>R-31=7-8</i>	
10					
840					
15					
835					
20					
830					
25					
825					
30					
820					
35					
815					
		<i>END OF BORING @ 8.0 FT.</i>	8.0 843.6		

*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING

## GEOPROBE R-32

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/30/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 854.34 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> </div> <div style="flex: 1; margin-left: 10px;"> <p>0</p> <p>850</p> <p>5</p> <p>845</p> <p>10</p> <p>840</p> <p>15</p> <p>835</p> <p>20</p> <p>830</p> <p>25</p> <p>825</p> <p>30</p> <p>820</p> <p>35</p> </div> </div>		<p><i>Asphalt/stone.</i></p> <p><i>Brown and gray silty clay.</i></p> <p><i>Coarse black fill.</i></p> <p><i>Dense brown silty clay.</i></p> <p><b>END OF BORING @ 8.0 FT.</b></p>	<p>854.34</p> <p>0.5</p> <p>853.84</p> <p>6.0</p> <p>848.34</p> <p>6.5</p> <p>847.84</p> <p>8.0</p> <p>846.34</p>	<p><i>R-32=0-1</i></p> <p><i>R-32=1-2</i></p> <p><i>R-32=3-4</i></p> <p><i>R-32=5-6</i></p> <p><i>R-32=7-8</i></p>	

*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

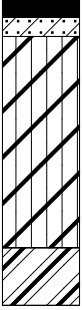


# LOG OF GEOPROBE BORING

## GEOPROBE R-34

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/27/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 855.18 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
855 — 0 850 — 5 845 — 10 840 — 15 835 — 20 830 — 25 825 — 30 820 — 35		6" concrete. Brown coarse sand slag. Dense brown silty clay. Wet brown silty sandy clay. END OF BORING @ 8.0 FT.	855.18 0.5 854.68 1.0 854.18 6.5 848.68 8.0 847.18	R-34=0-1 R-34=1-2 R-34=3-4 R-34=5-6 R-34=7-8	

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE R-35

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/27/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 855.23 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; flex-direction: column; align-items: flex-start;"> <div style="margin-bottom: 20px;"> <div style="display: flex; align-items: center;"> <span style="margin-right: 10px;">855</span> <div style="border-left: 1px solid black; border-right: 1px solid black; height: 100px; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); opacity: 0.5;"></div> </div> </div> </div> <div style="margin-bottom: 20px;"> <div style="display: flex; align-items: center;"> <span style="margin-right: 10px;">850</span> <div style="border-left: 1px solid black; border-right: 1px solid black; height: 100px; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); opacity: 0.5;"></div> </div> </div> </div> <div style="margin-bottom: 20px;"> <div style="display: flex; align-items: center;"> <span style="margin-right: 10px;">845</span> <div style="border-left: 1px solid black; border-right: 1px solid black; height: 100px; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); opacity: 0.5;"></div> </div> </div> </div> <div style="margin-bottom: 20px;"> <div style="display: flex; align-items: center;"> <span style="margin-right: 10px;">840</span> <div style="border-left: 1px solid black; border-right: 1px solid black; height: 100px; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); opacity: 0.5;"></div> </div> </div> </div> <div style="margin-bottom: 20px;"> <div style="display: flex; align-items: center;"> <span style="margin-right: 10px;">835</span> <div style="border-left: 1px solid black; border-right: 1px solid black; height: 100px; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); opacity: 0.5;"></div> </div> </div> </div> <div style="margin-bottom: 20px;"> <div style="display: flex; align-items: center;"> <span style="margin-right: 10px;">830</span> <div style="border-left: 1px solid black; border-right: 1px solid black; height: 100px; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); opacity: 0.5;"></div> </div> </div> </div> <div style="margin-bottom: 20px;"> <div style="display: flex; align-items: center;"> <span style="margin-right: 10px;">825</span> <div style="border-left: 1px solid black; border-right: 1px solid black; height: 100px; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); opacity: 0.5;"></div> </div> </div> </div> <div style="margin-bottom: 20px;"> <div style="display: flex; align-items: center;"> <span style="margin-right: 10px;">820</span> <div style="border-left: 1px solid black; border-right: 1px solid black; height: 100px; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); opacity: 0.5;"></div> </div> </div> </div> </div>					

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE R-36

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/2/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 848.28 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Tony  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
		<p>6" stone.</p> <p>Brown sandy silt with cinders/black granular fill.</p>	<p>848.28</p> <p>0.5</p> <p>847.78</p> <p>4.0</p> <p>844.28</p> <p>8.0</p> <p>840.28</p>	<p>R-36=0-1</p> <p>R-36=1-2</p> <p>R-36=3-4</p> <p>R-36=5-6</p> <p>R-36=7-8</p>	
		<p>END OF BORING @ 8.0 FT.</p>			

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING GEOPROBE R-37

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/3/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 850.18 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Tony  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID	
850 — 0		<i>Stone/fill.</i>	850.18			
		<i>Brown/gray mottled fine silt.</i>	1.0 849.18		<i>R-37=0-1</i>	
					<i>R-37=1-2</i>	
845 — 5					<i>R-37=3-4</i>	
					<i>R-37=5-6</i>	
		<i>Brown sandy silt.</i>	6.0 844.18			
				<i>R-37=7-8</i>		
840 — 10						
835 — 15						
830 — 20						
825 — 25						
820 — 30						
815 — 35						
		<i>END OF BORING @ 8.0 FT.</i>	8.0 842.18			

*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING

## GEOPROBE R-38 Offset

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/26/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 854.41 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>0</p> <p>850</p> <p>845</p> <p>840</p> <p>835</p> <p>830</p> <p>825</p> <p>820</p> </div> </div>	<p>0-1.0</p> <p>1.0-4.0</p> <p>4.0-6.0</p> <p>6.0-10.0</p> <p>10.0-18.0</p> <p>18.0-35.0</p>	<p>Stone fill.</p> <p>Brown silty sand.</p> <p>Light gray silty fill with block cinder.</p> <p>Stiff brown silty clay.</p> <p>Loose brown silty sand.</p> <p>END OF BORING @ 18.0 FT.</p>	<p>854.41</p> <p>1.0</p> <p>853.41</p> <p>4.0</p> <p>850.41</p> <p>6.0</p> <p>848.41</p> <p>10.0</p> <p>844.41</p> <p>18.0</p> <p>836.41</p>	<p>R-38=0-1</p> <p>R-38=1-2</p> <p>R-38=2-3</p> <p>R-38=3-4</p> <p>R-38=4-5</p> <p>R-38=5-6</p> <p>R-38=6-7</p> <p>R-38=7-8</p>	<p></p> <p></p> <p>3.7</p> <p>1.5</p> <p></p> <p></p> <p></p> <p></p> <p></p>

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.



# LOG OF GEOPROBE BORING GEOPROBE R-39

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/1/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 854.37 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
0		Concrete pad.	854.37	R-39=0-1	
0.5		Crushed stone.	853.87	R-39=1-2	
1.0		Dark brown/gray silt with gravel (FILL).	853.37		
2.5		Black silt with fine gravel, trace brick fragments (FILL).	851.87		R-39=3-4
3.17		Gray-brown clayey silt, trace fine gravel.	851.2		R-39=5-6
7.0					R-39=7-8
847.37		Moist sandy silt, trace clay.	846.37		
846.37		END OF BORING @ 8.0 FT.			
850					
5					
845					
10					
840					
15					
835					
20					
830					
25					
825					
30					
820					
35					

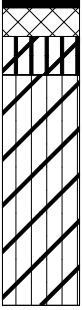
Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE R-40

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/30/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 854.44 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>0</p> <p>850</p> <p>5</p> <p>845</p> <p>10</p> <p>840</p> <p>15</p> <p>835</p> <p>20</p> <p>830</p> <p>25</p> <p>825</p> <p>30</p> <p>820</p> <p>35</p> </div>  </div>		<p>3" concrete.</p> <p>Coarse black granular fill with brick.</p> <p>Gray and black clay with fuel odor.</p> <p>Brown and gray mottled silty clay.</p> <p>END OF BORING @ 8.0 FT.</p>	<p>854.44</p> <p>0.25</p> <p>854.19</p> <p>1.0</p> <p>853.44</p> <p>2.0</p> <p>852.44</p> <p>8.0</p> <p>846.44</p>	<p>R-40=0-1</p> <p>R-40=1-2</p> <p>R-40=3-4</p> <p>R-40=5-6</p> <p>R-40=7-8</p>	<p>445.7</p> <p>476.3</p> <p>41.3</p>

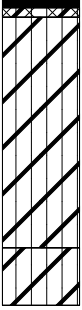
Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE R-41

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/30/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 854.22 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>0</p> <p>850</p> <p>5</p> <p>845</p> <p>10</p> <p>840</p> <p>15</p> <p>835</p> <p>20</p> <p>830</p> <p>25</p> <p>825</p> <p>30</p> <p>820</p> <p>35</p> </div>  </div>		<p>3" concrete. 854.22</p> <p>Gray/brown silty clay with coarse black fill. 0.25</p> <p>Dense gray and brown mottled silty clay. 853.97</p> <p>853.72</p> <p>6.5</p> <p>Brown silty clay. 847.72</p> <p>8.0</p> <p>END OF BORING @ 8.0 FT. 846.22</p>		<p>R-41=0-1</p> <p>R-41=1-2</p> <p>R-41=3-4</p> <p>R-41=5-6</p> <p>R-41=7-8</p>	

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE R-42

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/27/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 854.24 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> </div> <div style="flex: 1; margin-left: 10px;"> <p>0</p> <p>850</p> <p>5</p> <p>845</p> <p>10</p> <p>840</p> <p>15</p> <p>835</p> <p>20</p> <p>830</p> <p>25</p> <p>825</p> <p>30</p> <p>820</p> <p>35</p> </div> </div>		<p>3" concrete.</p> <p>Loose red-brown granular fill.</p> <p>Dense gray silty clay.</p> <p>Gray silty clay, trace sand with gravel.</p> <p>END OF BORING @ 8.0 FT.</p>	<p>854.24</p> <p>0.25</p> <p>853.99</p> <p>1.5</p> <p>852.74</p> <p>7.0</p> <p>847.24</p> <p>8.0</p> <p>846.24</p>	<p>R-42=0-1</p> <p>R-42=1-2</p> <p>R-42=3-4</p> <p>R-42=5-6</p> <p>R-42=7-8</p>	<p>1.6</p>

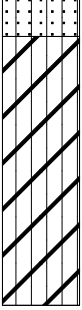
Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE R-43

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/27/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 853.75 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>0</p> <p>850</p> <p>5</p> <p>845</p> <p>10</p> <p>840</p> <p>15</p> <p>835</p> <p>20</p> <p>830</p> <p>25</p> <p>825</p> <p>30</p> <p>820</p> <p>35</p> </div>  </div>		<p><i>Brown sandy silt.</i></p> <p><i>Dense brown and gray mottled silty clay.</i></p> <p><i>Moist @ 4.0 ft.</i></p> <p><i>END OF BORING @ 8.0 FT.</i></p>	<p>853.75</p> <p>1.0</p> <p>852.75</p> <p>8.0</p> <p>845.75</p>	<p><i>R-43=0-1</i></p> <p><i>R-43=1-2</i></p> <p><i>R-43=3-4</i></p> <p><i>R-43=5-6</i></p> <p><i>R-43=7-8</i></p>	

*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING

## GEOPROBE R-44

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** 7.5 ft. (el. 847.09 ft.)  
**DATE:** 4/26/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 854.59 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID	
0		Asphalt/stone.	854.59	R-44=0-1		
0.67		Black silty sand with gravel.	853.92	R-44=1-2		
1.5		(FILL)	853.09			
		Stiff gray silty clay.			R-44=3-4	
5				5.5	R-44=5-6	
		Brown sandy silt.	849.09			
		Wet @ 7.5 ft.	8.0		R-44=7-8	
		END OF BORING @ 8.0 FT.	846.59			
850						
845						
840						
835						
830						
825						
820						

Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE R-45

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/26/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 853.62 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
		<i>Asphalt/stone.</i> 853.62 1.0 <i>Stiff brown silty clay.</i> 852.62  6.0 <i>Brown sandy silty moist clay.</i> 847.62 8.0 <i>END OF BORING @ 8.0 FT.</i> 845.62		<i>R-45=0-1</i> <i>R-45=1-2</i>  <i>R-45=3-4</i>  <i>R-45=5-6</i>  <i>R-45=7-8</i>	

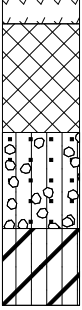
*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING

## GEOPROBE R-46

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/3/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 846.10 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Tony  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
0 845 5 840 10 835 15 830 20 825 25 820 30 815 35 810		<i>Topsoil/grass.</i> <i>Brown sandy silt with coarse black fill, cinders.</i>  <i>Brown fine sandy silt.</i>  <i>Brown and gray fine clayey silt, mottled.</i>  <b>END OF BORING @ 8.0 FT.</b>	846.1 0.67 845.43  3.5 842.6  6.0 840.1  8.0 838.1	R-46=0-1 R-46=1-2  R-46=3-4  R-46=5-6  R-46=7-8	

*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*



# LOG OF GEOPROBE BORING

## GEOPROBE R-47

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 5/3/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 847.21 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Tony  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>0</p> <p>845</p> <p>5</p> <p>840</p> <p>10</p> <p>835</p> <p>15</p> <p>830</p> <p>20</p> <p>825</p> <p>25</p> <p>820</p> <p>30</p> <p>815</p> <p>35</p> </div> </div>	<p>4" concrete.</p> <p>Brown/gray silty sand and gravel fill.</p> <p>Dark gray silt with odor.</p> <p>Brown sandy silt with gravel.</p> <p>Gray fine sandy silt.</p> <p>END OF BORING @ 8.0 FT.</p>	<p>847.21</p> <p>0.33</p> <p>846.88</p> <p>3.5</p> <p>843.71</p> <p>5.0</p> <p>842.21</p> <p>6.5</p> <p>840.71</p> <p>8.0</p> <p>839.21</p>	<p></p> <p></p> <p></p> <p></p> <p></p> <p></p> <p></p> <p></p> <p></p> <p></p>	<p>R-47=0-1</p> <p>R-47=1-2</p> <p>R-47=3-4</p> <p>R-47=5-6</p> <p>R-47=7-8</p>	<p></p> <p></p> <p>12.3</p> <p>7.3</p> <p>4.2</p> <p></p>

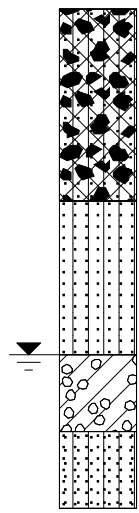
Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.

# LOG OF GEOPROBE BORING

## GEOPROBE R-48

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** 9.0 ft. (el. 840.99 ft.)  
**DATE:** 4/26/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 849.99 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>0</p> <p>845 5</p> <p>840 10</p> <p>835 15</p> <p>830 20</p> <p>825 25</p> <p>820 30</p> <p>815 35</p> </div>  </div>		<p><i>Fill concrete/brick.</i></p> <p style="text-align: right;">849.99</p> <hr/> <p><i>Brown sandy silt.</i></p> <p style="text-align: right;">5.0 844.99</p> <hr/> <p><i>Wet silty sand with gravel.</i></p> <p style="text-align: right;">9.0 840.99</p> <hr/> <p><i>Gray sandy silty clay.</i></p> <p style="text-align: right;">11.0 838.99</p> <hr/> <p><i>END OF BORING @ 13.0 FT.</i></p> <p style="text-align: right;">13.0 836.99</p>		<p><i>R-48=0-1</i></p> <p><i>R-48=1-2</i></p> <p><i>R-48=3-4</i></p> <p><i>R-48=5-6</i></p> <p><i>R-48=7-8</i></p>	

*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING

## GEOPROBE R-49

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** 7.5 ft. (el. 847.33 ft.)  
**DATE:** 4/27/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 854.83 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
		<p><i>Fill concrete/brick.</i></p> <p style="text-align: right;">854.83</p> <hr/> <p><i>Brown silty clay with wetter sand @ 7.5 ft.</i></p> <p style="text-align: right;">7.5 847.33</p> <hr/> <p><i>Brown sandy silt.</i></p> <p style="text-align: right;">10.0 844.83</p> <hr/> <p><i>END OF BORING @ 18.0 FT.</i></p> <p style="text-align: right;">18.0 836.83</p>		<p><i>R-49=0-1</i></p> <p><i>R-49=1-2</i></p> <p><i>R-49=2-3</i></p> <p><i>R-49=3-4</i></p> <p><i>R-49=4-5</i></p> <p><i>R-49=5-6</i></p> <p><i>R-49=6-7</i></p> <p><i>R-49=7-8</i></p>	<p>55.3</p> <p>1.5</p> <p>4.6</p>

*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

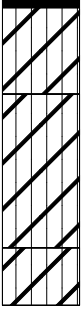


# LOG OF GEOPROBE BORING

## GEOPROBE R-51

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/30/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 854.03 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>0</p> <p>850</p> <p>5</p> <p>845</p> <p>10</p> <p>840</p> <p>15</p> <p>835</p> <p>20</p> <p>830</p> <p>25</p> <p>825</p> <p>30</p> <p>820</p> <p>35</p> </div>  </div>		<p><i>3" asphalt.</i> 854.03</p> <p><i>Dense brown silty clay.</i> 0.25 853.78</p> <p><i>Brown sandy silty clay (moist).</i> 2.5 851.53</p> <p><i>Dense brown silty clay.</i> 6.5 847.53</p> <p><i>END OF BORING @ 8.0 FT.</i> 8.0 846.03</p>		<p><i>R-51=0-1</i></p> <p><i>R-51=1-2</i></p> <p><i>R-51=3-4</i></p> <p><i>R-51=5-6</i></p> <p><i>R-51=7-8</i></p>	<p>1.0</p>

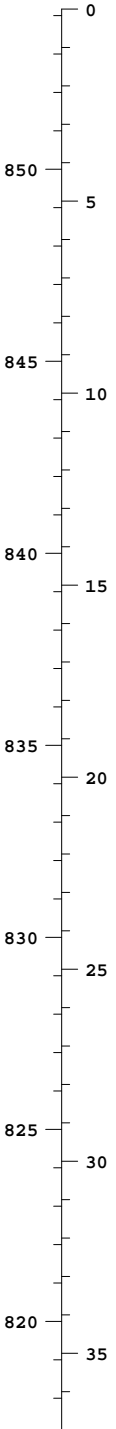
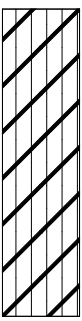
*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING

## GEOPROBE R-52

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/27/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 854.17 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
		<p><i>Dense brown and gray mottled silty clay.</i></p>	<p>854.17</p>	<p><i>R-52=0-1</i> <i>R-52=1-2</i>  <i>R-52=3-4</i>  <i>R-52=5-6</i>  <i>R-52=7-8</i></p>	
		<p><i>END OF BORING @ 8.0 FT.</i></p>	<p>8.0 846.17</p>		

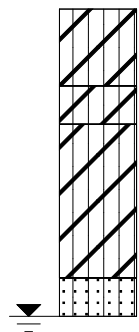
*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING

## GEOPROBE R-53

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** 8.0 ft. (el. 845.96 ft.)  
**DATE:** 4/27/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 853.96 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>0</p> <p>850</p> <p>5</p> <p>845</p> <p>10</p> <p>840</p> <p>15</p> <p>835</p> <p>20</p> <p>830</p> <p>25</p> <p>825</p> <p>30</p> <p>820</p> <p>35</p> </div>  </div>		<p><i>Brown clayey silt.</i></p> <p style="text-align: right;">853.96</p> <hr/> <p style="text-align: right;">2.0</p> <p><i>Dark gray silty clay.</i></p> <p style="text-align: right;">851.96</p> <hr/> <p style="text-align: right;">3.0</p> <p><i>Stiff brown/gray silty clay.</i></p> <p style="text-align: right;">850.96</p> <hr/> <p style="text-align: right;">7.0</p> <p><i>Wet brown silty coarse sand.</i></p> <p style="text-align: right;">846.96</p> <hr/> <p style="text-align: right;">8.0</p> <p><i>END OF BORING @ 8.0 FT.</i></p> <p style="text-align: right;">845.96</p>		<p><i>R-53=0-1</i></p> <p><i>R-53=1-2</i></p> <hr/> <p><i>R-53=3-4</i></p> <hr/> <p><i>R-53=5-6</i></p> <hr/> <p><i>R-53=7-8</i></p>	

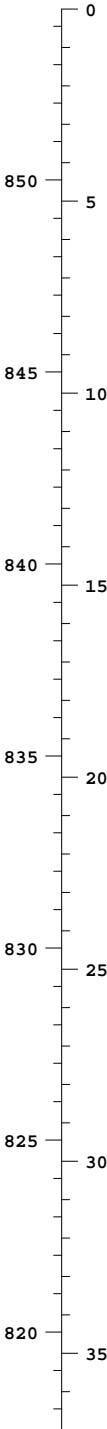
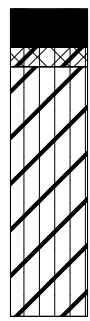
*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*

# LOG OF GEOPROBE BORING

## GEOPROBE R-54

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/26/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 854.45 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
		<p><i>Asphalt/stone.</i></p> <p><i>Brown silty clay with brick/fill.</i></p> <p><i>Dark gray silty clay.</i></p> <p><i>END OF BORING @ 8.0 FT.</i></p>	<p>854.45</p> <p>1.0</p> <p>853.45</p> <p>1.5</p> <p>852.95</p> <p>8.0</p> <p>846.45</p>	<p><i>R-54=0-1</i></p> <p><i>R-54=1-2</i></p> <p><i>R-54=3-4</i></p> <p><i>R-54=5-6</i></p> <p><i>R-54=7-8</i></p>	

*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*



# LOG OF GEOPROBE BORING

## GEOPROBE R-55

**PROJECT:** Exide Frankfort  
**BORING LOCATION:** Frankfort, Indiana  
**DRILLING METHOD:** Geoprobe  
**DRILLING COMPANY:** American Drilling Services  
**WATER ENCOUNTERED AT:** N/A  
**DATE:** 4/26/18

**PROJECT NO.:** 2011-2678-14  
**SURFACE ELEVATION:** 854.01 ft.  
**CHECKED BY:** PGS  
**DRILLER:** Jeremy  
**INSPECTOR:** D. Benson

ELEVATION / DEPTH	SOIL SYMBOLS SAMPLER SYMBOLS BLOWS PER 6 INCHES	Soil Description	USCS	Sample Interval	PID
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>0</p> <p>850</p> <p>5</p> <p>845</p> <p>10</p> <p>840</p> <p>15</p> <p>835</p> <p>20</p> <p>830</p> <p>25</p> <p>825</p> <p>30</p> <p>820</p> <p>35</p> </div> </div>		<p><i>Asphalt/stone.</i></p> <p><i>Dark gray silty clay.</i></p> <p><i>Brown-gray silty clay.</i></p> <p><i>END OF BORING @ 8.0 FT.</i></p>	<p>854.01</p> <p>1.0</p> <p>853.01</p> <p>5.0</p> <p>849.01</p> <p>8.0</p> <p>846.01</p>	<p><i>R-55=0-1</i></p> <p><i>R-55=1-2</i></p> <p><i>R-55=3-4</i></p> <p><i>R-55=5-6</i></p> <p><i>R-55=7-8</i></p>	

*Note: PID readings shown for detections of 1.0 parts per million (PPM) and above.*



## **APPENDIX B**

### **RFI Monitoring Well Installation Logs**

# MONITORING WELL LOG

WELL NO. MW-1

PROJECT: Exide Frankfort PROJECT NO.: 2011-2678-14  
 LOCATION: Frankfort, Indiana ELEVATION: TOIC: 851.26 GS: 849.27  
 DRILLER: Jeremy Wallace DATE DRILLED: 5/2/18 DATE COMPLETED: 5/3/18  
 WATER DEPTH: 7.97 ft. INSPECTOR: P. Stratman COMPLETION DEPTH: 20 feet

DEPTH (ft.)	Well Construction Diagram	Samples	Soil Graphic	DESCRIPTION
0				0.00' Gravel.
				0.25' Brown sandy SILT and gravel.
		S-1		1.50' Light brown clayey SILT with mottling, trace fine gravel. (NATIVE)
5				6.50' Gray brown clayey SILT/silty CLAY, trace gravel. (NATIVE)
		S-2		10.00' Saturated SAND.
10				10.50' Gray brown silty CLAY with fine sand, very stiff.
		S-3		13.00' Gray medium SAND, moist, trace clay and silt.
		S-4		13.50' Gray clayey SILT, trace fine gravel.
15				17.00' Gray clayey SAND, wet.
		S-5		17.17' Light gray silty CLAY/clayey SILT, very stiff.
	S-6		20.00' END OF BORING @ 20.0 FT.	
20				
25				
30				

**PROTECTIVE**

COVER TYPE: 6" Steel Outer

Outer Casing with Lockable Cap

**GROUT:**

Type: NA

Quantity: NA

Total Depth: NA

**BACKFILL:**

Type: #1 Sand

Top Depth: 6 ft.

Bottom Depth: 18 ft.

**CASING:**

Diameter: 2" PVC

Length: 20 ft.

Stick Up: 2 ft. of 6" steel

**SEAL**

Type: Bentonite

Quantity: ---

Top Depth: 16 ft.

Bottom Depth: 18 ft.

**SCREEN**

Type: PVC

Diameter: 2"

Slot Size: 0.010 in.

Top Depth: 8 ft.

Bottom Depth: 18 ft.

**COMMENTS**

# MONITORING WELL LOG

## WELL NO. MW-2

PROJECT: Exide Frankfort PROJECT NO.: 2011-2678-14  
 LOCATION: Frankfort, Indiana ELEVATION: TOIC: 848.92 GS: 846.94  
 DRILLER: Jeremy Wallace DATE DRILLED: 5/2/18 DATE COMPLETED: 5/3/18  
 WATER DEPTH: 8.45 ft. INSPECTOR: P. Stratman COMPLETION DEPTH: 20 feet

DEPTH (ft.)	Well Construction Diagram	Samples	Soil Graphic	DESCRIPTION	
0				0.00'	
		S-1		0.83'	
					5.83'
5					7.50'
					10.00'
10					14.00'
					14.04'
15					17.00'
					19.00'
20					19.04'
				20.00'	
				20.00'	
25					
30					

**PROTECTIVE COVER TYPE:** 6" Steel Outer  
Casing with Lockable Cap

**GROUT:**  
 Type: NA  
 Quantity: NA  
 Total Depth: NA

**BACKFILL:**  
 Type: #1 Sand  
 Top Depth: 6 ft.  
 Bottom Depth: 18 ft.

**CASING:**  
 Diameter: 2"  
 Length: 20 ft.  
 Stick Up: 2 ft. of 6" Steel

**SEAL**  
 Type: Bentonite  
 Quantity: ---  
 Top Depth: 18 ft.  
 Bottom Depth: 20 ft.

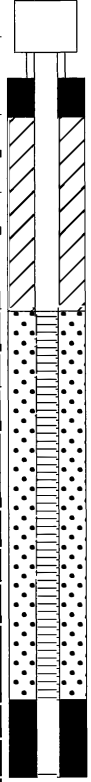





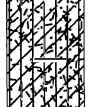
**SCREEN**  
 Type: PVC  
 Diameter: 2"  
 Slot Size: 0.010  
 Top Depth: 8 ft.  
 Bottom Depth: 18 ft.

**COMMENTS**

# MONITORING WELL LOG

## WELL NO. MW-3

PROJECT: Exide Frankfort PROJECT NO.: 2011-2678-14  
 LOCATION: Frankfort, Indiana ELEVATION: TOIC: 851.45 GS: 849.43  
 DRILLER: Jeremy Wallace DATE DRILLED: 4/30/18 DATE COMPLETED: 5/3/18  
 WATER DEPTH: 5.2 ft INSPECTOR: P. Stratman COMPLETION DEPTH: 18 feet

DEPTH (ft.)	Well Construction Diagram	Samples	Soil Graphic	DESCRIPTION	
0		S-1		0.00' Asphalt pavement.	
		S-2		1.00' Rubble fill, brick and concrete with sand matrix (no recovery).	
		S-3		2.00' Brown clayey SILT with coarse sand and rock fragments. (FILL)	
5			S-4		5.50' Brown silty fine SAND (wet).
			S-5		6.17' Coarse SAND and GRAVEL (wet).
			S-6		7.00' Brown silty fine SAND to sandy SILT, trace clay.
10					12.50' Brown medium SAND seam (wet).
					12.92' Gray silty CLAY, trace gravel, very stiff (moist).
15					13.00' Gray CLAY with sand and silt seams, very stiff (moist).
					15.00'
					18.00' END OF BORING @ 18.0 FT.
20					
25					
30					

**PROTECTIVE**  
 COVER TYPE: 6" Steel Outer  
 Casing with Lockable Cap

**GROUT:**  
 Type: NA  
 Quantity: NA  
 Total Depth: NA

**BACKFILL:**  
 Type: # 1 Sand  
 Top Depth: 4 ft  
 Bottom Depth: 16 ft

**CASING:**  
 Diameter: 2" PVC  
 Length: 18 ft  
 Stick Up: 2 ft. of 6" steel

**SEAL**  
 Type: Bentonite  
 Quantity: ---  
 Top Depth: 16 ft  
 Bottom Depth: 18 ft

**SCREEN**  
 Type: PVC  
 Diameter: 2"  
 Slot Size: 0.010  
 Top Depth: 6 ft  
 Bottom Depth: 16 ft

**COMMENTS**

# MONITORING WELL LOG

WELL NO. MW-4

PROJECT: Exide Frankfort PROJECT NO.: 2011-2678-14  
 LOCATION: Frankfort, Indiana ELEVATION: TOIC: 853.17 GS: 851.19  
 DRILLER: Bernie Byers DATE DRILLED: 4/30/18 DATE COMPLETED: 5/3/18  
 WATER DEPTH: 5.20 ft. INSPECTOR: P. Stratman COMPLETION DEPTH: 20 feet

DEPTH (ft.)	Well Construction Diagram	Samples	Soil Graphic	DESCRIPTION
0		S-1		Asphalt 5" thick, crushed stone 7" thick. 0.00'
				Dark gray to black clayey SILT and coarse SAND, brick fragments, trace metal. (FILL) 1.00'
5		S-2		Dark gray to black clayey SILT with brick fragments (less debris). (FILL) 2.00'
				Coarse SAND and GRAVEL with concrete fragments (wet). 4.67'
10		S-3		Dark gray clayey SILT, hard. (NATIVE) 5.33'
				Dark brown sandy clayey SILT with thin clay lenses (<1" thick), hard. 7.50'
15		S-4		Gray clayey SILT, trace fine sand, stiff. 11.50'
		S-5		Dark gray SILT, trace clay, trace rounded gravel, trace coarse sand. 18.00'
20		S-6		Dark gray SILT, trace clay, trace rounded gravel, trace coarse sand. 20.00'
				END OF BORING @ 20.0 FT.
25				
30				

**PROTECTIVE COVER TYPE:** 6" Steel Outer  
Casing with Lockable Lid

**GROUT:**  
 Type: NA  
 Quantity: NA  
 Total Depth: NA

**BACKFILL:**  
 Type: #1 Sand  
 Top Depth: 6 ft.  
 Bottom Depth: 18 ft.

**CASING:**  
 Diameter: 2" PVC  
 Length: 20 ft.  
 Stick Up: 2 ft. of 6" steel

**SEAL**  
 Type: Bentonite  
 Quantity: ---  
 Top Depth: 18 ft.  
 Bottom Depth: 20 ft.

**SCREEN**  
 Type: PVC  
 Diameter: 2"  
 Slot Size: 0.010"  
 Top Depth: 8 ft.  
 Bottom Depth: 18 ft.

**COMMENTS**

# MONITORING WELL LOG

WELL NO. MW-5

PROJECT: Exide Frankfort PROJECT NO.: 2011-2678-14  
 LOCATION: Frankfort, Indiana ELEVATION: TOIC: 856.05 GS: 853.95  
 DRILLER: Jeremy Wallace DATE DRILLED: 5/2/18 DATE COMPLETED: 5/3/18  
 WATER DEPTH: 5.92 ft. INSPECTOR: P. Stratman COMPLETION DEPTH: 15 feet

DEPTH (ft.)	Well Construction Diagram	Samples	Soil Graphic	DESCRIPTION
0		S-1		0.00'
				1.08'
5		S-2		5.00'
10		S-3		13.50'
15		S-4		15.00'
20				END OF BORING @ 15.0 FT.
25				
30				

**PROTECTIVE COVER TYPE:** 6" Steel Outer

Casing with Lockable Lid

**GROUT:**

Type: NA  
 Quantity: NA  
 Total Depth: NA

**BACKFILL:**

Type: #1 Sand  
 Top Depth: 6 ft.  
 Bottom Depth: 13 ft.

**CASING:**

Diameter: 2" PVC  
 Length: 13.5 ft.  
 Stick Up: 2 ft. of 6" steel

**SEAL**

Type: Bentonite  
 Quantity: ---  
 Top Depth: 13 ft.  
 Bottom Depth: 15 ft.

**SCREEN**

Type: PVC  
 Diameter: 2"  
 Slot Size: 0.010"  
 Top Depth: 8 ft.  
 Bottom Depth: 13 ft.

**COMMENTS**

# MONITORING WELL LOG

WELL NO. MW-6

PROJECT: Exide Frankfort PROJECT NO.: 2011-2678-14  
 LOCATION: Frankfort, Indiana ELEVATION: TOIC: 855.47 GS: 853.24  
 DRILLER: Bernie Byers DATE DRILLED: 4/30/18 DATE COMPLETED: 5/3/18  
 WATER DEPTH: 4.6 ft. INSPECTOR: P. Stratman COMPLETION DEPTH: 20 feet

DEPTH (ft.)	Well Construction Diagram	Samples	Soil Graphic	DESCRIPTION		
0				0.00'		
		S-1		Asphalt (4") and brown silty crushed stone (4").	0.67'	
				Dark gray to black SAND and GRAVEL, moist. (FILL)	2.67'	
5		S-2		Black/dark gray CLAY. (NATIVE)	5.00'	
				Gray brown sandy SILT, some clay, wet. (NATIVE)	6.00'	
10			S-3		Red-brown and gray mottled fine sandy clayey SILT. (NATIVE)	9.33'
				Coarse SAND, trace gravel, wet. (NATIVE)	14.50'	
15			S-4		Gray-brown clayey SILT, trace fine gravel and coarse sand, wet. (NATIVE)	15.67'
			S-5		Gray-brown SAND, trace silt and some clay, wet. (NATIVE)	18.00'
20			S-6		Gray-brown silty fine SAND, with very thin seams of clean sand, wet. (NATIVE)	20.00'
				Hard dark gray clayey SILT, trace gravel. END OF BORING @ 20.0 FT.		
25						
30						

**PROTECTIVE COVER TYPE:** 6" Steel Outer  
Casing with Lockable Lid

**GROUT:**  
 Type: NA  
 Quantity: NA  
 Total Depth: NA

**BACKFILL:**  
 Type: #1 Sand  
 Top Depth: 6 ft.  
 Bottom Depth: 18 ft.

**CASING:**  
 Diameter: 2" PVC  
 Length: 20 ft.  
 Stick Up: 2 ft. of 6" steel

**SEAL**  
 Type: Bentonite  
 Quantity: ---  
 Top Depth: 18 ft.  
 Bottom Depth: 20 ft.

**SCREEN**  
 Type: PVC  
 Diameter: 2"  
 Slot Size: 0.010"  
 Top Depth: 8 ft.  
 Bottom Depth: 18 ft.

**COMMENTS**



# MONITORING WELL LOG

WELL NO. MW-7

PROJECT: Exide Frankfort PROJECT NO.: 2011-2678-14  
 LOCATION: Frankfort, Indiana ELEVATION: TOIC: 847.40 GS: 845.86  
 DRILLER: Jeremy Wallace DATE DRILLED: 5/1/18 DATE COMPLETED: 5/3/18  
 WATER DEPTH: 4.3 ft. INSPECTOR: P. Stratman COMPLETION DEPTH: 25 feet

DEPTH (ft.)	Well Construction Diagram	Samples	Soil Graphic	DESCRIPTION	
0			S-1	0.00'	Crushed stone.
			0.67'	Ash/cinders, gravel and coarse SAND. (FILL)	
5			S-2	4.75'	Black clayey SILT with gray zones, oraganic/woody roots/ peat, moist. (NATIVE).
10			S-3	9.50'	Dark gray-brown SILT, very uniform, organic inclusions/peat, moist. (NATIVE)
15			S-4	13.25'	Dark gray SILT, very uniform, moist. (NATIVE)
20			S-5	20.17'	Black coarse SAND and fine gravel, wet. (NATIVE)
25			S-6	20.50'	Very stiff black to gray silty CLAY, very uniform, wet. (NATIVE)
30	S-7	25.00'	END OF BORING @ 25.0 FT.		

**PROTECTIVE**  
**COVER TYPE:** 6" Steel Outer  
Casing with Lockable Lid

**GROUT:**  
 Type: NA  
 Quantity: NA  
 Total Depth: NA

**BACKFILL:**  
 Type: #1 Sand  
 Top Depth: 10 ft.  
 Bottom Depth: 22 ft.

**CASING:**  
 Diameter: 2" PVC  
 Length: 24 ft.  
 Stick Up: 2 ft. of 6" steel

**SEAL**  
 Type: Bentonite  
 Quantity: ---  
 Top Depth: 22 ft.  
 Bottom Depth: 25 ft.

**SCREEN**  
 Type: PVC  
 Diameter: 2"  
 Slot Size: 0.010"  
 Top Depth: 12 ft.  
 Bottom Depth: 22 ft.

**COMMENTS**

# MONITORING WELL LOG

## WELL NO. MW-8

PROJECT: Exide Frankfort PROJECT NO.: 2011-2678-14  
 LOCATION: Frankfort, Indiana ELEVATION: TOIC: 853.73 GS: 851.76  
 DRILLER: Jeremy DATE DRILLED: 5/2/18 DATE COMPLETED: 5/3/18  
 WATER DEPTH: 18.03 ft. INSPECTOR: P. Stratman COMPLETION DEPTH: 20 feet

DEPTH (ft.)	Well Construction Diagram	Samples	Soil Graphic	DESCRIPTION
0				0.00'
				1.00'
5				8.00'
10				8.33'
				11.00'
15				11.30'
				14.00'
20				15.50'
				17.00'
				20.00'
25				
30				

**PROTECTIVE COVER TYPE:** 6" Steel Outer  
Casing with Lockable Lid

**GROUT:**  
 Type: NA  
 Quantity: NA  
 Total Depth: NA

**BACKFILL:**  
 Type: #1 Sand  
 Top Depth: 6 ft.  
 Bottom Depth: 18 ft.

**CASING:**  
 Diameter: 2" PVC  
 Length: 20 ft.  
 Stick Up: 2 ft. of 6" steel

**SEAL**  
 Type: Bentonite  
 Quantity: ---  
 Top Depth: 18 ft.  
 Bottom Depth: 20 ft.

**SCREEN**  
 Type: PVC  
 Diameter: 2"  
 Slot Size: 0.010"  
 Top Depth: 8 ft.  
 Bottom Depth: 18 ft.

**COMMENTS**



## **APPENDIX C**

### **Groundwater Purge Sheets May and July 2018 Sampling Events**

Former Manufacturing Facility  
Groundwater Sampling 2012  
Bridgeport, OH

Well ID: MW-1 Job No: 2011-2678

Date Sampled: 5/24/2018

Sampled by: RAC

Well Diameter: 2"

DTW: 8.08

DTB: 20.31

Estimated Pump Setting: 13'

Estimated Flow Rate: 100 ml/min

Sample Collection Time: 11:17

**Laboratory:** Pace

Time	pH	Dissolved Oxygen mg/l	Specific Cond. µS/cm	Temperature °C	O.R.P. mV	Turb. NTU
1035	7.01	5.31	1.704	19.55	68.1	16.6
1039	6.99	4.95	1.705	19.75	68.9	12.0
1043	6.98	3.85	1.709	19.45	79.4	9.93
1047	6.98	3.76	1.705	19.50	80.7	8.96
1051	6.99	3.49	1.694	20.09	82.9	7.25
1055	7.01	3.36	1.699	20.66	83.8	6.71
1059	7.01	3.08	1.703	20.39	89.8	6.02
1102	7.01	3.04	1.700	20.31	90.6	5.54
1105	7.00	2.92	1.697	20.22	91.8	5.34
1108	7.01	2.71	1.693	20.15	94.4	5.08
1111	7.01	2.56	1.686	20.17	95.8	5.36
1113	7.01	2.53	1.686	20.15	96.8	4.32
1114	7.01	2.50	1.686	20.12	97.4	4.34

**Comments:** Removed ~1.5 gal; Sampled for VOC's, SVOC's and Total and Dissolved Metals

Former Manufacturing Facility  
Groundwater Sampling 2012  
Bridgeport, OH

Well ID: MW-2 Job No: 2011-2678

Date Sampled: 5/24/2018

Sampled by: RAC

Well Diameter: 2"

DTW: 10.24

DTB: 20.30

Estimated Pump Setting: 13'

Estimated Flow Rate: 100 ml/min

Sample Collection Time: 12:52

**Laboratory:** Pace

Time	pH	Dissolved Oxygen mg/l	Specific Cond. µS/cm	Temperature °C	O.R.P. mV	Turb. NTU
1209	7.21	5.70	0.757	19.29	103.3	61.5
1213	7.12	4.23	0.740	19.35	106.1	59.2
1217	7.06	3.06	0.701	18.08	101.8	33.4
1221	7.07	3.05	0.697	18.02	101.2	27.4
1225	7.07	3.06	0.696	17.91	100.2	24.7
1229	7.07	3.07	0.695	17.83	100.8	22.1
1233	7.07	2.88	0.691	17.82	100.3	20.3
1237	7.09	2.79	0.685	18.05	98.4	17.6
1241	7.12	2.73	0.682	18.14	96.3	16.4
1244	7.13	2.70	0.680	18.27	95.4	15.6
1247	7.14	2.67	0.678	18.30	94.2	14.6
1250	7.14	2.65	0.677	18.34	94.0	14.9

**Comments:** Removed ~1.5 gal; Sampled for VOC's, SVOC's and Total and Dissolved Metals

Former Manufacturing Facility  
Groundwater Sampling 2012  
Bridgeport, OH

Well ID: MW-3 Job No: 2011-2678

Date Sampled: 5/24/2018

Sampled by: RAC

Well Diameter: 2"

DTW: 7.23

DTB: 17.45

Estimated Pump Setting: 11'

Estimated Flow Rate: 100 ml/min

Sample Collection Time: 15:22

**Laboratory:** Pace

Time	pH	Dissolved Oxygen mg/l	Specific Cond. µS/cm	Temperature °C	O.R.P. mV	Turb. NTU
1336	7.16	2.95	0.780	23.68	41.0	1972
1340	7.12	2.30	0.778	23.82	37.0	1889
1344	7.13	2.21	0.780	24.30	38.9	1902
1348	7.10	1.56	0.788	27.00	46.8	1767
1353	7.10	1.36	0.787	27.75	51.1	1782
1358	7.08	0.99	0.779	27.10	53.3	1682
1403	7.10	0.85	0.775	26.99	51.2	1527
1408	7.05	0.58	0.762	25.63	44.4	1292
1413	7.09	0.60	0.762	26.86	40.8	1219
1418	7.06	0.50	0.761	25.58	41.9	1063
1423	7.10	0.40	0.754	26.37	35.5	974
1428	7.02	0.37	0.748	23.35	33.9	895
1433	6.93	0.21	0.734	21.60	19.8	838
1438	6.94	0.20	0.731	21.48	16.6	736
1443	6.99	0.21	0.721	21.84	8.1	184
1448	7.08	0.19	0.716	22.40	-0.7	84
1453	7.09	0.17	0.706	23.54	-4.6	124
1457	7.09	0.16	0.701	23.35	-5.2	107.3
1501	7.08	0.15	0.698	23.18	-6.7	77.5
1505	7.10	0.16	0.695	25.10	-6.5	136
1509	7.10	0.18	0.693	25.92	-6.9	85.6
1513	7.10	0.16	0.690	26.36	-4.8	66.7
1516	7.11	0.17	0.693	26.72	-4.5	81
1519	7.12	0.17	0.693	26.75	-4.4	81.7

**Comments:** Removed ~4.75 gal; Sampled for VOC's, SVOC's and Total and Dissolved Metals

Former Manufacturing Facility  
Groundwater Sampling 2012  
Bridgeport, OH

Well ID: MW-4 Job No: 2011-2678

Date Sampled: 5/24/2018

Sampled by: RAC

Well Diameter: 2"

DTW: 4.74

DTB: 18.40

Estimated Pump Setting: 13'

Estimated Flow Rate: 110 ml/min

Sample Collection Time: 17:07  
MS/MSD

**Laboratory:** Pace

Time	pH	Dissolved Oxygen mg/l	Specific Cond. µS/cm	Temperature °C	O.R.P. mV	Turb. NTU
1600	6.71	2.01	1.711	21.30	2.2	710
1605	6.75	1.74	1.715	22.58	5.1	649
1610	6.79	1.57	1.717	23.60	5.9	439
1615	6.77	1.42	1.709	23.95	3.2	89
1620	6.77	1.39	1.717	24.67	3.3	65
1625	6.76	1.28	1.705	26.49	-0.2	55
1630	6.75	1.41	1.729	23.52	-21.6	103.9
1635	6.66	1.26	1.721	20.97	-28.1	84.0
1640	6.66	1.18	1.719	20.27	-37.5	67.6
1643	6.66	1.16	1.718	20.27	-37.8	65.8
1646	6.69	1.08	1.723	20.44	-41.5	58.4
1649	6.69	1.07	1.727	20.37	-43.1	56.1
1652	6.69	1.02	1.726	20.37	-46.7	53.1
1655	6.70	0.98	1.731	20.53	-50.6	47.1
1658	6.70	0.97	1.732	20.56	-51.4	45.3
1701	6.71	0.95	1.734	20.61	-53.5	45.6

**Comments:** Removed ~2.5 gal; Sampled for VOC's, SVOC's and Total and Dissolved Metals

Former Manufacturing Facility  
Groundwater Sampling 2012  
Bridgeport, OH

Well ID: MW-5 Job No: 2011-2678

Date Sampled: 5/23/2018

Sampled by: RAC

Well Diameter: 2"

DTW: 5.28

DTB: 14.71

Estimated Pump Setting: 10.5'

Estimated Flow Rate: 100 ml/min

Sample Collection Time: 16:54

**Laboratory:** Pace

Time	pH	Dissolved Oxygen mg/l	Specific Cond. µS/cm	Temperature °C	O.R.P. mV	Turb. NTU
1610	7.24	3.25	0.498	22.42	145.3	61.8
1614	7.35	2.40	0.494	24.22	119.3	56.6
1618	7.41	1.94	0.496	25.37	106.8	44.3
1622	7.39	1.55	0.497	26.09	99.3	36.4
1626	7.39	1.53	0.499	25.42	96.3	37.3
1630	7.34	1.40	0.496	23.78	100.9	32.6
1634	7.26	1.07	0.494	22.78	95.2	20.4
1638	7.21	0.83	0.490	22.94	87.0	15.4
1641	7.28	0.74	0.490	23.36	80.0	13.8
1644	7.34	0.72	0.493	24.44	74.8	12.19
1647	7.36	0.70	0.492	26.01	69.8	11.14
1650	7.36	0.70	0.495	26.04	68.9	10.75
1653	7.37	0.69	0.495	26.08	66.3	10.73

**Comments:** Removed ~1.75 gal; Sampled for VOC's, SVOC's and Total and Dissolved Metals



Former Manufacturing Facility  
Groundwater Sampling 2012  
Bridgeport, OH

Well ID: MW-6 Job No: 2011-2678

Date Sampled: 5/25/2018

Sampled by: RAC

Well Diameter: 2"

DTW: 4.31

DTB: 20.39

Estimated Pump Setting: 13'

Estimated Flow Rate: 100 ml/min

Sample Collection Time: 8:35  
Also collected duplicated sample at 855

**Laboratory:** Pace

Time	pH	Dissolved Oxygen mg/l	Specific Cond. µS/cm	Temperature °C	O.R.P. mV	Turb. NTU
735	7.11	6.44	0.526	16.85	222.5	60.6
739	7.15	4.70	0.469	16.39	213.0	78.7
743	7.22	4.21	0.444	16.42	198.6	76.3
747	7.26	3.78	0.435	16.40	180.5	65.5
751	7.30	3.57	0.433	16.52	170.7	53.4
755	7.35	3.39	0.433	16.70	159.2	49.9
759	7.40	3.11	0.433	17.05	144.1	42.2
803	7.41	3.21	0.433	17.22	133.2	43.3
807	7.40	2.83	0.434	17.20	122.5	29.9
811	7.38	2.02	0.433	16.91	101.0	20.8
815	7.38	1.92	0.433	16.91	96.0	16.6
819	7.39	1.74	0.433	17.07	78.2	13.7
823	7.40	1.61	0.433	17.21	64.4	11.4
826	7.40	1.58	0.433	17.24	60.9	11.5
829	7.40	1.55	0.433	17.27	57.9	11.75
832	7.40	1.51	0.433	17.30	56.2	11.06

**Comments:** Removed ~1.75 gal; Sampled for VOC's, SVOC's and Total and Dissolved Metals

Former Manufacturing Facility  
Groundwater Sampling 2012  
Bridgeport, OH

Well ID: MW-7 Job No: 2011-2678

Date Sampled: 5/24/2018

Sampled by: RAC

Well Diameter: 2"

DTW: 7.16

DTB: 24.12

Estimated Pump Setting: 17'

Estimated Flow Rate: 100 ml/min

Sample Collection Time: 9:47

**Laboratory:** Pace

Time	pH	Dissolved Oxygen mg/l	Specific Cond. µS/cm	Temperature °C	O.R.P. mV	Turb. NTU
906	6.53	2.48	1.205	16.78	-63.1	32.1
910	6.54	1.37	1.197	18.09	-61.7	35.7
914	6.57	1.23	1.197	18.49	-61.5	38.5
918	6.59	0.96	1.198	19.22	-51.1	35.8
922	6.57	0.90	1.199	19.30	-47.4	36.6
926	6.56	0.82	1.198	19.34	-42.5	36.3
930	6.54	0.72	1.199	19.19	-42.3	34.9
933	6.53	0.63	1.196	19.27	-40.0	32.7
936	6.53	0.58	1.196	19.25	-32.5	29.9
939	6.53	0.55	1.194	19.39	-32.5	29.3
942	6.52	0.54	1.193	19.39	-30.4	30.3
945	6.52	0.53	1.193	19.42	-29.9	30.5

**Comments:** Removed ~1.5 gal; Sampled for VOC's, SVOC's and Total and Dissolved Metals

Former Manufacturing Facility  
Groundwater Sampling 2012  
Bridgeport, OH

Well ID: MW-8 Job No: 2011-2678

Date Sampled: 5/24/2018

Sampled by: RAC

Well Diameter: 2"

DTW: 6.12

DTB: 20.30

Estimated Pump Setting: 13'

Estimated Flow Rate: 100 ml/min

Sample Collection Time: 8:11

**Laboratory:** Pace

Time	pH	Dissolved Oxygen mg/l	Specific Cond. µS/cm	Temperature °C	O.R.P. mV	Turb. NTU
733	7.01	7.21	1.585	15.76	188.5	5.68
737	6.98	5.48	1.554	15.56	164.9	4.95
741	7.01	5.13	1.541	15.88	144.0	4.59
745	7.04	4.95	1.535	16.39	128.3	6.49
749	7.06	4.87	1.533	17.06	114.8	3.11
753	7.07	4.83	1.533	17.52	108.0	2.83
756	7.07	4.80	1.531	17.77	102.0	2.74
800	7.07	4.68	1.533	18.02	94.4	2.81
803	7.07	4.65	1.531	18.04	92.9	2.24
806	7.07	4.61	1.531	18.08	90.3	2.39
809	7.07	4.60	1.531	18.11	89.2	2.23

**Comments:** Removed ~1.5 gal; Sampled for VOC's, SVOC's and Total and Dissolved Metals

Former Manufacturing Facility  
Groundwater Sampling 2012  
Bridgeport, OH

Well ID: MW-1 Job No: 2011-2678

Date Sampled: 7/8/2018

Sampled by: RAC

Well Diameter: 2"

DTW: 7.97

DTB: 20.31

Estimated Pump Setting: 13'

Estimated Flow Rate: 110 ml/min

Sample Collection Time: 12:05

**Laboratory:** Pace

Time	pH	Dissolved Oxygen mg/l	Specific Cond. µS/cm	Temperature °C	O.R.P. mV	Turb. NTU
1125	7.02	2.80	1.622	20.71	29.0	21.8
1129	7.01	2.39	1.614	20.92	32.7	17.5
1133	7.00	2.13	1.608	21.00	34.3	12.0
1137	7.00	2.00	1.602	20.93	35.2	10.18
1141	7.00	1.90	1.603	20.75	35.6	8.62
1145	6.99	1.79	1.597	21.15	35.6	7.77
1149	6.99	1.61	1.599	22.09	36.8	8.58
1153	6.99	1.47	1.603	22.47	37.2	8.31
1157	6.98	1.28	1.610	23.11	38.6	11.20
1200	6.98	1.23	1.612	23.17	38.7	11.46
1203	6.98	1.20	1.613	23.33	38.9	10.27

**Comments:** Removed ~1.5 gal; Sampled for VOC's, SVOC's and Total and Dissolved Metals

Former Manufacturing Facility  
Groundwater Sampling 2012  
Bridgeport, OH

Well ID: MW-2 Job No: 2011-2678

Date Sampled: 7/7/2018

Sampled by: RAC

Well Diameter: 2"

DTW: 10.83

DTB: 20.30

Estimated Pump Setting: 13'

Estimated Flow Rate: 100 ml/min

Sample Collection Time: 16:11

**Laboratory:** Pace

Time	pH	Dissolved Oxygen mg/l	Specific Cond. µS/cm	Temperature °C	O.R.P. mV	Turb. NTU
1525	7.23	2.98	0.776	23.18	-11.3	50.7
1529	7.13	2.46	0.803	22.39	-10.9	27.5
1533	6.61	2.19	0.815	20.23	15.4	19.2
1537	6.42	1.91	0.816	20.03	24.2	15.1
1541	6.45	1.79	0.817	19.83	21.3	12.3
1545	6.65	1.56	0.818	19.82	8.4	10.39
1549	6.78	1.50	0.819	19.80	2.7	8.41
1553	6.86	1.45	0.820	19.76	-4.2	6.97
1557	6.93	1.37	0.822	19.82	-8.3	6.01
1600	6.96	1.31	0.824	19.47	-11.4	5.21
1603	6.94	1.27	0.823	19.45	-10.6	5.61
1606	6.95	1.22	0.823	19.47	-11.1	4.29
1609	6.96	1.19	0.822	19.50	-11.6	4.33

**Comments:** Removed ~1.5 gal; Sampled for VOC's, SVOC's and Total and Dissolved Metals

Former Manufacturing Facility  
Groundwater Sampling 2012  
Bridgeport, OH

Well ID: MW-3 Job No: 2011-2678

Date Sampled: 7/7/2018

Sampled by: RAC

Well Diameter: 2"

DTW: 7.10

DTB: 17.45

Estimated Pump Setting: 11'

Estimated Flow Rate: 110 ml/min

Sample Collection Time: 13:50  
MS/MSD

**Laboratory:** Pace

Time	pH	Dissolved Oxygen mg/l	Specific Cond. µS/cm	Temperature °C	O.R.P. mV	Turb. NTU
1224	7.00	2.66	0.762	22.10	133.5	1306
1229	7.01	2.07	0.755	22.38	40.2	1335
1234	7.01	1.96	0.750	23.21	30.3	1291
1239	7.00	1.42	0.745	24.14	27.4	1258
1244	7.00	1.36	0.744	24.19	25.4	1157
1249	6.99	1.21	0.739	24.63	22.0	1006
1254	6.99	1.18	0.738	24.97	21.7	854
1259	6.99	1.10	0.738	24.90	18.1	738
1304	6.99	1.01	0.735	24.77	14.2	181
1309	6.98	0.77	0.727	23.46	2.1	83
1314	6.98	0.70	0.722	23.50	-2.5	46
1318	6.98	0.64	0.719	23.60	-5.1	93.8
1322	6.98	0.58	0.715	23.45	-8.8	79.9
1326	6.98	0.58	0.709	23.84	-10.2	54
1329	6.98	0.51	0.708	23.92	-10.8	71.6
1332	6.99	0.49	0.706	24.25	-12.7	55.9
1335	6.98	0.48	0.703	24.53	-14.6	53.3
1339	6.98	0.45	0.700	24.55	-16.5	43.2
1342	6.99	0.41	0.694	24.72	-17.7	32.4
1345	6.99	0.40	0.691	24.80	-18.1	32.5
1348	6.99	0.39	0.690	24.84	-19.8	30.5

**Comments:** Removed ~4.0 gal; Sampled for VOC's, SVOC's and Total and Dissolved Metals

Former Manufacturing Facility  
Groundwater Sampling 2012  
Bridgeport, OH

Well ID: MW-4 Job No: 2011-2678

Date Sampled: 7/9/2018

Sampled by: RAC

Well Diameter: 2"

DTW: 4.33

DTB: 18.40

Estimated Pump Setting: 13'

Estimated Flow Rate: 100 ml/min

Sample Collection Time: 8:44

**Laboratory:** Pace

Time	pH	Dissolved Oxygen mg/l	Specific Cond. µS/cm	Temperature °C	O.R.P. mV	Turb. NTU
732	6.66	3.25	1.885	20.44	-8.9	740
737	6.59	2.97	1.887	20.11	-5.8	7.61
742	6.57	2.59	1.881	20.13	-4.5	719
747	6.59	2.30	1.881	20.18	-6.6	661
752	6.60	2.11	1.879	19.97	-10.3	125
757	6.64	1.73	1.877	20.03	-21.6	66
802	6.64	1.70	1.878	20.05	-24.0	43
807	6.67	1.56	1.882	20.16	-32.5	72.4
812	6.67	1.57	1.882	20.29	-34.8	67.3
816	6.68	1.47	1.883	20.57	-38.5	57.0
820	6.70	1.37	1.880	20.80	-41.4	49.0
824	6.68	1.31	1.878	20.80	-43.1	39.9
828	6.69	1.19	1.876	20.94	-45.8	37.0
832	6.69	1.17	1.873	20.97	-46.0	30.1
836	6.69	1.09	1.869	21.34	-46.6	31.1
839	6.69	1.06	1.870	21.66	-47.7	29.9
842	6.69	1.06	1.868	21.74	-48.2	29.0

**Comments:** Removed ~2.5 gal; Sampled for VOC's, SVOC's and Total and Dissolved Metals

Former Manufacturing Facility  
Groundwater Sampling 2012  
Bridgeport, OH

Well ID: MW-5 Job No: 2011-2678

Date Sampled: 7/8/2018

Sampled by: RAC

Well Diameter: 2"

DTW: 5.15

DTB: 14.71

Estimated Pump Setting: 10.5'

Estimated Flow Rate: 110 ml/min

Sample Collection Time: 8:17

**Laboratory:** Pace

Time	pH	Dissolved Oxygen mg/l	Specific Cond. µS/cm	Temperature °C	O.R.P. mV	Turb. NTU
727	7.14	3.19	0.533	19.05	229.1	52.0
731	7.17	2.60	0.535	19.21	223.5	65
735	7.17	2.26	0.536	19.81	218.9	82.4
739	7.16	2.22	0.538	20.12	214.9	76.7
743	7.15	1.57	0.542	20.29	210.5	61.0
747	7.15	1.24	0.545	20.40	207.6	49.8
751	7.14	1.17	0.546	20.52	202.4	42.8
755	7.14	1.16	0.547	20.64	200.1	28.9
759	7.13	1.09	0.549	20.45	196.7	21.9
803	7.12	0.94	0.550	20.45	194.1	17.6
806	7.12	0.80	0.553	20.53	190.7	14.1
809	7.12	0.66	0.554	20.58	187.3	12.7
812	7.12	0.62	0.554	20.59	185.0	12.39
815	7.12	0.60	0.554	20.70	184.2	11.06

**Comments:** Removed ~2.25 gal; Sampled for VOC's, SVOC's and Total and Dissolved Metals



Former Manufacturing Facility  
Groundwater Sampling 2012  
Bridgeport, OH

Well ID: MW-6 Job No: 2011-2678  
 Date Sampled: 7/8/2018  
 Sampled by: RAC  
 Well Diameter: 2"  
 DTW: 4.25  
 DTB: 20.39  
 Estimated Pump Setting: 13'  
 Estimated Flow Rate: 100 ml/min  
 Sample Collection Time: 14:27  
 Also collected duplicate sample MW-6D at 1457

**Laboratory:** Pace

Time	pH	Dissolved Oxygen mg/l	Specific Cond. µS/cm	Temperature °C	O.R.P. mV	Turb. NTU
1324	7.26	2.46	0.479	25.94	24.0	39.1
1328	7.22	1.62	0.463	25.43	8.7	45.6
1333	7.22	1.41	0.458	26.17	-0.2	44.9
1337	7.22	1.37	0.459	27.12	-2.6	41.2
1341	7.22	1.30	0.461	27.68	-3.1	40.1
1345	7.22	1.25	0.464	28.35	-5.2	33.7
1349	7.22	1.14	0.465	28.72	-9.0	28.2
1353	7.22	1.03	0.467	28.97	-12.2	23.6
1357	7.22	1.00	0.467	28.98	-13.7	21.4
1401	7.21	0.93	0.467	29.12	-18.5	16.4
1405	7.21	0.91	0.467	29.34	-21.9	14.1
1409	7.22	0.86	0.468	29.62	-25.1	13.5
1413	7.21	0.81	0.468	29.84	-30.0	11.03
1416	7.22	0.78	0.468	30.05	-32.6	9.46
1419	7.21	0.73	0.469	30.17	-35.0	9.76
1422	7.22	0.72	0.469	30.19	-36.4	8.46
1425	7.22	0.72	0.469	30.17	-37.0	8.77

**Comments:** Removed ~1.75 gal; Sampled for VOC's, SVOC's and Total and Dissolved Metals

Former Manufacturing Facility  
Groundwater Sampling 2012  
Bridgeport, OH

Well ID: MW-7 Job No: 2011-2678

Date Sampled: 7/8/2018

Sampled by: RAC

Well Diameter: 2"

DTW: 6.97

DTB: 24.12

Estimated Pump Setting: 17'

Estimated Flow Rate: 100 ml/min

Sample Collection Time: 10:48

**Laboratory:** Pace

Time	pH	Dissolved Oxygen mg/l	Specific Cond. µS/cm	Temperature °C	O.R.P. mV	Turb. NTU
1003	6.57	3.50	1.256	18.25	-66.5	23.5
1007	6.24	1.68	1.255	18.14	-44.9	26.7
1011	6.37	1.24	1.258	18.68	-53.8	32.5
1015	6.47	1.11	1.258	19.18	-58.8	31.7
1019	6.54	1.01	1.258	19.79	-60.6	33.3
1023	6.57	0.91	1.260	18.21	-60.9	39.5
1027	6.56	0.81	1.253	17.82	-58.1	45.5
1031	6.56	0.70	1.250	18.47	-55.9	39.0
1035	6.59	0.64	1.257	17.58	-57.4	39.6
1039	6.27	0.56	1.245	16.51	-38.1	40.4
1043	6.31	0.57	1.235	16.57	-39.3	40.6
1046	6.33	0.59	1.236	16.60	-41.3	39.4

**Comments:** Removed ~1.75 gal; Sampled for VOC's, SVOC's and Total and Dissolved Metals

Former Manufacturing Facility  
Groundwater Sampling 2012  
Bridgeport, OH

Well ID: MW-8 Job No: 2011-2678

Date Sampled: 7/8/2018

Sampled by: RAC

Well Diameter: 2"

DTW: 6.13

DTB: 20.30

Estimated Pump Setting: 13'

Estimated Flow Rate: 110 ml/min

Sample Collection Time: 9:27

**Laboratory:** Pace

Time	pH	Dissolved Oxygen mg/l	Specific Cond. µS/cm	Temperature °C	O.R.P. mV	Turb. NTU
850	7.09	3.67	1.354	19.33	33.8	13.8
854	7.08	3.00	1.350	19.52	30.1	11.63
858	7.08	2.88	1.339	19.94	28.6	10.41
902	7.09	2.76	1.328	20.20	27.2	8.62
906	7.08	2.71	1.323	20.52	25.6	7.27
910	7.09	2.62	1.319	21.03	21.4	6.18
914	7.09	2.62	1.322	21.08	19.0	4.57
918	7.09	2.53	1.325	21.01	18.1	4.46
922	7.09	2.47	1.330	20.44	17.8	3.81
925	7.09	2.42	1.332	20.33	17.3	3.68

**Comments:** Removed ~1.5 gal; Sampled for VOC's, SVOC's and Total and Dissolved Metals