PHASE I ENVIRONMENTAL SITE ASSESSMENT
1220 EAST ELM AVENUE AND A PORTION OF PARCEL NO. 59-01900-000
MONROE, MICHIGAN 48162

prepared for

DOWNRIVER COMMUNITY CONFERENCE
BROWNFIELD CONSORTIUM
15100 NORTHLINE ROAD
SOUTHGATE, MICHIGAN 48195

AND

PORT OF MONROE
P.O. BOX 585
MONROE, MICHIGAN 48161

AKT PEERLESS PROJECT NO. 1983F5-1-17
AUGUST 2, 2011

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AKTPEERLESS
environmental & energy services

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PHASE I ENVIRONMENTAL SITE ASSESSMENT

1220 EAST ELM AVENUE AND A PORTION OF PARCEL NO. 59-01900-000 MONROE, MICHIGAN 48162

AKT PEERLESS PROJECT NO. 1983F5-1-17

1.0 INTRODUCTION

The Downriver Community Conference Brownfield Consortium (DCCBC) (the Client) retained AKT Peerless Environmental & Energy Services (AKT Peerless) to conduct a Phase I Environmental Site Assessment (ESA) of 1220 East Elm Avenue and a portion of Parcel No. 059-01900-000 (also referred to as 1405 East Elm Avenue), Monroe, Monroe County, Michigan (the subject property). DCCBC was awarded United States Environmental Protection Agency (USEPA) Brownfield Assessment Grant to conduct environmental assessments of petroleum and hazardous substance sites. This Phase I ESA was conducted as part of the Hazardous Substance Grant (BF-00E91601-0) on behalf of DCCBC (the Client) and the Port of Monroe (the User).

This Phase I ESA was conducted in accordance with (1) the United States Environmental Protection Agency (USEPA) Standards and Practices for All Appropriate Inquiries [(AAI), 40 CFR Part 312] and (2) guidelines established by the American Society for Testing and Materials (ASTM) in the *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process / Designation E 1527-05* (ASTM Standard Practice E 1527-05).

1.1 PURPOSE

The purpose of this Phase I ESA was to evaluate the current and historical conditions of the subject property in an effort to identify *recognized environmental conditions* (RECs)[1] and *historical recognized environmental conditions* (HRECs)[2] in connection with the subject property. Moreover, certain users of this Phase I ESA may be able to satisfy one of the environmental due diligence requirements to qualify for the bona fide prospective purchaser, contiguous landowner, or innocent landowner liability protections available under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, the Superfund Amendments and Reauthorization Act (SARA) of 1986, and the Small Business

[1] ASTM's Standard Practice E 1527-05 defines the term recognized environmental condition (REC) as the presence or likely presence of any hazardous substance or petroleum product on a property under conditions that indicate (1) an existing release, (2) a past release, or (3) a material threat of a release of a hazardous substance or petroleum product into structures on the subject property or into the ground, groundwater, or surface water of the subject property.

[2] ASTM defines the term historical recognized environmental condition (HREC) as an environmental condition which in the past would have been considered an REC, but which may or may not be considered an REC currently. Neither HRECs nor RECs are intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

Liability and Brownfield Revitalization Act (Brownfield Amendments) of 2002. This Phase I ESA is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs and HRECs in connection with the subject property.

1.2 SCOPE OF SERVICES

AKT Peerless' scope-of-services is based on its proposal PF-12128, dated June 1, 2010, and the terms and conditions of that agreement. This Phase I ESA included the following:

- an inquiry of environmental conditions by an environmental professional.
- a review of specialized knowledge reported by the Client.
- a review of public and historical records, including those maintained by federal, state, tribal, and local government agencies.
- interviews with regulatory officials and personnel associated or knowledgeable with the subject property, including as appropriate past and present owners, or neighbors if the property is abandoned.
- a reconnaissance of the subject property and adjoining properties.

1.3 PROJECT RESOURCES

AKT Peerless referred to the following resources between June 1, 2011 and August 2, 2011 to complete its ESA:

- United States Environmental Protection Agency (USEPA), Region 5
- United States Geological Survey (USGS)
- United States Department of Agriculture (USDA) Soil Conservation Service
- Michigan Department of Environmental Quality (MDEQ)
- Monroe County Environmental Health Department
- City of Monroe Government Sources (e.g., assessing, building, fire, engineering departments, etc.)
- Environmental Data Resources, Inc. (EDR)
- Interviews and Questionnaire Responses

1.4 SIGNIFICANT ASSUMPTIONS

During this Phase I ESA, AKT Peerless made the following significant assumptions:

- AKT Peerless assumed that the information provided by EDR in the regulatory database report is an accurate and complete representative summary of the information contained in the referenced regulatory agency records, except when such information is obviously contradicted by other data.
- AKT Peerless assumed that the information used to prepare this assessment that was obtained from ostensibly knowledgeable individuals, regulatory agency representatives, or other secondary sources was an accurate and complete representative summary of the information

possessed by those individuals, representatives, or sources.

1.5 LIMITATIONS AND EXCEPTIONS

A list of general limitations and exceptions typically encountered when completing Phase I ESAs is provided in Appendix A. Along with the inherent limitations set forth in various sections of ASTM Standard Practice E 1527-05 and the USEPA All Appropriate Inquiry Standard, the accuracy and completeness of this report may also be limited by the following project specific facts or conditions:

- Visual observations of Parcel A were limited by the presence of dense vegetation in the northeastern and southern portions of the parcel.
- AKT Peerless was unable to visually inspect/access the eastern portion of Parcel B due to dense and wooded vegetation and standing water/marshy areas.
- Information regarding historical potable water and sewage services and heating services associated with the structures formerly located on the subject property was limited.

Subject to the general limitations and exceptions listed in Appendix A and the referenced terms and conditions, AKT Peerless accepts responsibility for the competent performance of its duties in executing this assignment and preparing this report in accordance with the normal standards of the profession, but disclaims any responsibility for consequential damages.

Should additional information become available to the Client that differs significantly from our understanding of conditions presented in this report, AKT Peerless requests that such information be forwarded immediately to our attention so that we may reassess the conclusions provided herein and amend this project's scope of services as necessary and appropriate.

1.6 SPECIAL TERMS AND CONDITIONS

To the best of AKT Peerless' knowledge, no special terms or conditions apply to the preparation of this Phase I ESA.

1.7 USER RELIANCE

AKT Peerless performed this Phase I ESA for the benefit of the Client and the Port of Monroe (a User). AKT Peerless acknowledges that these parties may rely on the contents and conclusions presented in this report. Unless stated otherwise in writing, AKT Peerless makes no other warranty, representation, or extension of reliance upon the findings of this report to any other entity or third party.

2.0 USER AND/OR CLIENT PROVIDED INFORMATION

The following subsections summarize the information the Port of Monroe provided to AKT Peerless.

2.1 TITLE RECORDS

The User did not provide recorded land title records to AKT Peerless.

2.2 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

The User did not report any: (1) environmental cleanup liens against the subject property that are filed or recorded under federal, tribal, state, or local law; or (2) activity and use limitations (AULs), such as engineering controls, land use restrictions or institutional controls, that are in place at the subject property and/or have been filed or recorded in a registry under federal, tribal, state, or local law.

2.3 KNOWLEDGE OF THE USER

The User did not report specialized knowledge or experience, actual knowledge, or commonly known or reasonably ascertainable information that is material to identifying recognized environmental conditions in connection with the subject property, except as conveyed during interviews and in the following reports, which respectively document previous environmental investigations of Parcel A (1220 East Elm):

- Phase I ESA, prepared in October 2010 by AECOM on behalf of Michigan Department of Transportation (MDOT)
- Baseline Environmental Assessment, prepared in October 2010 by AECOM on behalf of MDOT
- Due Care Plan, prepared in August 2010 by AECOM on behalf of MDOT

The contents of the previous environmental reports are summarized and discussed in Section 4.4.5.

2.4 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

The User did not report knowledge of, or reason to anticipate, a reduction in the value of the subject property for environmental issues.

2.5 REASON FOR PERFORMING THIS PHASE I ESA

According to the Client, this Phase I ESA was conducted as part of environmental due diligence related to acquiring the subject property parcels.

3.0 SUBJECT PROPERTY DESCRIPTION

3.1 LOCATION AND LEGAL DESCRIPTION

The subject property is located in Section 4 in the City of Monroe, Township 6 and 7 South (T. 6/7S.), Range 9 East (R. 9E.), Monroe County, Michigan. The subject property is situated north of East Elm Avenue, west of Interstate-75, and east of Dixie Highway and consists of two irregularly-shaped parcels that contain a total of approximately 66.76 acres. The subject property is unoccupied.

For ease of reference in this report, AKT Peerless has designated each of the subject property parcels with a letter. These designations have no relevance to legally recorded data about the subject property.

Parcel	Address	Tax Identification Number	Owner of Record	Approximate Acreage
A	1220 East Elm	059-01904-000	Homrich, Inc.	32.56
B	1405 East Elm	Portion of 59-01900-000	Homrich, Inc.	34.20 of the 59.84 parent parcel

Refer to Figure 1, Subject Property Location Map; Figure 2, Topographic Location Map; Figure 3, Parcel Map; and Figure 4, Subject Property Map. The legal descriptions of the subject property are presented in Appendix B. Photographs taken during AKT Peerless' subject property reconnaissance are provided in Appendix C.

3.2 SUBJECT PROPERTY AND VICINITY CHARACTERISTICS

The subject property is located in an area of Monroe that is characterized by residential and industrial properties, a river, several railroad tracks, a freeway, and surface roadways.

3.3 DESCRIPTION OF STRUCTURES AND OTHER IMPROVEMENTS

Parcel A

There are no structures on Parcel A, with the exception of a large (~300 x 250') concrete slab located on the southwestern portion of the parcel. In addition, an apparent former concrete truck scale is present in the southern portion of the parcel. The remaining portions of the property are covered with a slag aggregate material, fill dirt, and sparse vegetation. Areas of dense vegetation are present on the northeastern and southern portions of the parcel.

Parcel B

There are no structures on Parcel B. The western and southern portions of the parcel are covered with sparse grassy vegetation. The eastern portion of Parcel B is covered with dense wooded vegetation and standing water/marshy areas.

3.4 CURRENT USE OF THE SUBJECT PROPERTY

The subject property currently is not used for any significant or obvious purpose. The subject property is zoned Industrial (I-2).

3.5 UTILITIES AND MUNICIPAL SERVICES

AKT Peerless identified the type and supplier of utilities provided to the subject property. These services are described in the following table:

Utility / Service	Type	Utility Company or Municipality	Comments/Historical Services
heat	natural gas	Michigan Gas Utilities	Natural gas service is available to the subject property; historical services for the former structures on Parcels A and B included coal and steam.
municipal waste	none generated	not applicable	none
potable water	municipal	City of Monroe	Municipal drinking water has been available to the subject property since at least 1922.
electricity	electric lines	Detroit Edison	Electricity has been available to the subject property since at least 1922.
sewage disposal	municipal	City of Monroe	Municipal sewage utilities are available to the subject property; historical services for the former structures on Parcels A and B were not identified.
storm water	county	Monroe County	Storm water either percolates into the ground or runs off into drain/wetland systems

Additional information regarding the referenced heat, water, and sewage utilities is presented in Section 4.4.

3.6 CURRENT USES OF THE ADJOINING PROPERTIES

The following tables describe the current uses of the adjoining properties, identified occupants, and noteworthy observations of environmental concern, if any, that were noted during AKT Peerless' recent reconnaissance of the adjoining properties.

Parcel A:

Direction	Address	Current Use / Occupant	Potential Concerns
north	not applicable	unimproved wooded land / vacant	none observed
east (from north to south)	615 Harbor Avenue	commercial-light industrial / vacant	none observed
	529 Harbor Avenue	commercial-light industrial / vacant	none observed
	519 /523 Harbor Avenue	residential dwellings	none observed
	477 Harbor Avenue	light industrial / Charron Industries	none observed
	465 Harbor Avenue	commercial-light industrial / vacant	none observed
	321 Harbor Avenue	commercial / LaRoy Door	none observed
	311-317 Harbor Avenue	commercial / Centerline Industries	none observed
	not applicable	unimproved wooded land / vacant	none observed
south	1109, 1205, 1220 East Elm Avenue (former addresses)	unimproved land / vacant	none observed

Direction	Address	Current Use / Occupant	Potential Concerns
west (from north to south)	720 North Dixie Highway	warehouse / DTE Dixie Warehouse	none observed
	520 North Dixie Highway	light industrial / Monroe Aluminum Products, Inc.	potential light industrial operations
	512 North Dixie Highway	commercial / Import Auto Service	automotive repair
	500 North Dixie Highway	light industrial / R&M Recycling	potential light industrial operations
	444 North Dixie Highway	commercial / vacant	none observed
southwest	333 North Dixie Highway	Recreational / Monroe Sports Complex	none observed

Based on AKT Peerless' visual observations, the current uses of the adjoining properties do not appear to pose a direct environmental threat to the subject property, except for the western adjoining light industrial and automotive repair operations. Additional information about the potential environmental threats posed by those uses is presented in Section 4.3.1.

Parcel B:

Direction	Address	Current Use / Occupant	Potential Concerns
north	Portion of Parcel B's parent parcel (59-01900-000)	unimproved land / vacant – former landfill	former landfill
	not applicable	unimproved wooded land / vacant	none observed
east	not applicable	unimproved wooded/wetlands / vacant	none observed
south (from west to east)	1510 East Elm Avenue	commercial / Monroe Co. Commercial Credit Union	none observed
	1530/1540 East Elm Avenue	commercial / The Big Digger and Clam Digger	none observed
	1560 East Elm Avenue	commercial / Riverfront Marina	potential boat fueling
	not applicable	recreational-wooded land / River Raisin Heritage Trail	none observed
west (from north to south)	1403/1407 East Elm Avenue	recreational / River Raisin Battlefield Visitor's Center	none observed

Based on AKT Peerless' visual observations, the current uses of the adjoining properties do not appear to pose a direct environmental threat to the subject property, except for the northern adjoining former landfill and southern adjoining marina. Additional information about the potential environmental threats posed by those uses is presented in Sections 4.2.2, 4.3.1, 4.3.2, and 4.4.5.

4.0 RECORDS REVIEW

The objective of the records review is to evaluate reasonably ascertainable databases, historical records, and physical setting records to help identify recognized environmental conditions at the subject property and, to the extent identifiable, at surrounding properties.

4.1 PHYSICAL SETTING SOURCES

AKT Peerless reviewed geological survey maps for geologic, hydrologic, and topographic conditions that may affect potential contaminant migration to the subject property.

4.1.1 Topography and Area Hydrogeology

According to the United State Geologic Survey's (USGS') *7.5' Topographic Map of the Monroe, Michigan Quadrangle*, which was published in 1967 and was photorevised in 1979, the subject property is approximately 580 to 590 feet above the National Geodetic Vertical Datum (NGVD). The subject property's topography appears generally flat.

Typically, the water table aquifer flows toward a major drainage feature or in the same direction as the drainage basin. The Mason Run Drain, which flows to the east, flows between the two subject property parcels. Additionally, The Raisin River, which flows to the east, is located approximately 150 feet south of the subject property. Therefore, AKT Peerless infers that groundwater beneath the subject property flows to the southeast, with potential influence from the Mason Run and Raisin River.

Three groundwater monitor wells are located on Parcel B. Refer to Section 4.3.2 for further information pertaining to these wells. Groundwater from the area of the subject property does not serve as the primary drinking water source for properties in Monroe.

Previous investigations at the subject property indicated that the average depth to groundwater is six to ten feet below grade and the groundwater flow is to the southeast.

4.1.2 Area Geology and Soils

According to the MDNR Geological Survey Division's *Bedrock Geology of Southern Michigan* (1987), bedrock beneath the subject property is classified as the Salina unit of the Salina Group, which is included in the Cayugan Series within the Silurian System of the Paleozoic Era. During previous investigations at the subject property and adjoining properties, the depth to bedrock in the area of the subject property is approximately 9 to 16 feet below grade.

According to the Michigan Geological Survey Division's publication, *Quaternary Geology of Southern Michigan* (1982), soils in the area are lacustrine clay and silt. These soils are described as gray to dark reddish brown and are varved in some localities. The soil chiefly underlies extensive, flat, low-lying areas formerly inundated by glacial Great Lakes. Soil thickness ranges from 10 to 30 feet. Typically, lacustrine clay and silt are associated with low hydraulic permeability and restrict the movement of groundwater.

According to the United State Department of Agriculture's (USDA's) *Soil Survey of Monroe County, Michigan* (1981), soils in the area are classified as the Lenawee ponded association. These soils are described as "*nearly level, very poorly drained, silty soils; on lake plains.*" As indicated on Photo Sheet 57 of the soil survey, subject property soils are described as belonging to the Urban Land complex (in the area of the former paper mill) and Lenawee silty clay loan (the eastern portion of the subject property). The Lenawee silty clay loam consists of nearly level, poorly drained soils in flat areas and drainageways. Lenawee soils formed in loamy and clayey lacustrine deposits.

Previous investigations on the subject property parcels indicated that native soils consist of silty clay to a depth of 9 to 16 feet below grade, where limestone bedrock was encountered. In addition, approximately half of Parcel B consists of a several inches to feet of coal ash underlain by native silty clay.

4.2 STANDARD ENVIRONMENTAL RECORD SOURCES

AKT Peerless retained EDR to provide current environmental database information compiled by a variety of federal and state regulatory agencies. The purpose of obtaining this data was to evaluate potential environmental risks associated with the subject property, adjoining sites, and other sites that are (1) identified on target lists, and (2) within varying distances of up to one mile from the subject property. AKT Peerless reviewed the following federal and state databases for such listings within the indicated search radii.

Type	Regulatory Agency Database	Approximate Minimum Search Distance
Federal	National Priority List (NPL)	1 mile
Federal	De-listed National Priority List (DNPL)	½ mile
Federal	Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)	½ mile
Federal	CERCLIS No Further Remediation Action Planned (NFRAP) Site List	½ mile
Federal	Resource Conservation and Recovery Act (RCRA) Corrective Action Report (CORRACTS) Facilities List	1 mile
Federal	RCRA non-CORRACTS Treatment, Storage or Disposal (TSD) Facilities List	½ mile
Federal	RCRA Generators List	subject property and adjoining properties
Federal	Institutional Control / Engineering Control Registries*	subject property
Federal	Environmental Response and Notification System (ERNS)	subject property
State & Tribal	Hazardous Waste Sites (HWS) (equivalents to NPL and CERCLIS)	1 mile
State & Tribal	Solid Waste Facilities/Landfill Sites (SWLF)	½ mile
State & Tribal	Historical Landfill Site (HIST LF)	½ mile

Type	Regulatory Agency Database	Approximate Minimum Search Distance
State & Tribal	Leaking Underground Storage Tank (LUST) List	½ mile
State & Tribal	Registered Underground Storage Tank (UST) List	subject property and adjoining properties
State & Tribal	Institutional Control / Engineering Control Registries*	subject property
State & Tribal	Brownfield Sites	½ mile
State	Baseline Environmental Assessment (BEA) Sites	½ mile
Either	Unmappable Database Listings (a.k.a. Orphan Sites)	database-dependent

* Neither the US EPA nor Michigan Tribal Governments nor the State of Michigan maintains registries of sites with Institutional Controls / Engineering Controls in the subject property area.

4.2.1 Subject Property and Occupant Listings

The EDR Report (Appendix D) does not identify the subject property or its known occupants on the referenced databases, except for the following:

- Jefferson Smurtiff Corp, at 1205 East Elm Avenue (former address associated with Parcel A; however, database listing is actually associated with the southern adjoining property), was identified in the LUST database. One release of an unknown substance was confirmed on December 12, 1989 (C-1115-89). A second release of an unknown substance was confirmed on September 18, 1991 (C-1930-91). Refer to Section 4.3.2 for additional information related to these releases.
- Former Jefferson Smurfit Property at 1205 East Elm Street (former address associated with Parcel A) is listed on the BEA database. According to the listing, Homrich, Inc. submitted a Category N BEA on January 30, 1998. The BEA was affirmed. Refer to Section 4.4.5 for additional information.
- Port of Monroe, at 1205 E. Elm Ave. (former address associated with Parcel A; however, database listing is actually associated with the southern adjoining property), is listed on the RCRA Conditionally Exempt Small Quantity Generator (CESQG). CESQG are generators that generate less than 100 kilograms of hazardous waste per month. Refer to Section 4.3.1 for additional information related to this listing.
- Jefferson Smurfit Corp, at 1205 East Elm Avenue (former address associated with Parcel A; however, database listing is actually associated with the southern adjoining property), is listed on the Brownfield database; however, no further information was provided.
- Monroe Paper Company, at 1205 East Elm (former address associated with Parcel A; however, database listing is actually associated with the southern adjoining property), is listed on the BEA database. According to the listing, the Port of Monroe submitted a Category N BEA on September 26, 2006. A determination was not requested. Refer to Section 4.4.5 for additional information.

- Jefferson Smurfit Corp, at 1220 East Elm Avenue (former address associated with Parcel A; however, database listings are actually associated with the southern adjoining property), is identified on the RCRA-NonGen database, FINDS, and AST databases.
  - The RCRA-NonGen database identifies sites that no longer generate hazardous wastes. According to the EDR Report, this site was identified as a RCRA Small Quantity Generator (SQG) in 2003 (generated between 100 and 1,000 kilograms of hazardous waste per month) and as a Large Quantity Generator (LQG) in 1998 (generated more than 1,000 kilograms of hazardous waste per month) in 1998. No RCRA violations were reported for this site. Jefferson Smurfit Corp is also identified on the federal FINDS database (RCRA, National Compliance Data Base, and Toxics Release Inventory System). Refer to Section 4.3.1 for further information.
  - The AST database includes sites that had registered aboveground storage tanks. According to the EDR Report, a propane AST was formerly located at the property.
- Union Camp Corporation, at 1109 E. Elm Avenue (former address associated with Parcel A; however, database listings are associated with the southern and southwestern adjoining properties), is listed as a RCRA Treatment, Storage, and Disposal Facility (TSDF), CORRACTS, RCRA-NonGen, FINDS, and UST site.
  - The RCRA-TSDF list includes sites where a hazardous waste substance is treated, stored, or disposed. According to the listing, the site does not presently generate, treat, store, or dispose of hazardous waste. Refer to Section 4.3.1 for additional information related to this listing.
  - The CORRACTS list identifies handlers with RCRA corrective action activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity. According to the listing, the site was assigned a medium corrective action priority in 1992. In 2006, supplemental information related to remediation services was received and deemed satisfactory. Refer to Section 4.3.1 for additional information.
  - According to the EDR Report, this site was formerly identified as a RCRA-SQG in 1995. Two RCRA violations were reported for this site. Union Camp Corporation is also identified on the federal FINDS database (RCRA).
  - The UST database includes facilities that have, or have had, registered UST systems. According to the EDR Report, this site is identified as the owner of a 1,000-gallon kerosene UST that was installed in 1956 and was removed in 1999, two 30,000-gallon fuel oil USTs that were installed in 1971 and were removed in 2008, an 8,000-gallon lacquer UST that was installed in 1971 and was removed in 2000, an 8,000-gallon #2 fuel oil UST that was installed in 1956 and removed in 2000, and an 8,000-gallon fuel oil UST with an unknown installation date that was removed in 2007. Refer to Section 4.3.2 for additional information related to the referenced USTs.
- Homrich Inc, at NE Corner of the Intersection of Detroit & E. Elm Avenues (associated with Parcel B), is listed on the Solid Waste Facilities database. According to the EDR Reports, this property is identified as a Type III Industrial Waste Landfill that is in the process of closing. In addition, Homrich Inc is listed on the Financial Assurance 2 database. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or

unwilling to pay. According to the listing, closure funds are available in a Trust Fund and a Letter of Credit. Refer to Sections 4.4.1 and 4.4.5 for further information.

4.2.2 Adjoining and Nearby Sites

AKT Peerless' review of the referenced databases (including those on the orphan list) also considered the potential or likelihood of contamination from adjoining and nearby sites. To evaluate which of the adjoining and nearby sites identified in the EDR Report present an environmental risk to the subject property, AKT Peerless considered the following criteria:

- the type of database on which the site is identified.
- the topographic position of the identified site relative to the subject property.
- the direction and distance of the identified site from the subject property.
- local soil conditions in the subject property area.
- the known or inferred groundwater flow direction in the subject property area.
- the status of the respective regulatory agency-required investigation(s) of the identified site, if any.
- surface and subsurface obstructions and diversions (e.g., buildings, roads, sewer systems, utility service lines, rivers, lakes, and ditches) located between the identified site and the subject property.

Only those sites that are judged to present a potential environmental risk to the subject property are further evaluated by reviewing MDEQ file information. Using the referenced criteria, and based upon a review of readily available information contained within the EDR Report, AKT Peerless did not identify adjoining (i.e., bordering) or nearby sites (e.g., properties within a ¼-mile radius) listed in the EDR Report that were judged to present a potential environmental risk to the subject property, except for the following:

Database			
Database(s):	**BEA, RCRA-NonGen, FINDS**	**Distance:**	adjoining
Name:	Monroe Electric Motor Co	**Direction:**	east
Addresses:	311, 315, and 317 Harbor Avenue	**Elevation:**	588 feet
Section References:	Refer to Section 4.3.2 for further information.	**Known/Inferred Groundwater Flow Direction:**	southeast
This property adjoins Parcel A to the east and is identified in the State BEA database. According to the EDR Report, a Category N BEA (no hazardous substance) was disclosed to the MDEQ on behalf of two entities in November 2008. Monroe Electric Motor Co at 317 Harbor Avenue is identified on the RCRA-NonGen database (no longer generates hazardous wastes). According to the EDR Report, this site was identified as a RCRA Small Quantity Generator (SQG) in 1995. No RCRA violations were reported for this site. Monroe Electric Motor Co is also identified on the federal FINDS database (RCRA).			

Database

Database(s):	**BEA, SHWS, RCRA-CESQG**	**Distance:**	adjoining
Name:	321 Harbor Ave, Monroe Bank & Trust	**Direction:**	east
Addresses:	319-325 Harbor Avenue	**Elevation:**	588 feet
Section References:	Refer to Section 4.3.2 for further information.	**Known/Inferred Groundwater Flow Direction:**	southeast
This property adjoins Parcel A to the east and is identified in the State BEA database. According to the EDR Report, a Category N BEA was disclosed to the MDEQ in August 2002 and a second Category N BEA was disclosed to the MDEQ in June 2004. This property is also identified on the State Hazardous Waste Site database (SHWS). According to the EDR Report, an evaluation was conducted in June 2005. No further information was reported. Monroe Bank & Trust at 319 Harbor Avenue is identified on the RCRA CESQG database. No RCRA violations have been reported for this site.			

Database			
Database(s):	**SHWS, LUST**	**Distance:**	adjoining
Name:	Former K&H Transport	**Direction:**	east
Addresses:	515 Harbor Avenue	**Elevation:**	588 feet
Section References:	Refer to Section 4.3.2 for further information.	**Known/Inferred Groundwater Flow Direction:**	southeast
This property adjoins Parcel A to the east and is identified on the State LUST database. According to the EDR Report, a release from a used oil UST was reported in December 2002 and was closed in August 2005. This property is also identified on the SHWS database. The EDR Report indicates to "See LUST Site Database."			

Database			
Database(s):	**UST**	**Distance:**	adjoining
Name:	Fleischmanns Vinegar	**Direction:**	east
Address:	465 Harbor Avenue	**Elevation:**	587 feet
Section References:	none	**Known/Inferred Groundwater Flow Direction:**	southeast
This property adjoins Parcel A to the east. This site is identified as the owner of an 8,000-gallon hazardous substance UST that was installed in 1977 and was removed in 1997. A release associated with this former UST was not reported. In AKT Peerless' opinion, this property does not appear to present an environmental concern to the subject property based on (1) no release associated with the UST was reported and (2) the UST has been removed from the property.			

Database

Database(s):	**RCRA-NonGen, FINDS**	**Distance:**	adjoining
Name:	North Dixie Collision	**Direction:**	west
Addresses:	512 North Dixie Highway	**Elevation:**	589 feet
Section References:	none	**Known/Inferred Groundwater Flow Direction:**	southeast

This property adjoins Parcel A to the west, beyond a railroad easement, and is identified on the RCRA-NonGen database. According to the EDR Report, this site was identified as a RCRA SQG in 1988. No RCRA violations were reported for this site. North Dixie Collision is also identified on the federal FINDS database (RCRA).

In AKT Peerless' opinion, this adjoining property does not appear to present an environmental concern t o the subject property based on (1) the site no longer generates hazardous wastes, (2) RCRA violations have not been reported for this site, and (3) AKT Peerless did not observe improper waste handling or storage practices during reconnaissance activities.

Database			
Database(s):	**BEA**	**Distance:**	adjoining
Name:	K.M. Properties	**Direction:**	west
Addresses:	444 North Dixie Highway	**Elevation:**	586 feet
Section References:	Refer to Section 4.3.2 for further information.	**Known/Inferred Groundwater Flow Direction:**	southeast

This property adjoins Parcel A to the west, beyond a railroad easement, and is identified in the State BEA database. According to the EDR Report, a Category N BEA was affirmed by the MDEQ in December 1996.

Database			
Database(s):	**US Brownfields**	**Distance:**	adjoining
Name:	Monroe Sports Center #1	**Direction:**	southwest
Address:	North of East Elm and West of Dixie Highway	**Elevation:**	584 feet
Section References:	none	**Inferred Groundwater Flow Direction:**	southeast

The property adjoins Parcel A to the southwest, beyond Dixie Highway. Monroe Sports Center #1 was the recipient of an assessment pilot from the Downriver Community Conference. No further information was provided in the EDR Report.

The US Brownfields listing includes sites that are brownfield properties addressed by Cooperate Agreement Recipients and brownfield properties addressed by Targeted Brownfield Assessments. These programs are designed to help states, tribes, and municipalities minimize the uncertainties of contamination often associated with brownfield. Under the program, EPA provides funding and/or technical assistance for environmental assessments.

In AKT Peerless' opinion, this southwestern adjoining property, beyond Dixie Highway and a railroad easement, does not appear to present an environmental concern to the subject property based on (1) the lack of information related to impact identified on the property and (2) the site is located hydrogeologically down gradient from the subject property.

Database

Database(s):	**UST, Brownfields**	**Distance:**	adjoining
Name:	Riverfront Marina	**Direction:**	south
Address:	1560 East Elm Avenue	**Elevation:**	575 feet
Section References:	none	**Known/Inferred Groundwater Flow Direction:**	southeast
This site adjoins Parcel B to the south and is identified as the owner of an 8,000-gallon gasoline UST that was installed in 1983 and is currently in use. The site is also identified on the federal Brownfields dataset and is listed as "closed" no further information pertaining to this database listing was provided in the EDR Report. In AKT Peerless' opinion, this property does not appear to present an environmental concern to the subject property based on (1) no release associated with the UST has been reported and (2) the site is located down gradient from the subject property.			

Database			
Database(s):	**BEA**	**Distance:**	adjoining
Name:	Vacant Parcel	**Direction:**	west
Addresses:	1407 East Elm Avenue	**Elevation:**	579 feet
Section References:	Refer to Section 4.3.2 for further information.	**Known/Inferred Groundwater Flow Direction:**	southeast
This property adjoins Parcel B to the west and is identified in the State BEA database. According to the EDR Report, a Category N BEA (no hazardous substance) was disclosed to the MDEQ in May 2010.			

4.3 ENVIRONMENTAL RECORD SOURCES

4.3.1 MDEQ Resource Management Division (RMD) Records

Parcel A

AKT Peerless referenced the RMD Waste Data System (WDS) for information regarding Parcel A. The WDS tracks activities at facilities regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs.

The WDS maintains a listing for Jefferson Smurfit Corp at 1109 East Elm Avenue (MID005039490), which is a former address associated with Parcel A. According to the listing, eight Compliance Evaluations were conducted between 1987 and 2006. Two of those evaluations resulted in violations in 1988 and 2001. The violations were related to notification and financial reporting requirements. A Closure Certification was issued in 1989.

One manifest from 2008 was associated with this listing. Reportedly 385-gallons of a characteristically corrosive material (D002) was transported to EQ Detroit Inc, in Detroit, Michigan for stabilization or chemical fixation prior to disposal at another site.

As discussed below in Section 4.4.5. The USEPA issued a No Further Corrective Action letter for this site in 2006. AKT Peerless notes that these database listing were actually associated with the property south of Mason Run (southern adjoining property) or the southwestern adjoining property, beyond the railroad easement and Dixie Highway.

According to the WDS, the Port of Monroe at 1205 E. Elm Avenue, (former address associated with Parcel A) is listed as a Conditionally Exempt Small Quantity Generator (MIK629183179). This listing was associated with disposal activities related to the demolition of the former paper mill buildings and debris. All disposal activities at the site have ceased. AKT Peerless notes that this database listing was actually associated with the property south of Mason Run (southern adjoining property).

AKT Peerless contacted the MDEQ RMD to review available records regarding waste management activities, permits, inspections, violations, and registered USTs associated with Parcel A. Records were identified for the former battlefield property; however were not associated with Parcel A, with the exception of the following:

- PRC Environmental Management, Inc.'s (PRC) Preliminary Assessment/Visual Site Inspection of the Monroe Paper Company, dated November 25, 1992

Refer to Section 4.4.5 for a summary of the report.

AKT Peerless reviewed the MDEQ Storage Tank Information Database (STID) for information related to Parcel A. According to the STID listing, the following six USTs have been registered to addresses associated with Parcel A:

Underground Storage Tanks – General Data					
Tank ID	**Installation Date**	**Tank Contents**	**Tank Capacity**	**Removal Date**	**MDNRE Tank Status**
2	03/25/1971	Fuel Oil	30,000 gallons	02/25/2008	Removed from Ground
3	03/25/1971	Fuel Oil	30,000 gallons	02/25/2008	Removed from Ground
5	03/24/1956	Kerosene	1,000 gallons	03/10/1999	Closed in Ground*
6	03/25/1971	Lacquer	8,000 gallons	03/10/2000	Removed from Ground
7	03/24/1956	Fuel Oil	8,000 gallons	03/10/2000	Removed from Ground
8	Not reported	Fuel Oil	1,000 gallons	12/10/2007	Removed from Ground

Notes: *Tank #5 has been removed from the ground, as discussed in Section 4.3.2.

Additionally, two releases are associated with Parcel A of the subject property. However, these USTs and associated releases were actually located on the property south of Mason Run (southern adjoining property) or on the southwestern adjoining property, beyond the railroad easement and Dixie Highway. Refer to Section 4.3.2 for further information pertaining to the USTs and associated releases.

Parcel B

AKT Peerless referenced the RMD WDS for information regarding Parcel B. The WDS maintains a listing for Homrich Inc, at NE Corner of the Intersection of Detroit & E. Elm Avenues (MI0000254128). This listing is associated with the regulated landfill part of Parcel B's parent parcel, which is considered an adjoining property. According to the WDS, 26 Compliance Evaluations were conducted between 1998 and 2011. Eight of those evaluations resulted in 10 violations from 1998 through 2007, all of which have achieved a compliant status.

AKT Peerless contacted the MDEQ RMD to review available records regarding waste management activities, permits, inspections, violations, and registered USTs associated with Parcel B. AKT Peerless reviewed numerous correspondence and previous environmental reports associated with the entire parent parcel and former land filling activities. Refer to Section 4.4.5 for a summary of these previous environmental investigations.

AKT Peerless reviewed the MDEQ STID for information related to Parcel B; however Parcel B was not identified on the STID

Copies of information obtained from the RMD are included in Appendix G.

500 North Dixie Highway – Western Adjoining Property (Parcel A)
AKT Peerless referenced the RMD WDS for information regarding this western adjoining property, beyond a railroad easement. According to the WDS, this site is identified as Tuff Kote Dinol (former occupant) and is listed as a Liquid Industrial Waste Generator (LIWG). No violations were reported for this former occupant. It is the opinion of AKT Peerless that this western adjoining property is not likely to present an environmental concern for the subject property due to (1) no reported RCRA activity or violations have been reported for this property and (2) AKT Peerless did not observe improper waste handling or storage practices at this adjoining property during the reconnaissance.

512 North Dixie Highway – Western Adjoining Property (Parcel A)
AKT Peerless referenced the RMD WDS for information regarding this western adjoining property, beyond a railroad easement. According to the WDS, this site is identified as North Dixie Collision (former occupant) and was formerly identified as a RCRA SQG; however, is not longer generating hazardous wastes (out of business). No violations were reported for this former occupant. It is the opinion of AKT Peerless that this western adjoining property is not likely to present an environmental concern for the subject property due to (1) no reported RCRA violations have been reported for this property and (2) AKT Peerless did not observe improper waste handling or storage practices at this adjoining property during the reconnaissance.

520 North Dixie Highway – Western Adjoining Property (Parcel A)
AKT Peerless referenced the RMD WDS for information regarding this western adjoining property, beyond a railroad easement; however, this property was not identified in the WDS database. It is the opinion of AKT Peerless that this western adjoining property is not likely to present an environmental concern for the subject property due to (1) no reported RCRA activity or violations have been reported for this property and (2) AKT Peerless did not observe improper waste handling or storage practices at this adjoining property during the reconnaissance.

4.3.2 MDEQ Remediation Division (RD) Records

AKT Peerless reviewed the MDEQ RD's Perfected Lien List to determine if environmental cleanup liens had been filed against the subject property. According to the most recent list that was published on June 13, 2011, the MDEQ does not have record of environmental cleanup liens filed against the subject property.

Parcel A

AKT Peerless contacted the MDEQ RD Jackson Michigan District Office to review available records regarding environmental information or leaking USTs associated with Parcel A. The following information pertains to the former USTs registered to addresses formerly associated with Parcel A, all which were located on the property south of Mason Run Drain (current southern adjoining property):

Tank ID 2 and 3: two 30,000-gallon fuel oil USTs

Two 30-000 gallon fuel oil USTs were formerly located northwest of the power house building. The USTs were closed in place in 1995 by Quality Environmental Professionals, Inc. (QEPI). The residual fuel oil was removed, the USTs were power washed, and filled with sand.

In February 2008, Kessler Environmental Excavating (Kessler), under the supervision of Soil and Materials Engineers, Inc. (SME) and AKT Peerless, began the UST removal activities by uncovering the USTs. Upon excavation of the two 30,000 gallon fuel oil USTs, it was confirmed that the UST bodies were filled with sand. To confirm proper closure, the sand was sampled and analyzed for volatile organic compounds (VOCs) and poly-nuclear aromatic hydrocarbons (PNAs). Results indicated no VOCs or PNAs were detected. Samples were also collected from the excavated soils around the USTs. The laboratory analytical results indicated the stockpiled soil was suitable for use as backfill in the excavation area.

The USTs were constructed of steel and observed to be in average condition. The USTs were removed from the excavation, cut into manageable sections, and removed from the subject property for salvage.

SME collected eight wall and three floor soil verification samples from the excavation in accordance with MDEQ's "Sampling Strategies and Statistics Training Materials for Part 201 Cleanup Criteria" publication dated August 2002. Laboratory analytical results of the verification samples did not indicate the presence of VOCs or PNAs in excess of applicable MDEQ criteria.

Tank ID 5: 1,000-gallon kerosene UST

A 1,000-gallon kerosene UST was located in the east courtyard, south of Building 43. Kerosene from this UST was reportedly utilized for cleaning process equipment. This UST was closed in place in 1995 by QEPI. Reportedly, residual kerosene was removed, the UST was power washed, and filled with cement slurry.

In December 2007, Kessler, under the supervision of SME and AKT Peerless, began the UST removal activities by uncovering the UST to provide access to pump and dispose of the contents. Approximately 1,000 gallons of liquid waste was pumped from the 1,000-gallon kerosene UST and was manifested and disposed off-site by Kessler.

In March 2008, soil from the UST excavation was stockpiled in the immediate area and returned to the excavation following the removal of the UST. The UST was constructed of steel and observed to be in average condition. The UST was removed from the excavation, cut into

manageable sections, and removed from the subject property for salvage.

SME collected four wall and two floor soil verification samples from the excavation in accordance with MDEQ's "Sampling Strategies and Statistics Training Materials for Part 201 Cleanup Criteria" publication dated August 2002. Samples were collected for analysis of VOCs and PNAs. Laboratory analytical results of the verification samples did not indicate the presence of VOCs or PNAs in excess of applicable MDEQ Cleanup Criteria.

Tank ID 6: 8,000-gallon lacquer UST

An 8,000-gallon lacquer UST was formerly located near the southeast corner of Building 52 to supply lacquer to the Paper Box Factory. The UST was removed in 1995 under the direction of QEPI. The UST was emptied, excavated, and disposed as scrap. Soil samples collected from the excavation showed no indication of a release. Groundwater was not present in the excavation.

Prior to removal of the UST, QEPI advanced three soil borings in the vicinity of the UST and collected soil samples for analysis of VOCs and SVOCs. In addition, QEPI collected two soil samples from the floor of the excavation at the time the UST was removed that were analyzed for TPH as gasoline, diesel, kerosene, and motor oil. Analysis of soil boring and floor samples did not reveal evidence of impact above MDEQ Generic Residential Cleanup Criteria (GRCC).

Tank ID 7: 8,000-gallon fuel oil UST

An 8,000-gallon steel fuel oil UST was formerly located on the west side of the Power House building. Fuel oil was transferred to this tank from the two nearby 30,000-gallon USTs. The Monroe Paper Company reported a release from the UST to the Michigan Department of Natural Resources in December 1989 after fuel oil odors were reported in the adjoining building. In January 1990, the UST was reportedly emptied and was disconnected from the 30,000-gallon USTs.

QEPI was retained to close the UST in 1995. The UST was cleaned, removed from the ground, and disposed as scrap. Field observations reported that the UST was in good condition at the time of removal, with no visible holes or pits noted. Surface soils were reported stained as was a narrow seam of soil in the bottom of the south wall of the excavation. Additional soil was excavated until the excavation was blocked by a railroad spur west of the UST. Groundwater was not encountered in the excavation.

QEPI and its predecessor company, FRP Environmental, conducted soil and groundwater investigations near this UST between August 1994 and March 1996. Soil samples were collected from 11 soil borings advanced prior to the closure of the UST and groundwater samples were collected from monitoring wells installed after closure. Additional groundwater samples were collected from monitoring wells near the UST by Haley & Aldreich in 2002 and SME in 2004.

Soil samples from the eight borings advanced by FRP/QEPI indicated levels of ethylbenzene, xylenes, flouranthene, flourene, naphthalene, and phenanthrene were above MDEQ Generic Groundwater to Surface Water Interface Protection (GSIP) criteria. Benzene and acenaphthylene

were noted in soil above MDEQ Residential Drinking Water Protection (DWP) criteria. All exceedences were noted in soil at depths ranging from 8 to 12 feet below ground surface.

Two bedrock monitoring wells were installed in the vicinity of this UST. Groundwater samples collected from these wells in 1995, 1996, 2002, and 2004 did not identify the presence of VOCs, PNAs, or metals above MDEQ GRCC.

Tank ID 8: 1,000-gallon fuel oil UST

In December 2007, Kessler, under the supervision of SME and AKT Peerless, began the UST removal activities by uncovering the UST to provide access to pump and dispose of the contents. Approximately 1,000 gallons of liquid waste was pumped from the UST and was manifested and disposed off-site by Kessler.

Soil from the UST excavation was stockpiled in the immediate area and returned to the excavation following the removal of the UST. The UST was constructed of steel and observed to be in average condition. The UST was cut into manageable sections, and removed from the subject property for salvage.

SME collected four wall and two floor soil verification samples from the excavation in accordance with MDEQ's "Sampling Strategies and Statistics Training Materials for Part 201 Cleanup Criteria" publication dated August 2002. Samples were collected for analysis of VOCs and PNAs. Laboratory analytical results of the verification samples did not indicate the presence of VOCs or PNAs in excess of applicable MDEQ Cleanup Criteria.

Based on the above information these former USTs do not present an environmental concern to the subject property.

AKT Peerless also reviewed numerous pervious environmental reports associated with the former paper mill property (encompassed the subject property) at the MDEQ RD district office. Refer to Section 4.4.5 for a summary of these previous environmental investigations.

Parcel B

AKT Peerless contacted the MDEQ RD Jackson Michigan District Office to review available records regarding environmental information or leaking USTs associated with Parcel B. According to the MDEQ RD district office, records were not identified for Parcel B.

444 North Dixie Highway – Western Adjoining Property (Parcel A)

AKT Peerless contacted the MDEQ RD Jackson District Office to review available records regarding environmental information or leaking USTs associated with this western adjoining property. According to the MDEQ RD, the BEA that was submitted to the MDEQ in 1996 (referenced in Section 4.2.2) could not be located.

As later discussed in Section 4.4.5, as part of a subsurface investigation by AECOM in 2010, AECOM advanced a test pit near this property boundary and installed a temporary monitor well. The soil and groundwater samples collected from this location were analyzed for VOCs, PNAs,

Michigan Metals[3] and/or polychlorinated biphenyls (PCBs). Laboratory analytical results did not identify target parameters above MDEQ GRCC.

In AKT Peerless' opinion this adjoining property does not appear to present an environmental concern to the subject property based on: (1) the results of AECOM's 2010 subsurface investigation, (2) the site is located beyond the railroad easement (~200 feet), and (3) the site is currently vacant and AKT Peerless did not observe improper waste handling or storage practices at this adjoining property during the reconnaissance.

311-325 Harbor Avenue – Eastern Adjoining Properties (Parcel A)

AKT Peerless contacted the MDEQ RD Jackson District Office to review available records regarding environmental information or leaking USTs associated with these eastern adjoining properties. AKT Peerless reviewed environmental investigations conducted for the property at 319-325 Harbor Avenue. According to environmental investigations, the property was formerly part of an auto body, towing, salvage yard, and packaging business. Subsurface investigations were conducted in 2001 and 2002 that identified VOCs, semi-VOCs (SVOCs), and metals above the MDEQ GRCC (Drinking Water and Groundwater Surface Water interface Criteria) in soil and groundwater. Impact was primarily identified in the central portion of the 319 Harbor Avenue building. Groundwater impact was not identified along the western property boundary (closest to the subject property). In 2002, 112 cubic yards of soil was removed from the area of impact in the central portion of the 319 Harbor Avenue building. Contamination did not appear to be migrating offsite and towards the subject property. Two Category N BEAs have been submitted to the MDEQ for this property.

AKT Peerless also reviewed environmental investigations conducted for the property at 317 Harbor Avenue (directly south of the 319-315 Harbor Avenue buildings and once part of same property). A subsurface investigation was conducted at the property in 2008 to address two areas of staining on the southwestern portion of the property. Four soil borings were advanced in these areas and two surface soil samples were also collected. Laboratory analytical results identified PNAs in the surface soil samples above the MDEQ GRCC (Direct Contact and Drinking Water).

In AKT Peerless' opinion, these eastern adjoining properties do not appear to present an environmental concern to the subject property based on (1) contamination does not appear to be migrating towards the subject property, (2) the staining identified at the 317 Harbor Avenue property did not extend onto the subject property, (3) AKT Peerless did not observe improper waste handling or storage practices at these adjoining properties during the reconnaissance, and 4) the properties are located hydrogeologically downgradient from the subject property.

515 Harbor Avenue – Eastern Adjoining Property (Parcel A)

AKT Peerless contacted the MDEQ RD Jackson District Office to review available records regarding environmental information or leaking USTs associated with this eastern adjoining property. According to records reviewed, a 1,000-gallon and 3,000-gallon used oil UST were removed from the property in December 2002. The MDEQ witnessed the removal and confirmed a release based on the observations of a rust hole in one of the USTs. Applied

[3] Michigan Metals include arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc.

Ecosystems (Applied) conducted subsurface investigations to address the release. Groundwater was not encountered. Applied submitted soil samples for analysis of VOCs, PNAs, cadmium, chromium, and lead. Results of the investigation did not identify target compounds above MDEQ GRCC. Applied submitted a Tier 1 Unrestricted Residential Closure to the MDEQ. The MDEQ required groundwater sampling. AKT Peerless completed a Closure Report Addendum in June 2005, which included installing a monitor well into the bedrock and collecting a soil sample from a surface spill area. Impact was not detected in the soil or groundwater sample above MDEQ GRCC. The site achieved a closed status in August 2005.

In AKT Peerless' opinion, this adjoining property does not present an environmental concern to the subject property based on (1) the USTs (source of impact) have been removed from the property), (2) contamination is not migrating offsite and towards the subject property, (3) the LUST incident is closed, and (4) the site is located hydrogeologically downgradient from the subject property.

1407 East Elm Avenue – Western Adjoining Property (Parcel B)

AKT Peerless contacted the MDEQ RD Jackson District Office to review available records regarding environmental information or leaking USTs associated with this western adjoining property, beyond Detroit Avenue. According to records reviewed, Legacy Environmental Inc. (Legacy) conducted a Phase I ESA in 2008. Legacy identified the following REC:

- Approximately one-quarter to one–third of the parcel is covered with fill consisting of re-worked clay soils, sandy soils, large pieces of concrete (up to 8-inches in thickness), asphalt chunks, cinder, brick, a few intact and crushed 55-gallon drums, one-gallon paint cans, and miscellaneous demolition debris such as roofing shingles, conduit, drain pipe, and drain tile. In addition, concentrations of petroleum constituents (naphthalene, flouranthene, and phenanthrene) were detected in a soil sample collected two feet below ground surface on the subject parcel in 2002 exceeding the MDEQ GRCC Criteria for Groundwater to Surface Water Interface Protection Criteria.

Legacy conducted a Limited Phase I Environmental Site investigation to address the REC identified in their Phase I ESA. Legacy advanced nine soil borings and collected soils samples for analysis of PNAs, PCBs, metals (including arsenic, aluminum, barium, iron, cadmium, chromium, cobalt, copper, lead magnesium, manganese, mercury, nickel, potassium, selenium, silver, and zinc), pesticides/herbicides, ammonia-N, and sulfates. Legacy identified concentrations of arsenic, aluminum, cobalt, manganese, mercury, selenium, and silver in soil exceeding MDEQ GRCC. Based on this information, a Category N BEA was submitted to the MDEQ in 2010.

In AKT Peerless' opinion, this western adjoining property, beyond Detroit Avenue, does not appear to present an environmental concern to the subject property based on (1) contamination does not appear to be migrating towards the subject property, (2) impact was identified in shallow fill material, and (3) AKT Peerless did not observe improper waste handling or storage practices at this adjoining property during the reconnaissance.

4.4 ADDITIONAL ENVIRONMENTAL RECORD SOURCES

4.4.1 Local Health Department

According to the Monroe County Health Department, records were not identified for Parcel A. The Monroe County Health Department maintained a large file for the Type III Industrial Landfill located in the central portion of Parcel B's parent parcel (considered an adjoining property). The records were similar to that maintained by the MDEQ RMD. Refer to Section 4.4.5 for a summary of the reviewed records.

4.4.2 Local Fire Department

According to the Monroe Fire Department, records were not identified for Parcel B. AKT Peerless reviewed the followed document pertaining to Parcel A:

- Blue Print (no date) for the former paper mill property. Depicted: (1) coal storage along the western portion of Parcel A, (2) large clarifiers on the southern portion of the parcel, (3) a mill waste/chemical mixing and storage house just north of the clarifiers, (4) buildings utilized for straw storage and exterior baled waste (paper) storage throughout the parcel.

Remaining files maintained by the Fire Department pertained to the mill property south of Mason Run (southern adjoining property).

4.4.3 Water & Sewage Utility Provider

Municipal water and sewerage services are available to the subject property; however, are currently not connected. Historical connection dates were not identified for the subject property. According to Sanborn maps, municipal water has been available to the subject property area since at least 1922. The City of Monroe Public Works Department's sanitary waste is ultimately received for processing by the City of Monroe Wastewater Department.

Information regarding historical potable water and sewage services was limited for the subject property. This gap in historical information is considered *data failure* as provided in Section 8.3.2.3 of the ASTM Standard Practice For ESAs (E 1527). Therefore, a potential exists for an abandoned water well and/or septic system to be present at the subject property.

4.4.4 Natural Gas Provider

Natural gas service is available to the subject property by Michigan Gas Utilities. Historical services for the former structures on Parcels A and B included coal and steam; however, information pertaining to the historical services was limited.

Information regarding heating services was limited for the subject property. This gap in historical information is considered *data failure* as provided in Section 8.3.2.3 of the ASTM Standard Practice For ESAs (E 1527).

4.4.5 Previous Environmental Reports

Parcel A

AKT Peerless reviewed the following reports as part of this assessment, a majority of which encompass the entire former paper mill property (current southern adjoining/nearby properties) and do not pertain to Parcel A. However, because the subject property is a portion of the larger former paper mill property, the reports were reviewed to evaluate if environmental investigations were conducted on the subject property or on the remaining paper mill property.

- PRC Environmental Management, Inc.'s (PRC) Preliminary Assessment/Visual Site Inspection of the Monroe Paper Company, dated November 25, 1992
- Various Site Investigation Reports from 1992 through 1994 prepared by Huff & Huff, Inc. regarding the removal and remediation of a waste oil collection sump and 500-gallon hydraulic oil UST located at the northwestern corner of Dixie Highway and East Elm Avenue (southwestern nearby property).
- Techna Corporation's (Techna) Baseline Environmental Assessment, dated January 27, 1998
- AKT Peerless' Phase I ESA, dated July 30, 2001
- AKT Peerless' Residential Remedial Action Plan, dated April 9, 2002
- SME's Environmental Conditions Report, dated June 15, 2005
    - Also included in the Environmental Conditions Report was a summary of a three Bedrock Hydrogeological Studies that were conducted at the subject property in 1995-1997 (QEPI), 2002 (Haley & Aldrich), and 2005 (SME).
- USEPA No Further Interest Determination Letter, dated May 3, 2006
- SME's DRAFT Due Care Plan, dated May 11, 2006
- SME's Technical Memorandum – April 2006 Environmental Assessment, dated June 19, 2006
- AKT Peerless' Closeout Report for Demolition of Powerhouse and Abatement of Asbestos Materials From Fibre Building and Documentation of Due Care Activities, dated November 2009
- AKT Peerless' Closeout Report for Demolition of East/West Building and Documentation of Due Care Activities, dated November 2009
- AKT Peerless' Closeout Report for Environmental Abatement and Demolition of Mills 3 & 4, Removal of PCB Transformers and USTs and Waste Trench Evaluation and Documentation of Due Care Activities, dated November 2009
- AKT Peerless' Closeout Report for Demolition of Mill 5, Building 43, Mason Run Drain, Fibre Building Slab and Documentation of Due Care Activities, dated November 2009
- AKT Peerless' Limited Subsurface Investigation, dated November 30, 2009
- AKT Peerless' Section 7a Compliance Analysis, dated November 30, 2009
- AKT Peerless' Category N Baseline Environmental Assessment, dated October 4, 2010

Based on AKT Peerless' review of these previous environmental reports, the subject property was formerly part of the much larger East Mill site. A majority of the mill operations and associated buildings were located on the current southern adjoining property, beyond Mason Run. Mill 5 extended onto the southern portion of Parcel A and several storage buildings were located in this area. In addition, a large concrete pad was constructed in this area. Parcel A was primarily used for the storage of recycled paper that was used to manufacture corrugated box board. The paper was delivered to Parcel A and was stored in large stacks of bales. In addition, coal was transported to Parcel A by rail and was stored in piles along the western property boundary. The coal was used for the East Mill boilers (located on the southern adjoining property). Some coal ash was used as surface fill on portions of Parcel A. Coal ash generation ceased in 1992, when the boilers were converted to natural gas.

In the 1950s, two 200,000-gallon waste water clarifiers were constructed on the southern portion of Parcel A, just east of the concrete pad. Wastewater from the papermaking processes (white water) was processed and recycled back to the process. Wastewater discharges from this system were directed to the City of Monroe sanitary sewer system.

The majority of these previous environmental investigations were conducted on the portion of the mill property south of Mason Run (southern adjoining property). Based on a review of these investigations and the groundwater flow in the subject property, which is to the southeast and away from the subject property, the southern and southwestern adjoining properties (formerly part of the West and East Mill sites, do not appear to present an environmental concerns to the subject property.

The following investigations and assessments encompassed and/or pertained to the subject property:

PRC's 1992 Preliminary Assessment/Visual Site Inspection

This assessment was conducted to prioritize RCRA sites for corrective action based on the solid waste management units (SWMU) and areas of concern (AOC). The assessment was conducted for the entire mill property. PRC identified six SWMUs and four AOCs at the mill property. The AOCs were associated with USTs on the southern mill property, beyond Mason Run (See Section 4.3.2). The following three SWMUs were identified at the subject property:

- Parcel A: (SWMU 2) A dumpster used to accumulate nonhazardous scrap metal generated during demolition and rehabilitation of the mill buildings. The scrap metal was sold for recycling. This unit began operation in 1991. PRC did not observed evidence of a release.
- Parcel A: (SWMU 3) A wastewater clarifier system used to separate pulper waste from process water. PRC did not identify historical or current evidence of a release.
- Parcel B: (SWMU 6) An onsite landfill area used for disposal of non hazardous coal boiler ash and dewatered pulper waste.

These SWMUs did not require submittal of a RCRA Part A or Part B permit applications. A former container storage area (SWMU 5) on the property south of Mason Run did require a

Permit. However, the USEPA, in consultation with the MDEQ, agreed to not pursue further corrective action at the mill property if the City of Monroe and the Port of Monroe completed certain requirements, which were fulfilled and documented with the MDEQ and USEPA. These activities included demolishing the former mill buildings and placing a soil cover over the entire area (south of Mason Run) to prevent contact with residual soil and groundwater impact that may exist at the site. Based on the completion of these items, and a No Further Corrective Action letter from the USEPA, AKT Peerless does not consider the listing of the site on the RCRA database to represent a recognized environmental condition.

Huff & Huff, Inc.'s Site Investigation Reports

Huff & Huff, Inc. conducted subsurface investigation activities in 1992 though 1993 on the West Mill property, located at the northwest corner of East Elm Avenue and Dixie Highway (southwestern adjoining property) to address impact stemming from a waste oil collection sump and 500-gallon hydraulic oil UST that were identified during demolition activities. As part of these activities, bioremediation was conducted on the impacted soil, which was stockpiled onsite. The stockpiled soil was moved to the concrete pad on Parcel A for the construction of a bioremediation pile in 1994. The bio-pile consisted of a visquene, sand, and perforated vent pipe foundation. Impacted soil was mixed with nutrients, substrate, and bulking agents. Remediation soil was to be used as fill material or as cover at the landfill property. The West Mill property achieved a Type B Closure.

The stockpiled soil was later observed by Techna as part of their 1998 BEA activities. According to Techna, approximately 3,500 cubic yards was observed on the concrete slab on Parcel A. Techna collected discrete soil samples from the stockpile which identified VOCs and PNAs at concentrations below applicable MDEQ cleanup criteria.

Hydrogeological Studies

Hydrogeological Studies of the bedrock aquifer were conducted at the East Mill property in 1995-1997 by QEPI, in 2002 by Haley & Aldrich, and in 2005 by SME. Two of the bedrock wells (BR-8 and BR-9) were installed on Parcel A (upgradient of the main mill property). Laboratory analytical results of the groundwater samples collected from these well indicated the following (1) VOCs and PNAs were not detected above method detection limits, (2) metals and ammonia were not detected above the MDEQ GRCC, and (3) ammonia and sulfate were historically detected above the MDEQ Generic Residential Drinking Water Criteria at the BR-9 location. These wells are no longer present on Parcel A.

In addition, the following environmental investigations were completed solely for Parcel A:

- AECOM's Phase I ESA, dated October 1, 2010

AECOM completed a Phase I ESA of Parcel A in 2010 on behalf of MDOT. AECOM identified the following RECs associated with Parcel A:

- Historical use of the subject property as part of a paper mill for material storage including some potentially impacted soil; use of clarifiers in the paper mill operations; and for the storage of coal used to fire the boilers in the mill.

- Historical placement of fill on site consisting of cinders, slag, coal, and some construction debris.

AECOM recommended the completion of a limited subsurface investigation to evaluation these RECs.

- AECOM's Baseline Environmental Assessment, prepared in October 2010

AECOM conducted various phases of a subsurface investigation at Parcel A in July, August, and September 2010 to evaluate the RECs identified in the Phase I ESA. As part of the investigations, AECOM conducted four separate sampling events. The first event consisted of the excavation and sampling of 20 test pits throughout the parcel to evaluate site conditions. AECOM encountered 6-10" of slag followed by one to eight feet of sandy fill with concrete, bricks, coal, cinders, and gravel. The coal and cinders were primarily seen near the railroad along the western property boundary. The fill was underlain by brown silty clay until the bedrock layer.

Soil samples were collected from 16 of the 20 test pits and analyzed for VOCs, PNAs, PCBs, and Michigan Metals. Several VOCs were detected in one soil sample near the concrete pad above the MDEQ GRCC (DWP and GSIP). Metals were detected in several test pit locations above MDEQ GRCC. Specifically, arsenic and lead were detected in soil above Direct Contact Cleanup Criteria. The impact appeared to be related to the fill throughout the site.

AECOM then installed 10 temporary monitor wells throughout Parcel A. Groundwater samples were collected and analyzed for VOCs, PNAs, Michigan Metals, and ammonia. Target parameters were not detected above the MDEQ GRCC.

AECOM returned to the site in August 2010 to advance 14 soil borings in an attempt to delineate impact that was identified during the test pit investigation, specifically the VOC impact and metals above the MDEQ Direct Contact Cleanup Criteria. AECOM collected 15 soil samples from the shallow fill below the aggregate for VOCs and/or arsenic and lead (depending on the area of impact). Laboratory analytical results indentified VOCs in two samples above MDEQ GSIP and lead and arsenic in several sample above MDEQ Direct Contact Cleanup Criteria. AECOM submitted two samples for Toxicity Characteristic Leaching Procedure (TCLP) analysis of lead due to the high concentrations. The TCLP result for the GP-12 sample exceeded the regulatory limit for lead for hazardous waste characteristics.

As a result of the high TCLP result from the GP-12 location, AECOM attempted to delineate the area in September 2010. AECOM advanced an additional 12 soil borings and collected 11 soil samples for lead analysis. Two samples exceeded MDEQ Direct Contact Cleanup Criteria. These samples were then submitted for TCLP analysis, which were non-detect for both. Therefore, AECOM concluded that this area of lead impact had been delineated.

Based on these results, AECOM prepared a Category N BEA on behalf of MDOT. MDOT did not intend to develop or occupy the property during their ownership.

- AECOM's Due Care Plan, dated August 2010

Based on the results of AECOM's subsurface investigations, AECOM prepared a Due Care Plan for Parcel A on behalf of MDOT. In addition, AECOM recommended the placement of additional fill material on the three areas with identified metal impact of MDEQ Direct Contact Cleanup Criteria.

- AKT Peerless' Due Care Response Activities, completed in July 2011

AKT Peerless oversaw the placement of fill material on Parcel A in July 2011. The fill material, obtained from the Denniston Quarry in Monroe, Michigan, was placed in three areas of the subject property (Areas 1, 2, 3) by Homrich in accordance with the "Estimated Areas With Metal Concentrations Exceeding Direct Contact" map which was prepared by AECOM and approved by MDOT in March 2011. Fill soil placement depths were outlined by AECOM as specified below:

  - Area 1 - 2-inches
  - Area 2 - 3-inches
  - Area 3 - 6-inches (excluding the concrete building pad area)

AKT Peerless measured the in-place fill depths in each area and confirmed sufficient fill material was placed to meet the AECOM and MDOT requirements.

Parcel B

AKT Peerless reviewed numerous previous environmental reports as part of this assessment, a majority of which encompass the entire parcel (considered adjoining properties) and do not pertain to Parcel B. However, because the subject property is a portion of the larger former landfill property, the reports were reviewed to evaluate if environmental investigations were conducted on the subject property.

The following are the most recent environmental investigations conducted at the parcel:

- SME's Report of Landfill Delineation Activities, dated July 22, 2004
- SME's Due Care Evaluation Summary Report, dated October 14, 2005
- SME's Landfill Closure Addenda - Leachate Sampling Summary Report, dated October 14, 2005
- SME's Landfill Closure Certification Report, dated December 3, 2010
- NTH Consultants, Ltd. (NTH) Hydrogeological Monitoring Report, 4th Quarter, 2010 (most current)

Based on AKT Peerless' review of previous environmental reports, Parcel B and its parent parcel were used by Jefferson Smurfit and predecessors for disposal of coal combustion ash and cinders and pulper wastes from the East Mill site. Coal combustion residues from the Power House were historically placed on the upland portion (western portion of the parcel) to depths of two to four feet bgs. These activities were conducted much, if not all, of the period from 1918 until the

landfill portion of the parcel was first licensed in 1974. Ash was historically transported from the Power House to the parcel by truck. Later an ash sluicing system was installed to move slurried ash to the disposal area. The slurry (ash and fresh process water) was pumped via pipeline to settling ponds at the north end of the parent parcel where it was dewatered. The slurry water was decanted through the wetland areas along Mason Run and the ash was moved to the licensed waste disposal area. The first license for the landfill was issued to Union Camp Corporation in 1974 under Michigan Act 87 and was continuously licensed under Act 87, Act 641 and Part 115 of NREPA through 1995. The Part 115 regulated landfill accepted pulper wastes. Homrich acquired the property in 1997 after the last license had expired. A Restrictive Covenant was filed for the regulated landfill area on May 2, 2007. The regulated landfill area is not part of Parcel B and is considered an adjoining property.

Regulatory Landfill Closure Activities

Since acquiring the property in 1997, Homrich has sought closure of the landfill. Four groundwater monitoring wells were installed on the parent parcel (three of which are on Parcel B) and two were installed on the western adjoining property, beyond Detroit Avenue, in the 1980s to monitor potential impact stemming from the landfill. A Hydrogeological Monitoring Plan was established in 1996. Quarterly groundwater monitoring of these wells has occurred since that time to fulfill the requirements of the Plan and Part 115 of P.A. 451. NTH currently conducts the quarterly sampling events. NTH's most recent sampling event on file at the MDEQ was the Fourth Quarter 2010. NTH sampled five of the six wells (one was frozen) for analysis of the designated parameters including, arsenic, calcium, magnesium, manganese, sodium, zinc, ammonia, nitrate/nitrite, total inorganic nitrogen, sulfates, phosphorus, total dissolved solids, phenols, total organic carbon, chemical oxygen demand, temperature, specific conductance, and pH. Statistical methods were applied to the groundwater monitoring data. The statistical evaluation indicated the reported concentrations of each parameter were within the statistical limit at each monitoring well, with the exception of dissolved manganese at one location. NTH attributed this increase to natural variability in groundwater chemistry and not from the landfill.

In 2002 and 2003, the waste materials at the parcel were re-graded and relocated to the current regulated landfill area. In 2004, SME conducted additional landfill delineation activities to verify the defined extent of industrial fill, determine the elevation of the top of the native clay layer beneath the industrial fill area, and verify the existence of at least two feet of native clay beneath the industrial fill area. As part of these activities, SME excavated 28 test pits and advanced 28 soil borings around the perimeters of and through the industrial fill area. The limit of pulper waste was adjusted based on the previously defined area by Homrich.

In 2005, SME installed three temporary monitor wells inside the regulated landfill area to conduct leachate testing to be used to evaluate chemical constituents for inclusion/exclusion from the post-closure bedrock Hydrogeologic Monitoring Plan. Result of the testing identified cyanide, sulfate, and several metals above the MDEQ Type B Cleanup Criteria.

Homrich, SME and the MDEQ have been working together to close the landfill. In September 2008, the landfill surface was cleared and grubbed of surface vegetation. Clay for capping activities was obtained in 2008 from Homrich Matlin Road Facility located in Carleton,

Michigan. The clay was generated from facility expansion activities. A second clay capping source was Sylvania Minerals in Flat Rock, Michigan. These soils were obtained in 2009. A total of 30,700 cubic yards of soil were brought onsite from these two locations. Following the installation of the clay cap, the surface of the clay was covered with a protective vegetative growth layer. Around the perimeter of the landfill, shallow swales were constructed to collect sheet flow from the landfill, which are directed to the adjoining wetlands.

A Landfill Closure Certification Report was submitted to the MDEQ for approval in December 2010. The closure system was performed in accordance with the Homrich Landfill Closure Plan prepared by SME and Haley & Aldrich, dated October 26, 2007, and Addendum 4, prepared by SME, dated September 30, 2010, and approved by MDEQ in a response letter, dated October 6, 2010. Homrich is still awaiting comment and/or approval of the closure report from the MDEQ. Once the landfill is closed by the MDEQ, the 30-year post closure period will begin. During this period, the groundwater monitor wells installed throughout the parent parcel (including the wells on Parcel B) and western adjoining property will need to be sampled on a semi-annual basis.

Due Care Response Activities

In February 2005, in accordance with the "Due Care Assessment Plan" submitted and approved by the MDEQ, SME conducted a due care evaluation of the surficial coal ash located on the remainder of the parent parcel outside the boundaries of the regulated landfill area. SME advanced 14 soil borings throughout the parcel to a depth of approximately four feet bgs. Coal ash extended from the ground surface to approximately two to four feet bgs. Five of the soil borings were advanced on Parcel B. SME submitted 14 soil samples for laboratory analysis of PNAs and arsenic. Results of the analysis identified arsenic in seven of the 14 soils samples above MDEQ Non-Residential Direct Contact Cleanup Criteria, four of which were on Parcel B. PNAs were detected above method detection limits; however, were below MDEQ Cleanup Criteria.

Homrich placed a 6-12" fill cover across the parcel to address the arsenic impact and to provide erosion control for the adjoining landfill area. According to Homrich, the fill material was generated as part of expansion activities at Homrich Matlin Road Facility; however, Homrich did not have laboratory analytical data for the fill material. Therefore, AKT Peerless collected eight soil samples from this fill material throughout the parcel in July 2011 for analysis of VOCs, PNAs, and Michigan Metals. Results of the analysis indicated metals and a PNA were detected in several soil samples above the MDEQ GRCC for DWP and GSIP.

Refer to Appendix H for select previous environmental reports and associated documentation.

4.5 HISTORICAL USE INFORMATION

The objective of reviewing historical sources is to: (1) develop a history of previous uses or specific occupancies of the subject property, (2) identify those uses or specific occupancies that are likely to have led to potential environmental concerns at the subject property, and to the extent identifiable, at adjoining properties, and (3) identify obvious uses of the subject property from the present, back to the property's *obvious* first developed use, or back to 1940, whichever is earlier.

Historical Summary – Subject Property

Based on a review of available sources, the subject property was historically part of a larger 350-acre parcel know as the East Mill site. Part of the East Mill property occupies land that is the site of the Frenchtown settlement, founded in 1787. By 1812, as the United States moved toward war with Britain, Frenchtown became a strategic outpost. The first and second battles of the River Raisin, and the subsequent massacre of over 60 American prisoners, occurred on January 18, 22, and 23, 1813 in the area of the subject property. Over 400 American soldiers were killed in these battles. Frenchtown, which was abandoned during the War of 1812, began to be resettled in 1816 further west along the river. The new settlement grew into the City of Monroe and was named the county seat of Monroe County, Michigan Territory in 1817. The area of the subject property became agricultural land after the War of 1812. Between 1850 and 1915, the subject property was part of the Michigan Nursery Company operated by Isreal Epley Ilgenfritz.

Mr. Ilgenfritz conveyed a portion of his land holdings to the River Raisin Paper Company in the early 20th Century. The River Raisin Paper Company built the first mill (West Mill) on the northwest corner of Dixie Highway and Elm Street in 1915. Between 1918 and 1920, the East Mill was constructed on the property south of Mason Run. Additional expansion occurred at Parcel A as the company grew, and acquired the Monroe Corrugated Box Company in 1920.

The Union Camp Corporation purchased the River Raisin Paper Company in 1960. The subject property was operated by Union Camp until the mid-1980's, when it sold the company to the Monroe Paper Company, a partnership of the Jefferson Smurfit Corporation and an individual, Bob Mitchell. Jefferson Smurfit acquired full ownership of the subject property in 1991.

The East Mill operated on Parcel A until 1995. The vacant East Mill and adjoining properties were sold to Homrich, Inc. in 1997. The mill buildings were generally unused after 1995. The Mill 5 buildings deteriorated significantly and were demolished to grade by Homrich in 2002. A fire destroyed most of the remaining East Mill structures in April 2004. Subsequent to the fire, Homrich demolished the damaged structures to grade in 2004.

A majority of the mill operations and associated buildings were located on the current southern adjoining property, beyond Mason Run. Mill 5 extended onto the southern portion of Parcel A and several storage buildings were located in this area. In addition, a large concrete pad was constructed in this area. Parcel A was primarily used for the storage of recycled paper that was used to manufacture corrugated box board. The paper was delivered to Parcel A and was stored in large stacks of bales. In addition, coal was transported to Parcel A by rail and was stored in piles along the western property boundary. The coal was used for the East Mill boilers (located on the southern adjoining property). Some coal ash was used as surface fill on portions of Parcel A. Coal ash generation ceased in 1992, when the boilers were converted to natural gas.

In the 1950s, two 200,000-gallon waste water clarifiers were constructed on the southern portion of Parcel A, just east of the concrete pad. Wastewater from the papermaking processes (white water) was processed and recycled back to the process. Wastewater discharges from this system were directed to the City of Monroe sanitary sewer system. Homrich removed the clarifiers from Parcel A in 2007.

Homrich placed a slag aggregate material across Parcel A in the mid 2000s. Parcel A was then leased to Vascor, which under contract with the Chrysler Corporation utilized a portion of Parcel A for the storage of newly manufactured Chrysler vehicles from approximately 2007-2008. Parcel A has reportedly been unused since.

Paper manufacturing activities did not occur on Parcel B, which is part of a large approximately 60-acre parcel. A residential dwelling/farm was constructed on the northwestern portion of Parcel B in 1850 and 1925, respectively. The buildings were later demolished in 1957.

Parcel B and its parent parcel were used by Jefferson Smurfit and predecessors for disposal of coal combustion ash and cinders and pulper wastes from the East Mill site. Coal combustion residues from the Power House were historically placed on the upland portion (western portion of the parcel) to depths of two to four feet bgs. These activities were conducted much, if not all, of the period from 1918 until the landfill portion of the parcel (does not include the subject property) was first licensed in 1974. Ash was historically transported from the Power House to the parent parcel by truck. Later an ash sluicing system was installed to move slurried ash to the disposal area. The slurry (ash and fresh process water) was pumped via pipeline to settling ponds at the north end of the parent parcel where it was dewatered. The slurry water was decanted through the wetland areas along Mason Run and the ash was moved to the licensed waste disposal area.

The first license for the landfill was issued to Union Camp Corporation in 1974 under Michigan Act 87 and was continuously licensed under Act 87, Act 641 and Part 115 of NREPA through 1995. Homrich acquired the property in 1997 after the last license had expired. Since that time, closure of the regulated landfill has been sought and is currently pending.

Based on a review of historical documents and environmental assessments, a coal ash layer is present on the western and southern portions of Parcel B, beneath the fill cap. Regulated materials have been defined to the Type III industrial waste landfill area (considered an adjoining property).

The western and southern portions of the Parcel B are undeveloped and consist of a fill dirt/vegetative cover. The eastern portion of Parcel B contains wooded/marshy areas. Parcel B is currently unused.

Historical Summary – Adjoining Properties

Parcel A

North

The northern adjoining property has consisted of unimproved land since at least 1937.

East (from north to south)

The eastern adjoining properties consisted of unimproved land and residential dwellings from at least 1937 until between 1940 and 1949, when the eastern adjoining /surrounding area was developed with dwellings to house paper mill workers. These structures were removed by the 1960s leaving two of the original residential dwellings (currently present). The remaining

portions of the eastern adjoining property were developed with commercial, warehouse, and light industrial properties in the 1970s. 615 and 529 Harbor Avenue are currently vacant commercial/light industrial properties, 519 and 523 Harbor Avenue consist of single family residential dwellings, 477 Harbor Avenue is occupied by Charron Industries, 465 Harbor Avenue is a vacant commercial/light industrial property, 321 Harbor Avenue is occupied by LaRoy Door, 311-317 Harbor Avenue is occupied by Centerline Industries, and the southernmost parcel consist of unimproved land.

South
The southern adjoining property (formerly addressed as 1109, 1205, 1220 East Elm Avenue) consists of vacant unimproved land that is part of the National Park Service. The property was part of the East Mill site. Refer to the subject property's historical summary above for a historical depiction of this property.

West (from north to south)
The western adjoining properties, beyond the railroad easement, consisted of unimproved land and a rail yard from at least 1937 until the 1960s/1970s, when commercial development began. 720 North Dixie Highway is occupied by DTE Dixie Warehouse, 520 North Dixie Highway is occupied by Monroe Aluminum Products, Inc., 512 North Dixie Highway is occupied by Import Auto Service, 500 North Dixie Highway is occupied by R&M Recycling, and 444 North Dixie Highway is a vacant commercial property.

Southwest
The southwestern adjoining property (333 North Dixie Highway), beyond the railroad easement and Dixie Highway, was originally developed as Mills 1 and 2 of the paper mill complex in 1915. The mill was demolished in the late 1980's. The southern portion of the western adjoining property has remained vacant. The northern portion was redeveloped with the Monroe Sports Complex Ice Arena in the late 1990s.

Parcel B
North
The northern adjoining property that is part of Parcel B's parent parcel has consisted of unimproved land since at least 1937. However, as described above, this parcel was used by Jefferson Smurfit and predecessors for disposal of coal combustion ash and cinders and pulper wastes from the East Mill site. Coal combustion residues from the Power House were historically placed on the upland portion (western portion of the parcel) to depths of two to four feet bgs. These activities were conducted much, if not all, of the period from 1918 until the landfill portion of the parcel was first licensed in 1974. Ash was historically transported from the Power House to the parcel by truck. Later an ash sluicing system was installed to move slurried ash to the disposal area. The slurry (ash and fresh process water) was pumped via pipeline to settling ponds at the north end of the parcel where it was dewatered. The slurry water was decanted through the wetland areas along Mason Run and the ash was moved to the licensed waste disposal area. The first license for the landfill was issued to Union Camp Corporation in 1974 under Michigan Act 87 and was continuously licensed under Act 87, Act 641 and Part 115

of NREPA through 1995. Homrich acquired the property in 1997 after the last license had expired. The landfill is currently awaiting regulatory closure.

The northern/northeastern adjoining properties, beyond Mason Run, have consisted of vacant unimproved/wooded land since at least 1937.

East
The eastern adjoining property, beyond the railroad easement, has consisted of vacant, unimproved wooded land and marshy areas since at least 1937.

South (from west to east)
The southern adjoining properties, beyond East Elm Avenue, consisted of unimproved land and a waterway from at least 1937 until the early 1960s, when the waterway was filled in. Commercial development began in the 1970s. 1510 East Elm Avenue is occupied by Monroe Co. Commercial Credit Union, 1530/1540 East Elm Avenue is occupied by the Big Digger/Clam Digger, 1560 East Elm Avenue is occupied by Riverfront Marina, and the eastern most southern adjoining property (on the north side of East Elm Avenue) consists of undeveloped land and the River Raisin Heritage Trail.

West (from north to south)
The western adjoining property, beyond Detroit Avenue (1403/1407 East Elm Avenue) was developed with a farm/residential dwellings from at least 1937 until by the 1960s when a majority of the structures were removed. The western adjoining property is currently occupied by the River Raisin Battlefield Visitor's Center.

4.5.1 Aerial Photographs

AKT Peerless obtained aerial photographs for the subject property from EDR and Google Earth. AKT Peerless' observations noted during the review of these photographs are summarized in the following table. Photocopies of select aerial photographs are presented as Appendix E.

Photo Dates	Observations (Subject Property)	Potential Environmental Concerns
1937 1940 1949 1955 1964	Parcel A Parcel A is developed with several buildings associated with the southern adjoining larger manufacturing property. The buildings are located on the southern portion of the parcel. In addition, a large apparent concrete pad is evident in this area. Apparent storage bins are evident throughout the central and eastern portions of the parcel. Rail spurs extend to the north on the western and eastern portions of the parcel. The level of activity/storage bins varies through the aerials. Two large apparent ASTs are evident at the southeast corner of the concrete pad in the 1964 aerial. Parcel B A residential dwelling/farm is evident on the northwestern portion of the parcel. Potential filling activities/land disturbances are evident on the southwestern and northeastern portions of the property. The remaining portions of the parcel consist of unimproved land or farmland.	Parcel A: rail lines, potential manufacturing and ASTs (clarifiers) Parcel B: potential filling/land disturbances

Photo Dates	Observations (Subject Property)	Potential Environmental Concerns
1973 1980 1985 1992 2000	Parcel A A majority of the building and storage structures have been removed from the parcel in the 1973 photograph; however, additional bins are evident in the 1980 aerial. The northern portion of the parcel is undeveloped wooded land. By 2000, all structures have been removed from the parcel, with the exception of the large concrete pad, a few small apparent concrete pads, and the two apparent ASTs. Parcel B The residential dwelling/farm is no longer present on the northwestern portion of the parcel. Land disturbances are no longer evident on the subject property parcel. The eastern portion of the parcel appears to contain standing water/marshy areas.	Parcel A: rail lines, potential manufacturing and ASTs (clarifiers) Parcel B: none
2006	Parcel A Structures on Parcel A consist of the large concrete pad and two ASTs on the southwestern portion of the parcel. By 2010, the ASTs have been removed. The remaining portions of the parcel consist of an apparent gray aggregate cover. Parcel B The western portion of the parcel consists of an apparent grass cover. The eastern portion of the parcel consists of wooded and marshy areas. In the 2010 aerial, the western portion of the parcel appears to have been graded and/or covered with a fill material that extends onto the northern adjoining landfill property.	Parcel A: ASTs (clarifiers) and potential fill material cover Parcel B: potential fill material cover

AKT Peerless' review of historical aerial photographs of the adjoining properties is summarized in the following table.

Photo Dates	Potential Environmental Concerns (Adjoining Properties)
1937 1940 1949 1955 1964 1973 1980 1985 1992 2000 2006 2010	Parcel A No obvious evidence or indications of recognized environmental conditions or other potential environmental concerns were noted with respect to the adjoining properties during AKT Peerless' review of the referenced maps, aside from the fact that the adjoining property to the south and southwest of Parcel A was developed with a large paper mill plant. However, as discussed in Sections 4.3.2 and 4.4.5, the southern and southwestern adjoining properties do not present an environmental concern to the subject property. Parcel B No obvious evidence or indications of recognized environmental conditions or other potential environmental concerns were noted with respect to the adjoining properties during AKT Peerless' review of the referenced maps, aside from the fact that the adjoining property to the north of Parcel B (part of Parcel B's parent parcel) was utilized as a landfill. As discussed in Sections 4.3.1 and 4.4.5, this area is a Type III industrial landfill that is currently being closed by the MDEQ.

4.5.2 Fire Insurance Maps

AKT Peerless obtained fire insurance maps for the subject property from EDR. Sanborn map coverage was only available for the southern portion of Parcel A and was not available for Parcel B.

AKT Peerless' observations noted during the review of these maps for a portion of Parcel A are summarized in the following table. Photocopies of the referenced maps are presented in Appendix F.

Map Dates	Observations (Subject Property)	Potential Environmental Concerns
1922 1929 1947	Parcel A is part of the River Raisin Paper Co. that extends onto the southern adjoining property, beyond Mason Run. Rail lines extend north along the western and eastern portions of the parcel. Areas depicted as baled waste paper are depicted on the southwestern portion of the parcel. Mill buildings 80 though 84 extend onto the southeastern portion of the parcel. These buildings are depicted as straw pulp stock room, rotary room, mixing room, straw room, cement mixer, and silicate building.	rail lines; paper manufacturing
1965	Appears similar to previous maps; however, two large mill waste settling basins (clarifiers) are evident on the southwestern portion of the parcel. In addition, a small structure depicted as a mill waste chemical treating building is evident just north of the basins.	rail lines; paper manufacturing; clarifiers/chemical treating

Sanborn map coverage was only available for the property adjoining Parcel A to the south. AKT Peerless' review of historical fire insurance maps of the adjoining properties is summarized in the following table.

Map Dates	Potential Environmental Concerns (Adjoining Properties)
1922 1929 1947 1965	No obvious evidence or indications of recognized environmental conditions or other potential environmental concerns were noted with respect to the adjoining properties during AKT Peerless' review of the referenced maps, aside from the fact that the adjoining property to the south was developed with a large paper mill plant. However, as discussed in Sections 4.3.2 and 4.4.5, the southern adjoining property does not present an environmental concern to the subject property.

4.5.3 Assessing Department Records

AKT Peerless reviewed tax assessment records on the subject property at the Monroe Assessing Department. The following table summarizes features or items of potential environmental concern, if any, that were noted during the record review.

Environmental Issue	Comments
Storage Tanks	none identified
Asbestos-Containing Materials	none identified
PCB Materials	none identified
On-site Well/Septic System	none identified

Environmental Issue	Comments
Disposal Facilities/Fill Material (e.g., lagoons, pits, landfills, etc.)	none identified

AKT Peerless reviewed historical field cards for the subject property. A field card for Parcel B (and surrounding properties – 154.91 acres) described a residential/barn structure that was constructed in 1850 and 1925, respectively. The buildings were being demolished in January 26, 1957. According to the field card there was no heating system and the hot water tank was heated by coal. Copies of information obtained from the Monroe Assessing Department are included in Appendix G.

4.5.4 Building Department Records

AKT Peerless reviewed building records for the subject property at the Monroe Building Department. Records identified for Parcel A consisted of general repair, roofing, construction permits, etc. for the paper mill property. Records identified for Parcel B consisted of a permit from January 23, 1957 to dismantle existing dwelling frame. AKT Peerless' review did not identify potential environmental concerns associated with the subject property.

5.0 INTERVIEWS

5.1 INTERVIEW WITH SUBJECT PROPERTY OWNER

AKT Peerless interviewed Mr. Roger Homrich, property owner, regarding knowledge of the subject property. Mr. Homrich purchased Parcel A, along with the former mill property south of Mason Run in 1997. According to Mr. Homrich, Parcel A was formerly utilized to store paper and related material. Former mill activities were primarily conducted on the southern parcel. According to Mr. Homrich, the concrete pad located on the southern portion of the parcel was used for storing and loading paper onto trucks. Mr. Homrich indicated that he had the clarifiers removed from this area in approximately 2007. Mr. Homrich was not aware of environmental assessment activities that occurred on Parcel A, with the exception of a Phase I ESA, Phase II ESA, BEA and Due Care Plan conducted by AECOM in 2010 (Section 4.4.5).

Mr. Homrich placed a slag aggregate material across Parcel A. The slag material was purchased from Tube City IMS in Monroe, Michigan. TCLP testing was performed on the material (Appendix G), which indicates that the slag aggregate has no hazardous waste characteristics.

Mr. Homrich leased Parcel A to Vascor, which under contract with the Chrysler Corporation utilized a portion of Parcel A for the storage of newly manufactured Chrysler vehicles from approximately 2007-2008. Parcel A has reportedly been unused since.

Mr. Homrich purchased Parcel B, along with the remaining parent parcel in 1997. According to Mr. Homrich, the eastern portion of Parcel B has always consisted of vacant wooded/marshy areas. A portion of Parcel B was once utilized for land filling activities; however, only coal ash was disposed on Parcel B. According to Mr. Homrich, environmental assessments were conducted on Parcel B to evaluate due care risks (Section 4.4.5). The assessments identified

arsenic in surface soil samples across the site above the MDEQ Non-Residential Direct Contact Cleanup Criteria. In response to these findings, Mr. Homrich reportedly placed a 6-12" fill cover across the parcel. According to Mr. Homrich, the fill material was generated as part of expansion activities at his private landfill; however, Mr. Homrich did not have laboratory analytical data for the material (See Section 4.4.5). Parcel B is reportedly unused for a significant or obvious purpose.

5.2 INTERVIEW WITH KEY SITE MANAGER

See Section 5.1.

5.3 INTERVIEW WITH SUBJECT PROPERTY OCCUPANT(S)

The subject property is currently unoccupied.

5.4 INTERVIEW(S) WITH OTHERS

AKT Peerless interviewed Mr. Lawrence Bean, with the MDEQ RMD Jackson District Office, regarding knowledge of Parcel B. Mr. Bean is currently and has been involved in the closure of the adjoining regulated Type III industrial landfill. According to Mr. Bean, SME's Closure Certification Report that was submitted to the MDEQ in December 2010 is still being reviewed and has not been approved. Mr. Bean indicated that once the landfill is closed by the MDEQ, the 30-year post closure period will begin. During this period, the groundwater monitor wells installed throughout the parent parcel and western adjoining property will need to be sampled on a semi-annual basis.

6.0 SUBJECT PROPERTY RECONNAISSANCE

6.1 METHODOLOGY AND LIMITING CONDITIONS

The subject property reconnaissance consisted of visual and physical observations of the subject property. AKT Peerless visually and/or physically observed the periphery of the subject property. In addition, AKT Peerless observed the subject property from all adjacent public thoroughfares. AKT Peerless viewed the subject property following a grid pattern designed to cover representative portions of the unimproved areas.

Ms. Jessica Cory and Ms. Jennifer Panek of AKT Peerless conducted the subject property reconnaissance on June 28, 2011. Ms. Cory and Ms. Panek were unaccompanied during the reconnaissance. AKT Peerless encountered the following project specific facts or conditions that limited our ability to access the subject property:

- Visual observations of Parcel A were limited by the presence of dense vegetation in the northeastern and southern portions of the parcel.
- AKT Peerless was unable to visually inspect/access the eastern portion of Parcel B due to dense and wooded vegetation and marsh areas.

6.2 GENERAL SUBJECT PROPERTY SETTING AND OPERATIONS

There are no structures on Parcel A, with the exception of a large (~300 x 250') concrete slab located on the southwestern portion of the parcel. In addition, an apparent former concrete truck scale is present in the southern portion of the property. The remaining portions of the property are covered with a slag aggregate material and sparse vegetation. Areas of dense vegetation are present on the northeastern and southern portions of the parcel.

There are no structures on Parcel B. The western and southern portions of the parcel are covered with sparse grassy vegetation. The eastern portion of Parcel B is covered with dense wooded vegetation and standing water/marsh areas.

In general, the subject property area slopes gently to the southeast. AKT Peerless did not observe operations at the subject property.

6.3 OBSERVATIONS

6.3.1 Hazardous Substances and Petroleum Products

AKT Peerless did not observe hazardous substances or petroleum products at the subject property.

6.3.2 Hazardous and Non-Hazardous Waste

AKT Peerless did not observe hazardous or non-hazardous waste at the subject property.

6.3.3 Storage Tanks

AKT Peerless did not observe evidence of current or former UST systems (e.g., vent pipes, fill ports, dispensing pumps, patched pavement, etc.) at the subject property.

AKT Peerless did not observe evidence of current or former AST systems (e.g., stands, secondary containments, etc.) at the subject property.

6.3.4 Unidentified Substances/Containers

AKT Peerless did not observe evidence of unidentified substances or other suspect containers on the subject property.

6.3.5 Potential PCB Containing Equipment

AKT Peerless inspected the subject property for the presence of liquid-cooled electrical units such as transformers and large capacitors. Such units are notable since they may be potential sources of PCBs (polychlorinated biphenyls). AKT Peerless did not observe suspect PCB-containing equipment at the subject property.

6.3.6 Interior Staining / Corrosion

This subsection does not apply since there are no buildings at the subject property.

6.3.7 Drains and Sumps

This subsection does not apply since there are no buildings at the subject property.

6.3.8 Discharge Features

Storm water that falls upon Parcel A appears to percolate directly into the ground or runoff onto the southern adjoining Mason Run drain. Storm water that falls upon Parcel B appears to percolate directly into the ground or runoff into the onsite and adjoining marsh areas and Mason Run drain.

6.3.9 Pits, Ponds, and Lagoons

AKT Peerless did not observe pits, ponds, or lagoons, or evidence thereof, at the subject property.

6.3.10 Solid Waste Dumping / Landfills

AKT Peerless did not observe evidence of solid waste dumping or landfills at the subject property.

6.3.11 Stained Soil, Stressed Vegetation, Stressed/Stained Pavement

AKT Peerless did not observe any evidence of stained soil, stressed vegetation, stressed pavement, or stained pavement at the subject property, except for the following:

- A slag/aggregate cover is present on a majority of Parcel A causing vegetation to grow sparsely.
- Fill material was placed on a majority of Parcel B. Vegetation is sparse.

Refer to Section 4.4.5 for further details pertaining to the cover placed on these parcels.

6.3.12 Well and Septic Systems

AKT Peerless did not observe physical evidence or indication of wells or septic systems at the subject property, except for the following:

Description	Location	Observed Environmental Concerns
groundwater monitor wells	Two observed in the central and south-central portions of Parcel B; one was observed just west of the Parcel B within the regulated landfill area; AKT Peerless was unable to locate the well located on the northern portion of Parcel B	As further discussed in Section 4.4.5, these monitor wells are associated with the regulated landfill located within Parcel B's parent parcel. They are currently sampled on a quarterly basis.

6.3.13 Other Observations

AKT Peerless did not observe evidence of other potential environmental concerns at the subject property, except for the following:

Description	Location	Observed Environmental Concerns
large (~300 x 250') concrete slab	southwestern portion of Parcel A	As further discussed in Section 4.4.5, two 200,000-gallon waste water clarifiers were located to the southeast of the pad. This pad was historically utilized to store paper products and was also utilized to stage petroleum impacted soil as part of a soil remediation effort at the Mill property west of Dixie Highway
metal and concrete posts (2 to 10" diameter) extending out of ground	throughout Parcel B	According to property owner, these posts are old control lines and grade stakes and landfill delineation stakes; therefore, these posts do not present an environmental concern.
concrete ruble	northern portion of Parcel B	Does not present an environmental concern.

6.4 NON-ASTM SCOPE CONSIDERATIONS

AKT Peerless did not evaluate any other potential environmental conditions (i.e., further areas of possible business/environmental concern and/or liability) that are outside the scope of ASTM Standard Practice E 1527-05. Examples of such potential environmental conditions that were beyond the scope of this Phase I ESA include asbestos-containing materials (ACMs), cultural and historic resources, ecological resources, endangered species, health and safety, high-voltage power lines, indoor air quality, industrial hygiene, lead-based paints (LBPs), lead in drinking water, moisture intrusion/suspect mold growth, noise pollution, radon, regulatory compliance/non-compliance and/or wetlands.

AKT Peerless advises users of this document who wish to obtain an evaluation of the subject property relative to any of the aforementioned non-ASTM issues to engage the services of a qualified environmental professional.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 RECOGNIZED ENVIRONMENTAL CONDITIONS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527 of 1220 East Elm Avenue and a portion of Parcel No. 059-01900-000, Monroe, Michigan, the property. Any exceptions to, or deletions from, this practice are described in Section 8.0 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property, except for the following:

1. As discussed throughout this report, Parcel A was historically part of the East Mill property from between 1918-1920 until operations ceased in 1995. A majority of the paper mill operations and associated buildings were located on the current southern adjoining property, beyond Mason Run. Parcel A was primarily used for the storage of recycled paper that was

used to manufacture corrugated box board. However, as part of these historical operations, (1) rail lines were formerly located in the western and eastern portions of Parcel A, (2) coal was transported to Parcel A by rail and was stored in piles along the western property boundary, (3) coal ash from the boiler systems was reportedly used as surface fill on portions of Parcel A, (4) two 200,000-gallon waste water clarifiers and associated chemical treating building were operated on the southern portion of the parcel, and (5) the concrete pad in the southern portion of the parcel was utilized as a remediation platform for petroleum impacted soil from the West Mill property.

Subsurface investigations were conducted by AECOM in 2010 to evaluate these environmental concerns. Results of the investigations identified VOCs and metals (lead and arsenic) above the MDEQ GRCC. Arsenic and lead were detected in shallow soil above Direct Contact Cleanup Criteria in three areas of the property. Based on laboratory analytical results, Parcel A meets the definition of a *facility*, as defined in Part 201 of the NREPA, Michigan Public Act (PA) 451, 1994, as amended.

In response to the identified metal impact, AKT Peerless oversaw the placement of fill material on Parcel A in July 2011. The fill material was placed in three areas of the subject property (Areas 1, 2, 3) by Homrich in accordance with the "Estimated Areas With Metal Concentrations Exceeding Direct Contact" map which was prepared by AECOM and approved by MDOT in March 2011. Fill soil placement depths were outlined by AECOM. AKT Peerless measured the in-place fill depths in each area and confirmed sufficient fill material was placed to meet the AECOM and MDOT requirements.

2. As discussed throughout this report, Homrich placed a slag aggregate material across Parcel A in the mid 2000s. The slag material was purchased from Tube City IMS in Monroe, Michigan. TCLP testing was performed on the material, which indicates that the slag aggregate has no hazardous waste toxicity characteristics. Though the slag material was considered clean by MDOT based on the TCLP analysis, the slag material may still contain metals. Although a typical approach would be to analyze the slag material for total metals, MDOT considers the slag cover clean based on the following:
   - TCLP analytical results were non-detect
   - The slag material consists of large gravel size aggregate with little to no fines.
   - The slag is typical of material used on other MDOT sites.

3. As discussed throughout this report, Parcel B and its parent parcel were used by Jefferson Smurfit and predecessors for disposal of coal combustion ash and cinders and pulper wastes from the East Mill site. Coal combustion residues from the Power House boilers were historically placed on the upland portion (western portion of the parcel) to depths of two to four feet bgs. These activities were conducted much, if not all, of the period from 1918 until the landfill portion of the parcel (does not include the subject property) was first licensed in 1974. Based on a review of historical documents and environmental assessments, although regulated materials have been defined to the Type III industrial waste landfill area (considered an adjoining property), a coal ash layer is present on the western portion of Parcel B.

A subsurface investigation was conducted by SME in 2005 to evaluate the potential threat posed by the surficial coal ash layer to human health. Soil samples collected from this layer identified arsenic above the MDEQ Non-Residential Direct Contact Criteria. Based on laboratory analytical results, Parcel B meets the definition of a *facility*, as defined in Part 201 of the NREPA, Michigan PA 451, 1994, as amended.

4. As discussed in Section 5.1, in response to the identified arsenic above the MDEQ Non-Residential Direct Contact Cleanup Criteria on Parcel B and for erosion control measures associated with the adjoining landfill area, Homrich placed a 6-12" fill cover across the parcel. According to Homrich, the fill material was generated as part of expansion activities at Homrich's private landfill; however, Homrich did not have laboratory analytical data for the fill material. Therefore in July 2011 AKT Peerless verified the presence and depth of this fill material and collected eight soil samples from the fill material throughout the parcel for analysis of VOCs, PNAs, and Michigan Metals. Results of the analysis indicated metals and a PNA were detected in several soil samples above the MDEQ GRCC for DWP and GSIP. Although impact was detected in the fill material, AKT Peerless notes that ingestion of contaminated groundwater and groundwater venting to surface water at the subject property do not present an unacceptable exposure risk.

5. As discussed throughout this report, a regulated Type III Industrial landfill is located on Parcel B's parent parcel (considered an adjoining property). The landfill formerly accepted coal ash and pulper wastes from the East Mill site. Regulatory closure of the landfill is currently being sought by Homrich. A clay clap has been placed on the landfill and quarterly groundwater monitoring events are being performed. A Landfill Closure Certification Report was submitted to the MDEQ for approval in December 2010. Homrich is still awaiting comment and/or approval of the closure report from the MDEQ. Once the landfill is closed by the MDEQ, the 30-year post closure period will begin

Based on the presence of facility level contamination on both Parcels A and B, AKT Peerless recommends any future owner(s)/operator(s) prepare a Baseline Environmental Assessment (BEA) report.

AKT Peerless also notes that in accordance with Michigan law, local units of government, such as, the Port of Monroe are exempt from Due Care Obligations (Section 20107a(1)(a) to (c) of NREPA, Michigan PA 451, 1994, as amended) provided that the general public is not offered access on a regular or continuous basis or invited to use the property for an express public purpose.

7.2 HISTORICAL RECOGNIZED ENVIRONMENTAL CONDITIONS

AKT Peerless did not identify HRECs in connection with the subject property.

7.3 AREAS OF POTENTIAL CONCERN AND SIGNIFICANT DATA GAPS

AKT Peerless did not identify other areas of potential concern in connection with the subject property during the course of this ESA, except for the following:

- Information regarding historical potable water and sewage services and heating services associated with the structures formerly located on the subject property was limited.

AKT Peerless did not identify evidence of an adverse environmental effect upon the subject property in connection with the areas of potential concern listed above. Nevertheless, it is AKT Peerless' opinion that a potential exists for an abandoned water well, septic system, and/or heating oil container to be present at the subject property.

Consequently, AKT Peerless recommends that such items, if identified or encountered during future development activities, be decommissioned, removed, and/or disposed in accordance with applicable federal, state, and local regulations. Additional action beyond that recommended above may be warranted if evidence of actual or historical heating oil USTs is identified at the subject property in the future.

AKT Peerless did not identify or encounter any instances of significant data gaps during the course of this ESA.

8.0 DEVIATIONS

AKT Peerless did not deviate from ASTM Standard Practice E 1527-05 when performing this Phase I ESA (i.e., no components of that practice were deleted, and no additions to it were made).

9.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of this part. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Jessica T. Cory
Project Manager
AKT PEERLESS ENVIRONMENTAL & ENERGY SERVICES
phone: 248-615-1333
fax: 248-615-1334

Sandra Muszynski
Senior Environmental Consultant
AKT PEERLESS ENVIRONMENTAL & ENERGY SERVICES
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QUALIFICATIONS

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Professional Environmental Services

PROFESSIONAL PROFILE

JESSICA T. CORY

Project Manager
Environmental Compliance and Assessment Services

EDUCATION

Bachelor of Science: Environmental Studies and Applications, 2003
Michigan State University, East Lansing, Michigan

PROFESSIONAL EXPERIENCE

Project Manager
AKT Peerless Environmental Services

Project Scientist
Innovative Environmental Solutions, Inc.

AREA OF EXPERTISE

(1) Evaluating the potential environmental risk at commercial, industrial, and residential property

(2) Management of federal environmental grant programs

(3) Conducting Phase I environmental site assessments (ESAs)

(4) Conducting Phase II Subsurface Investigations

(5) Preparing Baseline Environmental Assessments

(6) Field management and activities coordination

(7) Coordinating environmental investigations

ADDITIONAL EXPERTISE

(1) Conducting field operations such as soil, surface water, and groundwater sampling

(2) Oversight of field operations such as monitoring well installation, contaminant delineation, and soil excavation

(3) Creating maps, diagrams, and drawings

ADDITIONAL EXPERTISE (continued)

(4) Assessment of commercial and multi-family residential facilities in support of property condition assessments

(5) Conducting asbestos, lead, and hazardous material inspections

SUMMARY OF SELECTED PROJECTS

(1) Acted as project manager and technical advisor for several communities with U.S. EPA Brownfield assessment grants. The primary objective of each Brownfield grant was to perform Brownfield inventories, conduct Phase I and Phase II environmental site assessments (ESAs), baseline environmental site assessments (BEAs) and EPA quality assurance project plans (QAPPS). Responsibilities also included: acting as a liaison between Brownfield communities, U.S. EPA project managers, and stake holders, project budget tracking, and quarterly reporting.

(2) Performed Phase I ESAs (including site reconnaissance, regulatory and historical records investigations, and report completion) for financial institutions, manufacturing facilities, real estate developers, and property managers. Properties included industrial, commercial, and residential sites located in Michigan, Alabama, Georgia, and Ohio.

(3) Performed II subsurface investigations (including soil boring and monitoring well installation, laboratory data interpretation, and report preparation) to:
   (a) Evaluate the potential presence of contaminants
   (b) Evaluate the type of contaminants
   (c) Delineate horizontal and vertical extent

   Additional activities included the preparation of Baseline Environmental Assessments to address identified contamination at facilities for submittal to the Michigan Department of Environmental Quality.

(4) Prepared Property Condition Assessments of commercial and residential apartment properties. Activities included site inspections and report preparation.

(5) Performed asbestos, lead, and hazardous material inspections of various buildings including commercial and manufacturing buildings and residential structures. Activities performed consisted of visual inspections of suspect materials, review of building records, observations of sampling techniques, and review of laboratory results.

LICENSES

Michigan Asbestos Inspector, Accreditation Number A34295

Michigan Asbestos Management Planner, Accreditation Number A32400

SPECIALIZED TRAINING

OSHA 29 CFR 1910.120 – 40-Hour Hazardous Waste Operations Training

AHERA Asbestos Inspector Course

AHERA Asbestos Management Planner Course

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Professional Environmental Services

PROFESSIONAL PROFILE

SANDRA E. MUSZYNSKI, CHMM

Environmental Site Assessment Review Project Manager
Environmental Compliance and Assessment Services

EDUCATION

Master in Science: in Environmental Science, 1990
University of New Haven, West Haven, Connecticut

Bachelor of Science: Zoology, 1988
Michigan State University, East Lansing, Michigan

PROFESSIONAL EXPERIENCE

Senior Environmental Consultant & Compliance Specialist
AKT Peerless Environmental Services

Environmental Consultant
Soil and Materials Engineers

Senior Staff Scientist
Environmental Science and Engineering

Compliance Specialist
Environmental Management Consultants

AREA OF EXPERTISE

(1) Phase I environmental site assessments (ESAs)

(2) Environmental compliance audits and reviews

(3) Environmental management services such as waste characterization, waste minimization assessments, spill prevention plans, stormwater pollution prevention plans, environmental reporting, and environmental permitting

(4) Project management, oversight, and coordination of Phase I ESAs, Phase II ESAs, and remediation projects

SUPPORTING AREAS OF EXPERTISE

(1) Working knowledge of state and federal environmental regulations applicable to solid, hazardous, and medical waste management, wastewater discharges, toxic release inventory reporting, hazardous chemical inventory reporting, air emissions permitting, underground and aboveground storage tanks, oil pollution control, PCBs, asbestos, and OSHA hazard communication

(2) Asbestos building inspections

(3) Project management and field activities coordination

SUMMARY OF SELECTED PROJECTS

(1) Performed Phase I ESAs (including project management, site reconnaissance, regulatory and historical records investigations, and report completion) for financial institutions, manufacturing facilities, real estate developers, property managers, and insurance companies. Properties included industrial, commercial, and residential sites as well as health care facilities.

(2) Conducted environmental compliance audits for:

- (a) Metal fabricating facilities (including stamping plants and welding operations)
- (b) Plastics forming facilities
- (c) Electronic equipment manufacturing facilities
- (d) Foundries
- (e) Metal plating operations
- (f) Hospitals

Audits focused on determining the facilities' degree of compliance with applicable federal, state and local environmental regulations and recommending actions to achieve compliance.

(3) Provided technical expertise and project management support for Wayne County's USEPA Brownfield Assessment Demonstration Pilot Project. The pilot project was designed to empower communities in the economic redevelopment of Brownfield sites through a $200,000 USEPA grant. Duties include management, oversight and completion of Phase I ESAs; participation in Technical Advisory Committee meetings; budget tracking; and the identification and utilization of available resources from supporting agencies and communities.

(4) Provided technical expertise to the Downriver Area Brownfield Consortium's (DABC) USEPA Brownfield Assessment Demonstration Pilot Project. The pilot project was designed to empower communities in the economic redevelopment of Brownfield sites through a $200,000 USEPA grant. Duties included the management and completion of Phase I ESAs.

SUMMARY OF SELECTED PROJECTS (continued)

(5) Prepared Spill Prevention Control and Countermeasure/Pollution Incident Prevention (SPCC/PIP) Plans for (1) bulk fuel storage facilities, (2) asphalt paving facilities (3) pharmaceutical supply companies, and (4) various manufacturing facilities.

(6) Prepared Stormwater Pollution Prevention Plans for foundries and various manufacturing facilities.

(7) Assembled an Environmental, Health, and Safety Policy Handbook for the aviation department of a large manufacturing company.

(8) Prepared an annual Toxic Chemical Release Inventory (TRI/Form R) and Hazardous Chemical Inventory (Tier II) reports for:
- (a) Metal fabricating facilities
- (b) Heat treating facilities
- (c) A pharmaceutical supply company
- (d) Foundries
- (e) Various manufacturing facilities

(9) Completed National Pollutant Discharge Elimination System (NPDES) wastewater discharge permit applications for:
- (a) Manufacturing facilities
- (b) Groundwater remediation systems

(10) Completed Critical Materials and Wastewater Reports for various manufacturing facilities.

(11) Assembled and submitted formal petitions to the MDEQ for the designation of waste foundry sand as “inert for general reuse” and as “low hazard industrial waste,” thus avoiding disposal costs. Petitions included information such as waste sand generation schematics, generation rates, raw material data, laboratory analysis data, and statistical analysis.

(12) Conducted asbestos inspections of various buildings including:
- (a) Manufacturing plants
- (b) Commercial buildings
- (c) Hospitals
- (d) Residential structures

(13) Managed Phase II subsurface investigations (including the coordination of soil boring and monitoring well installation, laboratory data interpretation, and report completion) to:
- (a) Evaluate the potential presence of contaminants
- (b) Evaluate the type of contaminants
- (c) Delineate horizontal and vertical extent

CERTIFICATIONS

Certified Hazardous Materials Manager (CHMM) by the Institute of Certified Hazardous Materials Managers, Michigan

ISO 14001 Environmental Management Systems Lead Auditor Training (RAB Certified Course)

Accredited asbestos inspector by the Michigan Department of Labor and Economic Growth

Certified NIOSH Airborne Asbestos Dust Sampling and Evaluating

Health and Safety Training for Hazardous Waste Sites (OSHA-mandated 40-hour training and additional Site Supervisor Workshop)

PUBLICATIONS/PRESENTATIONS

Anthony, T.R. and Ashley, S.E., Do Your Clients' USTs Comply With 1998 Regulations? Michigan Lawyers Weekly, Vol. 11, No. 8, December 1996.

Ashley, S.E., Environmental Compliance Audits. Presented to Michigan Asphalt Paving Association. January 1995.

Voydanoff, S.E., New Year's Day, 1990: Out With the Old and Back With the Recycled. Manufacturers' Mart, September 1990.

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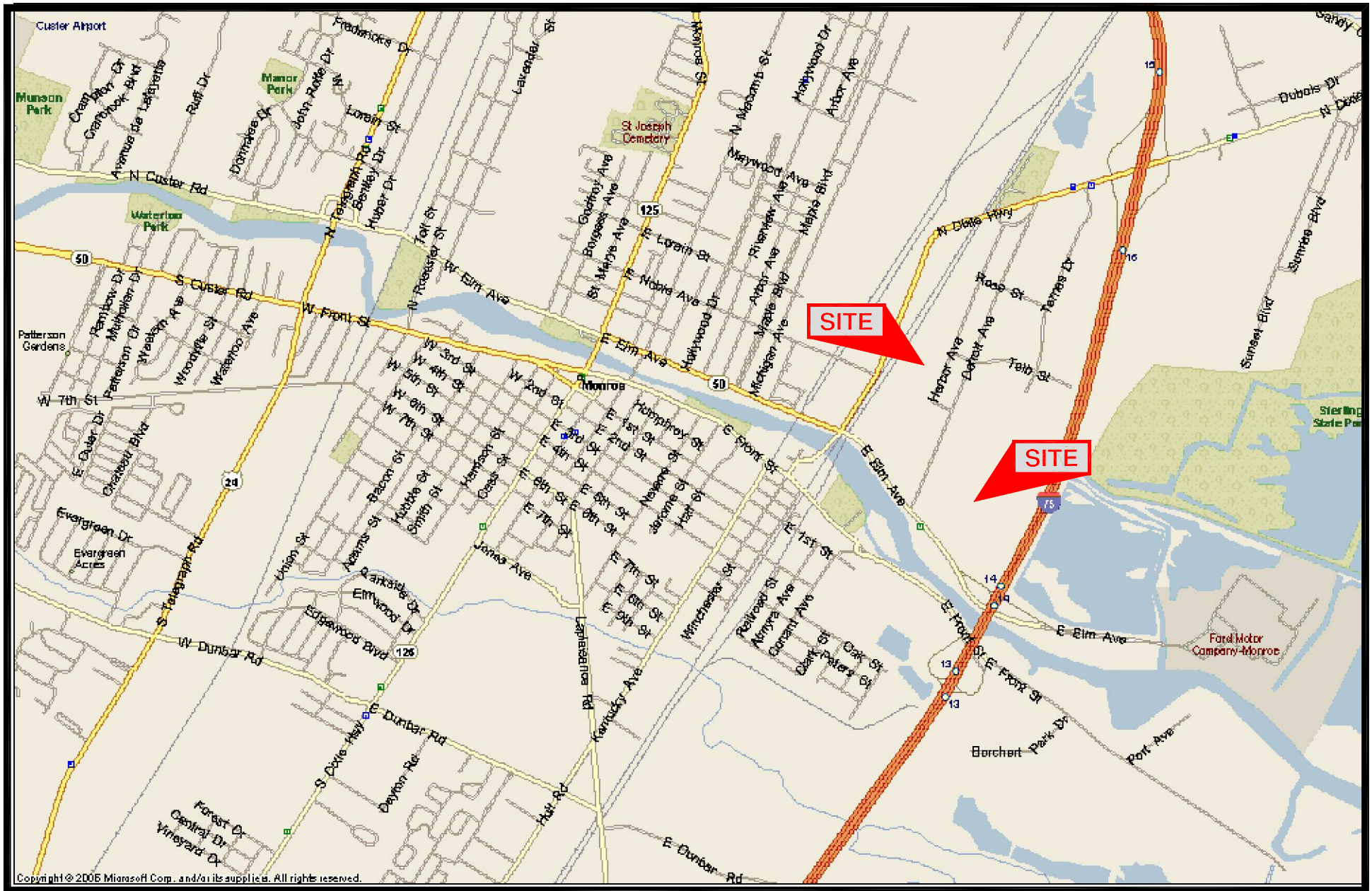
FIGURES



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SUBJECT PROPERTY LOCATION MAP

1220 EAST ELM STREET AND A PORTION OF PARCEL No. 059-01900-000
MONROE, MICHIGAN
PROJECT NUMBER : 1983F5-1-17

LEGEND

N
W E
S

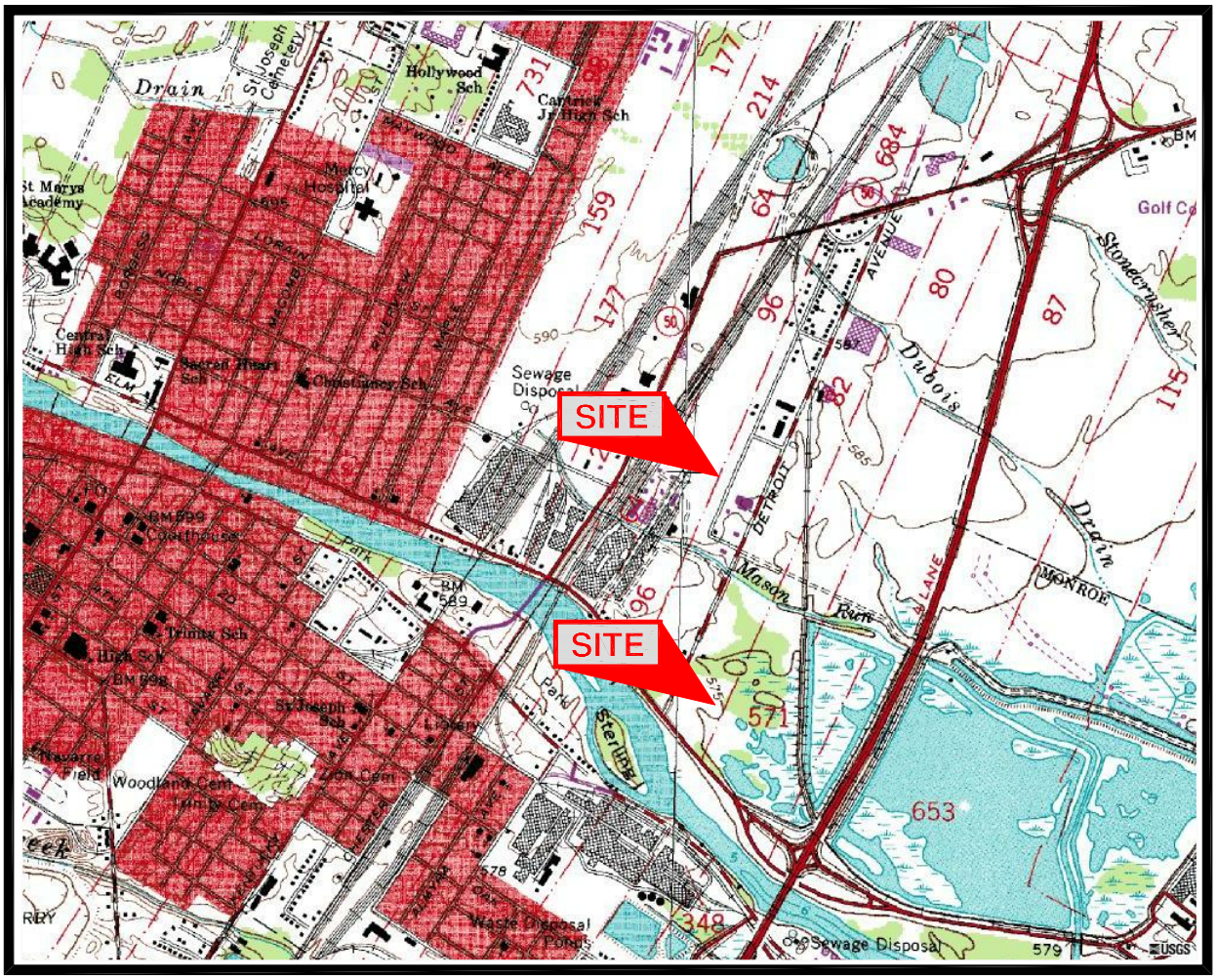
DRAWN BY: JWB
DATE: 8/2/2011

FIGURE 1

MONROE QUADRANGLE

MICHIGAN - MONROE COUNTY

7.5 MINUTE SERIES (TOPOGRAPHIC)



T.3 S. - R.10 E.

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 5 FEET
DATUM IS MEAN SEA LEVEL

MICHIGAN
QUADRANGLE LOCATION

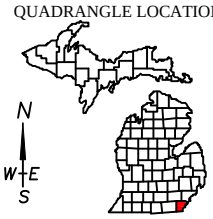


IMAGE TAKEN FROM 1967 U.S.G.S. TOPOGRAPHIC MAP
PHOTOREVISED 1973

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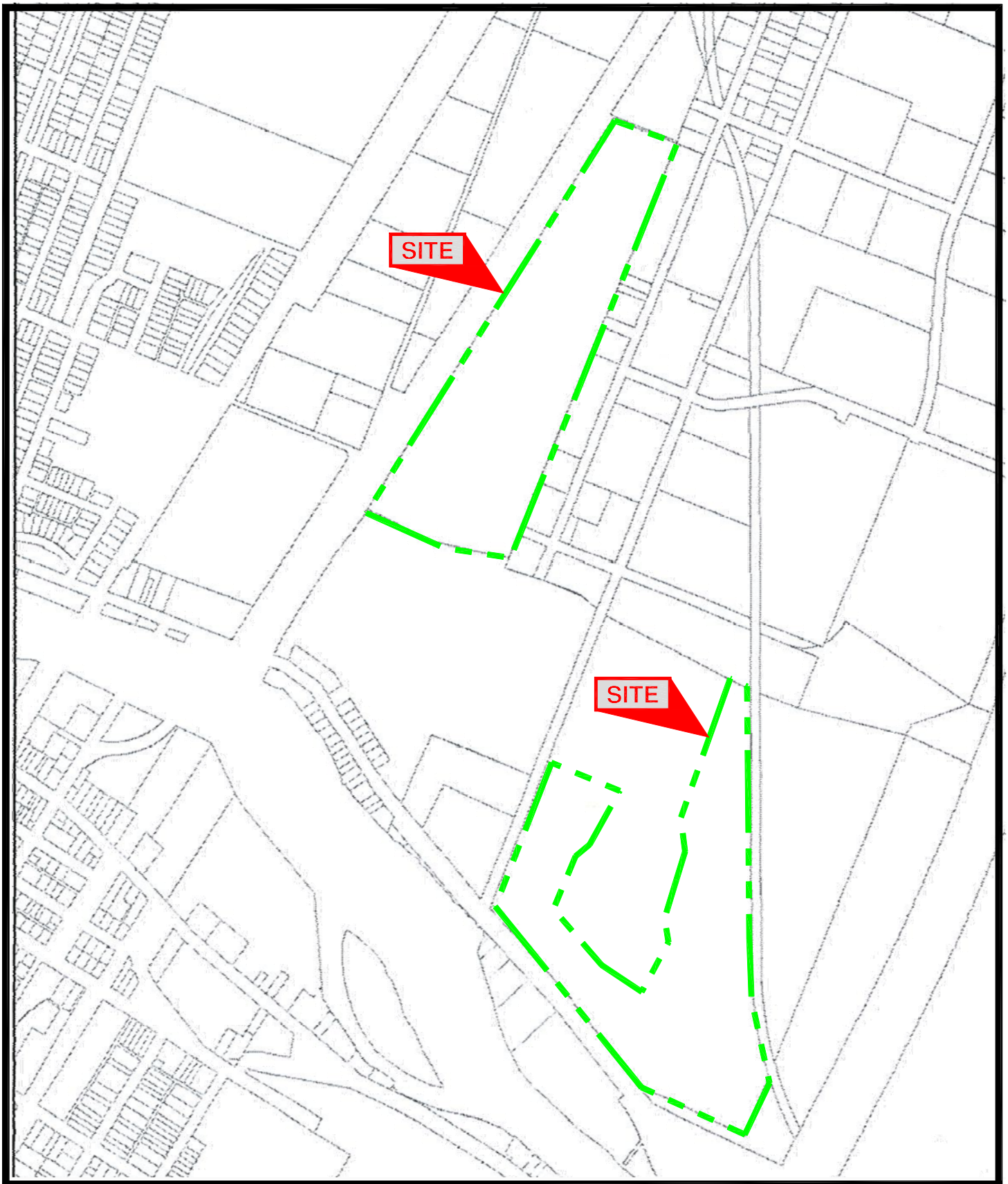
TOPOGRAPHIC LOCATION MAP

1220 EAST ELM STREET AND A PORTION OF PARCEL No. 059-01900-000
MONROE, MICHIGAN
PROJECT NUMBER : 1983F5-1-17

DRAWN BY: JWB
DATE: 8/2/2011

FIGURE 2



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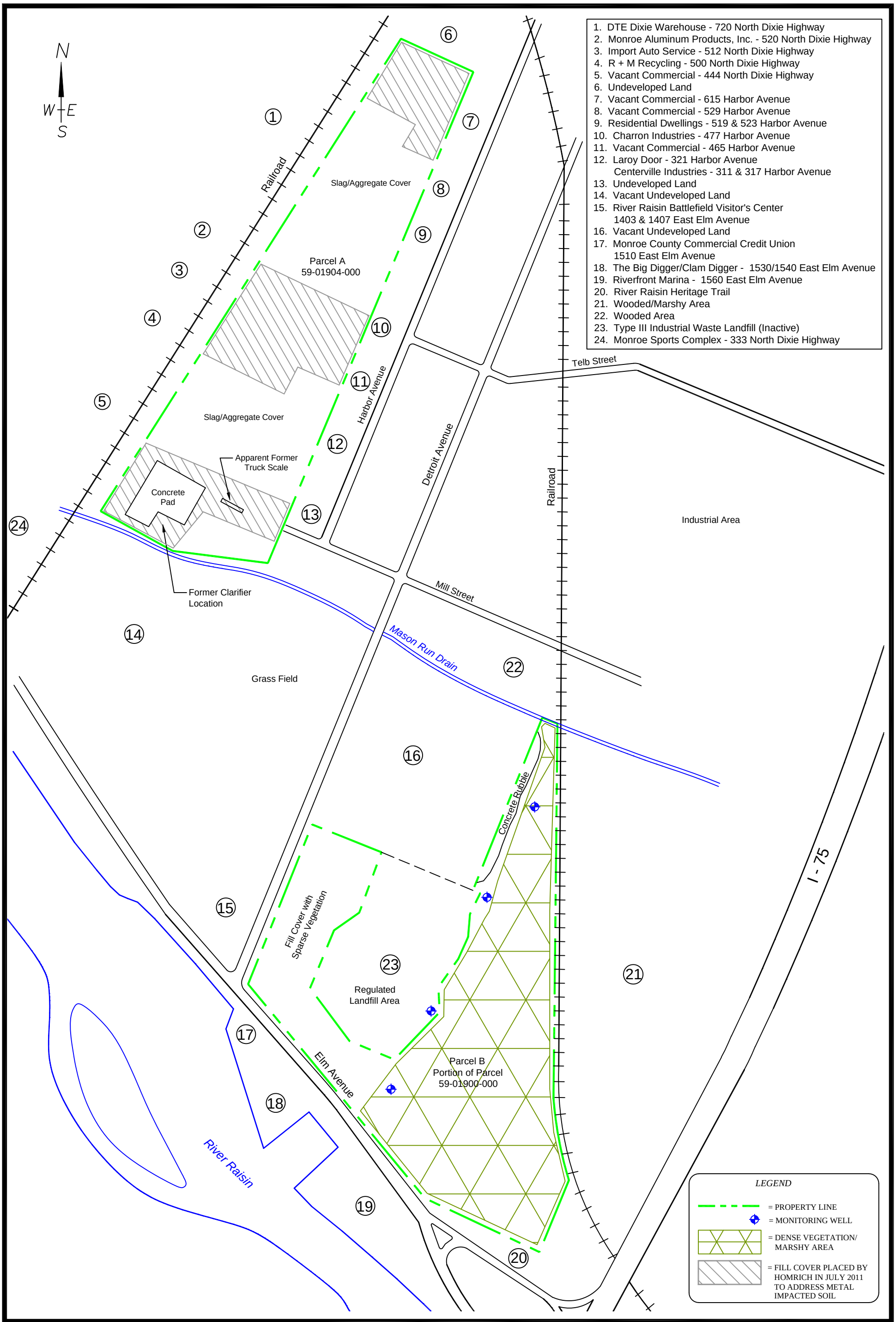
PARCEL MAP

1220 EAST ELM STREET AND A PORTION OF
PARCEL No. 059-01900-000
MONROE, MICHIGAN
PROJECT NUMBER : 1983F5-1-17

DRAWN BY: JWB
DATE: 8/2/2011

FIGURE 3



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SUBJECT PROPERTY MAP

1220 EAST ELM STREET AND A PORTION OF
PARCEL No. 059-01900-000
MONROE, MICHIGAN
PROJECT NUMBER : 1983F5-1-17

DRAWN BY: JWB
DATE: 8/2/2011

0 200 400
SCALE: 1" = 400'±0

FIGURE 4

AKTPEERLESS
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APPENDIX A

GENERAL LIMITATIONS AND EXCEPTIONS

General Limitations and Exceptions

Subject to the proposal, scope-of-services, and the related terms and conditions referenced in Section 1.0 of this Phase I ESA, AKT Peerless accepts responsibility for the competent performance of its duties in executing the assignment and preparing reports in accordance with the normal standards of the profession, but disclaims any responsibility for consequential damages.

Although AKT Peerless believes that the findings, opinions, and recommendations contained herein are reliable and appropriate, AKT Peerless cannot warrant or guarantee that the information provided is exhaustive, or that the information obtained from any data sources is complete or accurate.

Along with the inherent limitations set forth in various sections of ASTM Standard Practice E 1527-05, the accuracy and completeness of this report may be limited by the following facts or conditions:

- Due to the poor scale of the historical aerial photographs, the presence or absence of small features (e.g., individual drums, fuel dispensers) could not be discerned reliably.
- AKT Peerless made reasonable efforts to determine if USTs or related equipment (collectively referred to as UST systems) are or have been present at the subject property. AKT Peerless defines reasonable efforts as obtaining and evaluating information from visual observations of unobstructed areas and from the secondary sources cited in this report. AKT Peerless recognizes, and suggests users of this assessment acknowledge, that the accuracy of our conclusions relative to the on-site presence or use of UST systems may be directly affected by the presence of physical obstructions at the time of the reconnaissance, or affected by our receipt and evaluation of incorrect information.
- AKT Peerless' evaluation of soil and groundwater features at and near the subject property was based only on published maps and other readily available information. AKT Peerless used this information to assess soil types and groundwater flow directions to determine if conditions at any nearby sites present an environmental threat to the subject property.
- Unless specifically noted otherwise, invasive investigation of any kind has not been performed during this Phase I ESA, nor has observation under floors, above ceilings, behind walls, within the surface and subsurface soil, within groundwater, within confined spaces, roof tops, or inaccessible areas been performed.
- AKT Peerless did not conduct sampling or analysis of air, soil, groundwater, surface water, or building materials as part of this Phase I ESA, unless specifically noted otherwise.
- This Phase I ESA did not include a physical inspection of the adjoining properties, which AKT Peerless observed from the subject property and from readily accessible public rights-of-way.
- AKT Peerless typically does not review historical or environmental information about nearby sites in detail unless known activities or events at a nearby site appear to present an environmental threat to the subject property.
- AKT Peerless' scope of services did not include conducting a review of property title

documentation. AKT Peerless requested property title documentation and environmental cleanup liens from the Client, but was not provided this information, unless specifically noted otherwise. However, as described in this report, AKT Peerless made reasonable attempts to determine if the State Environmental Agency maintains documentation regarding environmental liens recorded against the subject property.

- This assessment did not include a review or audit of operational environmental compliance issues, or of any environmental management systems, that may be associated with the subject property.
- This Phase I ESA did not include any investigation or evaluation of issues not specifically related to petroleum products or hazardous substances as defined in CERCLA (i.e., other areas of potential business environmental risk such as radon, lead in drinking water, etc.).
- The information and opinions contained in the report are given in light of this assignment. The report must be reviewed and relied upon only in conjunction with the terms and conditions expressly agreed-upon by the parties and as limited therein.
- Although AKT Peerless believes the results contained in herein are reliable, AKT Peerless cannot warrant or guarantee that the information provided is exhaustive, or that the information provided by the Client, third parties, or the secondary information sources cited in this report is complete or accurate.
- AKT Peerless is not in a position to provide an opinion regarding the Fair Market Value of the subject property. Therefore, a comparison of the purchase price of the subject property to other similar real estate transactions was not conducted during this assessment.
- Nothing in this report constitutes a legal opinion or legal advice. For information regarding individual or organizational liability, AKT Peerless recommends consultation with independent legal counsel.
- AKT Peerless relied upon specific or common knowledge of the Client, or information provided to the Client, to identify environmental liens, institutional controls, activity use limitations, or property valuation issues. As possible within the time frame and cost of this project, AKT Peerless looked for any obvious environmental information regarding these issues made readily available during the course of this ESA.
- The information and opinions presented in this report are for the exclusive use of the Client. No distribution to or reliance by other parties may occur without the express written permission of AKT Peerless. AKT Peerless will not distribute this report without written consent from the Client, or as required by law or by a Court order.
- Any third parties to whom the right to rely on the contents of this report have been granted by AKT Peerless, which is explicitly required prior to any third-party release, expressly agrees to be bound by the original terms and conditions entered into by AKT Peerless and the Client.

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APPENDIX B

LEGAL DESCRIPTION

General Property Information

[Back to Non-Printer Friendly Version] [Send To Printer]

Parcel: 59-01904-000 **Unit:** CITY OF MONROE

If you are accessing this page without having logged in with a username and password, did you know there was more information available?

Property Address [collapse]

1220 E ELM AVE V
MONROE, 48162

Owner Information [collapse]

HOMRICH INC
200 MATLIN RD
CARLETON, MI 48117

Unit: 55

Taxpayer Information [collapse]

HOMRICH INC
200 MATLIN RD
CARLETON, MI 48117

General Information for Tax Year 2010 [expand]

Land Information [collapse]

	Frontage		Depth
Lot 1:	0.00 Ft.		0.00 Ft.
Lot 2:	0.00 Ft.		0.00 Ft.
Lot 3:	0.00 Ft.		0.00 Ft.
Total Frontage:	0.00 Ft.	**Average Depth:**	0.00 Ft.

Total Acreage:	32.56		
Zoning Code:	I-1		
Land Value:	$297,860	**Mortgage Code:**	
Land Improvements:	$0	**Lot Dimensions/Comments:**	N/A
Renaissance Zone:	NO		
Renaissance Zone Expiration Date:			

Legal Information for 59-01904-000 [collapse]

COMM AT NE CORNER OF ELM AVE; TH N 21D 24M 00S E 84.34 FT; TH N 31D 54M 38S E 567.33; TH CURVE TO THE RT, CENTRAL ANGEL 10D 43M 01S, RADIUS 572.96 FT AN ARC LENGTH OF 107.17 FT AND A CHORD BEARING 37D 16M 09S E 107.01 FT; TH ON A CURVE TO THE LT, CENTRAL ANGEL OF 7D 33M 00S A RADIUS DISTANCE OF 572.96 FT, AN ARC LENGTH OF 75.50 FT AND A CHORD BEARING A DISTANCE OF N 38D 51M 09S E 75.45 FT, CONTINUING ON SD CURVE TO THE LEFT A CENTRAL ANGEL OF 03D 09M 58S A RADIUS DISTANCE OF 572.96 FT, AN ARC LENGTH OF 31.66 FT AND A CHORD BEARING N 33D 29M 38S E 31.66 FT, TH N 31D 54M 38S E 67.75 FT TO THE POB: TH N 31D 54M 38S E 2482.37 FT; TH S 68D 17M 54S E 358.63 FT; TH S 21D 42M 06S W 2399.16 FT; TH N 78D 44M 50S W 438.81FT; TH N 62D 44M 50S W 368.79 FT TO THE POB. 32.561 ACRES MORE OR LESS.

G. B. WARNKE & ASSOCIATES, INC.

Professional Land Surveyors · Michigan & Ohio
Established in 1972

Boundary Surveys
Topographic Surveys
Mortgage Locations

727 West Temperance Road
Temperance, MI 48182-1600

(734) 847-7567
Fax (734) 847-1867

PARCEL "A" Parcel with Frontage on Detroit & Elm Ave.

Situated in the City of Monroe, Monroe County, Michigan. Part of Private Claims 82 and 571 described as:

Commencing at a 3/4 inch capped (No.19474) iron pipe at the intersection of the northerly right-of-way line of Elm Avenue with the westerly right-of-way line of Detroit Avenue, thence along the northerly right-of-way line of Elm Avenue, South 39°12'53" East 66.69 feet to the easterly right-of-way line of said Detroit Avenue for the point of beginning;

thence along said easterly right-of-way line, North 24°54'07" East 790.00 feet;
thence South 65°05'53" East 333.30 feet;
thence South 25°09'35" West 409.94 feet;
thence North 65°05'53" West 58.55 feet;
thence South 24°45'29" West 268.10 feet;
thence South 33°35'34" East 296.46 feet;
thence South 64°28'01" East 230.33 feet;
thence North 50°10'00" East 154.97 feet;
thence North 41°47'05" East 146.36 feet;
thence North 00°45'50" East 113.51 feet;
thence North 36°51'15" East 130.00 feet;
thence North 29°26'22" East 143.05 feet;
thence North 07°45'30" East 90.00 feet;
thence North 25°47'34" East 95.94 feet;
thence North 65°05'53" West 32.08 feet;
thence North 24°54'07" East 828.77 feet to the approximate centerline of Mason Run;

thence along said approximate centerline, South 64°23'46" East 65.14 feet to the westerly right-of-way line of railroad spur;

thence along said right-of-way line the following two (2) courses: (1) South 02°54'41" West 1493.10 feet to a point of curvature, and (2) along said curve to the left, having a central angle of 17°03'46", a radius of 1934.86 feet,
an arc distance of 576.20 feet, and a chord bearing and distance of South 05°37'12" East 574.08 feet to the easterly line of Private Claim 571;

thence along said easterly line, South 24°54'01" West 343.18 feet to the northerly line of parcel described in deed recorded in Liber 484, Page 563, Monroe County Records;

thence along said northerly line, North 62°25'03" West 624.37 feet to the northerly right-of-way line of Elm Avenue;

thence along said northerly right-of-way line, the following two (2) courses: (1) North 35°30'53" West 628.81 feet and (2) North 39°12'53" West 606.08 feet to the point of beginning. Contains 34.196 acres, more or less. Subject to all highways, easements, and restrictions of record.

Note: This description is based on past surveys and deeds in the area. No boundary survey has been performed, nor were irons set as of 6-22-2011.

Job No.01-0182-4
For: Homrich Inc.
Date: 6-22-2011
By: KW Ck: SAW
Sheet 1 of 3

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APPENDIX C

RECONNAISSANCE PHOTOGRAPHS

PHOTOGRAPH NO. 1: SUBJECT PROPERTY
CONCRETE PAD IN THE SOUTHERN PORTION OF PARCEL A, FACING NORTHEAST

PHOTOGRAPH NO. 2: SUBJECT PROPERTY
NORTHERN PORTION OF PARCEL A, FACING NORTHEAST

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RECONNAISSANCE PHOTOGRAPHS

1220 EAST ELM AVENUE AND A PORTION
OF PARCEL NO. 059-01900-000
MONROE, MICHIGAN

TAKEN BY: J. PANEK
DATE: 06/28/11

PROJECT NUMBER:
1983F5-1-17

PHOTOGRAPH NO. 3: SUBJECT PROPERTY
MASON RUN DRAIN ALONG THE SOUTHERN BORDER OF PARCEL A, FACING WEST

PHOTOGRAPH NO. 4: SUBJECT PROPERTY
AGGREGATE/SLAG THROUGHOUT PARCEL A, FACING NORTH

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RECONNAISSANCE PHOTOGRAPHS

1220 EAST ELM AVENUE AND A PORTION
OF PARCEL NO. 059-01900-000
MONROE, MICHIGAN

TAKEN BY: J. PANEK
DATE: 06/28/11

PROJECT NUMBER:
1983F5-1-17

PHOTOGRAPH NO. 5: SUBJECT PROPERTY
SOUTHERN PORTION OF PARCEL B, FACING SOUTH

PHOTOGRAPH NO. 6: SUBJECT PROPERTY
WESTERN PORTION OF PARCEL B, FACING SOUTHWEST

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RECONNAISSANCE PHOTOGRAPHS

1220 EAST ELM AVENUE AND A PORTION
OF PARCEL NO. 059-01900-000
MONROE, MICHIGAN

TAKEN BY: J. PANEK
DATE: 06/28/11

PROJECT NUMBER:
1983F5-1-17

PHOTOGRAPH NO. 7: SUBJECT PROPERTY
NORTHERN PORTION OF PARCEL B, FACING SOUTH

PHOTOGRAPH NO. 8: SUBJECT PROPERTY
EASTERN PORTION OF PARCEL B, FACING NORTHWEST

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RECONNAISSANCE PHOTOGRAPHS

1220 EAST ELM AVENUE AND A PORTION
OF PARCEL NO. 059-01900-000
MONROE, MICHIGAN

TAKEN BY: J. PANEK
DATE: 06/28/11

PROJECT NUMBER:
1983F5-1-17

PHOTOGRAPH NO. 9: SUBJECT PROPERTY
VIEW OF A CONTROL LINE/GRADE STAKE LOCATED THROUGHOUT PARCEL B

PHOTOGRAPH NO. 10: SUBJECT PROPERTY
VIEW OF ANOTHER CONTROL LINE/GRADE STAKE LOCATED THROUGHOUT PARCEL B

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RECONNAISSANCE PHOTOGRAPHS

1220 EAST ELM AVENUE AND A PORTION
OF PARCEL NO. 059-01900-000
MONROE, MICHIGAN

TAKEN BY: J. PANEK
DATE: 06/28/11

PROJECT NUMBER:
1983F5-1-17

PHOTOGRAPH NO. 11: SUBJECT PROPERTY
MONITORING WELL LOCATED ON THE SOUTHERN PORTION OF PARCEL B

PHOTOGRAPH NO. 12 SUBJECT PROPERTY
CONCRETE RUBBLE IN THE NORTHERN PORTION OF PARCEL B

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RECONNAISSANCE PHOTOGRAPHS

1220 EAST ELM AVENUE AND A PORTION
OF PARCEL NO. 059-01900-000
MONROE, MICHIGAN

TAKEN BY: J. PANEK
DATE: 06/28/11

PROJECT NUMBER:
1983F5-1-17

PHOTOGRAPH NO. 13: ADJOINING PROPERTY
SOUTHERN PORTION OF THE LANDFILL AREA TO THE NORTH OF PARCEL B

PHOTOGRAPH NO. 14: ADJOINING PROPERTY
RAILROAD EASEMENT AND UNIMPROVED LAND ADJOINING PARCEL B TO THE EAST

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RECONNAISSANCE PHOTOGRAPHS

1220 EAST ELM AVENUE AND A PORTION
OF PARCEL NO. 059-01900-000
MONROE, MICHIGAN

TAKEN BY: J. PANEK
DATE: 06/28/11

PROJECT NUMBER:
1983F5-1-17

PHOTOGRAPH NO. 15: ADJOINING PROPERTY
UNIMPROVED LAND ADJOINING PARCEL B TO THE NORTH

PHOTOGRAPH NO. 16: ADJOINING PROPERTY
VIEW OF THE RIVER RAISIN BATTLEFIELD VISITOR'S CENTER ADJOINING PARCEL B TO THE WEST, BEYOND DETROIT AVENUE

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RECONNAISSANCE PHOTOGRAPHS

1220 EAST ELM AVENUE AND A PORTION
OF PARCEL NO. 059-01900-000
MONROE, MICHIGAN

TAKEN BY: J. PANEK
DATE: 06/28/11

PROJECT NUMBER:
1983F5-1-17

PHOTOGRAPH NO. 17: ADJOINING PROPERTY
VIEW OF THE CLAMDIGGER AND THE BIGGER DIGGER ADJOINING PARCEL B TO THE SOUTH, BEYOND EAST ELM AVENUE

PHOTOGRAPH NO. 18: ADJOINING PROPERTY
VIEW OF THE RIVERFRONT MARINA ADJOINING PARCEL B TO THE SOUTH, BEYOND EAST ELM AVENUE

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RECONNAISSANCE PHOTOGRAPHS

1220 EAST ELM AVENUE AND A PORTION
OF PARCEL NO. 059-01900-000
MONROE, MICHIGAN

TAKEN BY: J. PANEK
DATE: 06/28/11

PROJECT NUMBER:
1983F5-1-17

PHOTOGRAPH NO. 19: ADJOINING PROPERTY
VIEW OF UNIMPROVED/WOODED LAND ADJOINING PARCEL A TO THE NORTH

PHOTOGRAPH NO. 20: ADJOINING PROPERTY
VIEW OF LAROY DOOR AND CENTERLINE INDUSTRIES ADJOINING PARCEL A TO THE EAST

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RECONNAISSANCE PHOTOGRAPHS

1220 EAST ELM AVENUE AND A PORTION
OF PARCEL NO. 059-01900-000
MONROE, MICHIGAN

TAKEN BY: J. PANEK
DATE: 06/28/11

PROJECT NUMBER:
1983F5-1-17

PHOTOGRAPH NO. 21: ADJOINING PROPERTY
VIEW OF VACANT COMMERCIAL/LIGHT INDUSTRIAL PROPERTIES ALONG HARBOR AVENUE ADJOINING PARCEL A TO THE EAST

PHOTOGRAPH NO. 22: ADJOINING PROPERTY
VIEW OF UNIMPROVED LAND ADJOINING PARCEL A TO THE SOUTH

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RECONNAISSANCE PHOTOGRAPHS

1220 EAST ELM AVENUE AND A PORTION
OF PARCEL NO. 059-01900-000
MONROE, MICHIGAN

TAKEN BY: J. PANEK
DATE: 06/28/11

PROJECT NUMBER:
1983F5-1-17

PHOTOGRAPH NO. 23: ADJOINING PROPERTY
VIEW OF A RAILROAD EASEMENT FOLLOWED BY COMMERCIAL DEVELOPMENT ADJOINING PARCEL A TO THE WEST

PHOTOGRAPH NO. 24: ADJOINING PROPERTY
VIEW OF R&M RECYCLING ADJOINING PARCEL A TO THE WEST

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RECONNAISSANCE PHOTOGRAPHS

1220 EAST ELM AVENUE AND A PORTION
OF PARCEL NO. 059-01900-000
MONROE, MICHIGAN

TAKEN BY: J. PANEK
DATE: 06/28/11

PROJECT NUMBER:
1983F5-1-17

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APPENDIX D

STANDARD ENVIRONMENTAL RECORD DATABASE REPORT

Battlefield Property
1220 East Elm
Monroe, MI 48162

Inquiry Number: 3084125.2s
June 01, 2011

The EDR Radius Map™ Report with GeoCheck®

Prepared using the EDR FieldCheck® System

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

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Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	7
Orphan Summary	154
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
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Physical Setting SSURGO Soil Map	A-5
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Physical Setting Source Records Searched	A-41

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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EXECUTIVE SUMMARY

A search of the environmental records was conducted by Environmental Data Resources, Inc. (EDR). AKT ENVIRONMENTAL CONSULTANTS used the EDR FieldCheck System to review and/or revise the results of this search, based on independent data verification by AKT ENVIRONMENTAL CONSULTANTS. The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1220 EAST ELM
MONROE, MI 48162

COORDINATES

Latitude (North):	41.913500 - 41˚ 54' 48.6''
Longitude (West):	83.373100 - 83˚ 22' 23.2''
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	303188.0
UTM Y (Meters):	4642682.5
Elevation:	579 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	41083-H4 MONROE, MI
Most Recent Revision:	1979
East Map:	41083-H3 STONY POINT, MI
Most Recent Revision:	1978

AERIAL PHOTOGRAPHY IN THIS REPORT

Photo Year:	No Photo Available
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No sites were identified in following databases.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL---------- National Priority List

EXECUTIVE SUMMARY

Proposed NPL ..... Proposed National Priority List Sites
NPL LIENS ..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ..... Federal Facility Site Information listing

Federal RCRA generators list

RCRA-LQG ..... RCRA - Large Quantity Generators
RCRA-SQG ..... RCRA - Small Quantity Generators

Federal institutional controls / engineering controls registries

US ENG CONTROLS ..... Engineering Controls Sites List
US INST CONTROL ..... Sites with Institutional Controls

Federal ERNS list

ERNS ..... Emergency Response Notification System

State and tribal leaking storage tank lists

INDIAN LUST ..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

INDIAN UST ..... Underground Storage Tanks on Indian Land
FEMA UST ..... Underground Storage Tank Listing

State and tribal institutional control / engineering control registries

AUL ..... Engineering and Institutional Controls

State and tribal voluntary cleanup sites

INDIAN VCP ..... Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

ODI ..... Open Dump Inventory
DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
SWRCY ..... Recycling Facilities
HIST LF ..... Inactive Solid Waste Facilities
INDIAN ODI ..... Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL ..... Clandestine Drug Labs

CDL	Clandestine Drug Lab Listing
US HIST CDL	National Clandestine Laboratory Register

Local Land Records

LIENS 2	CERCLA Lien Information
LUCIS	Land Use Control Information System
LIENS	Lien List

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
SPILLS	Pollution Emergency Alerting System

Other Ascertainable Records

DOT OPS	Incident and Accident Data
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
FINDS	Facility Index System/Facility Registry System
RAATS	RCRA Administrative Action Tracking System
UIC	Underground Injection Wells Database
WDS	Waste Data System
DRYCLEANERS	Drycleaning Establishments
NPDES	List of Active NPDES Permits
AIRS	Permit and Emissions Inventory Data
INDIAN RESERV	Indian Reservations
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
FINANCIAL ASSURANCE	Financial Assurance Information Listing
COAL ASH DOE	Sleam-Electric Plan Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
COAL ASH	Coal Ash Disposal Sites

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants	EDR Proprietary Manufactured Gas Plants

EXECUTIVE SUMMARY

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal CERCLIS list

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

An online review and analysis by AKT ENVIRONMENTAL CONSULTANTS of the CERCLIS list, as provided by EDR, and dated 02/25/2011 has revealed that there is 1 CERCLIS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CONSOLIDATED PACKAGING CORP	***1521 E. FIRST STREET***	***SW 1/4 - 1/2 (0.285 mi.)***	***H44***	***56***

Federal CERCLIS NFRAP site List

CERC-NFRAP: Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

An online review and analysis by AKT ENVIRONMENTAL CONSULTANTS of the CERC-NFRAP list, as provided by EDR, and dated 02/25/2011 has revealed that there is 1 CERC-NFRAP site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MONROE CASTING PLANT	917 FRONT STREET	SW 1/4 - 1/2 (0.491 mi.)	55	80

EXECUTIVE SUMMARY

Federal RCRA CORRACTS facilities list

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

An online review and analysis by AKT ENVIRONMENTAL CONSULTANTS of the CORRACTS list, as provided by EDR, and dated 05/25/2010 has revealed that there are 3 CORRACTS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
UNION CAMP CORP	***1109 EAST ELM AVENUE***	***SSW 1/8 - 1/4 (0.158 mi.)***	***D27***	***33***
VISTEON MONROE	***3200 EAST ELM STREET***	***ESE 1/2 - 1 (0.668 mi.)***	***J57***	***81***
SALCO INDUSTRIAL SERVICE	***704 CONANT***	***SW 1/2 - 1 (0.704 mi.)***	***59***	***136***

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

An online review and analysis by AKT ENVIRONMENTAL CONSULTANTS of the RCRA-TSDF list, as provided by EDR, and dated 03/11/2011 has revealed that there is 1 RCRA-TSDF site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
UNION CAMP CORP	***1109 EAST ELM AVENUE***	***SSW 1/8 - 1/4 (0.158 mi.)***	***D27***	***33***

Federal RCRA generators list

RCRA-CESQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

An online review and analysis by AKT ENVIRONMENTAL CONSULTANTS of the RCRA-CESQG list, as provided by EDR, and dated 03/11/2011 has revealed that there are 5 RCRA-CESQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MONROE BANK & TRUST	319 HARBOR AVE	ESE 0 - 1/8 (0.068 mi.)	A13	18
RAY TOOL MANUFACTURING	***455 DETROIT AVE***	***ESE 1/8 - 1/4 (0.134 mi.)***	***18***	***22***
PORT OF MONROE	1205 E ELM ST	SSW 1/8 - 1/4 (0.158 mi.)	D25	29
ACTUATOR SPECIALTIES INC	1620 ROSE ST	E 1/8 - 1/4 (0.218 mi.)	F37	46
ADVANCED HEAT TREAT CORP	***1625 ROSE ST***	***E 1/8 - 1/4 (0.225 mi.)***	***F38***	***48***

EXECUTIVE SUMMARY

State- and tribal - equivalent CERCLIS

SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Environmental Quality's' Contaminated Sites List on Diskette With Address.

An online review and analysis by AKT ENVIRONMENTAL CONSULTANTS of the SHWS list, as provided by EDR, and dated 05/02/2011 has revealed that there are 7 SHWS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FORMER K&H TRANSPORT Facility Status: See Leaking Underground Storage Tank Site Database	515 HARBOR AVE.	ESE 0 - 1/8 (0.047 mi.)	B5	10
321 HARBOR AVE Facility Status: Evaluation conducted	319-325 HARBOR AVE.	ESE 0 - 1/8 (0.066 mi.)	A10	13
CPC-NORTHSIDE Facility Status: Interim Response in progress	921 E. ELM STREET	WSW 1/4 - 1/2 (0.335 mi.)	46	66
1250 E FIRST ST Facility Status: Evaluation conducted	1250 E FIRST ST.	WSW 1/4 - 1/2 (0.345 mi.)	47	67
1204 E THIRD ST. Facility Status: Evaluation conducted	1204 E. THIRD ST.	WSW 1/2 - 1 (0.502 mi.)	56	81
AUTOMOTIVE COMPONENTS HOLDINGS Facility Status: Contact Lead Division for current status	***3200 EAST ELM AVENUE***	***ESE 1/2 - 1 (0.668 mi.)***	***J58***	***135***

Lower Elevation	Address	Direction / Distance	Map ID	Page
CONSOLIDATED PACKAGING CORP Facility Status: Interim Response in progress	1521 E. FRONT ST.	SW 1/8 - 1/4 (0.214 mi.)	E31	43

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Department of Environmental Quality's Michigan Solid Waste Facilities.

An online review and analysis by AKT ENVIRONMENTAL CONSULTANTS of the SWF/LF list, as provided by EDR, and dated 01/05/2011 has revealed that there is 1 SWF/LF site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HOMRICH INC	***NE CORNER OF THE INTESE***	***0 - 1/8 (0.000 mi.)***	***1***	***7***

EXECUTIVE SUMMARY

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Quality's Leaking Underground Storage Tank (LUST) Database.

An online review and analysis by AKT ENVIRONMENTAL CONSULTANTS of the LUST list, as provided by EDR, and dated 02/22/2011 has revealed that there are 8 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FORMER K & H TRANSPORT Facility Status: Closed	515 HARBOR AVE	ESE 0 - 1/8 (0.055 mi.)	B8	11
JEFFERSON SMURFIT CORP Facility Status: Open Facility Status: Open	1205 EAST ELM AVENUE	SSW 1/8 - 1/4 (0.158 mi.)	D24	28
MONROE MET. WASTEWATER TREATME Facility Status: Closed	***2205 E FRONT ST***	***SSW 1/8 - 1/4 (0.237 mi.)***	***42***	***54***
B & A STANDARD SERVICE Facility Status: Closed Facility Status: Closed	***1031 E ELM AVE***	***WSW 1/4 - 1/2 (0.282 mi.)***	***43***	***55***
DETROIT STOKER COMPANY Facility Status: Closed	***1510 E FIRST ST***	***SW 1/4 - 1/2 (0.289 mi.)***	***H45***	***61***
KADIUM SAIED Facility Status: Open	1101 E FRONT ST	WNW 1/4 - 1/2 (0.443 mi.)	I51	74
PILOT TRAVEL CENTERS #024 Facility Status: Open	***1100 N DIXIE HWY***	***NE 1/4 - 1/2 (0.443 mi.)***	***52***	***75***
GENE GERMAN I Facility Status: Open	***72 WINCHESTER ST***	***W 1/4 - 1/2 (0.465 mi.)***	***53***	***77***

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Quality's Michigan UST database.

An online review and analysis by AKT ENVIRONMENTAL CONSULTANTS of the UST list, as provided by EDR, and dated 02/22/2011 has revealed that there are 7 UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FLEISCHMANNS VINEGAR	465 HARBOR AVE	ESE 0 - 1/8 (0.052 mi.)	6	10
D-X TRUCKING, INC	1107 E NOBLE AVE	WNW 1/8 - 1/4 (0.150 mi.)	20	26
UNION CAMP CORP	***1109 EAST ELM AVENUE***	***SSW 1/8 - 1/4 (0.158 mi.)***	***D27***	***33***
FLORAL CITY TREE SERVICE INC	805 N DIXIE HWY	N 1/8 - 1/4 (0.215 mi.)	32	43
MONROE MET. WASTEWATER TREATME	***2205 E FRONT ST***	***SSW 1/8 - 1/4 (0.237 mi.)***	***42***	***54***

Lower Elevation	Address	Direction / Distance	Map ID	Page
RIVERFRONT MARINA	***1560 E ELM AVE***	***SW 0 - 1/8 (0.017 mi.)***	***2***	***8***
MONROE PAPER CO	1109 E ELM AVE	SW 1/8 - 1/4 (0.231 mi.)	G41	53

AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the Department of Natural Resources' Michigan AST database.

An online review and analysis by AKT ENVIRONMENTAL CONSULTANTS of the AST list, as provided by EDR, and dated 03/21/2011 has revealed that there is 1 AST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
JEFFERSON SMURFIT CORP	***1220 E ELM AVE***	***SSW 1/8 - 1/4 (0.158 mi.)***	***D26***	***30***

State and tribal Brownfields sites

BROWNFIELDS: Brownfields and USTfield Site Database.

An online review and analysis by AKT ENVIRONMENTAL CONSULTANTS of the BROWNFIELDS list, as provided by EDR, and dated 05/05/2011 has revealed that there are 5 BROWNFIELDS sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
JEFFERSON SMURFIT CORP.	1205 E. ELM AVE.	SSW 1/8 - 1/4 (0.158 mi.)	D21	27
KADIM SAIED	***1101 E. FRONT***	***WNW 1/4 - 1/2 (0.443 mi.)***	***I50***	***74***

Lower Elevation	Address	Direction / Distance	Map ID	Page
RIVERFRONT MARINA	***1560 E ELM AVE***	***SW 0 - 1/8 (0.017 mi.)***	***2***	***8***
CONSOLIDATED PACKAGING CORP	1521 E. FRONT STREET	SW 1/8 - 1/4 (0.214 mi.)	E30	42
MICHIGAN SITE NETWORK	1521 EAST FRONT STREET	SW 1/8 - 1/4 (0.218 mi.)	E36	46

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: The EPA's listing of Brownfields properites addressed by Cooperative Agreement Recipients and Brownfields properties addressed by Targeted Brownfields Assessments

An online review and analysis by AKT ENVIRONMENTAL CONSULTANTS of the US BROWNFIELDS list, as provided by EDR, and dated 12/29/2010 has revealed that there are 4 US BROWNFIELDS sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MONROE SPORTS CENTER #1	NORTH OF EAST ELM AND W	WSW 1/8 - 1/4 (0.127 mi.)	17	21
MASON RUN DEVELOPMENT	NORTH OF EAST ELM AND W	WSW 1/4 - 1/2 (0.376 mi.)	48	67
MONROE FORMER MEXICAN STAMPING	1250 EAST FIRST STREET	WSW 1/4 - 1/2 (0.389 mi.)	49	72

Lower Elevation	Address	Direction / Distance	Map ID	Page
PORT OF MONROE SCHONSHECK	1508-1680 EAST FRONT ST	SW 1/8 - 1/4 (0.217 mi.)	E35	44

EXECUTIVE SUMMARY

Local Lists of Hazardous waste / Contaminated Sites

DEL SHWS: Sites that have been delisted or deleted from the List of Contaminated Sites.The available documentation for the site does support it's listing or the site no longer meets criteria specified in rules.

An online review and analysis by AKT ENVIRONMENTAL CONSULTANTS of the DEL SHWS list, as provided by EDR, and dated 05/05/2011 has revealed that there are 4 DEL SHWS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MONROE PAPER COMPANY	1200 E. ELM AVENUE	SW 1/8 - 1/4 (0.228 mi.)	G39	52
KADIM SAIED	***1101 E. FRONT***	***WNW 1/4 - 1/2 (0.443 mi.)***	***I50***	***74***
FORMER MONROE HOSPITAL	188-120 MAPLE BLVD.	W 1/4 - 1/2 (0.466 mi.)	54	80

Lower Elevation	Address	Direction / Distance	Map ID	Page
CPC GREEN SPACE	1530 E FRONT ST	SW 1/8 - 1/4 (0.216 mi.)	E34	44

Other Ascertainable Records

RCRA-NonGen: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

An online review and analysis by AKT ENVIRONMENTAL CONSULTANTS of the RCRA-NonGen list, as provided by EDR, and dated 03/11/2011 has revealed that there are 8 RCRA-NonGen sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTH DIXIE COLLISION	***512 N DIXIE HWY***	***WNW 0 - 1/8 (0.063 mi.)***	***C9***	***12***
PREMIER INDUSTRIES CORPORATION	513 N DIXIE HWY	WNW 0 - 1/8 (0.066 mi.)	C11	14
MONROE ELECTRIC MOTOR CO	***317 HARBOR AVE***	***ESE 0 - 1/8 (0.067 mi.)***	***A12***	***16***
MONROE AMT INC	***615 HARBOR AVE***	***ENE 1/8 - 1/4 (0.138 mi.)***	***19***	***24***
JEFFERSON SMURFIT CORP	***1220 E ELM AVE***	***SSW 1/8 - 1/4 (0.158 mi.)***	***D26***	***30***
UNION CAMP CORP	***1109 EAST ELM AVENUE***	***SSW 1/8 - 1/4 (0.158 mi.)***	***D27***	***33***
P & A INDUSTRIES INC	***523 DETROIT AVE***	***ESE 1/8 - 1/4 (0.168 mi.)***	***28***	***39***

Lower Elevation	Address	Direction / Distance	Map ID	Page
MI DEPT/TRANSPORTATION	***I 75 OVER RAISIN RIVER***	***SSW 1/8 - 1/4 (0.169 mi.)***	***29***	***41***

BEA: Baseline Environmental Assessment.

An online review and analysis by AKT ENVIRONMENTAL CONSULTANTS of the BEA list, as provided by EDR, and dated 02/25/2011 has revealed that there are 10 BEA sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
VACANT PARCEL	1407 E ELM	WNW 0 - 1/8 (0.034 mi.)	3	9
Not reported	311, 315 & 317 HARBOR A	NNE 0 - 1/8 (0.044 mi.)	A4	9

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	319 - 325 HARBOR AVE	NNE 0 - 1/8 (0.052 mi.)	A7	11
Not reported	321 HARBOR AVE	ESE 0 - 1/8 (0.069 mi.)	A14	20
K. M. PROPERTIES	444 N. DIXIE	WNW 0 - 1/8 (0.077 mi.)	15	20
Not reported	601 NORTH DIXIE	WNW 0 - 1/8 (0.090 mi.)	16	20
MONROE PAPER CO	1205 E ELM	SSW 1/8 - 1/4 (0.158 mi.)	D22	27
FORMER JEFFERSON SMURFIT PROPE	1205 EAST ELM STREET	SSW 1/8 - 1/4 (0.158 mi.)	D23	28
Not reported	1200 EAST ELM AVENUE	SW 1/8 - 1/4 (0.228 mi.)	G40	52

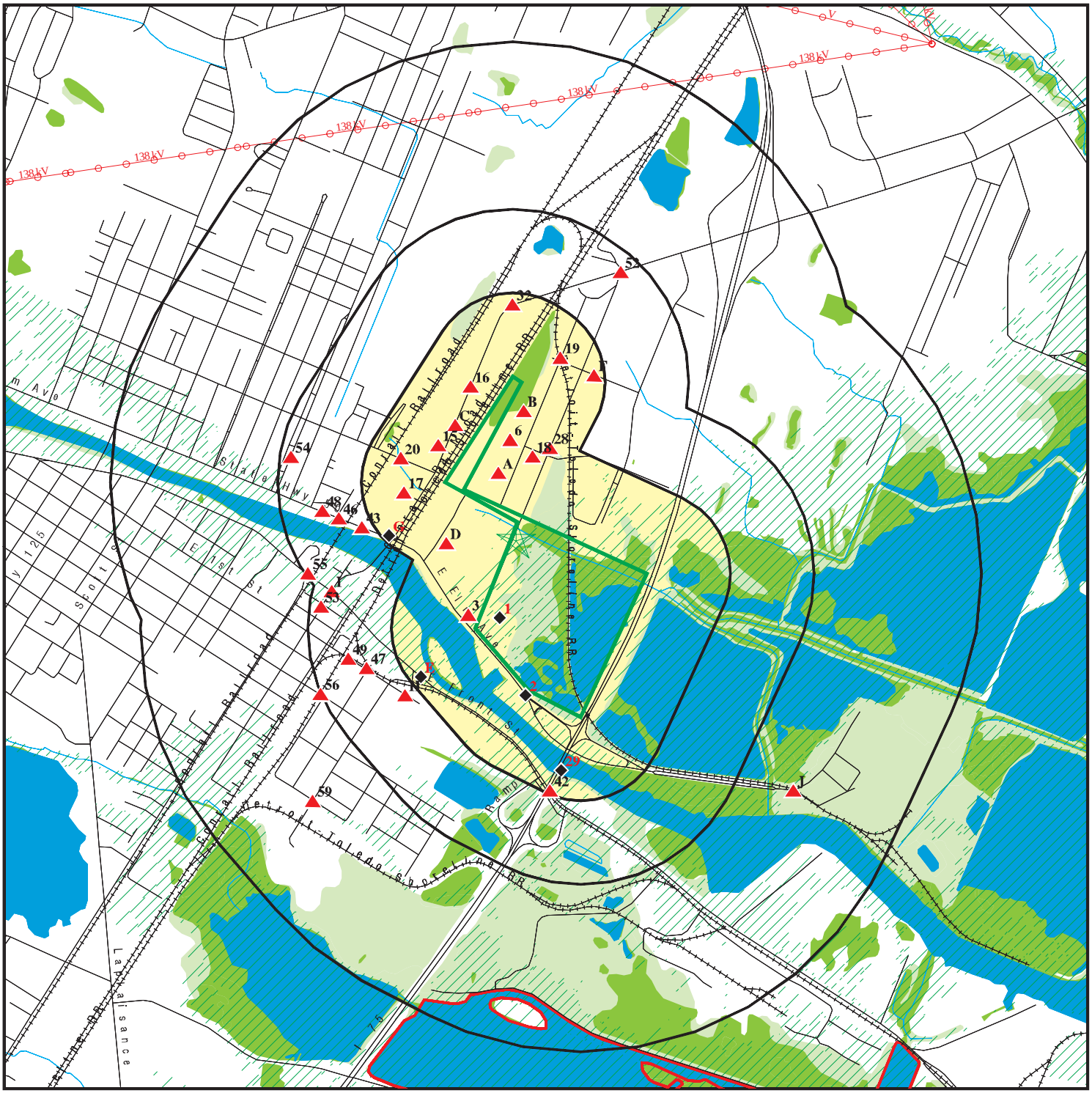
Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	1530 E FRONT ST	SW 1/8 - 1/4 (0.216 mi.)	E33	44

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 38 records

Site Name	Database(s)
WYANDOTTE ELECTRIC PLANT & WFP	COAL ASH
MONROE LF CITY OF	SHWS
DETROIT EDISON MONROE POWER PLANT	SHWS
RAISIN R CITY OF MONROE TO MOUTH	SHWS
CLARK STATION LOTS ADJ TO	SHWS
PORT OF MONROE LF	SHWS
GOULD NATIONAL BATTERY INC	SHWS
DAMICO/RIVERBEND PROJECT SITE #8	SHWS
MONROE PAPER MERCURY SPILL	CERC-NFRAP
MONROE WKS	CERC-NFRAP
MONROE CITY LDFL	CERC-NFRAP
DETROIT EDISON DREDGE	CERC-NFRAP
PORT OF MONROE LDFL	CERC-NFRAP
RURAL REFUSE INC SITE #1	HIST LF
CITY OF MONROE SLF	HIST LF
KNAB'S SERVICE	BROWNFIELDS
RAISIN R, CITY OF MONROE TO MOUTH OF	BROWNFIELDS
MARATHON UNIT #2068	LUST, UST
FORMER BP SITE #04328	UST
MI DEPT/TRANSPORTATION	RCRA-NonGen
MI DEPT/TRANSPORTATION	RCRA-NonGen, FINDS
MI DEPT/TRANSPORTATION	RCRA-NonGen
MI DEPT/TRANSPORTATION	RCRA-NonGen
MID STATES EXPRESS	RCRA-NonGen
MI DEPT/TRANSPORTATION BRIDGE	RCRA-NonGen, FINDS
MI DEPT/TRANSPORTATION	RCRA-NonGen
MI DEPT/TRANSPORTATION	RCRA-NonGen
MI DEPT/TRANSPORTATION	RCRA-NonGen, FINDS
MI DEPT/TRANSPORTATION	RCRA-NonGen, FINDS
MI DEPT/TRANSPORTATION	RCRA-NonGen, FINDS
NORFOLK SOUTHERN	RCRA-NonGen
RII STATE TRUCKING	RCRA-NonGen
MI DEPT/TRANSPORTATION	RCRA-CESQG
MI DEPT/TRANSPORTATION	RCRA-CESQG
WAYNES BODY SHOP	RCRA-CESQG, FINDS
CITY OF MONROE	RCRA-CESQG, FINDS
MI DEPT/TRANSPORTATION	RCRA-CESQG
MONROE EAST FRONT STREET VACANT PARCEL	US BROWNFIELDS

OVERVIEW MAP - 3084125.2s



0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Battlefield Property	CLIENT: AKT Environmental Consultants
ADDRESS: 1220 East Elm Monroe MI 48162	CONTACT: Jessica Cory
LAT/LONG: 41.9135 / 83.3731	INQUIRY #: 3084125.2s
	DATE: June 01, 2011 4:00 pm

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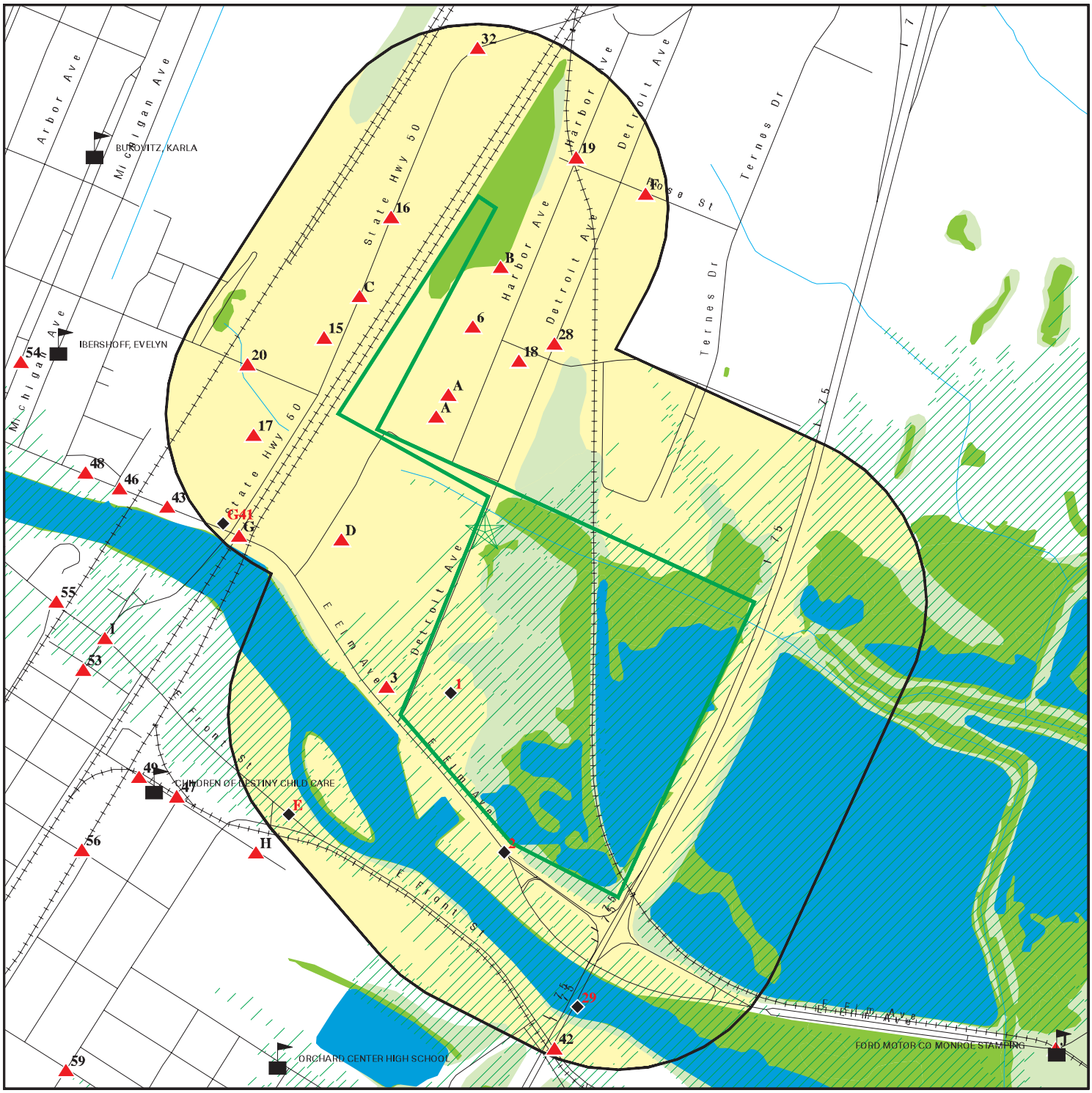
DETAIL MAP - 3084125.2s



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/8 1/4 1/2 Miles

Indian Reservations BIA

Oil & Gas pipelines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Battlefield Property	CLIENT: AKT Environmental Consultants
ADDRESS: 1220 East Elm Monroe MI 48162	CONTACT: Jessica Cory INQUIRY #: 3084125.2s
LAT/LONG: 41.9135 / 83.3731	DATE: June 01, 2011 4:00 pm

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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
NPL LIENS		TP	NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL		1.000	0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS		0.500	0	0	1	NR	NR	1
FEDERAL FACILITY		1.000	0	0	0	0	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP		0.500	0	0	1	NR	NR	1
Federal RCRA CORRACTS facilities list								
CORRACTS		1.000	0	1	0	2	NR	3
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF		0.500	0	1	0	NR	NR	1
Federal RCRA generators list								
RCRA-LQG		0.250	0	0	NR	NR	NR	0
RCRA-SQG		0.250	0	0	NR	NR	NR	0
RCRA-CESQG		0.250	1	4	NR	NR	NR	5
Federal institutional controls / engineering controls registries								
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
Federal ERNS list								
ERNS		TP	NR	NR	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
SHWS		1.000	2	1	2	2	NR	7
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF		0.500	1	0	0	NR	NR	1
State and tribal leaking storage tank lists								
LUST		0.500	1	2	5	NR	NR	8
INDIAN LUST		0.500	0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST		0.250	2	5	NR	NR	NR	7

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
AST		0.250	0	1	NR	NR	NR	1
INDIAN UST		0.250	0	0	NR	NR	NR	0
FEMA UST		0.250	0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
AUL		0.500	0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP		0.500	0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS		0.500	1	3	1	NR	NR	5
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS		0.500	0	2	2	NR	NR	4
Local Lists of Landfill / Solid Waste Disposal Sites								
ODI		0.500	0	0	0	NR	NR	0
DEBRIS REGION 9		0.500	0	0	0	NR	NR	0
SWRCY		0.500	0	0	0	NR	NR	0
HIST LF		0.500	0	0	0	NR	NR	0
INDIAN ODI		0.500	0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL		TP	NR	NR	NR	NR	NR	0
DEL SHWS		1.000	0	2	2	0	NR	4
CDL		TP	NR	NR	NR	NR	NR	0
US HIST CDL		TP	NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2		TP	NR	NR	NR	NR	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
LIENS		TP	NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS		TP	NR	NR	NR	NR	NR	0
SPILLS		TP	NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA-NonGen		0.250	3	5	NR	NR	NR	8
DOT OPS		TP	NR	NR	NR	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UMTRA		0.500	0	0	0	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
UIC		TP	NR	NR	NR	NR	NR	0
WDS		TP	NR	NR	NR	NR	NR	0
DRYCLEANERS		0.250	0	0	NR	NR	NR	0
NPDES		TP	NR	NR	NR	NR	NR	0
AIRS		TP	NR	NR	NR	NR	NR	0
BEA		0.500	6	4	0	NR	NR	10
INDIAN RESERV		1.000	0	0	0	0	NR	0
SCRD DRYCLEANERS		0.500	0	0	0	NR	NR	0
FINANCIAL ASSURANCE		TP	NR	NR	NR	NR	NR	0
COAL ASH DOE		TP	NR	NR	NR	NR	NR	0
COAL ASH EPA		0.500	0	0	0	NR	NR	0
PCB TRANSFORMER		TP	NR	NR	NR	NR	NR	0
COAL ASH		0.500	0	0	0	NR	NR	0
EDR PROPRIETARY RECORDS								
EDR Proprietary Records								
Manufactured Gas Plants		1.000	0	0	0	0	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1 **HOMRICH INC** **SWF/LF** **S109416860**
NE CORNER OF THE INTESECTION OF DETROIT & E. ELM AVENUES **FINANCIAL ASSURANCE** **N/A**
< 1/8 **MONROE, MI**
1 ft.

Relative:
Lower

Actual:
577 ft.

SWF/LF:

Facility ID:	390821
Specific Name:	HOMRICH INC
Mailing Address:	200 MATLIN RD
Mailing City:	CARLETON
Mailing State:	MI
Contact Info:	(none listed)
Operating Co.:	Not reported
Operator Contact:	(none listed)
Disposal Status:	Type III Industrial Waste Landfill
Disposal Type:	Active - Closing

FINANCIAL ASSURANCE 2:

Region:	2
Site ID:	390821
PCFT Type:	Trust Fund
Contact Info:	JACKSON
Account Number:	Not reported
Date Signed by Facility:	6/24/1998
Date Executed by DEQ:	12/11/1998
Current Balance:	7332.65
Current Balance Date:	9/30/2010
PCFT Status Type:	Not Released
Specific Name:	HOMRICH INC
Project Number:	Not reported
Original Balance Date:	Not reported
Original Balance:	Not reported
Regulatory Program:	Trust Fund
Notes:	12/12/2008 - Formerly Jefferson Smurfit

Region:	2
Site ID:	390821
PCFT Type:	Not reported
Contact Info:	JACKSON
Account Number:	Not reported
Date Signed by Facility:	Not reported
Date Executed by DEQ:	Not reported
Current Balance:	428400
Current Balance Date:	3/20/2006
PCFT Status Type:	Active
Specific Name:	HOMRICH INC
Project Number:	Not reported
Original Balance Date:	3/20/2006
Original Balance:	428400
Regulatory Program:	Letter of Credit
Notes:	12/12/2008 - Formerly Jefferson Smurfit listed under WDS #470385

2 SW < 1/8 0.017 mi. 88 ft. | **RIVERFRONT MARINA**
1560 E ELM AVE
MONROE, MI 48161 | **UST**
BROWNFIELDS | **U000260693**
N/A

Relative: Lower

Actual: 575 ft.

UST:

Facility ID:	00018473
Facility Type:	ACTIVE
Latitude:	41.9071180000
Longitude:	-83.3735870000
Owner Name:	Riverfront Marina/William Gross
Owner Address:	1560 E Elm Ave PO Box 1927
Owner City,St,Zip:	Monroe, MI 48161-6927
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(734) 242-0737
Contact:	William J Gross
Contact Phone:	(734) 242-0737
Date of Collection:	21-10-2002
Accuracy:	40
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	GPS Code Meas. Standard Positioning Service SA Off

Tank ID:	1
Tank Status:	**Currently In Use**
Capacity:	8000
Install Date:	May 7 1983
Product:	Gasoline
Remove Date:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Pipe Realease Detection:	Not reported
Piping Material:	Secondary Containment
Piping Type:	Suction: No Valve At Tank
Constr Material:	Fiberglass Reinforced plastic
Impressed Device:	No

BROWNFIELD:

Facility ID:	00018473
Region:	1
Status:	Closed LP
Properry Use:	Not reported
Use at Time of Listing:	Not reported
BEA:	Not reported
Ernie Id Number:	58000200
Redevelop Status:	Not reported

3
WNW
< 1/8
0.034 mi.
181 ft.

VACANT PARCEL
1407 E ELM
MONROE CITY, MI 48162

BEA **S110300941**
N/A

Relative:
Higher

Actual:
579 ft.

BEA:

Secondary Address:	Not reported
BEA Number:	1037
District:	Jackson
Date Received:	2010-05-10 00:59:00
Submitter Name:	Port of Monroe
Petition Determination:	No Request
Petition Disclosure:	0
Category:	No Hazardous Substance(s)
Determination 20107A:	No Request
Reviewer:	spauldie
Division Assigned:	RRD

A4
NNE
< 1/8
0.044 mi.
232 ft.

311, 315 & 317 HARBOR AVE
MONROE CITY, MI 48162

Site 1 of 6 in cluster A

BEA **S109345118**
N/A

Relative:
Higher

Actual:
588 ft.

BEA:

Secondary Address:	Not reported
BEA Number:	939
District:	Jackson
Date Received:	2008-11-21 00:59:00
Submitter Name:	Monroe Plumbers & Pipefitters Local 671
Petition Determination:	No Request
Petition Disclosure:	0
Category:	No Hazardous Substance(s)
Determination 20107A:	No Request
Reviewer:	spauldie
Division Assigned:	RRD

Secondary Address:	Not reported
BEA Number:	940
District:	Jackson
Date Received:	2008-11-21 00:59:00
Submitter Name:	Local 671 Monroe Plumbers & Pipefitters
Petition Determination:	No Request
Petition Disclosure:	0
Category:	No Hazardous Substance(s)
Determination 20107A:	No Request
Reviewer:	spauldie
Division Assigned:	RRD

B5
ESE
< 1/8
0.047 mi.
247 ft.

FORMER K&H TRANSPORT
515 HARBOR AVE.
MONROE, MI 48162

SHWS **S109029714**
N/A

Site 1 of 2 in cluster B

Relative:
Higher

Actual:
588 ft.

SHWS:

Facility ID:	58000222
Facility Status:	**See Leaking Underground Storage Tank Site Database**
Source:	Not reported
SAM Score:	20
SAM Score Date:	11/6/2006
Township:	07S
Range:	09E
Section:	8
Quarter:	Not reported
Quarter/Quarter:	Not reported
Pollutants:	Not reported

6
ESE
< 1/8
0.052 mi.
274 ft.

FLEISCHMANNS VINEGAR
465 HARBOR AVE
MONROE, MI 48162

UST **U003833509**
N/A

Relative:
Higher

Actual:
587 ft.

UST:

Facility ID:	00015752
Facility Type:	CLOSED
Latitude:	41.9164660000
Longitude:	-83.3732380000
Owner Name:	Burns-Philp Food Ingregients
Owner Address:	222 SUTTER ST
Owner City,St,Zip:	SAN FRANSISCO, CA 94120-7004
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	( ) -
Contact:	HC BUTCH DOUGHERTY
Contact Phone:	(734) 242-2111
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number
Tank ID:	1
Tank Status:	**Removed from Ground**
Capacity:	8000
Install Date:	Mar 20 1977
Product:	Hazardous Substance
Remove Date:	Jul 17 1997
Tank Release Detection:	Inventory Control
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Suction: Valve at Tank
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

A7
NNE
< 1/8
0.052 mi.
277 ft.

BEA **S105767835**
N/A

319 - 325 HARBOR AVE
MONROE CITY, MI 48161

Site 2 of 6 in cluster A

Relative:
Higher

Actual:
588 ft.

BEA:

Secondary Address:	Not reported
BEA Number:	382
District:	Jackson
Date Received:	2002-08-08 00:59:00
Submitter Name:	Monroe Bank & Trust
Petition Determination:	No Request
Petition Disclosure:	0
Category:	No Hazardous Substance(s)
Determination 20107A:	No Request
Reviewer:	massonp
Division Assigned:	Environmental Response Division

B8
ESE
< 1/8
0.055 mi.
289 ft.

LUST **U003878221**
N/A

FORMER K & H TRANSPORT
515 HARBOR AVE
MONROE, MI 48162

Site 2 of 2 in cluster B

Relative:
Higher

Actual:
588 ft.

LUST:

Facility ID:	00041308
Source:	STATE OF MICHIGAN
Owner Name:	V. K. Vemulapalli
Owner Address:	120 E Firsrt StSuite #1900
Owner City,St,Zip:	Flint, MI 48502
Owner Contact:	Not reported
Owner Phone:	810-701-1651
Country:	USA
District:	Jackson District Office
Site Name:	Former K & H Transport
Latitude:	41.9184850000
Longitude:	-83.3725880000
Date of Collection:	08-01-2004
Method of Collection:	GPS Code Meas. Standard Positioning Service SA Off
Accuracy:	40
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-0701-02
Release Date:	Dec 23 2002
Substance Released:	Used Oil
Release Status:	Closed
Release Closed Date:	Aug 17 2005

C9 WNW < 1/8 0.063 mi. 334 ft. | **NORTH DIXIE COLLISION** | **RCRA-NonGen** | **1000405706**
512 N DIXIE HWY | **FINDS** | **MID982650905**
MONROE, MI 48162

Site 1 of 2 in cluster C

Relative: Higher

Actual: 589 ft.

RCRA-NonGen:

Date form received by agency:	12/31/2001
Facility name:	NORTH DIXIE COLLISION
Facility address:	512 N DIXIE HWY MONROE, MI 48162
EPA ID:	MID982650905
Contact:	LEE WEISS
Contact address:	512 N DIXIE HWY MONROE, MI 48162
Contact country:	US
Contact telephone:	(313) 242-4940
Contact email:	Not reported
EPA Region:	05
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/2002
Owner/Op end date:	Not reported

Owner/operator name:	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/2002
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No

NORTH DIXIE COLLISION (Continued) **1000405706**

Used oil transporter: No

Historical Generators:
Date form received by agency: 03/28/1988
Facility name: NORTH DIXIE COLLISION
Classification: Small Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

FINDS:

Registry ID: 110003634005

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

A10 **321 HARBOR AVE** **SHWS** **S110126738**
ESE **319-325 HARBOR AVE.** **N/A**
< 1/8 **MONROE, MI 48161**
0.066 mi.
348 ft. **Site 3 of 6 in cluster A**

Relative:
Higher

Actual:
588 ft.

SHWS:
Facility ID: 58000217
Facility Status: Evaluation conducted
Source: Not reported
SAM Score: 30
SAM Score Date: 6/22/2005
Township: 07S
Range: 09E
Section: 8
Quarter: Not reported
Quarter/Quarter: Not reported
Pollutants: Not reported

C11 WNW < 1/8 0.066 mi. 351 ft. | **PREMIER INDUSTRIES CORPORATION**
513 N DIXIE HWY
MONROE, MI 48162

Site 2 of 2 in cluster C

RCRA-NonGen | **1007098395**
MIK513454777

Relative: Higher

Actual: 588 ft.

RCRA-NonGen:

Date form received by agency:	04/19/2010
Facility name:	PREMIER INDUSTRIES CORPORATION
Facility address:	513 N DIXIE HWY MONROE, MI 48162
EPA ID:	MIK513454777
Contact:	LARRY STEFFY
Contact address:	513 N DIXIE HWY MONROE, MI 48162
Contact country:	US
Contact telephone:	(734) 241-8474
Contact email:	Not reported
EPA Region:	05
Land type:	Private
Classification:	Conditionally Exempt Small Quantity Generator
Description:	Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	THOMAS SNAREY
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	10/01/1988
Owner/Op end date:	Not reported

Owner/operator name:	PREMIER INDUSTRIES CORP
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	09/28/2001
Owner/Op end date:	Not reported

PREMIER INDUSTRIES CORPORATION (Continued) **1007098395**

Owner/operator name: THOMAS SNAREY
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 10/01/1988
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 04/24/2009
Facility name: PREMIER INDUSTRIES CORPORATION
Classification: Not a generator, verified

Date form received by agency: 02/14/2009
Facility name: PREMIER INDUSTRIES CORPORATION
Classification: Not a generator, verified

Date form received by agency: 08/11/2002
Facility name: PREMIER INDUSTRIES CORPORATION
Classification: Small Quantity Generator

Date form received by agency: 12/09/1991
Facility name: PREMIER INDUSTRIES CORPORATION
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 01/01/1980
Facility name: PREMIER INDUSTRIES CORPORATION
Classification: Small Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT

PREMIER INDUSTRIES CORPORATION (Continued) **1007098395**

WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Facility Has Received Notices of Violations:

Regulation violated:	Not reported
Area of violation:	State Statute or Regulation
Date violation determined:	09/13/2001
Date achieved compliance:	01/15/2002
Violation lead agency:	State
Enforcement action:	WRITTEN INFORMAL
Enforcement action date:	09/13/2001
Enf. disposition status:	Not reported
Enf. disp. status date:	Not reported
Enforcement lead agency:	State
Proposed penalty amount:	Not reported
Final penalty amount:	Not reported
Paid penalty amount:	Not reported

Regulation violated:	Not reported
Area of violation:	State Statute or Regulation
Date violation determined:	11/25/1991
Date achieved compliance:	01/02/1992
Violation lead agency:	State
Enforcement action:	WRITTEN INFORMAL
Enforcement action date:	11/25/1991
Enf. disposition status:	Not reported
Enf. disp. status date:	Not reported
Enforcement lead agency:	State
Proposed penalty amount:	Not reported
Final penalty amount:	Not reported
Paid penalty amount:	Not reported

Evaluation Action Summary:

Evaluation date:	09/11/2001
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	State Statute or Regulation
Date achieved compliance:	01/15/2002
Evaluation lead agency:	State

Evaluation date:	11/08/1991
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	State Statute or Regulation
Date achieved compliance:	01/02/1992
Evaluation lead agency:	State

A12 **MONROE ELECTRIC MOTOR CO** **RCRA-NonGen** **1000988206**
ESE **317 HARBOR AVE** **FINDS** **MIR000000091**
< 1/8 **MONROE, MI 48162**
0.067 mi.
355 ft. **Site 4 of 6 in cluster A**

Relative:
Higher

Actual:
588 ft.

RCRA-NonGen:

Date form received by agency:	12/31/2001
Facility name:	MONROE ELECTRIC MOTOR CO
Facility address:	317 HARBOR AVE MONROE, MI 48162
EPA ID:	MIR000000091
Contact:	J MACKLIN
Contact address:	317 HARBOR AVE

MONROE ELECTRIC MOTOR CO (Continued) **1000988206**

MONROE, MI 48162
Contact country: US
Contact telephone: (313) 241-5811
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/2002
Owner/Op end date: Not reported

Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/2002
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/15/1995
Facility name: MONROE ELECTRIC MOTOR CO
Classification: Small Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS

MONROE ELECTRIC MOTOR CO (Continued) **1000988206**

CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

FINDS:

Registry ID: 110003686903

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

A13
ESE
< 1/8
0.068 mi.
358 ft.

MONROE BANK & TRUST **RCRA-CESQG** **1007098877**
319 HARBOR AVE **MIK581152584**
MONROE, MI 48162

Site 5 of 6 in cluster A

Relative:
Higher

Actual:
588 ft.

RCRA-CESQG:

Date form received by agency:	06/25/2002
Facility name:	MONROE BANK & TRUST
Facility address:	319 HARBOR AVE MONROE, MI 48162
EPA ID:	MIK581152584
Mailing address:	102 E FRONT ST MONROE, MI 48161
Contact:	RICK KINSEY
Contact address:	319 HARBOR AVE MONROE, MI 48162
Contact country:	US
Contact telephone:	(734) 242-3637
Contact email:	Not reported
EPA Region:	05
Classification:	Conditionally Exempt Small Quantity Generator
Description:	Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

MONROE BANK & TRUST (Continued) **1007098877**

Owner/Operator Summary:

Owner/operator name:	MONROE BANK AND TRUST
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	06/25/2002
Owner/Op end date:	Not reported

Owner/operator name:	MONROE BANK AND TRUST
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	06/25/2002
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Hazardous Waste Summary:

Waste code:	D001
Waste name:	IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Violation Status:	No violations found

A14
ESE
< 1/8
0.069 mi.
364 ft.

321 HARBOR AVE
MONROE CITY, MI 48161

Site 6 of 6 in cluster A

BEA **S106521695**
N/A

Relative:
Higher

Actual:
588 ft.

BEA:

Secondary Address:	(FORMERLY 319 - 325 HARBOR AVE)
BEA Number:	557
District:	Jackson
Date Received:	2004-06-21 00:59:00
Submitter Name:	Joseph & Jean M Laroy
Petition Determination:	No Request
Petition Disclosure:	0
Category:	No Hazardous Substance(s)
Determination 20107A:	No Request
Reviewer:	massonp
Division Assigned:	Environmental Response Division

15
WNW
< 1/8
0.077 mi.
407 ft.

K. M. PROPERTIES
444 N. DIXIE
MONROE TOWNSHIP, MI

BEA **S104910609**
N/A

Relative:
Higher

Actual:
586 ft.

BEA:

Secondary Address:	Not reported
BEA Number:	233
District:	Southeast MI
Date Received:	1996-12-09 00:00:00
Submitter Name:	K.M PROPERTIES, L.L.C.
Petition Determination:	Affirmed
Petition Disclosure:	1
Category:	No Hazardous Substance(s)
Determination 20107A:	Affirmed
Reviewer:	temppm
Division Assigned:	Environmental Response Division

16
WNW
< 1/8
0.090 mi.
475 ft.

601 NORTH DIXIE
MONROE TOWNSHIP, MI

BEA **S105767841**
N/A

Relative:
Higher

Actual:
590 ft.

BEA:

Secondary Address:	Not reported
BEA Number:	222
District:	Jackson
Date Received:	2000-02-18 00:00:00
Submitter Name:	Frank Messina
Petition Determination:	Affirmed
Petition Disclosure:	1
Category:	No Hazardous Substance(s)
Determination 20107A:	Pending
Reviewer:	temppm
Division Assigned:	Environmental Response Division

17 WSW 1/8-1/4 0.127 mi. 668 ft. | **MONROE SPORTS CENTER #1**
NORTH OF EAST ELM AND WEST OF DIXE HIGHWAY
MONROE, MI 48162 | **US BROWNFIELDS** | **1012172762**
N/A

Relative: Higher

Actual: 584 ft.

US BROWNFIELDS:

Recipient name:	Downriver Community Conference
Grant type:	Assessment Pilot
Property name:	Monroe Sports Center #1
Property #:	Not reported
Parcel size:	2.2
Latitude:	41.91798
Longitude:	-83.395332
HCM label:	Not reported
Map scale:	Not reported
Point of reference:	Not reported
Datum:	Not reported
ACRES property ID:	13724
Start date:	N/A
Completed date:	N/A
Acres cleaned up:	Not reported
Cleanup funding:	Not reported
Cleanup funding source:	Not reported
Assessment funding:	Not reported
Assessment funding source:	Not reported
Redevelopment funding:	Not reported
Redev. funding source:	Not reported
Redev. funding entity name:	Not reported
Redevelopment start date:	N/A
Assessment funding entity:	Not reported
Cleanup funding entity:	Not reported
Grant type:	N/A
Accomplishment type:	Not reported
Ownership entity:	Not reported
Current owner:	City of Monroe
Did owner change:	Not reported
Cleanup required:	Not reported
Video available:	Not reported
Photo available:	Not reported
Institutional controls required:	Not reported
IC Category proprietary controls:	Not reported
IC cat. info. devices:	Not reported
IC cat. gov. controls:	Not reported
IC cat. enforcement permit tools:	Not reported
IC in place date:	N/A
IC in place:	Unknown
Enrolled in state/tribal program:	No
State/tribal program date:	N/A
State/tribal program ID:	Not reported
State/tribal NFA date:	N/A
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controled substance found:	Not reported
Controled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported

MONROE SPORTS CENTER #1 (Continued) **1012172762**

Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Not reported
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Not reported
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Not reported
PAHs cleaned up:	Not reported
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Not reported
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Not reported
Soil cleaned up:	Not reported
Surface water cleaned:	Not reported
Unknown found:	Not reported
VOCs found:	Not reported
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	Not reported

18
ESE
1/8-1/4
0.134 mi.
709 ft.

RAY TOOL MANUFACTURING
455 DETROIT AVE
MONROE, MI 48161

RCRA-CESQG **1004724577**
FINDS **MIR000007450**

Relative:
Higher

Actual:
586 ft.

RCRA-CESQG:

Date form received by agency:	08/30/1995
Facility name:	RAY TOOL MANUFACTURING
Facility address:	455 DETROIT AVE MONROE, MI 48161
EPA ID:	MIR000007450
Contact:	LON KEAST
Contact address:	455 DETROIT AVE MONROE, MI 48161
Contact country:	US
Contact telephone:	(810) 901-2118
Contact email:	Not reported
EPA Region:	05
Classification:	Conditionally Exempt Small Quantity Generator

RAY TOOL MANUFACTURING (Continued) **1004724577**

Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name:	FIRST OF AMERICA BANK
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1970
Owner/Op end date:	Not reported

Owner/operator name:	FIRST OF AMERICA BANK
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/1970
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Hazardous Waste Summary:

Waste code:	D001
Waste name:	IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF

RAY TOOL MANUFACTURING (Continued) **1004724577**

LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

FINDS:

Registry ID: 110009394128

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

19
ENE
1/8-1/4
0.138 mi.
728 ft.

MONROE AMT INC
615 HARBOR AVE
MONROE, MI 48162

RCRA-NonGen **1000366802**
FINDS **MID985580455**

Relative:
Higher

Actual:
588 ft.

RCRA-NonGen:

Date form received by agency:	12/31/2001
Facility name:	MONROE AMT INC
Facility address:	615 HARBOR AVE MONROE, MI 48162
EPA ID:	MID985580455
Mailing address:	PO BOX 390 MONROE, MI 48161
Contact:	RICKY FLEMING
Contact address:	615 HARBOR AVE MONROE, MI 48162
Contact country:	US
Contact telephone:	(817) 921-5100
Contact email:	Not reported
EPA Region:	05
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/2003
Owner/Op end date:	Not reported

Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE

MONROE AMT INC (Continued) **1000366802**

Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/2003
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 06/04/1990
Facility name: MONROE AMT INC
Classification: Small Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

FINDS:

Registry ID: 110003640980

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

20 WNW 1/8-1/4 0.150 mi. 792 ft. | **D-X TRUCKING, INC**
1107 E NOBLE AVE
MONROE, MI 48162 | **UST** | **U003866286**
N/A

Relative: Higher

Actual: 585 ft.

UST:

Facility ID:	00001536
Facility Type:	CLOSED
Latitude:	41.9169680000
Longitude:	-83.3800730000
Owner Name:	James E And Jack K Rau
Owner Address:	1107 E Noble Ave
Owner City,St,Zip:	Monroe, MI 48162-2581
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(734) 241-8906
Contact:	JAMES E. RAU
Contact Phone:	(734) 241-8906
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number

Tank ID:	1
Tank Status:	**Removed from Ground**
Capacity:	250
Install Date:	Mar 25 1966
Product:	Used Oil
Remove Date:	Jan 1 1986
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Unknown
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	2
Tank Status:	**Removed from Ground**
Capacity:	12000
Install Date:	Mar 26 1975
Product:	Diesel
Remove Date:	Jan 1 1986
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Galvanized Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	3
Tank Status:	**Removed from Ground**
Capacity:	2000

D-X TRUCKING, INC (Continued) **U003866286**

Install Date:	Mar 25 1978
Product:	Gasoline
Remove Date:	Jan 1 1986
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Galvanized Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

D21 **JEFFERSON SMURFIT CORP.** **BROWNFIELDS** **S107135721**
SSW **1205 E. ELM AVE.** **N/A**
1/8-1/4 **MONROE, MI**
0.158 mi.
832 ft. **Site 1 of 7 in cluster D**

Relative:
Higher

Actual:
584 ft.

BROWNFIELD:

Facility ID:	00008419
Region:	1
Status:	Nominated for 03.
Properry Use:	Not reported
Use at Time of Listing:	Not reported
BEA:	Not reported
Ernie Id Number:	Not reported
Redevelop Status:	Not reported

D22 **MONROE PAPER CO** **BEA** **S108236786**
SSW **1205 E ELM** **N/A**
1/8-1/4 **MONROE CITY, MI**
0.158 mi.
832 ft. **Site 2 of 7 in cluster D**

Relative:
Higher

Actual:
584 ft.

BEA:

Secondary Address:	Not reported
BEA Number:	768
District:	Jackson
Date Received:	2006-09-26 00:59:00
Submitter Name:	Port of Monroe
Petition Determination:	No Request
Petition Disclosure:	0
Category:	No Hazardous Substance(s)
Determination 20107A:	No Request
Reviewer:	spauldie
Division Assigned:	Environmental Response Division

D23 SSW 1/8-1/4 0.158 mi. 832 ft. | **FORMER JEFFERSON SMURFIT PROPERTY** | **BEA** | **S105541942**
1205 EAST ELM STREET | **N/A**
MONROE TOWNSHIP, MI

Site 3 of 7 in cluster D

Relative: Higher

Actual: 584 ft.

BEA:

Secondary Address:	Not reported
BEA Number:	124
District:	Jackson
Date Received:	1998-01-30 00:00:00
Submitter Name:	Homrich Incorporated
Petition Determination:	Affirmed
Petition Disclosure:	1
Category:	No Hazardous Substance(s)
Determination 20107A:	Pending
Reviewer:	temppm
Division Assigned:	Environmental Response Division

D24 SSW 1/8-1/4 0.158 mi. 832 ft. | **JEFFERSON SMURFIT CORP** | **LUST** | **1001711715**
1205 EAST ELM AVENUE | **N/A**
MONROE, MI 48162

Site 4 of 7 in cluster D

Relative: Higher

Actual: 584 ft.

LUST:

Facility ID:	00008419
Source:	STATE OF MICHIGAN
Owner Name:	Port of Monroe
Owner Address:	2929 E Front StPo Box 585
Owner City,St,Zip:	Monroe, MI 48161
Owner Contact:	Not reported
Owner Phone:	(734) 241-6480
Country:	Monroe
District:	Jackson District Office
Site Name:	Monroe Paper Co
Latitude:	41.9134670000
Longitude:	-83.3802910000
Date of Collection:	01-11-2001
Method of Collection:	Address Matching-House Number
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-1115-89
Release Date:	Dec 12 1989
Substance Released:	Not reported
Release Status:	Open
Release Closed Date:	Not reported
Leak Number:	C-1930-91
Release Date:	Sep 18 1991
Substance Released:	Not reported
Release Status:	Open
Release Closed Date:	Not reported

D25 SSW 1/8-1/4 0.158 mi. 832 ft.	**PORT OF MONROE 1205 E ELM ST MONROE, MI 48161** **Site 5 of 7 in cluster D**	**RCRA-CESQG**	**1010785301 MIK629183179**

Relative:
Higher

Actual:
584 ft.

RCRA-CESQG:

Date form received by agency:	07/04/2006
Facility name:	PORT OF MONROE
Facility address:	1205 E ELM ST MONROE, MI 48161
EPA ID:	MIK629183179
Contact:	JOHN EMIG
Contact address:	1205 E ELM ST MONROE, MI 48161
Contact country:	US
Contact telephone:	(248) 681-7800
Contact email:	Not reported
EPA Region:	05
Classification:	Conditionally Exempt Small Quantity Generator
Description:	Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name:	PORT OF MONROE
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Municipal
Owner/Operator Type:	Operator
Owner/Op start date:	06/18/2006
Owner/Op end date:	Not reported
Owner/operator name:	PORT OF MONROE
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Municipal
Owner/Operator Type:	Owner
Owner/Op start date:	06/15/2006
Owner/Op end date:	Not reported
Owner/operator name:	PORT OF MONROE
Owner/operator address:	Not reported Not reported

PORT OF MONROE (Continued) **1010785301**

Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Municipal
Owner/Operator Type: Owner
Owner/Op start date: 06/18/2006
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

D26
SSW
1/8-1/4
0.158 mi.
832 ft.

JEFFERSON SMURFIT CORP **RCRA-NonGen** **1000888185**
1220 E ELM AVE **FINDS** **MI0000254128**
MONROE, MI 48161 **AST**

Site 6 of 7 in cluster D

Relative:
Higher

Actual:
584 ft.

RCRA-NonGen:
Date form received by agency: 03/09/2006
Facility name: HOMRICH INC
Facility address: NE CORNER OF THE INTESECTION O
MONROE, MI 48162
EPA ID: MI0000254128
Mailing address: 200 MATLIN RD
CARLETON, MI 48117
Contact: ROGER HOMRICH
Contact address: NE CORNER OF THE INTESECTION O
MONROE, MI 48162
Contact country: US
Contact telephone: (734) 654-9800
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator

JEFFERSON SMURFIT CORP (Continued) **1000888185**

Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	08/02/2006
Owner/Op end date:	Not reported

Owner/operator name:	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	08/02/2006
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	05/19/2003
Facility name:	HOMRICH INC
Classification:	Small Quantity Generator

Date form received by agency:	02/11/1998
Facility name:	HOMRICH INC
Site name:	JEFFERSON SMURFIT
Classification:	Large Quantity Generator

Date form received by agency:	03/21/1994
Facility name:	HOMRICH INC
Classification:	Not a generator, verified

Hazardous Waste Summary:

JEFFERSON SMURFIT CORP (Continued) **1000888185**

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

FINDS:

Registry ID: 110003564018

Environmental Interest/Information System

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

AST:

Type:	CLOSED
Owner Name:	AMERIGAS PROPANE
Owner Address:	1220 E ELM AVE
Owner City,St,Zip:	MONROE, MI 48134-6029
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(734) 789-9043
Facility ID:	92058106
District:	Jackson District Office
Contact:	WAYNE MANOR
Facility Phone:	(734) 241-5377
Tank ID:	41.9131230000
Tank Status:	Not reported
Capacity:	Not reported
Install Date:	Not reported
Close Date:	Not reported
Content:	Not reported
Latitude:	Not reported
Longitude:	-83.3801710000
Date of Collection:	01-11-2001
Accuracy:	100

JEFFERSON SMURFIT CORP (Continued) **1000888185**

Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	Not reported
Point Line Area:	Not reported
Description of Category:	Not reported
Method of Collection:	Not reported

D27
SSW
1/8-1/4
0.158 mi.
832 ft.

UNION CAMP CORP
1109 EAST ELM AVENUE
MONROE, MI 48161

Site 7 of 7 in cluster D

RCRA-TSDF **1000366794**
CORRACTS **MID005039490**
RCRA-NonGen
FINDS
UST

Relative:
Higher

Actual:
584 ft.

RCRA-TSDF:

Date form received by agency:	09/10/2002
Facility name:	UNION CAMP CORP
Facility address:	1109 E ELM AVE MONROE, MI 48161
EPA ID:	MID005039490
Mailing address:	1220 E ELM AVE MONROE, MI 48162
Contact:	ELDON MCCUE
Contact address:	1109 E ELM AVE MONROE, MI 48161
Contact country:	US
Contact telephone:	(313) 241-7700
Contact email:	Not reported
EPA Region:	05
Land type:	Private
Classification:	TSDF
Description:	Handler is engaged in the treatment, storage or disposal of hazardous waste
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	UNION CAMP CORP
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1970
Owner/Op end date:	Not reported

Owner/operator name:	UNION CAMP CORP (MID005039490)
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/1970
Owner/Op end date:	Not reported

UNION CAMP CORP (Continued) **1000366794**

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency: 12/31/2001
Facility name: UNION CAMP CORP
Classification: Not a generator, verified

Date form received by agency: 07/28/1995
Facility name: UNION CAMP CORP
Classification: Small Quantity Generator

Date form received by agency: 11/15/1980
Facility name: UNION CAMP CORP
Classification: Not a generator, verified

Date form received by agency: 08/14/1980
Facility name: UNION CAMP CORP
Classification: Small Quantity Generator

Hazardous Waste Summary:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Corrective Action Summary:

Event date: 09/29/1992
Event: CA Prioritization, Facility or area was assigned a medium corrective action priority.

Event date: 01/09/2006
Event: RFI Workplan Received

Event date: 02/24/2006
Event: RFI Workplan Modification Requested By Agency

UNION CAMP CORP (Continued) **1000366794**

Event date: 03/22/2006
Event: RFI Supplemental Information Received

Event date: 03/23/2006
Event: RFI Supplemental Information Deemed Satisfactory

Event date: 09/24/2010
Event: RFA Determination Of Need For An RFI, RFI is Not Necessary;

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 12/18/2001
Date achieved compliance: Not reported
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/18/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 12/01/1988
Date achieved compliance: 09/13/1989
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/09/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 09/15/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/24/2006
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/15/2004
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

UNION CAMP CORP (Continued) **1000366794**

Evaluation date: 12/18/2001
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: State Statute or Regulation
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/01/1988
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/01/1988
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 09/13/1989
Evaluation lead agency: State

Evaluation date: 12/01/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/02/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

CORRACTS:

EPA ID: MID005039490
EPA Region: 5
Area Name: ENTIRE FACILITY
Actual Date: 1/9/2006
Action: CA110 - RFI Workplan Received
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005039490
EPA Region: 5
Area Name: ENTIRE FACILITY
Actual Date: 2/24/2006
Action: CA120 - RFI Workplan Modification Requested By Agency
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005039490
EPA Region: 5
Area Name: ENTIRE FACILITY
Actual Date: 3/22/2006
Action: CA160 - RFI Supplemental Information Received

UNION CAMP CORP (Continued) **1000366794**

NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005039490
EPA Region: 5
Area Name: ENTIRE FACILITY
Actual Date: 3/23/2006
Action: CA170 - RFI Supplemental Information Deemed Satisfactory
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005039490
EPA Region: 5
Area Name: ENTIRE FACILITY
Actual Date: 9/29/1992
Action: CA075ME - CA Prioritization, Facility or area was assigned a medium corrective action priority
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

FINDS:

Registry ID: 110032987766

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

UST:
Facility ID: 00008419
Facility Type: CLOSED
Latitude: 41.9134670000
Longitude: -83.3802910000
Owner Name: Port of Monroe
Owner Address: 2929 E Front StPo Box 585
Owner City,St,Zip: Monroe, MI 48161
Owner Country: Monroe
Owner Contact: Not reported
Owner Phone: (734) 241-6480
Contact: Thomas A Kryston
Contact Phone: (734) 241-6480
Date of Collection: 01-11-2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83

UNION CAMP CORP (Continued) **1000366794**

Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number

Tank ID: 2
Tank Status: Removed from Ground
Capacity: 30000
Install Date: Mar 25 1971
Product: Fuel-Oil
Remove Date: Feb 25 2008
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Suction: No Valve At Tank
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 3
Tank Status: Removed from Ground
Capacity: 30000
Install Date: Mar 25 1971
Product: FUEL/OIL
Remove Date: Feb 25 2008
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Suction: No Valve At Tank
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 5
Tank Status: Closed in Ground
Capacity: 1000
Install Date: Mar 24 1956
Product: Kerosene
Remove Date: Mar 10 1999
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Suction: No Valve At Tank
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 6
Tank Status: Removed from Ground
Capacity: 8000
Install Date: Mar 25 1971
Product: LACQUER
Remove Date: Mar 10 2000
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported

UNION CAMP CORP (Continued) **1000366794**

Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 7
Tank Status: Removed from Ground
Capacity: 8000
Install Date: Mar 24 1956
Product: #2/FUEL/OIL
Remove Date: Mar 10 2000
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 8
Tank Status: Removed from Ground
Capacity: 1000
Install Date: Not reported
Product: Fuel Oil
Remove Date: Dec 10 2007
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

28
ESE
1/8-1/4
0.168 mi.
886 ft.

P & A INDUSTRIES INC **RCRA-NonGen** **1000435727**
523 DETROIT AVE **FINDS** **MID005049820**
MONROE, MI 48162

Relative:
Higher

Actual:
585 ft.

RCRA-NonGen:
Date form received by agency: 12/31/1999
Facility name: P & A INDUSTRIES INC
Facility address: 523 DETROIT AVE
MONROE, MI 48162
EPA ID: MID005049820
Mailing address: PO BOX 737
MONROE, MI 48161
Contact: JOHN LAING
Contact address: 523 DETROIT AVE
MONROE, MI 48162
Contact country: US
Contact telephone: (734) 241-7242
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE

P & A INDUSTRIES INC (Continued) **1000435727**

Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/2000
Owner/Op end date: Not reported

Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/2000
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 09/29/1986
Facility name: P & A INDUSTRIES INC
Classification: Small Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

FINDS:

Registry ID: 110003578361

P & A INDUSTRIES INC (Continued) **1000435727**

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

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29 SSW 1/8-1/4 0.169 mi. 894 ft.

MI DEPT/TRANSPORTATION
I 75 OVER RAISIN RIVER
MONROE, MI 48161

RCRA-NonGen FINDS **1000237982 MID985566041**

Relative: Lower

Actual: 571 ft.

RCRA-NonGen:

Date form received by agency:	05/02/1988
Facility name:	MI DEPT/TRANSPORTATION
Facility address:	I 75 OVER RAISIN RIVER MONROE, MI 48161
EPA ID:	MID985566041
Mailing address:	301 E LOUIS GLICK HWY JACKSON, MI 49201
Contact:	SCOTT WHEELER
Contact address:	I 75 OVER RAISIN RIVER MONROE, MI 48161
Contact country:	US
Contact telephone:	(517) 784-7172
Contact email:	Not reported
EPA Region:	05
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	MICH DEPT OF TRANSPORTATION
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	State
Owner/Operator Type:	Operator
Owner/Op start date:	05/02/1988
Owner/Op end date:	Not reported

Owner/operator name:	MICH DEPT OF TRANSPORTATION
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	State
Owner/Operator Type:	Owner
Owner/Op start date:	05/02/1988
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No

MI DEPT/TRANSPORTATION (Continued) **1000237982**

Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Hazardous Waste Summary:

Waste code: D001

Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

FINDS:

Registry ID: 110008453823

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

E30 **CONSOLIDATED PACKAGING CORP** **BROWNFIELDS** **S106515649**
SW **1521 E. FRONT STREET** **N/A**
1/8-1/4 **MONROE, MI**
0.214 mi.
1130 ft. **Site 1 of 6 in cluster E**

Relative:
Lower

Actual:
577 ft.

BROWNFIELD:

Facility ID:	Not reported
Region:	1
Status:	In Progress
Properry Use:	Not reported
Use at Time of Listing:	Not reported
BEA:	No
Ernie Id Number:	58000002
Redevelop Status:	Not reported

E31 SW 1/8-1/4 0.214 mi. 1130 ft. | **CONSOLIDATED PACKAGING CORP** | **SHWS** | **S106131741** | **N/A**
1521 E. FRONT ST.
MONROE, MI 48161

Site 2 of 6 in cluster E

Relative: Lower

Actual: 577 ft.

SHWS:

Facility ID:	58000002
Facility Status:	**Interim Response in progress**
Source:	Paper and Allied Products
SAM Score:	33
SAM Score Date:	7/13/2004
Township:	07S
Range:	09E
Section:	34
Quarter:	Not reported
Quarter/Quarter:	Not reported
Pollutants:	Pb; PCBs; Zn; Dioxins

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32 North 1/8-1/4 0.215 mi. 1137 ft. | **FLORAL CITY TREE SERVICE INC** | **UST** | **U001147770** | **N/A**
805 N DIXIE HWY
MONROE, MI 48162

Relative: Higher

Actual: 589 ft.

UST:

Facility ID:	00036318
Facility Type:	CLOSED
Latitude:	41.9224010000
Longitude:	-83.3745000000
Owner Name:	Floral City Tree Serv Inc
Owner Address:	805 N Dixie Hwy
Owner City,St,Zip:	Monroe, MI 48162-2541
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(734) 241-7510
Contact:	STEVE MCCOLLUM
Contact Phone:	(734) 241-7510
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number
Tank ID:	1
Tank Status:	**Removed from Ground**
Capacity:	1000
Install Date:	Jan 18 1985
Product:	Gasoline
Remove Date:	Feb 7 1994
Tank Release Detection:	Inventory Control,Manual Tank Gauging
Pipe Realease Detection:	Not reported
Piping Material:	Galvanized Steel
Piping Type:	Suction: No Valve At Tank
Constr Material:	Cathodically Protected Steel,Epoxy Coated Steel
Impressed Device:	No

E33
SW
1/8-1/4
0.216 mi.
1142 ft.

1530 E FRONT ST
MONROE CITY, MI 48161

BEA **S109345111**
N/A

Site 3 of 6 in cluster E

Relative:
Lower

Actual:
577 ft.

BEA:

Secondary Address:	Not reported
BEA Number:	930
District:	Jackson
Date Received:	2008-09-22 00:59:00
Submitter Name:	Prebesto LLC
Petition Determination:	No Request
Petition Disclosure:	0
Category:	Different Hazardous Substance(s)
Determination 20107A:	No Request
Reviewer:	spauldie
Division Assigned:	RRD

Secondary Address:	Not reported
BEA Number:	215
District:	Jackson
Date Received:	1999-12-22 00:00:00
Submitter Name:	Schonsheck Inc
Petition Determination:	Not reported
Petition Disclosure:	1
Category:	No Hazardous Substance(s)
Determination 20107A:	Not reported
Reviewer:	unas_jk
Division Assigned:	Not reported

E34
SW
1/8-1/4
0.216 mi.
1142 ft.

CPC GREEN SPACE
1530 E FRONT ST
MONROE, MI 48161

DEL SHWS **S109952308**
N/A

Site 4 of 6 in cluster E

Relative:
Lower

Actual:
577 ft.

DELETED HWS:

Facility ID:	58000220
Status:	Deleted - available documentation does not support listing

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E35
SW
1/8-1/4
0.217 mi.
1146 ft.

PORT OF MONROE SCHONSHECK
1508-1680 EAST FRONT STREET
MONROE, MI 48161

US BROWNFIELDS **1012172783**
N/A

Site 5 of 6 in cluster E

Relative:
Lower

Actual:
577 ft.

US BROWNFIELDS:

Recipient name:	Downriver Community Conference
Grant type:	Assessment Pilot
Property name:	Port of Monroe Schonsheck
Property #:	Not reported
Parcel size:	10
Latitude:	41.907464
Longitude:	-83.378884
HCM label:	Not reported
Map scale:	Not reported
Point of reference:	Not reported

PORT OF MONROE SCHONSHECK (Continued) **1012172783**

Datum:	Not reported
ACRES property ID:	13705
Start date:	N/A
Completed date:	N/A
Acres cleaned up:	Not reported
Cleanup funding:	Not reported
Cleanup funding source:	Not reported
Assessment funding:	Not reported
Assessment funding source:	Not reported
Redevelopment funding:	Not reported
Redev. funding source:	Not reported
Redev. funding entity name:	Not reported
Redevelopment start date:	N/A
Assessment funding entity:	Not reported
Cleanup funding entity:	Not reported
Grant type:	N/A
Accomplishment type:	Not reported
Ownership entity:	Not reported
Current owner:	Port of Monroe
Did owner change:	Not reported
Cleanup required:	Yes
Video available:	Not reported
Photo available:	Not reported
Institutional controls required:	Not reported
IC Category proprietary controls:	Not reported
IC cat. info. devices:	Not reported
IC cat. gov. controls:	Not reported
IC cat. enforcement permit tools:	Not reported
IC in place date:	N/A
IC in place:	Unknown
Enrolled in state/tribal program:	No
State/tribal program date:	N/A
State/tribal program ID:	Not reported
State/tribal NFA date:	N/A
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controled substance found:	Not reported
Controled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Not reported
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Not reported
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Not reported
PAHs cleaned up:	Not reported
PCBs found:	Not reported
PCBs cleaned up:	Not reported

PORT OF MONROE SCHONSHECK (Continued) **1012172783**

Petro products found:	Not reported
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Not reported
Soil cleaned up:	Not reported
Surface water cleaned:	Not reported
Unknown found:	Not reported
VOCs found:	Not reported
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	Not reported
Property Description:	industrial paper manufacturing

E36
SW
1/8-1/4
0.218 mi.
1152 ft.

Relative:
Lower

Actual:
577 ft.

MICHIGAN SITE NETWORK **BROWNFIELDS** **S108419421**
1521 EAST FRONT STREET **N/A**
MONROE, MI 48162

Site 6 of 6 in cluster E

F37
East
1/8-1/4
0.218 mi.
1153 ft.

Relative:
Higher

Actual:
586 ft.

ACTUATOR SPECIALTIES INC **RCRA-CESQG** **1007990050**
1620 ROSE ST **MIK578357873**
MONROE, MI 48162

Site 1 of 2 in cluster F

RCRA-CESQG:

Date form received by agency:	01/24/2005
Facility name:	ACTUATOR SPECIALTIES INC
Facility address:	1620 ROSE ST MONROE, MI 48162
EPA ID:	MIK578357873
Contact:	RANDY WRIGHT
Contact address:	1620 ROSE ST MONROE, MI 48162
Contact country:	US
Contact telephone:	(734) 269-2944
Contact email:	Not reported
EPA Region:	05
Classification:	Conditionally Exempt Small Quantity Generator
Description:	Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous

ACTUATOR SPECIALTIES INC (Continued) **1007990050**

waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name:	ACUATOR SPECIALTIES INC
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/2005
Owner/Op end date:	Not reported

Owner/operator name:	ACUATOR SPECIALTIES INC
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/2005
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Hazardous Waste Summary:

Waste code:	D001
Waste name:	IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE

ACTUATOR SPECIALTIES INC (Continued) **1007990050**

MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

F38 East 1/8-1/4 0.225 mi. 1190 ft. **ADVANCED HEAT TREAT CORP** **RCRA-CESQG** **1004724851**
1625 ROSE ST **FINDS** **MIR000016212**
MONROE, MI 48162

Site 2 of 2 in cluster F

Relative: Higher

Actual: 586 ft.

RCRA-CESQG:

Date form received by agency:	05/25/2010
Facility name:	ADVANCED HEAT TREAT CORP
Facility address:	1625 ROSE ST MONROE, MI 48162
EPA ID:	MIR000016212
Contact:	JEFF MACHEINSKI
Contact address:	1625 ROSE ST MONROE, MI 48162
Contact country:	US
Contact telephone:	(313) 243-0063
Contact email:	Not reported
EPA Region:	05
Land type:	Private
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time
Classification:	Conditionally Exempt Small Quantity Generator
Description:	Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name:	ADVANCED HEAT TREAT CORP-GARY SHARP
Owner/operator address:	Not reported Not reported

ADVANCED HEAT TREAT CORP (Continued) **1004724851**

Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Owner/operator name: ADVANCED HEAT TREAT CORP-GARY SHARP
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 06/28/1996
Facility name: ADVANCED HEAT TREAT CORP
Classification: Conditionally Exempt Small Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 09/15/2010
Date achieved compliance: 11/29/2010
Violation lead agency: State

ADVANCED HEAT TREAT CORP (Continued) **1004724851**

Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/23/2010
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Manifest
Date violation determined: 09/15/2010
Date achieved compliance: 11/29/2010
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/23/2010
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Used Oil - Generators
Date violation determined: 09/15/2010
Date achieved compliance: 11/29/2010
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/23/2010
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 09/15/2010
Date achieved compliance: 11/29/2010
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/23/2010
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Records/Reporting
Date violation determined: 09/15/2010
Date achieved compliance: 11/29/2010
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL

ADVANCED HEAT TREAT CORP (Continued) **1004724851**

Enforcement action date: 09/23/2010
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 09/15/2010
Date achieved compliance: 11/29/2010
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/23/2010
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 09/15/2010
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Manifest
Date achieved compliance: 11/29/2010
Evaluation lead agency: State

Evaluation date: 09/15/2010
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 11/29/2010
Evaluation lead agency: State

Evaluation date: 09/15/2010
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 11/29/2010
Evaluation lead agency: State

Evaluation date: 09/15/2010
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Records/Reporting
Date achieved compliance: 11/29/2010
Evaluation lead agency: State

Evaluation date: 09/15/2010
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: State Statute or Regulation
Date achieved compliance: 11/29/2010
Evaluation lead agency: State

Evaluation date: 09/15/2010
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Used Oil - Generators
Date achieved compliance: 11/29/2010

ADVANCED HEAT TREAT CORP (Continued) **1004724851**

Evaluation lead agency: State

FINDS:

Registry ID: 110000405972

Environmental Interest/Information System

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

G39 **MONROE PAPER COMPANY** **DEL SHWS** **S105966012**
SW **1200 E. ELM AVENUE** **N/A**
1/8-1/4 **MONROE, MI 48161**
0.228 mi.
1205 ft. **Site 1 of 3 in cluster G**

Relative:
Higher

Actual:
580 ft.

DELETED HWS:
Facility ID: 58000048
Status: Delisted - no longer meets criteria specified in rules

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G40 **BEA** **S110482747**
SW **1200 EAST ELM AVENUE** **N/A**
1/8-1/4 **MONROE, MI**
0.228 mi.
1205 ft. **Site 2 of 3 in cluster G**

Relative:
Higher

Actual:
580 ft.

BEA:
Secondary Address: Not reported
BEA Number: 372
District: Southeast MI
Date Received: 1997-06-26 00:00:00

(Continued) **S110482747**

Submitter Name: Monroe Building Authority
Petition Determination: Not reported
Petition Disclosure: 0
Category: No Hazardous Substance(s)
Determination 20107A: Not reported
Reviewer: unas_lv
Division Assigned: Not reported

G41 **MONROE PAPER CO** **UST** **U000715407**
SW **1109 E ELM AVE** **N/A**
1/8-1/4 **MONROE, MI 48162**
0.231 mi.
1219 ft. **Site 3 of 3 in cluster G**

Relative:
Lower

Actual:
576 ft.

UST:
Facility ID: 00035792
Facility Type: CLOSED
Latitude: 41.9138700000
Longitude: -83.3816430000
Owner Name: Monroe Paper Co
Owner Address: 1205 E Elm Ave
Owner City,St,Zip: Monroe, MI 48162-2522
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (734) 241-7700
Contact: ALLAN LOUX
Contact Phone: (734) 241-7700
Date of Collection: 01-11-2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number

Tank ID: 8
Tank Status: **Removed from Ground**
Capacity: 500
Install Date: Not reported
Product: HYDRAULIC OIL
Remove Date: Jul 17 1992
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Pressure
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

42 SSW 1/8-1/4 0.237 mi. 1254 ft. | **MONROE MET. WASTEWATER TREATMENT**
2205 E FRONT ST
MONROE, MI 48161 | **LUST** **UST** | **1000527288** **N/A**

Relative: Higher

Actual: 580 ft.

LUST:

Facility ID:	00034476
Source:	STATE OF MICHIGAN
Owner Name:	Monroe County
Owner Address:	51 S Macomb St
Owner City,St,Zip:	Monroe, MI 48161-2136
Owner Contact:	Not reported
Owner Phone:	(734) 243-7118
Country:	USA
District:	Jackson District Office
Site Name:	Monroe Metropolitan Area Wwtp
Latitude:	41.9015250000
Longitude:	-83.3689660000
Date of Collection:	01-11-2001
Method of Collection:	Address Matching-House Number
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-1006-90
Release Date:	Jun 6 1990
Substance Released:	Not reported
Release Status:	Closed
Release Closed Date:	Aug 24 1990

UST:

Facility ID:	00034476
Facility Type:	CLOSED
Latitude:	41.9015250000
Longitude:	-83.3689660000
Owner Name:	Monroe County
Owner Address:	51 S Macomb St
Owner City,St,Zip:	Monroe, MI 48161-2136
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(734) 243-7118
Contact:	EVE M. AVENDT
Contact Phone:	(734) 243-7118
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number
Tank ID:	1
Tank Status:	**Removed from Ground**
Capacity:	12000
Install Date:	Sep 1 1986
Product:	Hazardous Substance

MONROE MET. WASTEWATER TREATMENT (Continued) **1000527288**

Remove Date: Jun 11 1990
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Fiberglass reinforced plastic
Piping Type: Not reported
Constr Material: Fiberglass Reinforced plastic
Impressed Device: No

43
WSW
1/4-1/2
0.282 mi.
1491 ft.

B & A STANDARD SERVICE **LUST** **U003082611**
1031 E ELM AVE **UST** **N/A**
MONROE, MI 48162

Relative:
Higher

Actual:
583 ft.

LUST:
Facility ID: 00019292
Source: STATE OF MICHIGAN
Owner Name: B & A Standard Serv
Owner Address: 1031 E Elm Ave
Owner City,St,Zip: Monroe, MI 48162-2520
Owner Contact: Not reported
Owner Phone: (734) 241-1818
Country: USA
District: Jackson District Office
Site Name: B & A Standard Service
Latitude: 41.9141440000
Longitude: -83.3825760000
Date of Collection: 01-11-2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-0105-99
Release Date: Feb 4 1999
Substance Released: Unknown
Release Status: Closed
Release Closed Date: May 27 1999

Leak Number: C-0222-99
Release Date: Mar 4 1999
Substance Released: Unknown
Release Status: Closed
Release Closed Date: Oct 9 2000

UST:
Facility ID: 00019292
Facility Type: CLOSED
Latitude: 41.9141440000
Longitude: -83.3825760000
Owner Name: B & A Standard Serv
Owner Address: 1031 E Elm Ave
Owner City,St,Zip: Monroe, MI 48162-2520
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (734) 241-1818

B & A STANDARD SERVICE (Continued) **U003082611**

Contact:	HAROLD SCHREIBER
Contact Phone:	(734) 241-1818
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number

Tank ID:	1
Tank Status:	**Removed from Ground**
Capacity:	250
Install Date:	Apr 29 1976
Product:	Used Oil
Remove Date:	Mar 4 1999
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Galvanized Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	2
Tank Status:	**Removed from Ground**
Capacity:	1000
Install Date:	Not reported
Product:	UNKNOWN
Remove Date:	Mar 4 1999
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Unknown
Piping Type:	Not reported
Constr Material:	Unknown
Impressed Device:	No

H44 **CONSOLIDATED PACKAGING CORP** **CERCLIS** **1000383846**
SW **1521 E. FIRST STREET** **RCRA-CESQG** **MID980999882**
1/4-1/2 **MONROE, MI 48161** **PADS**
0.285 mi. **FINDS**
1504 ft. **Site 1 of 2 in cluster H**

Relative:
Higher

Actual:
581 ft.

CERCLIS:

Site ID:	0503277
EPA ID:	MID980999882
Facility County:	MONROE
Short Name:	CONSOLIDATED PACKAGING CO
Congressional District:	08
IFMS ID:	B5GK
SMSA Number:	8400
USGC Hydro Unit:	04100002
Federal Facility:	Not a Federal Facility
DMNSN Number:	Not reported
Site Orphan Flag:	N
RCRA ID:	Not reported
USGS Quadrangle:	Not reported

CONSOLIDATED PACKAGING CORP (Continued) **1000383846**

Site Init By Prog: Not reported
NFRAP Flag: Not reported
Parent ID: Not reported
RST Code: Not reported
EPA Region: 05
Classification: Not reported
Site Settings Code: Not reported
NPL Status: Not on the NPL
DMNSN Unit Code: Not reported
RBRAC Code: Not reported
RResp Fed Agency Code: Not reported
Non NPL Status: HRS Start Needed
Non NPL Status Date: 20020710
Site Fips Code: 26115
CC Concurrence Date: Not reported
CC Concurrence FY: Not reported
Alias EPA ID: Not reported
Site FUDS Flag: Not reported

Alias Comments: Not reported
Site Description: Not reported

CERCLIS Assessment History:

Action Code: 001
Action: DISCOVERY
Date Started: Not reported
Date Completed: 10/28/1985
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: PRELIMINARY ASSESSMENT
Date Started: Not reported
Date Completed: 12/10/1985
Priority Level: Higher priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: SITE INSPECTION
Date Started: Not reported
Date Completed: 04/01/1987
Priority Level: Higher priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed

CONSOLIDATED PACKAGING CORP (Continued) **1000383846**

Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Click this hyperlink while viewing on your computer to access additional US CERCLIS Financial: detail in the EDR Site Report.

RCRA-CESQG:
Date form received by agency: 03/01/2002
Facility name: FORMER NORTHSIDE CONSOLIDATED PLT
Facility address: 921 E ELM AVE
MONROE, MI 48162
EPA ID: MID980999882
Mailing address: 120 EAST FIRST ST
MONROE, MI 48162
Contact: DONALD LINK
Contact address: Not reported
Not reported
Contact country: Not reported
Contact telephone: (734) 243-0700
Contact email: Not reported
EPA Region: 05
Classification: Conditionally Exempt Small Quantity Generator
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:
Owner/operator name: MONROE CITY OF
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Municipal
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1987
Owner/Op end date: Not reported

Owner/operator name: MONROE CITY OF
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported

CONSOLIDATED PACKAGING CORP (Continued) **1000383846**

Legal status: Municipal
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1987
Owner/Op end date: Not reported

Owner/operator name: NAME NOT REPORTED
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Municipal
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Owner/operator name: MONROE CITY OF
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Municipal
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1987
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 12/31/2001
Facility name: FORMER NORTHSIDE CONSOLIDATED PLT
Site name: NORTHSIDE CONSOLIDATED PLT
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 12/30/2001
Facility name: FORMER NORTHSIDE CONSOLIDATED PLT
Site name: NORTHSIDE CONSOLIDATED PLT
Classification: Large Quantity Generator

Date form received by agency: 11/16/1987
Facility name: FORMER NORTHSIDE CONSOLIDATED PLT
Site name: NORTHSIDE CONSOLIDATED PLT

CONSOLIDATED PACKAGING CORP (Continued) **1000383846**

Classification: Large Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

PADS:
EPAID: MID980999882
Facility name: FORMER NORTHSIDE CONSOLIDATED PLT
Facility Address: 921 E ELM ST
MONROE, MI 48162
Facility country: US
Generator: No
Storer: No
Transporter: No
Disposer: No
Research facility: No
Smelter: No
Facility owner name: CITY OF MONROE
Contact title: SENIOR ENVIRONMENTAL SPECIALIST
Contact name: MARK J. QUIMBY
Contact tel: (734) 454-9900
Contact extension: Not reported
Mailing address: 120 EAST FIRST ST
MONROE, MI 48161
Mailing country: US
Cert. title: PLANNER I
Cert. name: MATT WALLACE
Cert. date: 6/5/2008
Date received: 7/14/2008

FINDS:

Registry ID: 110003618265

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all

CONSOLIDATED PACKAGING CORP (Continued) **1000383846**

Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

H45
SW
1/4-1/2
0.289 mi.
1525 ft.

DETROIT STOKER COMPANY
1510 E FIRST ST
MONROE, MI 48161

Site 2 of 2 in cluster H

RCRA-SQG **1000366940**
FINDS **MID005053442**
LUST
UST

Relative:
Higher

Actual:
581 ft.

RCRA-SQG:

Date form received by agency:	04/14/2010
Facility name:	DETROIT STOKER CO
Facility address:	1510 E 1ST ST MONROE, MI 48161
EPA ID:	MID005053442
Contact:	HERBERT GUY
Contact address:	1510 E 1ST ST MONROE, MI 48161
Contact country:	US
Contact telephone:	(734) 241-9500
Contact email:	Not reported
EPA Region:	05
Land type:	Private
Classification:	Conditionally Exempt Small Quantity Generator
Description:	Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name:	DETROIT STOKER COMPANY
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1923
Owner/Op end date:	Not reported

DETROIT STOKER COMPANY (Continued) **1000366940**

Owner/operator name: NEWCASTLE PARTNERS LP
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 12/29/2006
Owner/Op end date: Not reported

Owner/operator name: NEWCASTLE PARTNERS LP
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 12/29/2006
Owner/Op end date: Not reported

Owner/operator name: UNITED INDUSTRIAL CORP
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1923
Owner/Op end date: Not reported

Owner/operator name: DETROIT STOKER COMPANY
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1923
Owner/Op end date: Not reported

Owner/operator name: UNITED INDUSTRIAL CORP
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1923
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No

DETROIT STOKER COMPANY (Continued) **1000366940**

On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 03/18/2009
Facility name: DETROIT STOKER CO
Classification: Small Quantity Generator

Date form received by agency: 04/21/2008
Facility name: DETROIT STOKER CO
Classification: Small Quantity Generator

Date form received by agency: 02/19/2007
Facility name: DETROIT STOKER CO
Classification: Small Quantity Generator

Date form received by agency: 02/23/2006
Facility name: DETROIT STOKER CO
Classification: Small Quantity Generator

Date form received by agency: 02/20/2004
Facility name: DETROIT STOKER CO
Classification: Small Quantity Generator

Date form received by agency: 03/12/2003
Facility name: DETROIT STOKER CO
Classification: Small Quantity Generator

Date form received by agency: 08/09/2002
Facility name: DETROIT STOKER CO
Classification: Small Quantity Generator

Date form received by agency: 06/08/1998
Facility name: DETROIT STOKER CO
Classification: Small Quantity Generator

Date form received by agency: 03/08/1984
Facility name: DETROIT STOKER CO
Classification: Small Quantity Generator

Hazardous Waste Summary:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

DETROIT STOKER COMPANY (Continued) **1000366940**

Facility Has Received Notices of Violations:

Regulation violated:	Not reported
Area of violation:	Generators - Pre-transport
Date violation determined:	05/14/1998
Date achieved compliance:	08/04/1998
Violation lead agency:	State
Enforcement action:	WRITTEN INFORMAL
Enforcement action date:	05/14/1998
Enf. disposition status:	Not reported
Enf. disp. status date:	Not reported
Enforcement lead agency:	State
Proposed penalty amount:	Not reported
Final penalty amount:	Not reported
Paid penalty amount:	Not reported

Regulation violated:	Not reported
Area of violation:	Generators - General
Date violation determined:	04/04/1988
Date achieved compliance:	06/22/1988
Violation lead agency:	State
Enforcement action:	WRITTEN INFORMAL
Enforcement action date:	04/19/1988
Enf. disposition status:	Not reported
Enf. disp. status date:	Not reported
Enforcement lead agency:	State
Proposed penalty amount:	Not reported
Final penalty amount:	Not reported
Paid penalty amount:	Not reported

Evaluation Action Summary:

Evaluation date:	08/04/1998
Evaluation:	FOLLOW-UP INSPECTION
Area of violation:	Generators - Pre-transport
Date achieved compliance:	08/04/1998
Evaluation lead agency:	State

Evaluation date:	05/05/1998
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Generators - Pre-transport
Date achieved compliance:	08/04/1998
Evaluation lead agency:	State

Evaluation date:	04/04/1988
Evaluation:	FOCUSED COMPLIANCE INSPECTION
Area of violation:	Generators - General
Date achieved compliance:	06/22/1988
Evaluation lead agency:	State

FINDS:

Registry ID: 110001840946

Environmental Interest/Information System
AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for

DETROIT STOKER COMPANY (Continued) **1000366940**

information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

LUST:

Facility ID:	00006927
Source:	STATE OF MICHIGAN
Owner Name:	Detroit Stoker Co
Owner Address:	1510 E 1st St
Owner City,St,Zip:	Monroe, MI 48161-1915
Owner Contact:	Not reported
Owner Phone:	(734) 243-4402
Country:	USA
District:	Jackson District Office
Site Name:	Detroit Stoker Co.
Latitude:	41.9075000000
Longitude:	-83.3817260000
Date of Collection:	01-11-2001
Method of Collection:	Address Matching-House Number
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-1016-93
Release Date:	Sep 7 1993
Substance Released:	Other,Unknown
Release Status:	Closed
Release Closed Date:	Jul 28 1994

UST:

Facility ID:	00006927
Facility Type:	CLOSED
Latitude:	41.9075000000
Longitude:	-83.3817260000

DETROIT STOKER COMPANY (Continued) **1000366940**

Owner Name:	Detroit Stoker Co
Owner Address:	1510 E 1st St
Owner City,St,Zip:	Monroe, MI 48161-1915
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(734) 243-4402
Contact:	HERBERT PRIEST
Contact Phone:	(734) 243-4402
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number

Tank ID:	1
Tank Status:	**Removed from Ground**
Capacity:	500
Install Date:	Mar 4 1971
Product:	Gasoline
Remove Date:	Sep 30 1990
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	2
Tank Status:	**Closed in Ground**
Capacity:	10000
Install Date:	Not reported
Product:	SHOCK/ABSORBER/OIL
Remove Date:	May 16 1994
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Unknown
Piping Type:	Suction: No Valve At Tank
Constr Material:	Unknown
Impressed Device:	No

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46 **CPC-NORTHSIDE** **SHWS** **S105144466**
WSW **921 E. ELM STREET** **N/A**
1/4-1/2 **MONROE, MI**
0.335 mi.
1769 ft.

Relative:
Higher

Actual:
588 ft.

SHWS:

Facility ID:	58000170
Facility Status:	**Interim Response in progress**
Source:	Paper and Allied Products
SAM Score:	16
SAM Score Date:	7/13/2004
Township:	Not reported
Range:	Not reported

CPC-NORTHSIDE (Continued) **S105144466**

Section: Not reported
Quarter: Not reported
Quarter/Quarter: Not reported
Pollutants: 1,4-Dioxane; PCBs; Petroleum

47
WSW
1/4-1/2
0.345 mi.
1822 ft.

1250 E FIRST ST
1250 E FIRST ST.
MONROE, MI 48161

SHWS **S110126736**
N/A

Relative:
Higher

Actual:
582 ft.

SHWS:
Facility ID: 58000215
Facility Status: Evaluation conducted
Source: Not reported
SAM Score: 28
SAM Score Date: 6/20/2005
Township: 07S
Range: 09E
Section: 8
Quarter: Not reported
Quarter/Quarter: Not reported
Pollutants: Not reported

48
WSW
1/4-1/2
0.376 mi.
1987 ft.

MASON RUN DEVELOPMENT
NORTH OF EAST ELM AND WEST OF DIXIE HIGHWAY
MONROE, MI 48161

US BROWNFIELDS **1009310280**
N/A

Relative:
Higher

Actual:
588 ft.

US BROWNFIELDS:
Recipient name: Monroe, City of
Grant type: BCRLF Pilot
Property name: Mason Run Development
Property #: Not reported
Parcel size: 14
Latitude: 41.907337
Longitude: -83.405334
HCM label: Not reported
Map scale: Not reported
Point of reference: Not reported
Datum: Not reported
ACRES property ID: 16781
Start date: 04/11/2004
Completed date: 04/11/2004
Acres cleaned up: 14
Cleanup funding: $4,375,000.00
Cleanup funding source: Local Funding
Assessment funding: Not reported
Assessment funding source: Not reported
Redevelopment funding: $19,000,000.00
Redev. funding source: Private/Other Fundin
Redev. funding entity name: Not reported
Redevelopment start date: 09/30/2005
Assessment funding entity: Not reported
Cleanup funding entity: Not reported

MASON RUN DEVELOPMENT (Continued) **1009310280**

Grant type:	N/A
Accomplishment type:	Not reported
Ownership entity:	Government
Current owner:	City of Monroe, MI
Did owner change:	Not reported
Cleanup required:	Yes
Video available:	Not reported
Photo available:	Yes
Institutional controls required:	Yes
IC Category proprietary controls:	Not reported
IC cat. info. devices:	Not reported
IC cat. gov. controls:	Not reported
IC cat. enforcement permit tools:	Not reported
IC in place date:	N/A
IC in place:	Unknown
Enrolled in state/tribal program:	No
State/tribal program date:	N/A
State/tribal program ID:	Not reported
State/tribal NFA date:	N/A
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controled substance found:	Not reported
Controled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Not reported
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Yes
Other metals cleaned:	Yes
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Yes
PAHs cleaned up:	Yes
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Not reported
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Yes
Soil cleaned up:	Yes
Surface water cleaned:	Not reported
Unknown found:	Not reported
VOCs found:	Not reported
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Past use commercial acreage:	Not reported

MASON RUN DEVELOPMENT (Continued) **1009310280**

Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	Not reported

Recipient name:	Monroe, City of
Grant type:	BCRLF Pilot
Property name:	Mason Run Development
Property #:	Not reported
Parcel size:	14
Latitude:	41.907337
Longitude:	-83.405334
HCM label:	Not reported
Map scale:	Not reported
Point of reference:	Not reported
Datum:	Not reported
ACRES property ID:	16781
Start date:	04/11/2004
Completed date:	04/11/2004
Acres cleaned up:	14
Cleanup funding:	$955,000.00
Cleanup funding source:	US EPA - Brownfields RLF Loan
Assessment funding:	Not reported
Assessment funding source:	Not reported
Redevelopment funding:	$19,000,000.00
Redev. funding source:	Private/Other Fundin
Redev. funding entity name:	Not reported
Redevelopment start date:	09/30/2005
Assessment funding entity:	Not reported
Cleanup funding entity:	Not reported
Grant type:	N/A
Accomplishment type:	Not reported
Ownership entity:	Government
Current owner:	City of Monroe, MI
Did owner change:	Not reported
Cleanup required:	Yes
Video available:	Not reported
Photo available:	Yes
Institutional controls required:	Yes
IC Category proprietary controls:	Not reported
IC cat. info. devices:	Not reported
IC cat. gov. controls:	Not reported
IC cat. enforcement permit tools:	Not reported
IC in place date:	N/A
IC in place:	Unknown
Enrolled in state/tribal program:	No
State/tribal program date:	N/A
State/tribal program ID:	Not reported
State/tribal NFA date:	N/A
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controled substance found:	Not reported

MASON RUN DEVELOPMENT (Continued) **1009310280**

Controled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Not reported
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Yes
Other metals cleaned:	Yes
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Yes
PAHs cleaned up:	Yes
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Not reported
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Yes
Soil cleaned up:	Yes
Surface water cleaned:	Not reported
Unknown found:	Not reported
VOCs found:	Not reported
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	Not reported

Recipient name:	Monroe, City of
Grant type:	BCRLF Pilot
Property name:	Mason Run Development
Property #:	Not reported
Parcel size:	14
Latitude:	41.907337
Longitude:	-83.405334
HCM label:	Not reported
Map scale:	Not reported
Point of reference:	Not reported
Datum:	Not reported
ACRES property ID:	16781
Start date:	04/11/2004
Completed date:	04/11/2004
Acres cleaned up:	14
Cleanup funding:	$1,800,000.00

MASON RUN DEVELOPMENT (Continued) **1009310280**

Cleanup funding source:	State/Tribal Funding (non-section 128(a))
Assessment funding:	Not reported
Assessment funding source:	Not reported
Redevelopment funding:	$19,000,000.00
Redev. funding source:	Private/Other Fundin
Redev. funding entity name:	Not reported
Redevelopment start date:	09/30/2005
Assessment funding entity:	Not reported
Cleanup funding entity:	Not reported
Grant type:	N/A
Accomplishment type:	Not reported
Ownership entity:	Government
Current owner:	City of Monroe, MI
Did owner change:	Not reported
Cleanup required:	Yes
Video available:	Not reported
Photo available:	Yes
Institutional controls required:	Yes
IC Category proprietary controls:	Not reported
IC cat. info. devices:	Not reported
IC cat. gov. controls:	Not reported
IC cat. enforcement permit tools:	Not reported
IC in place date:	N/A
IC in place:	Unknown
Enrolled in state/tribal program:	No
State/tribal program date:	N/A
State/tribal program ID:	Not reported
State/tribal NFA date:	N/A
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controled substance found:	Not reported
Controled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Not reported
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Yes
Other metals cleaned:	Yes
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Yes
PAHs cleaned up:	Yes
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Not reported
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Yes
Soil cleaned up:	Yes

MASON RUN DEVELOPMENT (Continued) **1009310280**

Surface water cleaned:	Not reported
Unknown found:	Not reported
VOCs found:	Not reported
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported
Future use industrial acreage:	Not reported
Greenspace acreage and type:	Not reported
Superfund Fed. landowner flag:	Not reported

Property Description: The property is the former location of the consolidated packaging corporation (from 1920 to 1980. From 1850 to 1916, the property was a privately owned tree and plant nursery. The plant ceased operations in 1980. The city acquired the property in 19887, demolished the existing buildings, and the property has been vacant since.

49
WSW
1/4-1/2
0.389 mi.
2056 ft.

MONROE FORMER MEXICAN STAMPING **US BROWNFIELDS** **1012172757**
1250 EAST FIRST STREET **N/A**
MONROE, MI

Relative:
Higher

Actual:
584 ft.

US BROWNFIELDS:

Recipient name:	Downriver Community Conference
Grant type:	Assessment Pilot
Property name:	Monroe Former Mexican Stamping
Property #:	Not reported
Parcel size:	2.58
Latitude:	41.90832
Longitude:	-83.38277
HCM label:	Not reported
Map scale:	Not reported
Point of reference:	Not reported
Datum:	Not reported
ACRES property ID:	13730
Start date:	N/A
Completed date:	N/A
Acres cleaned up:	Not reported
Cleanup funding:	Not reported
Cleanup funding source:	Not reported
Assessment funding:	Not reported
Assessment funding source:	Not reported
Redevelopment funding:	Not reported
Redev. funding source:	Not reported
Redev. funding entity name:	Not reported
Redevelopment start date:	N/A
Assessment funding entity:	Not reported
Cleanup funding entity:	Not reported
Grant type:	N/A
Accomplishment type:	Not reported
Ownership entity:	Not reported
Current owner:	Mexican Stamping

MONROE FORMER MEXICAN STAMPING (Continued) **1012172757**

Did owner change:	Not reported
Cleanup required:	No
Video available:	Not reported
Photo available:	Not reported
Institutional controls required:	Not reported
IC Category proprietary controls:	Not reported
IC cat. info. devices:	Not reported
IC cat. gov. controls:	Not reported
IC cat. enforcement permit tools:	Not reported
IC in place date:	N/A
IC in place:	Unknown
Enrolled in state/tribal program:	No
State/tribal program date:	N/A
State/tribal program ID:	Not reported
State/tribal NFA date:	N/A
Air contaminated:	Not reported
Air cleaned:	Not reported
Asbestos found:	Not reported
Asbestos cleaned:	Not reported
Controled substance found:	Not reported
Controled substance cleaned:	Not reported
Drinking water affected:	Not reported
Drinking water cleaned:	Not reported
Groundwater affected:	Not reported
Groundwater cleaned:	Not reported
Lead contaminant found:	Not reported
Lead cleaned up:	Not reported
No media affected:	Not reported
Unknown media affected:	Not reported
Other cleaned up:	Not reported
Other metals found:	Not reported
Other metals cleaned:	Not reported
Other contaminants found:	Not reported
Other contams found description:	Not reported
PAHs found:	Not reported
PAHs cleaned up:	Not reported
PCBs found:	Not reported
PCBs cleaned up:	Not reported
Petro products found:	Not reported
Petro products cleaned:	Not reported
Sediments found:	Not reported
Sediments cleaned:	Not reported
Soil affected:	Not reported
Soil cleaned up:	Not reported
Surface water cleaned:	Not reported
Unknown found:	Not reported
VOCs found:	Not reported
VOCs cleaned:	Not reported
Cleanup other description:	Not reported
Num. of cleanup and re-dev. jobs:	Not reported
Past use greenspace acreage:	Not reported
Past use residential acreage:	Not reported
Past use commercial acreage:	Not reported
Past use industrial acreage:	Not reported
Future use greenspace acreage:	Not reported
Future use residential acreage:	Not reported
Future use commercial acreage:	Not reported

MONROE FORMER MEXICAN STAMPING (Continued) **1012172757**

Future use industrial acreage: Not reported
Greenspace acreage and type: Not reported
Superfund Fed. landowner flag: Not reported

Property Description: welding, painting, metal stamping, glass company, pressed steel

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I50
WNW
1/4-1/2
0.443 mi.
2337 ft.

KADIM SAIED **DEL SHWS** **S105965671**
1101 E. FRONT **BROWNFIELDS** **N/A**
MONROE, MI

Site 1 of 2 in cluster I

Relative:
Higher

Actual:
581 ft.

DELETED HWS:
Facility ID: 58000050
Status: Deleted - available documentation does not support listing

BROWNFIELD:
Facility ID: 50000158
Region: 1
Status: Not reported
Properry Use: Not reported
Use at Time of Listing: Not reported
BEA: Not reported
Ernie Id Number: Not reported
Redevelop Status: Not reported

I51
WNW
1/4-1/2
0.443 mi.
2337 ft.

KADIUM SAIED **LUST** **S100071568**
1101 E FRONT ST **N/A**
MONROE, MI 48161

Site 2 of 2 in cluster I

Relative:
Higher

Actual:
581 ft.

LUST:
Facility ID: 50000158
Source: STATE OF MICHIGAN
Owner Name: Nrt Owner
Owner Address: Unknown
Owner City,St,Zip: Unknown, MI 99999
Owner Contact: Not reported
Owner Phone: Not reported
Country: USA
District: Jackson District Office
Site Name: Kadium Saied
Latitude: 41.9111610000
Longitude: -83.3836000000
Date of Collection: 01-11-2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-0328-89
Release Date: Jul 14 1989
Substance Released: Not reported
Release Status: Open

KADIUM SAIED (Continued) **S100071568**

Release Closed Date: Not reported

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52 NE 1/4-1/2 0.443 mi. 2341 ft.

PILOT TRAVEL CENTERS #024
1100 N DIXIE HWY
MONROE, MI 48162

LUST U003834520
UST N/A

Relative: Higher

Actual: 589 ft.

LUST:

Facility ID:	00036833
Source:	STATE OF MICHIGAN
Owner Name:	Pilot Travel Centers LLC
Owner Address:	5508 Lonas Dr
Owner City,St,Zip:	Knoxville, TN 37909-3221
Owner Contact:	Jason McCain
Owner Phone:	865-588-7488
Country:	USA
District:	Jackson District Office
Site Name:	Pilot Travel Centers #024
Latitude:	41.9245580000
Longitude:	-83.3664090000
Date of Collection:	25-04-2002
Method of Collection:	GPS Code Meas. Standard Positioning Service SA Off
Accuracy:	10
Accuracy Value Unit:	METERS
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-0064-07
Release Date:	May 1 2007
Substance Released:	Gasoline,Gasoline
Release Status:	Open
Release Closed Date:	Not reported

UST:

Facility ID:	00036833
Facility Type:	ACTIVE
Latitude:	41.9245580000
Longitude:	-83.3664090000
Owner Name:	Pilot Travel Centers LLC
Owner Address:	5508 Lonas Dr
Owner City,St,Zip:	Knoxville, TN 37909-3221
Owner Country:	USA
Owner Contact:	Jason McCain
Owner Phone:	865-588-7488
Contact:	Jason A McCain
Contact Phone:	(865) 588-7488
Date of Collection:	25-04-2002
Accuracy:	10
Accuracy Value Unit:	METERS
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	GPS Code Meas. Standard Positioning Service SA Off
Tank ID:	A
Tank Status:	**Currently In Use**

PILOT TRAVEL CENTERS #024 (Continued) **U003834520**

Capacity: 12000
Install Date: Sep 1 1987
Product: Gasoline
Remove Date: Not reported
Tank Release Detection: Automatic Tank Gauging
Pipe Realease Detection: SIR, Automatic Line Leak Detectors, Line Tightness Testing
Piping Material: Fiberglass Reinforced Plastic
Piping Type: Pressure
Constr Material: Fiberglass Reinforced Plastic
Impressed Device: No

Tank ID: B
Tank Status: Currently In Use
Capacity: 12000
Install Date: Sep 1 1987
Product: Gasoline
Remove Date: Not reported
Tank Release Detection: SIR, Inventory Control
Pipe Realease Detection: SIR, Automatic Line Leak Detectors, Line Tightness Testing
Piping Material: Fiberglass Reinforced Plastic
Piping Type: Pressure
Constr Material: Fiberglass Reinforced Plastic
Impressed Device: No

Tank ID: C
Tank Status: Currently In Use
Capacity: 12000
Install Date: Sep 1 1987
Product: Gasoline
Remove Date: Not reported
Tank Release Detection: SIR, Automatic Tank Gauging
Pipe Realease Detection: SIR, Automatic Line Leak Detectors, Line Tightness Testing
Piping Material: Fiberglass Reinforced Plastic
Piping Type: Pressure
Constr Material: Fiberglass Reinforced Plastic
Impressed Device: No

Tank ID: D
Tank Status: Currently In Use
Capacity: 12000
Install Date: Sep 1 1987
Product: Diesel
Remove Date: Not reported
Tank Release Detection: Automatic Tank Gauging
Pipe Realease Detection: SIR, Automatic Line Leak Detectors, Line Tightness Testing
Piping Material: Fiberglass Reinforced Plastic
Piping Type: Pressure
Constr Material: Fiberglass Reinforced Plastic
Impressed Device: No

Tank ID: E
Tank Status: Currently In Use
Capacity: 12000

PILOT TRAVEL CENTERS #024 (Continued) **U003834520**

Install Date:	Sep 1 1987
Product:	Diesel
Remove Date:	Not reported
Tank Release Detection:	SIR, Automatic Tank Gauging
Pipe Realease Detection:	SIR, Automatic Line Leak Detectors, Line Tightness Testing
Piping Material:	Fiberglass Reinforced Plastic
Piping Type:	Pressure
Constr Material:	Fiberglass Reinforced Plastic
Impressed Device:	No

Tank ID:	F
Tank Status:	**Currently In Use**
Capacity:	12000
Install Date:	Sep 1 1987
Product:	Diesel
Remove Date:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Pipe Realease Detection:	SIR, Automatic Line Leak Detectors, Line Tightness Testing
Piping Material:	Fiberglass Reinforced Plastic
Piping Type:	Pressure
Constr Material:	Fiberglass Reinforced Plastic
Impressed Device:	No

Tank ID:	G
Tank Status:	**Currently In Use**
Capacity:	20000
Install Date:	Apr 1 2007
Product:	Diesel
Remove Date:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Pipe Realease Detection:	SIR, Automatic Line Leak Detectors, Line Tightness Testing
Piping Material:	Fiberglass Reinforced Plastic
Piping Type:	Pressure
Constr Material:	Fiberglass Reinforced Plastic
Impressed Device:	No

53
West
1/4-1/2
0.465 mi.
2454 ft.

GENE GERMAN I **LUST** **U000260832**
72 WINCHESTER ST **UST** **N/A**
MONROE, MI 48161

Relative:
Higher

Actual:
583 ft.

LUST:

Facility ID:	00020037
Source:	STATE OF MICHIGAN
Owner Name:	Gene Germant
Owner Address:	1002 Harrison St
Owner City,St,Zip:	Monroe, MI 48161-4018
Owner Contact:	Not reported
Owner Phone:	(734) 241-7939
Country:	USA
District:	Jackson District Office
Site Name:	Jeff's Garage
Latitude:	41.9105530000
Longitude:	-83.3846060000
Date of Collection:	01-11-2001

GENE GERMAN I (Continued) **U000260832**

Method of Collection:	Address Matching-House Number
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-0954-93
Release Date:	Aug 3 1993
Substance Released:	Gasoline
Release Status:	Open
Release Closed Date:	Not reported

UST:

Facility ID:	00020037
Facility Type:	CLOSED
Latitude:	41.9105530000
Longitude:	-83.3846060000
Owner Name:	Gene Germant
Owner Address:	1002 Harrison St
Owner City,St,Zip:	Monroe, MI 48161-4018
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(734) 241-7939
Contact:	GENE GERMANT
Contact Phone:	(734) 241-7939
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number
Tank ID:	1
Tank Status:	**Removed from Ground**
Capacity:	5000
Install Date:	Jun 24 1979
Product:	Gasoline
Remove Date:	Jun 21 1994
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Galvanized Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No
Tank ID:	2
Tank Status:	**Removed from Ground**
Capacity:	5000
Install Date:	Jun 24 1979
Product:	Gasoline
Remove Date:	Jun 21 1994
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Galvanized Steel

GENE GERMAN I (Continued) **U000260832**

Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 3
Tank Status: Removed from Ground
Capacity: 5000
Install Date: Jun 24 1979
Product: Gasoline
Remove Date: Jun 21 1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 4
Tank Status: Removed from Ground
Capacity: 6000
Install Date: Not reported
Product: Gasoline,Diesel
Remove Date: Jun 21 1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Suction: No Valve At Tank
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 5
Tank Status: Removed from Ground
Capacity: 2500
Install Date: Not reported
Product: Kerosene
Remove Date: Jun 21 1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Suction: No Valve At Tank
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 6
Tank Status: Removed from Ground
Capacity: 500
Install Date: Not reported
Product: Used Oil
Remove Date: Jun 21 1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Suction: No Valve At Tank

GENE GERMAN I (Continued) **U000260832**

Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

54
West
1/4-1/2
0.466 mi.
2461 ft.

FORMER MONROE HOSPITAL
188-120 MAPLE BLVD.
MONROE, MI

DEL SHWS **S105966016**
N/A

Relative:
Higher

Actual:
589 ft.

DELETED HWS:
Facility ID: 58000182
Status: Delisted - no longer meets criteria specified in rules

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55
SW
1/4-1/2
0.491 mi.
2594 ft.

MONROE CASTING PLANT
917 FRONT STREET
MONROE, MI 48161

CERC-NFRAP **1003873163**
MI0001251297

Relative:
Higher

Actual:
585 ft.

CERC-NFRAP:
Site ID: 0507644
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Alias Name(s):
Alias Name: MONROE (STEEL) CASTING PLANT
Alias Address: Not reported
MI

Program Priority:
Description: Great Lakes

CERCLIS-NFRAP Assessment History:
Action: DISCOVERY
Date Started: Not reported
Date Completed: 03/15/1994
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: Not reported
Date Completed: 09/29/1995
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

Action: ARCHIVE SITE
Date Started: Not reported
Date Completed: 12/12/1996
Priority Level: Not reported

56 WSW 1/2-1 0.502 mi. 2649 ft.

1204 E THIRD ST.
1204 E. THIRD ST.
MONROE, MI 48161

SHWS **S110126735**
N/A

Relative: Higher

Actual: 584 ft.

SHWS:

Facility ID:	58000214
Facility Status:	**Evaluation conducted**
Source:	Not reported
SAM Score:	33
SAM Score Date:	6/20/2005
Township:	07S
Range:	09E
Section:	8
Quarter:	Not reported
Quarter/Quarter:	Not reported
Pollutants:	Not reported

J57 ESE 1/2-1 0.668 mi. 3528 ft.

VISTEON MONROE
3200 EAST ELM STREET
MONROE, MI 48162

Site 1 of 2 in cluster J

RCRA-TSDF **1000183618**
CERCLIS **MID005057005**
CORRACTS
RCRA-SQG
PADS
FINDS
RAATS
UST
MANIFEST
FINANCIAL ASSURANCE

Relative: Higher

Actual: 579 ft.

RCRA-TSDF:

Date form received by agency:	06/10/2009
Facility name:	FORD MOTOR COMPANY
Facility address:	3200 E ELM AVE MONROE, MI 48162
EPA ID:	MID005057005
Mailing address:	290 TOWN CENTER DR DEARBORN, MI 48126
Contact:	DAVID MILLER
Contact address:	3200 E ELM AVE MONROE, MI 48162
Contact country:	US
Contact telephone:	(313) 322-3761
Contact email:	Not reported
EPA Region:	05
Land type:	Private
Classification:	TSDF
Description:	Handler is engaged in the treatment, storage or disposal of hazardous waste

Owner/Operator Summary:

Owner/operator name:	AUTOMOTIVE COMPONENTS HOLDINGS LLC
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	10/01/2005

VISTEON MONROE (Continued) **1000183618**

Owner/Op end date: Not reported

Owner/operator name: FORD MOTOR COMPANY
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 07/01/2009
Owner/Op end date: Not reported

Owner/operator name: FORD MOTOR COMPANY
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 07/01/2009
Owner/Op end date: Not reported

Owner/operator name: AUTOMOTIVE COMPONENTS HOLDINGS LLC
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 10/01/2005
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: Yes
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 06/01/2009
Facility name: FORD MOTOR COMPANY
Classification: Small Quantity Generator

Date form received by agency: 05/27/2009
Facility name: FORD MOTOR COMPANY

VISTEON MONROE (Continued) **1000183618**

Classification: Small Quantity Generator

Date form received by agency: 05/27/2009
Facility name: FORD MOTOR COMPANY
Classification: Small Quantity Generator

Date form received by agency: 10/09/2008
Facility name: FORD MOTOR COMPANY
Classification: Large Quantity Generator

Date form received by agency: 03/01/2008
Facility name: FORD MOTOR COMPANY
Site name: AUTOMOTIVE COMPONENTS HOLDINGS LLC
Classification: Large Quantity Generator

Date form received by agency: 02/28/2008
Facility name: FORD MOTOR COMPANY
Classification: Large Quantity Generator

Date form received by agency: 03/12/2007
Facility name: FORD MOTOR COMPANY
Classification: Large Quantity Generator

Date form received by agency: 03/01/2006
Facility name: FORD MOTOR COMPANY
Site name: AUTOMOTIVE COMPONENTS HOLDINGS LLC
Classification: Large Quantity Generator

Date form received by agency: 03/01/2006
Facility name: FORD MOTOR COMPANY
Classification: Large Quantity Generator

Date form received by agency: 10/01/2005
Facility name: FORD MOTOR COMPANY
Classification: Large Quantity Generator

Date form received by agency: 04/14/2005
Facility name: FORD MOTOR COMPANY
Classification: Large Quantity Generator

Date form received by agency: 03/01/2004
Facility name: FORD MOTOR COMPANY
Site name: VISTEON CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 02/25/2004
Facility name: FORD MOTOR COMPANY
Classification: Large Quantity Generator

Date form received by agency: 03/01/2002
Facility name: FORD MOTOR COMPANY
Site name: VISTEON CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 02/26/2002
Facility name: FORD MOTOR COMPANY
Classification: Large Quantity Generator

VISTEON MONROE (Continued) **1000183618**

Date form received by agency: 03/02/2000
Facility name: FORD MOTOR COMPANY
Classification: Large Quantity Generator

Date form received by agency: 02/28/2000
Facility name: FORD MOTOR COMPANY
Site name: FORD MOTOR CO MONROE PLT
Classification: Large Quantity Generator

Date form received by agency: 02/26/1998
Facility name: FORD MOTOR COMPANY
Site name: FORD MOTOR COMPANY, MONROE PLANT
Classification: Large Quantity Generator

Date form received by agency: 02/28/1996
Facility name: FORD MOTOR COMPANY
Site name: FORD MOTOR COMPANY, MONROE PLANT
Classification: Large Quantity Generator

Date form received by agency: 11/13/1995
Facility name: FORD MOTOR COMPANY
Classification: Large Quantity Generator

Date form received by agency: 02/25/1994
Facility name: FORD MOTOR COMPANY
Site name: FORD MOTOR COMPANY, MONROE PLANT
Classification: Large Quantity Generator

Date form received by agency: 02/17/1992
Facility name: FORD MOTOR COMPANY
Site name: FORD MOTOR CO MONROE PLT
Classification: Large Quantity Generator

Date form received by agency: 02/12/1990
Facility name: FORD MOTOR COMPANY
Site name: FORD MOTOR CO MONROE PLT
Classification: Large Quantity Generator

Date form received by agency: 11/18/1980
Facility name: FORD MOTOR COMPANY
Classification: Not a generator, verified

Date form received by agency: 08/18/1980
Facility name: FORD MOTOR COMPANY
Classification: Large Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

VISTEON MONROE (Continued) **1000183618**

Biennial Reports:

Last Biennial Reporting Year: 2011

Annual Waste Handled:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Amount (Lbs): 5216.6

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
Amount (Lbs): 480

Waste code: D005
Waste name: BARIUM
Amount (Lbs): 240.7

Waste code: D008
Waste name: LEAD
Amount (Lbs): 51810.4

Waste code: D009
Waste name: MERCURY
Amount (Lbs): 366.9

Waste code: D018
Waste name: BENZENE
Amount (Lbs): 240.7

Waste code: D029
Waste name: 1,1-DICHLOROETHYLENE
Amount (Lbs): 240.7

Waste code: D035
Waste name: METHYL ETHYL KETONE
Amount (Lbs): 240.7

Waste code: D039
Waste name: TETRACHLOROETHYLENE
Amount (Lbs): 240.7

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT

VISTEON MONROE (Continued) **1000183618**

NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Amount (Lbs): 356.9

Waste code: P105
Waste name: SODIUM AZIDE
Amount (Lbs): 10

Corrective Action Summary:

Event date: 03/23/1987
Event: RFA Completed

Event date: 03/23/1987
Event: RFA Determination Of Need For An RFI, RFI is Necessary;

Event date: 09/27/1991
Event: CA Prioritization, Facility or area was assigned a high corrective action priority.

Event date: 12/14/1992
Event: Stabilization Measures Evaluation,This facility is amenable to stabilization activity based on the status of corrective action work at the facility, technical factors, the degree of risk, timing considerations and administrative considerations.

Event date: 03/27/1995
Event: RFI Imposition, Focused data collection required for stabilization evaluation.

Event date: 03/27/1995
Event: Stabilization Measures Implemented

Event date: 06/27/1995
Event: RFI Workplan Received

Event date: 09/11/1995
Event: Stabilization Construction Completed

Event date: 08/28/1997
Event: Igration of Contaminated Groundwater under Control, More information is needed to make a determination.

Event date: 08/28/1997
Event: Current Human Exposures under Control, More information is needed to make a determination.

Event date: 09/24/1998
Event: RFI Workplan Received

Event date: 11/11/1998
Event: RFI Workplan Approved

VISTEON MONROE (Continued) **1000183618**

Event date: 10/01/2001
Event: Current Human Exposures under Control, Yes, Current Human Exposures Under Control has been verified. Based on a review of information contained in the EI determination, current human exposures are expected to be under control at the facility under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

Event date: 03/25/2005
Event: Igration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified. Based on a review of information contained in the EI determination, it has been determined that migration of contaminated groundwater is under control at the facility. Specifically, this determination indicates that the migration of contaminated groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the existing area of contaminated groundwater. This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

Event date: Not reported
Event: CMI Workplan Approved

Event date: Not reported
Event: Date For Remedy Selection (CM Imposed)

Event date: Not reported
Event: CMS Approved

Event date: Not reported
Event: RFI Approved

Event date: Not reported
Event: RFI Workplan Approved

Event date: Not reported
Event: Certification Of Remedy Completion Or Construction Completion

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Permits - Conditions
Date violation determined: 01/21/2010
Date achieved compliance: 02/23/2010
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/21/2010
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Permits - Conditions
Date violation determined: 09/16/2009

VISTEON MONROE (Continued) **1000183618**

Date achieved compliance: 12/02/2009
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/25/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Manifest
Date violation determined: 09/16/2009
Date achieved compliance: 12/02/2009
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/25/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Universal Waste - Small Quantity Handlers
Date violation determined: 09/16/2009
Date achieved compliance: 12/02/2009
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/25/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 06/01/2009
Date achieved compliance: 07/23/2009
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/01/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General Facility Standards
Date violation determined: 06/18/2007
Date achieved compliance: 12/02/2009

VISTEON MONROE (Continued) **1000183618**

Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/18/2007
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General Facility Standards
Date violation determined: 06/18/2007
Date achieved compliance: 12/02/2009
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/01/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 09/18/2006
Date achieved compliance: 06/18/2007
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/20/2006
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 03/29/2005
Date achieved compliance: 05/11/2005
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/05/2005
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 06/24/1997
Date achieved compliance: 08/11/1997
Violation lead agency: State

VISTEON MONROE (Continued) **1000183618**

Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/24/1997
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 11/27/1995
Date achieved compliance: 01/08/1996
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 11/27/1995
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 07/05/1994
Date achieved compliance: 11/14/1994
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/05/1994
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 09/27/1993
Date achieved compliance: 01/01/2000
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/27/1993
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 12/01/1992
Date achieved compliance: 01/06/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL

VISTEON MONROE (Continued) **1000183618**

Enforcement action date: 10/28/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 08/10/1992
Date achieved compliance: 10/21/1992
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/10/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: LDR - General
Date violation determined: 08/10/1992
Date achieved compliance: 10/21/1992
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/10/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 03/18/1992
Date achieved compliance: 01/06/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/30/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 07/23/1991
Date achieved compliance: 10/30/1991
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/28/1991

VISTEON MONROE (Continued) **1000183618**

Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: LDR - General
Date violation determined: 07/23/1991
Date achieved compliance: 10/30/1991
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/28/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: LDR - General
Date violation determined: 09/05/1990
Date achieved compliance: 12/13/1990
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/12/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 09/05/1990
Date achieved compliance: 12/13/1990
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/12/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 11/17/1989
Date achieved compliance: 05/14/1990
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported

VISTEON MONROE (Continued) **1000183618**

Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 11/17/1989
Date achieved compliance: 05/14/1990
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/20/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 09/22/1988
Date achieved compliance: 03/15/1989
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/30/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: LDR - General
Date violation determined: 09/22/1988
Date achieved compliance: 03/15/1989
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/30/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 09/30/1987
Date achieved compliance: 12/18/1987
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 11/10/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported

VISTEON MONROE (Continued) **1000183618**

Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 09/10/1987
Date achieved compliance: 03/31/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/01/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 09/10/1987
Date achieved compliance: 03/31/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/21/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 09/01/1987
Date achieved compliance: 12/18/1987
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/01/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 08/30/1986
Date achieved compliance: 12/18/1987
Violation lead agency: EPA
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 10/30/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA

VISTEON MONROE (Continued) **1000183618**

Proposed penalty amount: 68000
Final penalty amount: 5440
Paid penalty amount: 5440

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 08/30/1986
Date achieved compliance: 12/18/1987
Violation lead agency: EPA
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 11/18/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: 5440
Paid penalty amount: 5440

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 02/26/1986
Date achieved compliance: 04/09/1986
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/11/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 12/12/1985
Date achieved compliance: 03/07/1986
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/30/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 12/12/1985
Date achieved compliance: 03/07/1986
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/16/1985
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported

VISTEON MONROE (Continued) **1000183618**

Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 12/12/1984
Date achieved compliance: 01/31/1985
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/13/1984
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 12/12/1984
Date achieved compliance: 01/31/1985
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/13/1984
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 12/12/1984
Date achieved compliance: 01/31/1985
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/13/1984
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 08/01/1984
Date achieved compliance: 10/18/1984
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/03/1984
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported

VISTEON MONROE (Continued) **1000183618**

Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 02/07/2011
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/17/2010
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/17/2010
Evaluation: OPERATION AND MAINTENANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/03/2010
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/02/2010
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/27/2010
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/06/2010
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/01/2010
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/31/2010
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

VISTEON MONROE (Continued) **1000183618**

Evaluation date: 03/22/2010
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/08/2010
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/11/2010
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/21/2010
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Permits - Conditions
Date achieved compliance: 02/23/2010
Evaluation lead agency: State

Evaluation date: 09/16/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Permits - Conditions
Date achieved compliance: 12/02/2009
Evaluation lead agency: State

Evaluation date: 09/16/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Manifest
Date achieved compliance: 12/02/2009
Evaluation lead agency: State

Evaluation date: 09/16/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Universal Waste - Small Quantity Handlers
Date achieved compliance: 12/02/2009
Evaluation lead agency: State

Evaluation date: 09/10/2009
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/17/2009
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/09/2009
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported

VISTEON MONROE (Continued) **1000183618**

Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/01/2009
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: TSD - Closure/Post-Closure
Date achieved compliance: 07/23/2009
Evaluation lead agency: State

Evaluation date: 05/04/2009
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/16/2009
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/27/2009
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/25/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/22/2008
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/04/2008
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/09/2008
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/11/2008
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

VISTEON MONROE (Continued) **1000183618**

Evaluation date: 12/21/2007
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/11/2007
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/30/2007
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/25/2007
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/30/2007
Evaluation: OPERATION AND MAINTENANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/18/2007
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General Facility Standards
Date achieved compliance: 12/02/2009
Evaluation lead agency: State

Evaluation date: 09/18/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 06/18/2007
Evaluation lead agency: State

Evaluation date: 08/17/2006
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/27/2006
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/31/2006
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported

VISTEON MONROE (Continued) **1000183618**

Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/15/2006
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/21/2005
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/29/2005
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/25/2005
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/10/2005
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/29/2005
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 05/11/2005
Evaluation lead agency: State

Evaluation date: 01/14/2005
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/15/2004
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/20/2004
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

VISTEON MONROE (Continued) **1000183618**

Evaluation date: 10/08/2004
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/10/2004
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/09/2004
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/03/2004
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/19/2004
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/30/2004
Evaluation: GROUNDWATER MONITORING EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/30/2004
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/04/2003
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/30/2003
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/05/2003
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported

VISTEON MONROE (Continued) **1000183618**

Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/04/2003
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/13/2003
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/22/2003
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/20/2003
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/11/2003
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/14/2003
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/12/2003
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/23/2003
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/28/2003
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

VISTEON MONROE (Continued) **1000183618**

Evaluation date: 03/14/2003
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/04/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/08/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/03/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/20/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/10/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/29/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/22/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/02/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/25/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported

VISTEON MONROE (Continued) **1000183618**

Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/22/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/18/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/04/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/04/2002
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/30/2002
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/20/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/14/2002
Evaluation: CORRECTIVE ACTION COMPLIANCE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/14/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/08/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

VISTEON MONROE (Continued) **1000183618**

Evaluation date: 04/19/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/21/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/13/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/13/2002
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/06/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/06/2002
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/24/2002
Evaluation: CORRECTIVE ACTION COMPLIANCE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/20/2001
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/11/2001
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/25/2001
Evaluation: CORRECTIVE ACTION COMPLIANCE EVALUATION
Area of violation: Not reported

VISTEON MONROE (Continued) **1000183618**

Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/24/2001
Evaluation: CORRECTIVE ACTION COMPLIANCE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/28/2001
Evaluation: CORRECTIVE ACTION COMPLIANCE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/27/2001
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/21/2001
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/24/2001
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/20/2001
Evaluation: CORRECTIVE ACTION COMPLIANCE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/11/2001
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/06/2001
Evaluation: CORRECTIVE ACTION COMPLIANCE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/22/2001
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

VISTEON MONROE (Continued) **1000183618**

Evaluation date: 03/30/2001
Evaluation: GROUNDWATER MONITORING EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/08/2001
Evaluation: CORRECTIVE ACTION COMPLIANCE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/18/2000
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/13/2000
Evaluation: CORRECTIVE ACTION COMPLIANCE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/15/2000
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/21/2000
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/28/1999
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/23/1999
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/29/1999
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/08/1999
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported

VISTEON MONROE (Continued) **1000183618**

Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/09/1998
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/16/1998
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/15/1998
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/15/1998
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/13/1998
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/22/1997
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/19/1997
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/18/1997
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 08/11/1997
Evaluation lead agency: State

Evaluation date: 06/05/1997
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

VISTEON MONROE (Continued) **1000183618**

Evaluation date: 04/01/1997
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/20/1996
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/25/1996
Evaluation: CORRECTIVE ACTION COMPLIANCE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/15/1996
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/08/1996
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/25/1996
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/23/1996
Evaluation: CORRECTIVE ACTION COMPLIANCE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/31/1996
Evaluation: CORRECTIVE ACTION COMPLIANCE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/22/1996
Evaluation: CORRECTIVE ACTION COMPLIANCE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/26/1996
Evaluation: CORRECTIVE ACTION COMPLIANCE EVALUATION
Area of violation: Not reported

VISTEON MONROE (Continued) **1000183618**

Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/25/1996
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/14/1996
Evaluation: CORRECTIVE ACTION COMPLIANCE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/31/1996
Evaluation: CORRECTIVE ACTION COMPLIANCE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/23/1996
Evaluation: CORRECTIVE ACTION COMPLIANCE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/16/1996
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/31/1996
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/15/1996
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/21/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 01/08/1996
Evaluation lead agency: State

Evaluation date: 08/03/1995
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

VISTEON MONROE (Continued) **1000183618**

Evaluation date: 07/28/1994
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/05/1994
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/20/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 11/14/1994
Evaluation lead agency: State

Evaluation date: 05/05/1994
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/02/1994
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/27/1993
Evaluation: GROUNDWATER MONITORING EVALUATION
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 01/01/2000
Evaluation lead agency: State

Evaluation date: 08/31/1993
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/29/1993
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/25/1993
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/01/1992
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: TSD IS-Ground-Water Monitoring

VISTEON MONROE (Continued) **1000183618**

Date achieved compliance: 01/06/1993
Evaluation lead agency: State

Evaluation date: 08/05/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 10/21/1992
Evaluation lead agency: State

Evaluation date: 08/05/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: LDR - General
Date achieved compliance: 10/21/1992
Evaluation lead agency: State

Evaluation date: 07/15/1992
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/05/1992
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 01/06/1993
Evaluation lead agency: State

Evaluation date: 03/18/1992
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 01/06/1993
Evaluation lead agency: State

Evaluation date: 07/23/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: LDR - General
Date achieved compliance: 10/30/1991
Evaluation lead agency: State

Evaluation date: 07/23/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 10/30/1991
Evaluation lead agency: State

Evaluation date: 05/14/1991
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/05/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 12/13/1990
Evaluation lead agency: State

VISTEON MONROE (Continued) **1000183618**

Evaluation date: 09/05/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: LDR - General
Date achieved compliance: 12/13/1990
Evaluation lead agency: State

Evaluation date: 05/14/1990
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/17/1989
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: TSD - Closure/Post-Closure
Date achieved compliance: 05/14/1990
Evaluation lead agency: State

Evaluation date: 08/01/1989
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/01/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/22/1988
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/22/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: LDR - General
Date achieved compliance: 03/15/1989
Evaluation lead agency: State

Evaluation date: 09/22/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 03/15/1989
Evaluation lead agency: State

Evaluation date: 09/30/1987
Evaluation: GROUNDWATER MONITORING EVALUATION
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 12/18/1987
Evaluation lead agency: State

Evaluation date: 09/10/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General

VISTEON MONROE (Continued) **1000183618**

Date achieved compliance: 03/31/1988
Evaluation lead agency: State

Evaluation date: 09/01/1987
Evaluation: GROUNDWATER MONITORING EVALUATION
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 12/18/1987
Evaluation lead agency: State

Evaluation date: 08/05/1987
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/12/1987
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 08/30/1986
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 12/18/1987
Evaluation lead agency: EPA

Evaluation date: 04/01/1986
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA

Evaluation date: 02/26/1986
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 04/09/1986
Evaluation lead agency: EPA

Evaluation date: 12/12/1985
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 03/07/1986
Evaluation lead agency: State

Evaluation date: 03/26/1985
Evaluation: GROUNDWATER MONITORING EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/12/1984
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Closure/Post-Closure
Date achieved compliance: 01/31/1985
Evaluation lead agency: State

VISTEON MONROE (Continued) **1000183618**

Evaluation date: 12/12/1984
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 01/31/1985
Evaluation lead agency: State

Evaluation date: 12/12/1984
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 01/31/1985
Evaluation lead agency: State

Evaluation date: 08/01/1984
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 10/18/1984
Evaluation lead agency: EPA

Evaluation date: 06/25/1984
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA

Evaluation date: 11/08/1983
Evaluation: GROUNDWATER MONITORING EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

CERCLIS:
Site ID: 0502236
EPA ID: MID005057005
Facility County: MONROE
Short Name: FORD MOTOR CO
Congressional District: 15
IFMS ID: 05SR
SMSA Number: 8400
USGC Hydro Unit: 04100002
Federal Facility: Not a Federal Facility
DMNSN Number: Not reported
Site Orphan Flag: N
RCRA ID: Not reported
USGS Quadrangle: Not reported
Site Init By Prog: Not reported
NFRAP Flag: Not reported
Parent ID: Not reported
RST Code: Not reported
EPA Region: 05
Classification: Not reported
Site Settings Code: Not reported
NPL Status: Not on the NPL
DMNSN Unit Code: Not reported
RBRAC Code: Not reported
RResp Fed Agency Code: Not reported
Non NPL Status: Referred to Removal - NFRAP
Non NPL Status Date: 20020730
Site Fips Code: 26115

VISTEON MONROE (Continued) **1000183618**

CC Concurrence Date: Not reported
CC Concurrence FY: Not reported
Alias EPA ID: Not reported
Site FUDS Flag: Not reported

CERCLIS Site Contact Name(s):
Contact ID: 5270172.00000
Contact Name: HANK ELLISON
Contact Tel: Not reported
Contact Title: On-Scene Coordinator (OSC)
Contact Email: Not reported

Contact ID: 5272819.00000
Contact Name: PATRICK HAMBLIN
Contact Tel: (312) 886-6312
Contact Title: Remedial Project Manager (RPM)
Contact Email: hamblin.patrick@epa.gov

CERCLIS Site Alias Name(s):
Alias ID: 101
Alias Name: FORD MOTOR CO MONROE PLT
Alias Address: Not reported
MI
Alias ID: 201
Alias Name: FORD MOTOR CO METAL STAMPING DIV
Alias Address: Not reported
MI
Alias ID: 301
Alias Name: FORD MOTOR CO
Alias Address: Not reported
MONROE, MI
Alias Comments: Not reported
Site Description: Not reported

CERCLIS Assessment History:

Action Code: 001
Action: PRELIMINARY ASSESSMENT
Date Started: Not reported
Date Completed: 03/01/1983
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: DISCOVERY
Date Started: Not reported
Date Completed: 03/01/1983
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed

VISTEON MONROE (Continued) **1000183618**

Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	HAZARD RANKING SYSTEM PACKAGE
Date Started:	Not reported
Date Completed:	11/01/1983
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Other
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	SITE INSPECTION
Date Started:	Not reported
Date Completed:	11/01/1983
Priority Level:	NFRAP-Site does not qualify for the NPL based on existing information
Operable Unit:	SITEWIDE
Primary Responsibility:	EPA Fund-Financed
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	Notice Letters Issued
Date Started:	Not reported
Date Completed:	11/16/1992
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	ADMINISTRATIVE ORDER ON CONSENT
Date Started:	Not reported
Date Completed:	06/07/1993
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Primary
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

VISTEON MONROE (Continued) **1000183618**

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	ENGINEERING EVALUATION/COST ANALYSIS
Date Started:	04/06/1994
Date Completed:	09/23/1994
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Responsible Party
Planning Status:	Primary
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	RESOURCE CONSERVATION AND RECOVERY ACT SB/RTC
Date Started:	Not reported
Date Completed:	04/13/1995
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	EPA Fund-Financed
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	002
Action:	ADMINISTRATIVE ORDER ON CONSENT
Date Started:	Not reported
Date Completed:	02/20/1997
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	NON-NATIONAL PRIORITIES LIST POTENTIALLY RESPONSIBLE PARTY SEARCH
Date Started:	Not reported
Date Completed:	09/19/1999
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Primary
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

VISTEON MONROE (Continued) **1000183618**

Action Code:	001
Action:	POTENTIALLY RESPONSIBLE PARTY REMOVAL
Date Started:	05/10/1993
Date Completed:	09/19/1999
Priority Level:	Cleaned up
Operable Unit:	SITEWIDE
Primary Responsibility:	Responsible Party
Planning Status:	Primary
Urgency Indicator:	Non-Time Critical
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Click this hyperlink while viewing on your computer to access
20 additional US CERCLIS Financial: record(s) in the EDR Site Report.

CORRACTS:

EPA ID:	MID005057005
EPA Region:	5
Area Name:	ENTIRE FACILITY
Actual Date:	3/23/1987
Action:	CA050 - RFA Completed
NAICS Code(s):	49319 Other Warehousing and Storage
Original schedule date:	Not reported
Schedule end date:	Not reported

EPA ID:	MID005057005
EPA Region:	5
Area Name:	ENTIRE FACILITY
Actual Date:	3/23/1987
Action:	CA070YE - RFA Determination Of Need For An RFI, RFI is Necessary
NAICS Code(s):	49319 Other Warehousing and Storage
Original schedule date:	Not reported
Schedule end date:	Not reported

EPA ID:	MID005057005
EPA Region:	5
Area Name:	GROUNDWATER
Actual Date:	3/25/2005
Action:	CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified
NAICS Code(s):	49319 Other Warehousing and Storage
Original schedule date:	Not reported
Schedule end date:	Not reported

EPA ID:	MID005057005
EPA Region:	5
Area Name:	HW SURFACE IMPOUNDMENTS
Actual Date:	3/25/2005
Action:	CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified
NAICS Code(s):	49319 Other Warehousing and Storage

VISTEON MONROE (Continued) **1000183618**

Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005057005
EPA Region: 5
Area Name: ENTIRE FACILITY
Actual Date: 3/25/2005
Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified
NAICS Code(s): 49319
Other Warehousing and Storage
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005057005
EPA Region: 5
Area Name: HW SURFACE IMPOUNDMENTS
Actual Date: 3/27/1995
Action: CA100DC - RFI Imposition, Focused data collection required for stabilization evaluation
NAICS Code(s): 49319
Other Warehousing and Storage
Original schedule date: 03/27/1995
Schedule end date: Not reported

EPA ID: MID005057005
EPA Region: 5
Area Name: HW SURFACE IMPOUNDMENTS
Actual Date: 3/27/1995
Action: CA600 - Stabilization Measures Implemented
NAICS Code(s): 49319
Other Warehousing and Storage
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005057005
EPA Region: 5
Area Name: HW SURFACE IMPOUNDMENTS
Actual Date: 6/27/1995
Action: CA110 - RFI Workplan Received
NAICS Code(s): 49319
Other Warehousing and Storage
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005057005
EPA Region: 5
Area Name: ENTIRE FACILITY
Actual Date: 8/28/1997
Action: CA750IN - Migration of Contaminated Groundwater under Control, More information is needed to make a determination
NAICS Code(s): 49319
Other Warehousing and Storage
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005057005

VISTEON MONROE (Continued) **1000183618**

EPA Region: 5
Area Name: ENTIRE FACILITY
Actual Date: 8/28/1997
Action: CA725IN - Current Human Exposures Under Control, More information is needed to make a determination
NAICS Code(s): 49319
Other Warehousing and Storage
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005057005
EPA Region: 5
Area Name: HW SURFACE IMPOUNDMENTS
Actual Date: 9/11/1995
Action: CA650 - Stabilization Construction Completed
NAICS Code(s): 49319
Other Warehousing and Storage
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005057005
EPA Region: 5
Area Name: GROUNDWATER
Actual Date: 9/24/1998
Action: CA110 - RFI Workplan Received
NAICS Code(s): 49319
Other Warehousing and Storage
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005057005
EPA Region: 5
Area Name: ENTIRE FACILITY
Actual Date: 9/27/1991
Action: CA075HI - CA Prioritization, Facility or area was assigned a high corrective action priority
NAICS Code(s): 49319
Other Warehousing and Storage
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005057005
EPA Region: 5
Area Name: ENTIRE FACILITY
Actual Date: 10/1/2001
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified
NAICS Code(s): 49319
Other Warehousing and Storage
Original schedule date: 09/30/2001
Schedule end date: Not reported

EPA ID: MID005057005
EPA Region: 5
Area Name: GROUNDWATER
Actual Date: 11/11/1998
Action: CA150 - RFI Workplan Approved

VISTEON MONROE (Continued) **1000183618**

NAICS Code(s): 49319
Other Warehousing and Storage
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005057005
EPA Region: 5
Area Name: ENTIRE FACILITY
Actual Date: 12/14/1992
Action: CA225YE - Stabilization Measures Evaluation, This facility ,is amenable to stabilization activity based on the, status of corrective action work at the facility, technical factors, the degree of risk, timing considerations and administrative considerations
NAICS Code(s): 49319
Other Warehousing and Storage
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005057005
EPA Region: 5
Area Name: HW SURFACE IMPOUNDMENTS
Actual Date: Not reported
Action: CA400 - Date For Remedy Selection (CM Imposed)
NAICS Code(s): 49319
Other Warehousing and Storage
Original schedule date: 10/30/2000
Schedule end date: Not reported

EPA ID: MID005057005
EPA Region: 5
Area Name: HW SURFACE IMPOUNDMENTS
Actual Date: Not reported
Action: CA500 - CMI Workplan Approved
NAICS Code(s): 49319
Other Warehousing and Storage
Original schedule date: 10/30/2001
Schedule end date: Not reported

EPA ID: MID005057005
EPA Region: 5
Area Name: HW SURFACE IMPOUNDMENTS
Actual Date: Not reported
Action: CA550 - Certification Of Remedy Completion Or Construction Completion
NAICS Code(s): 49319
Other Warehousing and Storage
Original schedule date: 10/30/2002
Schedule end date: Not reported

EPA ID: MID005057005
EPA Region: 5
Area Name: HW SURFACE IMPOUNDMENTS
Actual Date: Not reported
Action: CA200 - RFI Approved
NAICS Code(s): 49319
Other Warehousing and Storage
Original schedule date: 10/30/1998
Schedule end date: Not reported

VISTEON MONROE (Continued) **1000183618**

EPA ID: MID005057005
EPA Region: 5
Area Name: HW SURFACE IMPOUNDMENTS
Actual Date: Not reported
Action: CA150 - RFI Workplan Approved
NAICS Code(s): 49319
Other Warehousing and Storage
Original schedule date: 09/30/1997
Schedule end date: Not reported

EPA ID: MID005057005
EPA Region: 5
Area Name: HW SURFACE IMPOUNDMENTS
Actual Date: Not reported
Action: CA350 - CMS Approved
NAICS Code(s): 49319
Other Warehousing and Storage
Original schedule date: 10/30/1999
Schedule end date: Not reported

PADS:
EPAID: MID005057005
Facility name: FORD MOTOR MONROE PLT
Facility Address: 3200 E ELM ST
MONROE, MI 48161
Facility country: US
Generator: Yes
Storer: No
Transporter: No
Disposer: No
Research facility: No
Smelter: No
Facility owner name: FORD MOTOR CO
Contact title: Not reported
Contact name: DANIEL B R
Contact tel: (313)243-4732
Contact extension: Not reported
Mailing address: 3200 E ELM ST
MONROE, MI 48161
Mailing country: US
Cert. title: Not reported
Cert. name: Not reported
Cert. date: 4/12/1990
Date received: 6/6/1990

FINDS:

Registry ID: 110000405936

Environmental Interest/Information System
AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants.

VISTEON MONROE (Continued) **1000183618**

AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

US EPA Air Quality System (AQS) contains ambient air pollution data collected by EPA, State, Local, and Tribal air pollution control agencies from thousands of monitoring stations.

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Information System) is the Superfund database that is used to support management in all phases of the Superfund program. The system contains information on all aspects of hazardous waste sites, including an inventory of sites, planned and actual site activities, and financial information.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

UST:

Facility ID:	00010826
Facility Type:	ACTIVE
Latitude:	41.9033840000
Longitude:	-83.3549830000
Owner Name:	Ford Motor Co - Environmental Quality Office
Owner Address:	Fairlane Plaza North 290 Town Center Dr Suite 800
Owner City,St,Zip:	Dearborn, MI 48126

VISTEON MONROE (Continued) **1000183618**

Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(313) 322-3891
Contact:	Timothy Buisch
Contact Phone:	(313) 805-5374
Date of Collection:	21-10-2003
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	GPS Code Meas. Standard Positioning Service SA Off

Tank ID:	1
Tank Status:	**Removed from Ground**
Capacity:	10000
Install Date:	May 1 1979
Product:	Hazardous Substance
Remove Date:	Jun 1 1992
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	LINED PIPE
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel,Lined Interier
Impressed Device:	No

Tank ID:	2
Tank Status:	**Removed from Ground**
Capacity:	5000
Install Date:	Apr 30 1984
Product:	Gasoline
Remove Date:	Dec 22 1990
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Galvanized Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel,Cathodically Protected Steel
Impressed Device:	No

Tank ID:	3
Tank Status:	**Removed from Ground**
Capacity:	1500
Install Date:	Apr 30 1984
Product:	Gasoline
Remove Date:	Dec 22 1990
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Galvanized Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel,Cathodically Protected Steel
Impressed Device:	No

Tank ID: 4

VISTEON MONROE (Continued) **1000183618**

Tank Status:	**Temporarily out of Use**
Capacity:	8000
Install Date:	Apr 1 1992
Product:	Gasoline, Diesel
Remove Date:	Not reported
Tank Release Detection:	Tank Tightness Testing, Inventory Control, Automatic Tank Gauging, Interstitial Monitoring Double Walled Tank
Pipe Realease Detection:	Interstitial Monitoring Double Walled Piping, Line Tightness Testing
Piping Material:	Double Walled
Piping Type:	Suction: No Valve At Tank
Constr Material:	Epoxy Coated Steel, Double Walled
Impressed Device:	No

NY MANIFEST:

EPA ID:	MID005057005
Country:	USA
Mailing Name:	FORD MOTOR CO
Mailing Contact:	NEIL SMITH
Mailing Address:	3200 E ELM AVE
Mailing Address 2:	Not reported
Mailing City:	MONROE
Mailing State:	MI
Mailing Zip:	48161
Mailing Zip4:	Not reported
Mailing Country:	USA
Mailing Phone:	313-243-4859

Document ID:	NYB7734987
Manifest Status:	Completed copy
Trans1 State ID:	11785PNY
Trans2 State ID:	PD9945NY
Generator Ship Date:	960403
Trans1 Recv Date:	960403
Trans2 Recv Date:	960408
TSD Site Recv Date:	960408
Part A Recv Date:	960424
Part B Recv Date:	960417
Generator EPA ID:	MID005057005
Trans1 EPA ID:	NYD980769947
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	D009 - MERCURY 0.2 MG/L TCLP
Quantity:	00165
Units:	G - Gallons (liquids only)* (8.3 pounds)
Number of Containers:	003
Container Type:	DM - Metal drums, barrels
Handling Method:	R Material recovery of more than 75 percent of the total material.
Specific Gravity:	100
Year:	96

Document ID:	NYB8596485
Manifest Status:	Completed copy
Trans1 State ID:	18143HNY
Trans2 State ID:	Not reported
Generator Ship Date:	970415

VISTEON MONROE (Continued) **1000183618**

Trans1 Recv Date:	970415
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	970416
Part A Recv Date:	970501
Part B Recv Date:	970429
Generator EPA ID:	MID005057005
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	18343
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	97

Document ID:	NYB8596917
Manifest Status:	Completed copy
Trans1 State ID:	22130HNY
Trans2 State ID:	Not reported
Generator Ship Date:	970415
Trans1 Recv Date:	970415
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	970416
Part A Recv Date:	970501
Part B Recv Date:	970429
Generator EPA ID:	MID005057005
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	17572
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	97

Document ID:	NYB8596935
Manifest Status:	Completed copy
Trans1 State ID:	98289FNY
Trans2 State ID:	Not reported
Generator Ship Date:	970416
Trans1 Recv Date:	970416
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	970417
Part A Recv Date:	970501
Part B Recv Date:	970429
Generator EPA ID:	MID005057005
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679

VISTEON MONROE (Continued) **1000183618**

Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	20220
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	97

Document ID:	NYB8596971
Manifest Status:	Completed copy
Trans1 State ID:	45081TNY
Trans2 State ID:	Not reported
Generator Ship Date:	970416
Trans1 Recv Date:	970416
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	970417
Part A Recv Date:	970501
Part B Recv Date:	970429
Generator EPA ID:	MID005057005
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	13372
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	97

Document ID:	NYB8596467
Manifest Status:	Completed copy
Trans1 State ID:	98834FNY
Trans2 State ID:	Not reported
Generator Ship Date:	970415
Trans1 Recv Date:	970415
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	970416
Part A Recv Date:	970501
Part B Recv Date:	970429
Generator EPA ID:	MID005057005
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	13862
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	97

VISTEON MONROE (Continued) **1000183618**

Document ID:	NYB8597007
Manifest Status:	Completed copy
Trans1 State ID:	95289FNY
Trans2 State ID:	Not reported
Generator Ship Date:	970421
Trans1 Recv Date:	970421
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	970422
Part A Recv Date:	970501
Part B Recv Date:	970502
Generator EPA ID:	MID005057005
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	20403
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	97

Document ID:	NYB8596476
Manifest Status:	Completed copy
Trans1 State ID:	358640NY
Trans2 State ID:	Not reported
Generator Ship Date:	970415
Trans1 Recv Date:	970415
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	970416
Part A Recv Date:	970501
Part B Recv Date:	970429
Generator EPA ID:	MID005057005
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	17255
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	97

Document ID:	NYB8596314
Manifest Status:	Completed copy
Trans1 State ID:	18143HNY
Trans2 State ID:	Not reported
Generator Ship Date:	970423
Trans1 Recv Date:	970423
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	970424
Part A Recv Date:	970501

VISTEON MONROE (Continued) **1000183618**

Part B Recv Date:	970502
Generator EPA ID:	MID005057005
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	19060
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	97

Document ID:	NYB8596944
Manifest Status:	Completed copy
Trans1 State ID:	45093TNY
Trans2 State ID:	Not reported
Generator Ship Date:	970416
Trans1 Recv Date:	970416
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	970417
Part A Recv Date:	970501
Part B Recv Date:	970429
Generator EPA ID:	MID005057005
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	18262
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	97

Document ID:	NYB8596953
Manifest Status:	Completed copy
Trans1 State ID:	45084TNY
Trans2 State ID:	Not reported
Generator Ship Date:	970416
Trans1 Recv Date:	970416
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	970417
Part A Recv Date:	970501
Part B Recv Date:	970429
Generator EPA ID:	MID005057005
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	17581
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001

VISTEON MONROE (Continued) **1000183618**

Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	97

Document ID:	NYB8596449
Manifest Status:	Completed copy
Trans1 State ID:	22866HNY
Trans2 State ID:	Not reported
Generator Ship Date:	970414
Trans1 Recv Date:	970414
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	970415
Part A Recv Date:	970501
Part B Recv Date:	970430
Generator EPA ID:	MID005057005
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	19160
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	97

Document ID:	NYB8596305
Manifest Status:	Completed copy
Trans1 State ID:	23384HNY
Trans2 State ID:	Not reported
Generator Ship Date:	970423
Trans1 Recv Date:	970423
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	970424
Part A Recv Date:	970501
Part B Recv Date:	970502
Generator EPA ID:	MID005057005
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	17228
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	97

Document ID:	NYB8596989
Manifest Status:	Completed copy
Trans1 State ID:	45081TNY

VISTEON MONROE (Continued) **1000183618**

Trans2 State ID:	Not reported
Generator Ship Date:	970421
Trans1 Recv Date:	970421
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	970422
Part A Recv Date:	970501
Part B Recv Date:	970502
Generator EPA ID:	MID005057005
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	18915
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	97

Document ID:	NYB8596998
Manifest Status:	Completed copy
Trans1 State ID:	25493HNY
Trans2 State ID:	Not reported
Generator Ship Date:	970421
Trans1 Recv Date:	970421
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	970422
Part A Recv Date:	970501
Part B Recv Date:	970502
Generator EPA ID:	MID005057005
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	17854
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	97

Document ID:	NYB8596395
Manifest Status:	Completed copy
Trans1 State ID:	K53516NY
Trans2 State ID:	Not reported
Generator Ship Date:	970414
Trans1 Recv Date:	970414
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	970415
Part A Recv Date:	970501
Part B Recv Date:	970430
Generator EPA ID:	MID005057005
Trans1 EPA ID:	NYD097644801

VISTEON MONROE (Continued) **1000183618**

Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	15831
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	97

Document ID:	NYB8596458
Manifest Status:	Completed copy
Trans1 State ID:	80724VNY
Trans2 State ID:	Not reported
Generator Ship Date:	970414
Trans1 Recv Date:	970414
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	970415
Part A Recv Date:	970501
Part B Recv Date:	970430
Generator EPA ID:	MID005057005
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	16565
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100
Year:	97

Document ID:	NYB8596926
Manifest Status:	Completed copy
Trans1 State ID:	22869HNY
Trans2 State ID:	Not reported
Generator Ship Date:	970415
Trans1 Recv Date:	970415
Trans2 Recv Date:	Not reported
TSD Site Recv Date:	970416
Part A Recv Date:	970501
Part B Recv Date:	970429
Generator EPA ID:	MID005057005
Trans1 EPA ID:	NYD051809952
Trans2 EPA ID:	Not reported
TSDF ID:	NYD049836679
Waste Code:	B007 - OTHER MISCELLANEOUS PCB WASTES
Quantity:	17373
Units:	K - Kilograms (2.2 pounds)
Number of Containers:	001
Container Type:	DT - Dump trucks
Handling Method:	L Landfill.
Specific Gravity:	100

VISTEON MONROE (Continued) **1000183618**

Year: 97

FINANCIAL ASSURANCE:
EPA ID: MID005057005
Region: 1
Mechanism Type: BOND-AR
Total Amount: $3,630,285.00

J58 ESE 1/2-1 0.668 mi. 3528 ft. | **AUTOMOTIVE COMPONENTS HOLDINGS, LLC** | **SHWS** **S105550879**
3200 EAST ELM AVENUE | **NPDES** **N/A**
MONROE, MI 48162

Site 2 of 2 in cluster J

Relative: Higher

Actual: 579 ft.

SHWS:
Facility ID: 58000007
Facility Status: Contact Lead Division for current status
Source: Plating & Polishing
SAM Score: 36
SAM Score Date: 9/21/1990
Township: 07S
Range: 09E
Section: 10
Quarter: SW
Quarter/Quarter: NE
Pollutants: Cu; Pb; Zn

MI NPDES:
Permit Number: NEC156993
Permitee PO Box: N
Permitee Email: Not reported
Issue Date: 1/31/2011
Effective Date: 1/31/2011
Expiration Date: 1/31/2016
Permittee Name: Ford Motor Company
Permittee Address: 6200 Mercury Drive
Permittee Addr2: Not reported
Permittee City,St,Zip: Dearborn, MI 48126
Permit Type: NEC
Facility Name 2: Not reported
Facility Name 3: Monroe Plant
Facility Name 4: Not reported
Designed Name: Ford River Raisin Warehouse
Latitude: 41.90361
Lat Direction: N
Lat Type Code: LAT
Longitude: -83.352779999999996
Lon Direction: W
Lon Type Code: LON
Hydrologic Unit Code: 4100002

59 SW 1/2-1 0.704 mi. 3716 ft. | **SALCO INDUSTRIAL SERVICE**
704 CONANT
MONROE, MI 48161 | **CERC-NFRAP**
CORRACTS
RCRA-NonGen
FINDS | **1000175466**
MID000722728

Relative: Higher

Actual: 581 ft.

CERC-NFRAP:
Site ID: 0502197
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Contact Details:
Contact Sequence ID: 5293659.00000
Person ID: 5270173.00000

CERCLIS-NFRAP Site Alias Name(s):
Alias Name: SALCO CORP DBA CIS
Alias Address: Not reported
MI

Alias Name: SALCO INC
Alias Address: 704 CONANT
MONROE, MI 48161

Alias Name: SALCO INCORPORATION
Alias Address: 704 CONANT
MONROE, MI 48161

Program Priority:
Description: Great Lakes

CERCLIS-NFRAP Assessment History:
Action: DISCOVERY
Date Started: Not reported
Date Completed: 10/28/1985
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: Not reported
Date Completed: 12/10/1985
Priority Level: Higher priority for further assessment

Action: ARCHIVE SITE
Date Started: Not reported
Date Completed: 02/07/1990
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: Not reported
Date Completed: 02/07/1990
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

Action: ISSUE REQUEST LETTERS (104E)
Date Started: Not reported
Date Completed: 02/16/1995
Priority Level: Not reported

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Action: Notice Letters Issued
Date Started: Not reported
Date Completed: 03/10/1995
Priority Level: Not reported

Action: ISSUE REQUEST LETTERS (104E)
Date Started: Not reported
Date Completed: 03/27/1995
Priority Level: Not reported

Action: Notice Letters Issued
Date Started: Not reported
Date Completed: 03/27/1995
Priority Level: Not reported

Action: Notice Letters Issued
Date Started: Not reported
Date Completed: 05/18/1995
Priority Level: Not reported

Action: Notice Letters Issued
Date Started: Not reported
Date Completed: 05/18/1995
Priority Level: Not reported

Action: ISSUE REQUEST LETTERS (104E)
Date Started: Not reported
Date Completed: 05/18/1995
Priority Level: Not reported

Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: Not reported
Date Completed: 11/28/1995
Priority Level: Not reported

Action: Notice Letters Issued
Date Started: Not reported
Date Completed: 11/30/1995
Priority Level: Not reported

Action: REMOVAL
Date Started: 04/19/1995
Date Completed: 02/25/1996
Priority Level: Stabilized

Action: Notice Letters Issued
Date Started: Not reported
Date Completed: 03/07/1996
Priority Level: Not reported

Action: Notice Letters Issued
Date Started: Not reported
Date Completed: 03/07/1996
Priority Level: Not reported

Action: Notice Letters Issued
Date Started: Not reported

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Date Completed: 04/10/1996
Priority Level: Not reported

Action: NON-NATIONAL PRIORITIES LIST POTENTIALLY RESPONSIBLE PARTY SEARCH
Date Started: 10/01/1995
Date Completed: 06/05/1996
Priority Level: Search Complete, Viable PRPs

Action: ISSUE REQUEST LETTERS (104E)
Date Started: Not reported
Date Completed: 06/12/1996
Priority Level: Not reported

Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: Not reported
Date Completed: 12/10/1996
Priority Level: Not reported

Action: POTENTIALLY RESPONSIBLE PARTY REMOVAL
Date Started: 02/26/1996
Date Completed: 01/26/1997
Priority Level: Cleaned up

Action: POTENTIALLY RESPONSIBLE PARTY REMOVAL
Date Started: 01/28/1997
Date Completed: 11/13/1997
Priority Level: Cleaned up

CORRACTS:

EPA ID: MID000722728
EPA Region: 5
Area Name: ENTIRE FACILITY
Actual Date: 3/31/1994
Action: CA075LO - CA Prioritization, Facility or area was assigned a low corrective action priority
NAICS Code(s): 33122
Rolling and Drawing of Purchased Steel
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID000722728
EPA Region: 5
Area Name: ENTIRE FACILITY
Actual Date: 5/1/2009
Action: CA070NO - RFA Determination Of Need For An RFI, RFI is Not Necessary
NAICS Code(s): 33122
Rolling and Drawing of Purchased Steel
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID000722728
EPA Region: 5
Area Name: ENTIRE FACILITY
Actual Date: 5/14/1990
Action: CA050 - RFA Completed

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

NAICS Code(s): 33122
Rolling and Drawing of Purchased Steel
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID000722728
EPA Region: 5
Area Name: ENTIRE FACILITY
Actual Date: 5/14/1990
Action: CA070YE - RFA Determination Of Need For An RFI, RFI is Necessary
NAICS Code(s): 33122
Rolling and Drawing of Purchased Steel
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID000722728
EPA Region: 5
Area Name: ENTIRE FACILITY
Actual Date: 9/27/1991
Action: CA075LO - CA Prioritization, Facility or area was assigned a low corrective action priority
NAICS Code(s): 33122
Rolling and Drawing of Purchased Steel
Original schedule date: Not reported
Schedule end date: Not reported

RCRA-NonGen:
Date form received by agency: 03/01/2002
Facility name: SALCO INC
Facility address: 704 CONANT ST
MONROE, MI 48161
EPA ID: MID000722728
Contact: KENNETH TARTER
Contact address: Not reported
Not reported
Contact country: Not reported
Contact telephone: (313) 243-2820
Contact email: Not reported
EPA Region: 05
Land type: Private
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: SALCO INC
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Owner/operator name: SALCO (AFFILIATE OF COUSINS WASTE)
Owner/operator address: Not reported

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1970
Owner/Op end date:	Not reported

Owner/operator name:	SALCO (AFFILIATE OF COUSINS WASTE)
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1970
Owner/Op end date:	Not reported

Owner/operator name:	SALCO INC
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/1970
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	12/31/2001
Facility name:	SALCO INC
Classification:	Not a generator, verified

Date form received by agency:	04/05/2001
Facility name:	SALCO INC
Classification:	Small Quantity Generator

Date form received by agency:	07/28/1995
Facility name:	SALCO INC

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Classification: Small Quantity Generator

Date form received by agency: 11/19/1980
Facility name: SALCO INC
Classification: Not a generator, verified

Date form received by agency: 08/18/1980
Facility name: SALCO INC
Classification: Small Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Corrective Action Summary:
Event date: 05/14/1990
Event: RFA Completed

Event date: 05/14/1990
Event: RFA Determination Of Need For An RFI, RFI is Necessary;

Event date: 09/27/1991
Event: CA Prioritization, Facility or area was assigned a low corrective action priority.

Event date: 03/31/1994
Event: CA Prioritization, Facility or area was assigned a low corrective action priority.

Event date: 05/01/2009
Event: RFA Determination Of Need For An RFI, RFI is Not Necessary;

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 12/18/2001
Date achieved compliance: Not reported
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/18/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 01/13/1992

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Date achieved compliance: 03/25/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/13/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 01/13/1992
Date achieved compliance: 03/25/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/13/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 01/13/1992
Date achieved compliance: 03/25/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/13/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 09/16/1991
Date achieved compliance: 03/25/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/16/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 12/18/1990
Date achieved compliance: 03/25/1993

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/11/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 12/18/1990
Date achieved compliance: 03/25/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/11/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 06/28/1990
Date achieved compliance: 03/25/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/26/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Transporters - General
Date violation determined: 03/29/1990
Date achieved compliance: 10/09/1990
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/18/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 01/31/1990
Date achieved compliance: 03/25/1993
Violation lead agency: State

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/31/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 01/23/1990
Date achieved compliance: 03/25/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/31/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 03/17/1989
Date achieved compliance: 03/25/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/17/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 03/03/1989
Date achieved compliance: 01/23/1990
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/17/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 03/03/1989
Date achieved compliance: 01/23/1990
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Enforcement action date: 03/17/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Transporters - General
Date violation determined: 03/04/1987
Date achieved compliance: 03/03/1989
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 09/05/1985
Date achieved compliance: 08/11/1986
Violation lead agency: EPA
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 07/08/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: 4600
Final penalty amount: 4600
Paid penalty amount: 4600

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 09/05/1985
Date achieved compliance: 08/11/1986
Violation lead agency: EPA
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 02/28/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: 7500
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Transporters - General
Date violation determined: 05/16/1985
Date achieved compliance: 10/21/1986
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/28/1985

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Transporters - General
Date violation determined: 05/16/1985
Date achieved compliance: 10/21/1986
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/22/1985
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 02/28/1985
Date achieved compliance: 08/11/1986
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/18/1985
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 07/16/1984
Date achieved compliance: 11/01/1984
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 06/16/1984
Date achieved compliance: 08/28/1984
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/28/1984
Enf. disposition status: Not reported

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 06/16/1984
Date achieved compliance: 08/28/1984
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/10/1984
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 06/16/1984
Date achieved compliance: 08/28/1984
Violation lead agency: EPA
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 05/29/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: 9500
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 06/16/1984
Date achieved compliance: 08/28/1984
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/16/1984
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 06/16/1984
Date achieved compliance: 08/28/1984
Violation lead agency: EPA
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 09/17/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Enforcement lead agency: EPA
Proposed penalty amount: 7500
Final penalty amount: 7500
Paid penalty amount: 7500

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 06/16/1984
Date achieved compliance: 08/28/1984
Violation lead agency: EPA
Enforcement action: RCRA TO CERCLA ADMINISTRATIVE REFERRAL
Enforcement action date: 10/06/1994
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 03/22/1984
Date achieved compliance: 06/28/1984
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/22/1984
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 12/18/2001
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: State Statute or Regulation
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/10/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 03/25/1993
Evaluation lead agency: State

Evaluation date: 01/10/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Closure/Post-Closure
Date achieved compliance: 03/25/1993
Evaluation lead agency: State

Evaluation date: 01/10/1992
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 03/25/1993
Evaluation lead agency: State

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Evaluation date: 09/16/1991
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 03/25/1993
Evaluation lead agency: State

Evaluation date: 12/18/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Closure/Post-Closure
Date achieved compliance: 03/25/1993
Evaluation lead agency: State

Evaluation date: 12/18/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 03/25/1993
Evaluation lead agency: State

Evaluation date: 06/28/1990
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: TSD - General
Date achieved compliance: 03/25/1993
Evaluation lead agency: State

Evaluation date: 04/24/1990
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/29/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - General
Date achieved compliance: 10/09/1990
Evaluation lead agency: State

Evaluation date: 01/31/1990
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 03/25/1993
Evaluation lead agency: State

Evaluation date: 01/23/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Closure/Post-Closure
Date achieved compliance: 03/25/1993
Evaluation lead agency: State

Evaluation date: 10/31/1989
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/24/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/17/1989
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 03/25/1993
Evaluation lead agency: State

Evaluation date: 03/03/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 01/23/1990
Evaluation lead agency: State

Evaluation date: 03/03/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Closure/Post-Closure
Date achieved compliance: 01/23/1990
Evaluation lead agency: State

Evaluation date: 12/01/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/23/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/06/1988
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/02/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/11/1987
Evaluation: GROUNDWATER MONITORING EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/04/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - General
Date achieved compliance: 03/03/1989
Evaluation lead agency: State

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Evaluation date: 06/24/1986
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/25/1986
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA Contractor/Grantee

Evaluation date: 09/16/1985
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/05/1985
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 08/11/1986
Evaluation lead agency: EPA

Evaluation date: 07/30/1985
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/16/1985
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - General
Date achieved compliance: 10/21/1986
Evaluation lead agency: State

Evaluation date: 02/28/1985
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 08/11/1986
Evaluation lead agency: EPA

Evaluation date: 12/03/1984
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/03/1984
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA

Evaluation date: 10/16/1984
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/25/1984
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/14/1984
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/16/1984
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 11/01/1984
Evaluation lead agency: State

Evaluation date: 06/16/1984
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 08/28/1984
Evaluation lead agency: EPA

Evaluation date: 03/22/1984
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 06/28/1984
Evaluation lead agency: State

FINDS:

Registry ID: 110003576531

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include;

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Incident Tracking, Compliance Assistance, and Compliance Monitoring.

Count: 38 records

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
FRENCHTOWN TOWNSHI	1007990149	MI DEPT/TRANSPORTATION	I 75 UNDER POST RD	48161	RCRA-NonGen
FRENCHTOWN TOWNSHI	1001117744	MI DEPT/TRANSPORTATION	I 75 OVER STONEY CREEK RD	48161	RCRA-NonGen, FINDS
FRENCHTOWN TOWNSHI	1007990032	MI DEPT/TRANSPORTATION	I 75 OVER SANDY CREEK RD	48161	RCRA-NonGen
FRENCHTOWN TOWNSHI	1007989846	MI DEPT/TRANSPORTATION	I 75 OVER SANDY CREEK RD	48161	RCRA-NonGen
LUNA PIER	1007102377	MID STATES EXPRESS	I 75 & I 280 SPLIT AT BORDER	48161	RCRA-NonGen
MONROE	1000465331	MI DEPT/TRANSPORTATION BRIDGE	US 24 OVER ANN ARBOR RAIL RD	48161	RCRA-NonGen, FINDS
MONROE	1007119059	MI DEPT/TRANSPORTATION	I 75 UNDER I 75 RAMP B	48161	RCRA-NonGen
MONROE	1007880519	MI DEPT/TRANSPORTATION	I 75 UNDER DUNBAR RD	48161	RCRA-NonGen
MONROE	1001124059	MI DEPT/TRANSPORTATION	I 75 OVER RAILROAD	48161	RCRA-NonGen, FINDS
MONROE	1012180709	MI DEPT/TRANSPORTATION	I 75 OVER PAPER CO WATER MAIN	48161	RCRA-CESQG
MONROE	1001112666	MI DEPT/TRANSPORTATION	I 75 OVER GTWRR BRIDGE	48161	RCRA-NonGen, FINDS
MONROE	1007119063	MI DEPT/TRANSPORTATION	I 75 (NB EXIT RMP OVER LAPLAIS	48161	RCRA-CESQG
MONROE	1000465129	MI DEPT/TRANSPORTATION	ANN ARBOR RD OVER MACON RIVER	48161	RCRA-NonGen, FINDS
MONROE	1006932009	MONROE PAPER MERCURY SPILL	N. DIXIE HIGHWAY AND E. ELM STREET	48161	CERC-NFRAP
MONROE	1004722955	WAYNES BODY SHOP	15205 S DIXIE HWY	48161	RCRA-CESQG, FINDS
MONROE	S110532115	KNAB'S SERVICE	12966 S DIXIE HIGHWAY		BROWNFIELDS
MONROE	S100069931	RURAL REFUSE INC SITE #1	DUNBAR AT I-75	48161	HIST LF
MONROE	S100069935	CITY OF MONROE SLF	ELM STREET	48161	HIST LF
MONROE	1004723714	CITY OF MONROE	ELM AVE BRIDGE OVER MASON RUN	48161	RCRA-CESQG, FINDS
MONROE	1003871272	MONROE WKS	ELM AVE	48161	CERC-NFRAP
MONROE	U003758624	FORMER BP SITE #04328	204 E ELM ST	44114	UST
MONROE	1003871225	MONROE CITY LDFL	FRONT STREET BTWN PORT & MCMILLIAN	48161	CERC-NFRAP
MONROE	S103595035	MONROE LF CITY OF	FRONT ST BTWN PORT & MCMILLIAN	48161	SHWS
MONROE	S108632582	DETROIT EDISON MONROE POWER PLANT	FRONT ST (AND RIVER MOUTH)	48161	SHWS
MONROE	1003871732	DETROIT EDISON DREDGE	FRONT ST	48161	CERC-NFRAP
MONROE	1012172756	MONROE EAST FRONT STREET VACANT PARCEL	EAST FRONT STREET	48161	US BROWNFIELDS
MONROE	S109952119	WYANDOTTE ELECTRIC PLANT & WFP	3500 EAST FRONT STREET	48161	COAL ASH
MONROE	S103595037	RAISIN R CITY OF MONROE TO MOUTH	MONROE HARBOR	48161	SHWS
MONROE	S110532189	RAISIN R, CITY OF MONROE TO MOUTH OF	MONROE HARBOR		BROWNFIELDS
MONROE	U000260692	MARATHON UNIT #2068	1559 NADEAU RD & I-75	45840	LUST, UST
MONROE	1011489479	NORFOLK SOUTHERN	997 E NOBLE AVE	48161	RCRA-NonGen
MONROE	1012180550	MI DEPT/TRANSPORTATION	I-75 NORTH & SOUTH BOUND OVER	48161	RCRA-CESQG
MONROE	S109029713	CLARK STATION LOTS ADJ TO	N OF 643 TELEGRAPH	48161	SHWS
MONROE	1003871330	PORT OF MONROE LDFL	PLUM CREEK BTWN I-75 & FRONT	48161	CERC-NFRAP
MONROE	S103086383	PORT OF MONROE LF	PLUM CREEK BTWN I-75 & 3101 E FRONT	48161	SHWS
MONROE	1007097275	RII STATE TRUCKING	NB REST AREA ON I 75	48161	RCRA-NonGen
MONROE	S105144460	GOULD NATIONAL BATTERY INC	1655 WEST SEVENTH STREET	0NULL	SHWS
MONROE	S108632585	DAMICO/RIVERBEND PROJECT SITE #8	TELEGRTAPH RD & WEST FRONT STREET		SHWS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 01/13/2011
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 15

Source: EPA
Telephone: N/A
Last EDR Contact: 04/13/2011
Next Scheduled EDR Contact: 07/25/2011
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 01/13/2011
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 15

Source: EPA
Telephone: N/A
Last EDR Contact: 04/13/2011
Next Scheduled EDR Contact: 07/25/2011
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 05/16/2011
Next Scheduled EDR Contact: 08/29/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/31/2010	Source: EPA
Date Data Arrived at EDR: 01/13/2011	Telephone: N/A
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 04/13/2011
Number of Days to Update: 15	Next Scheduled EDR Contact: 07/25/2011
	Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/25/2011	Source: EPA
Date Data Arrived at EDR: 03/01/2011	Telephone: 703-412-9810
Date Made Active in Reports: 05/02/2011	Last EDR Contact: 04/29/2011
Number of Days to Update: 62	Next Scheduled EDR Contact: 06/13/2011
	Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPAa??s Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 12/10/2010	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/11/2011	Telephone: 703-603-8704
Date Made Active in Reports: 02/16/2011	Last EDR Contact: 04/15/2011
Number of Days to Update: 36	Next Scheduled EDR Contact: 07/25/2011
	Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 02/25/2011	Source: EPA
Date Data Arrived at EDR: 03/01/2011	Telephone: 703-412-9810
Date Made Active in Reports: 05/02/2011	Last EDR Contact: 04/29/2011
Number of Days to Update: 62	Next Scheduled EDR Contact: 06/13/2011
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 05/25/2010
Date Data Arrived at EDR: 06/02/2010
Date Made Active in Reports: 10/04/2010
Number of Days to Update: 124

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 05/16/2011
Next Scheduled EDR Contact: 08/29/2011
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/11/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 04/05/2011
Next Scheduled EDR Contact: 07/18/2011
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/11/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 04/05/2011
Next Scheduled EDR Contact: 07/18/2011
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/11/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 04/05/2011
Next Scheduled EDR Contact: 07/18/2011
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/11/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 04/05/2011
Next Scheduled EDR Contact: 07/18/2011
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/05/2011
Date Data Arrived at EDR: 01/14/2011
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 03/14/2011
Next Scheduled EDR Contact: 06/27/2011
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/05/2011
Date Data Arrived at EDR: 01/14/2011
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 03/14/2011
Next Scheduled EDR Contact: 06/27/2011
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 01/07/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 73

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 04/05/2011
Next Scheduled EDR Contact: 07/18/2011
Data Release Frequency: Annually

State- and tribal - equivalent CERCLIS

SHWS: Contaminated Sites

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 05/02/2011
Date Data Arrived at EDR: 05/04/2011
Date Made Active in Reports: 05/25/2011
Number of Days to Update: 21

Source: Department of Natural Resources & Environment
Telephone: 517-373-9541
Last EDR Contact: 05/04/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Semi-Annually

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Facilities Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 01/05/2011
Date Data Arrived at EDR: 01/07/2011
Date Made Active in Reports: 02/14/2011
Number of Days to Update: 38

Source: Department of Natural Resources & Environment
Telephone: 517-335-4035
Last EDR Contact: 04/04/2011
Next Scheduled EDR Contact: 07/18/2011
Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank Sites
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 02/22/2011
Date Data Arrived at EDR: 02/23/2011
Date Made Active in Reports: 03/18/2011
Number of Days to Update: 23

Source: Department of Natural Resources & Environment
Telephone: 517-373-9837
Last EDR Contact: 05/24/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Annually

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 11/04/2009
Date Data Arrived at EDR: 05/04/2010
Date Made Active in Reports: 07/07/2010
Number of Days to Update: 64

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 05/04/2010
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 02/03/2011
Date Data Arrived at EDR: 02/04/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 45

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 09/01/2010
Date Data Arrived at EDR: 11/05/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 84

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/03/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 02/03/2011
Date Data Arrived at EDR: 02/04/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 45

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/31/2011
Date Data Arrived at EDR: 02/01/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 48

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Quarterly

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 03/03/2011
Date Data Arrived at EDR: 03/18/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 45

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Semi-Annually

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 02/04/2011
Date Data Arrived at EDR: 02/04/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 45

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Quarterly

State and tribal registered storage tank lists

UST: Underground Storage Tank Facility List
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 02/22/2011
Date Data Arrived at EDR: 02/23/2011
Date Made Active in Reports: 03/22/2011
Number of Days to Update: 27

Source: Department of Natural Resources & Environment
Telephone: 517-335-4035
Last EDR Contact: 05/24/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Annually

AST: Aboveground Tanks
Registered Aboveground Storage Tanks.

Date of Government Version: 03/21/2011
Date Data Arrived at EDR: 03/31/2011
Date Made Active in Reports: 05/11/2011
Number of Days to Update: 41

Source: Department of Natural Resources & Environment
Telephone: 517-373-8168
Last EDR Contact: 05/23/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: No Update Planned

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 02/03/2011
Date Data Arrived at EDR: 02/04/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 45

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 01/01/2011
Date Data Arrived at EDR: 02/23/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 68

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 03/03/2011
Date Data Arrived at EDR: 03/18/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 45

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Semi-Annually

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 01/31/2011
Date Data Arrived at EDR: 02/01/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 48

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 02/04/2011
Date Data Arrived at EDR: 02/04/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 45

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 11/01/2010
Date Data Arrived at EDR: 12/02/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 57

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 02/03/2011
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 02/03/2011
Date Data Arrived at EDR: 02/04/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 45

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 09/01/2010
Date Data Arrived at EDR: 11/05/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 84

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/03/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/18/2011
Next Scheduled EDR Contact: 08/01/2011
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

AUL: Engineering and Institutional Controls
A listing of sites with institutional and/or engineering controls in place.

Date of Government Version: 03/18/2011
Date Data Arrived at EDR: 03/18/2011
Date Made Active in Reports: 03/31/2011
Number of Days to Update: 13

Source: Department of Natural Resources & Environment
Telephone: 517-373-4828
Last EDR Contact: 03/07/2011
Next Scheduled EDR Contact: 06/20/2011
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/01/2010
Date Data Arrived at EDR: 01/05/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 75

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 04/05/2011
Next Scheduled EDR Contact: 07/18/2011
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields and USTfield Site Database
All state funded Part 201 and 213 sites, as well as LUST sites that have been redeveloped by private entities using the BEA process. Be aware that this is not a list of all of the potential brownfield sites in Michigan.

Date of Government Version: 05/05/2011
Date Data Arrived at EDR: 05/05/2011
Date Made Active in Reports: 05/25/2011
Number of Days to Update: 20

Source: Department of Natural Resources & Environment
Telephone: 517-373-4805
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

BROWNFIELDS 2: Brownfields Building and Land Site Locations
A listing of brownfield building and land site locations. The listing is a collaborative effort of Michigan Economic Development Corporation, Michigan Economic Developers Association, Detrot Edison, Detroit Area Commercial Board of Realtors

Date of Government Version: 04/09/2007
Date Data Arrived at EDR: 04/10/2007
Date Made Active in Reports: 05/01/2007
Number of Days to Update: 21

Source: Economic Development Corporation
Telephone: 888-522-0103
Last EDR Contact: 03/07/2011
Next Scheduled EDR Contact: 06/20/2011
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 12/29/2010
Date Data Arrived at EDR: 12/30/2010
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/29/2011
Next Scheduled EDR Contact: 07/11/2011
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 03/28/2011
Next Scheduled EDR Contact: 07/11/2011
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWRCY: Recycling Facilities

A listing of recycling center locations.

Date of Government Version: 11/24/2009
Date Data Arrived at EDR: 09/30/2010
Date Made Active in Reports: 10/28/2010
Number of Days to Update: 28

Source: Department of Natural Resources & Environment
Telephone: 517-241-5719
Last EDR Contact: 04/07/2011
Next Scheduled EDR Contact: 07/18/2011
Data Release Frequency: Varies

HIST LF: Inactive Solid Waste Facilities

The database contains historical information and is no longer updated.

Date of Government Version: 03/01/1997
Date Data Arrived at EDR: 02/28/2003
Date Made Active in Reports: 03/06/2003
Number of Days to Update: 6

Source: Department of Natural Resources & Environment
Telephone: 517-335-4034
Last EDR Contact: 02/28/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 05/09/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/02/2011
Date Data Arrived at EDR: 03/17/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 46

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/08/2011
Next Scheduled EDR Contact: 06/20/2011
Data Release Frequency: Quarterly

DEL SHWS: Delisted List of Contaminated Sites
Sites that have been delisted or deleted from the List of Contaminated Sites. The available documentation for the site does not support it's listing or the site no longer meets criteria specified in rules.

Date of Government Version: 05/05/2011
Date Data Arrived at EDR: 05/05/2011
Date Made Active in Reports: 05/25/2011
Number of Days to Update: 20

Source: Department of Natural Resources & Environment
Telephone: 517-373-9541
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

CDL: Clandestine Drug Lab Listing
A listing of clandestine drug lab locations.

Date of Government Version: 10/20/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 11/21/2008
Number of Days to Update: 3

Source: Department of Community Health
Telephone: 517-373-3740
Last EDR Contact: 05/03/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 02/04/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/23/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Varies

LIENS: Lien List

An Environmental Lien is a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a property, including (but not limited to) liens imposed pursuant to CERCLA 42 USC * 9607(1) and similar state or local laws. In other words: a lien placed upon a property's title due to an environmental condition

Date of Government Version: 03/15/2011
Date Data Arrived at EDR: 04/28/2011
Date Made Active in Reports: 05/13/2011
Number of Days to Update: 15

Source: Department of Natural Resources & Environment
Telephone: 517-373-9837
Last EDR Contact: 04/26/2011
Next Scheduled EDR Contact: 08/08/2011
Data Release Frequency: Varies

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 01/05/2011
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 51

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 04/05/2011
Next Scheduled EDR Contact: 07/18/2011
Data Release Frequency: Annually

PEAS: Pollution Emergency Alerting System

Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents, pipeline breaks, and release of reportable quantities of hazardous substances.

Date of Government Version: 10/21/2010
Date Data Arrived at EDR: 10/22/2010
Date Made Active in Reports: 10/28/2010
Number of Days to Update: 6

Source: Department of Natural Resources & Environment
Telephone: 517-373-8427
Last EDR Contact: 03/14/2011
Next Scheduled EDR Contact: 06/27/2011
Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/11/2011
Date Data Arrived at EDR: 04/05/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 04/05/2011
Next Scheduled EDR Contact: 07/18/2011
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/12/2011
Date Data Arrived at EDR: 02/11/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 05/11/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/21/2011
Next Scheduled EDR Contact: 08/01/2011
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 08/12/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 112

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 03/15/2011
Next Scheduled EDR Contact: 06/27/2011
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 10/01/2010
Date Data Arrived at EDR: 10/29/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 91

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/04/2011
Next Scheduled EDR Contact: 07/18/2011
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 02/25/2011
Date Data Arrived at EDR: 03/16/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 5

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/16/2011
Next Scheduled EDR Contact: 06/27/2011
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/21/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 99

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 03/04/2011
Next Scheduled EDR Contact: 06/13/2011
Data Release Frequency: Varies

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/08/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 03/09/2011
Next Scheduled EDR Contact: 06/20/2011
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/17/2010
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 94

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/27/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 64

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/29/2011
Next Scheduled EDR Contact: 07/11/2011
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 05/27/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 05/27/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/07/2011
Date Data Arrived at EDR: 01/21/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 59

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 03/28/2011
Next Scheduled EDR Contact: 07/11/2011
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/01/2010
Date Data Arrived at EDR: 11/10/2010
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 98

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/22/2011
Next Scheduled EDR Contact: 08/01/2011
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/18/2010
Date Data Arrived at EDR: 04/06/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 51

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 03/14/2011
Next Scheduled EDR Contact: 06/27/2011
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/11/2011
Date Data Arrived at EDR: 01/13/2011
Date Made Active in Reports: 02/16/2011
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/13/2011
Next Scheduled EDR Contact: 07/25/2011
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/14/2010
Date Data Arrived at EDR: 04/16/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 41

Source: EPA
Telephone: (312) 353-2000
Last EDR Contact: 03/14/2011
Next Scheduled EDR Contact: 06/27/2011
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 03/01/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 62

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 05/27/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Biennially

UIC: Underground Injection Wells Database

A listing of underground injection well locations. The UIC Program is responsible for regulating the construction, operation, permitting, and closure of injection wells that place fluids underground for storage or disposal.

Date of Government Version: 01/31/2011
Date Data Arrived at EDR: 02/03/2011
Date Made Active in Reports: 02/14/2011
Number of Days to Update: 11

Source: Department of Natural Resources & Environment
Telephone: 517-241-1515
Last EDR Contact: 05/02/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

WDS: Waste Data System

The Waste Data System (WDS) tracks activities at facilities regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs.

Date of Government Version: 02/28/2011
Date Data Arrived at EDR: 03/01/2011
Date Made Active in Reports: 03/28/2011
Number of Days to Update: 27

Source: Department oF Natural Resources & Environment
Telephone: 517-373-9875
Last EDR Contact: 06/01/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Quarterly

DRYCLEANERS: Drycleaning Establishments
A listing of drycleaning facilities in Michigan.

Date of Government Version: 04/30/2011
Date Data Arrived at EDR: 05/04/2011
Date Made Active in Reports: 05/25/2011
Number of Days to Update: 21

Source: Department of Natural Resources & Environment
Telephone: 517-335-4586
Last EDR Contact: 04/25/2011
Next Scheduled EDR Contact: 08/08/2011
Data Release Frequency: Varies

NPDES: List of Active NPDES Permits
General information regarding NPDES (National Pollutant Discharge Elimination System) permits and NPDES Storm Water permits.

Date of Government Version: 04/12/2011
Date Data Arrived at EDR: 04/13/2011
Date Made Active in Reports: 05/13/2011
Number of Days to Update: 30

Source: Department of Natural Resources & Environment
Telephone: 517-241-1300
Last EDR Contact: 04/13/2011
Next Scheduled EDR Contact: 07/25/2011
Data Release Frequency: Varies

AIRS: Permit and Emissions Inventory Data
Permit and emissions inventory data.

Date of Government Version: 01/12/2011
Date Data Arrived at EDR: 01/14/2011
Date Made Active in Reports: 02/18/2011
Number of Days to Update: 35

Source: Department of Natural Resources & Environment
Telephone: 517-373-7074
Last EDR Contact: 03/31/2011
Next Scheduled EDR Contact: 07/11/2011
Data Release Frequency: Varies

BEA: BASELINE ENVIRONMENTAL ASSESSMENT DATABASE
A Baseline Environmental Assessment (BEA) allows people to purchase or begin operating at a facility without being held liable for existing contamination. BEAs are used to gather enough information about the property being transferred so that existing contamination can be distinguished from any new releases that might occur after the new owner or operator takes over the property.

Date of Government Version: 02/25/2011
Date Data Arrived at EDR: 02/25/2011
Date Made Active in Reports: 03/28/2011
Number of Days to Update: 31

Source: Department of Natural Resources & Environment
Telephone: 517-373-9541
Last EDR Contact: 05/23/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Semi-Annually

INDIAN RESERV: Indian Reservations
This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/21/2011
Next Scheduled EDR Contact: 08/01/2011
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing
The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/23/2011
Next Scheduled EDR Contact: 08/08/2011
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 04/19/2011
Next Scheduled EDR Contact: 08/01/2011
Data Release Frequency: Varies

FINANCIAL ASSURANCE 1: Financial Assurance Information Listing
Financial assurance information.

Date of Government Version: 01/13/2011
Date Data Arrived at EDR: 01/20/2011
Date Made Active in Reports: 02/14/2011
Number of Days to Update: 25

Source: Department of Natural Resources & Environment
Telephone: 517-335-6610
Last EDR Contact: 04/11/2011
Next Scheduled EDR Contact: 07/25/2011
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands
Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/21/2011
Next Scheduled EDR Contact: 08/01/2011
Data Release Frequency: N/A

FINANCIAL ASSURANCE 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 01/05/2011
Date Data Arrived at EDR: 01/07/2011
Date Made Active in Reports: 02/14/2011
Number of Days to Update: 38

Source: Department of Natural Resources & Environment
Telephone: 517-335-4034
Last EDR Contact: 04/04/2011
Next Scheduled EDR Contact: 07/18/2011
Data Release Frequency: Varies

COAL ASH: Coal Ash Disposal Sites
Coal fired power plants in Southeast Michigan that have coal ash handling on site.

Date of Government Version: 04/21/2011
Date Data Arrived at EDR: 04/21/2011
Date Made Active in Reports: 05/13/2011
Number of Days to Update: 22

Source: Department of Natural Resources & Environment
Telephone: 586-753-3754
Last EDR Contact: 04/11/2011
Next Scheduled EDR Contact: 07/25/2011
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 01/01/2008
Date Data Arrived at EDR: 02/18/2009
Date Made Active in Reports: 05/29/2009
Number of Days to Update: 100

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/05/2011
Next Scheduled EDR Contact: 08/15/2011
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010
Date Data Arrived at EDR: 01/03/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/18/2011
Next Scheduled EDR Contact: 06/27/2011
Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 08/26/2009
Date Made Active in Reports: 09/11/2009
Number of Days to Update: 16

Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/26/2011
Next Scheduled EDR Contact: 09/05/2011
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 07/22/2010
Date Made Active in Reports: 08/26/2010
Number of Days to Update: 35

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/19/2011
Next Scheduled EDR Contact: 08/01/2011
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 05/12/2011
Date Made Active in Reports: 05/24/2011
Number of Days to Update: 12

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/12/2011
Next Scheduled EDR Contact: 08/22/2011
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 12/01/2009
Date Made Active in Reports: 12/14/2009
Number of Days to Update: 13

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/04/2011
Next Scheduled EDR Contact: 07/06/2011
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 07/19/2010
Date Made Active in Reports: 08/26/2010
Number of Days to Update: 38

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/31/2011
Next Scheduled EDR Contact: 09/12/2011
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 07/06/2010
Date Made Active in Reports: 07/26/2010
Number of Days to Update: 20

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/21/2011
Next Scheduled EDR Contact: 07/04/2011
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: Rextag Strategies Corp.
Telephone: (281) 769-2247
U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Centers, Group & Family Homes
Source: Bureau of REgulatory Services
Telephone: 517-373-8300

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Department of Natural Resources
Telephone: 517-241-2254

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

BATTLEFIELD PROPERTY
1220 EAST ELM
MONROE, MI 48162

TARGET PROPERTY COORDINATES

Latitude (North):	41.91350 - 41˚ 54' 48.6''
Longitude (West):	83.3731 - 83˚ 22' 23.2''
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	303188.0
UTM Y (Meters):	4642682.5
Elevation:	579 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	41083-H4 MONROE, MI
Most Recent Revision:	1979
East Map:	41083-H3 STONY POINT, MI
Most Recent Revision:	1978

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

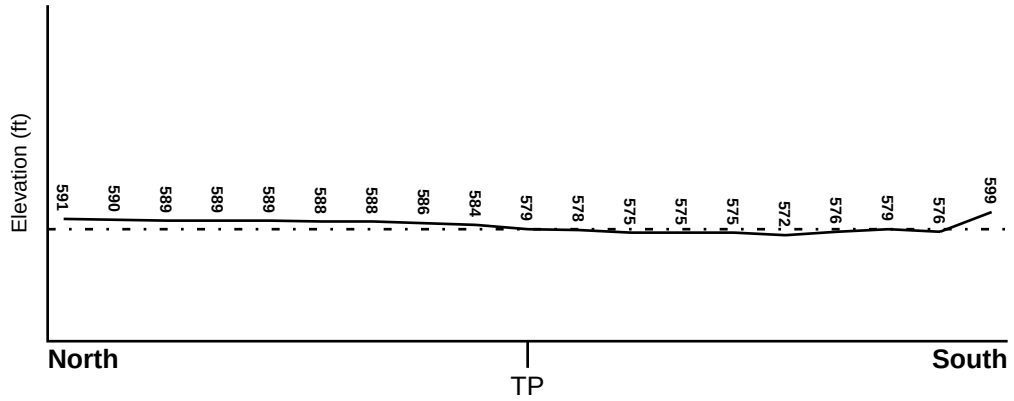
TOPOGRAPHIC INFORMATION

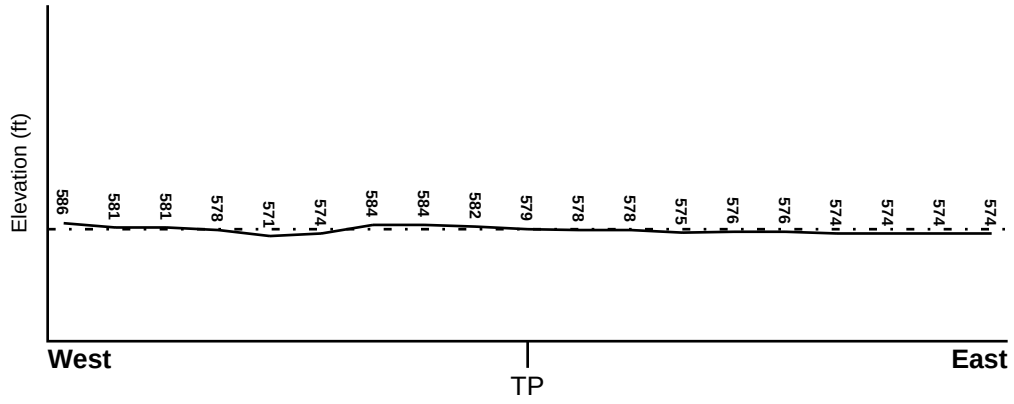
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: 579 ft.

0 1/2 1 Miles

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
MONROE, MI	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property:	2601530015A - FEMA Q3 Flood data
Additional Panels in search area:	2601460003A - FEMA Q3 Flood data
	2601530006A - FEMA Q3 Flood data
	2601530007A - FEMA Q3 Flood data
	2601530010A - FEMA Q3 Flood data
	2601530011A - FEMA Q3 Flood data
	2601530014A - FEMA Q3 Flood data
	2601530018A - FEMA Q3 Flood data
	2601530019A - FEMA Q3 Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
STONY POINT	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

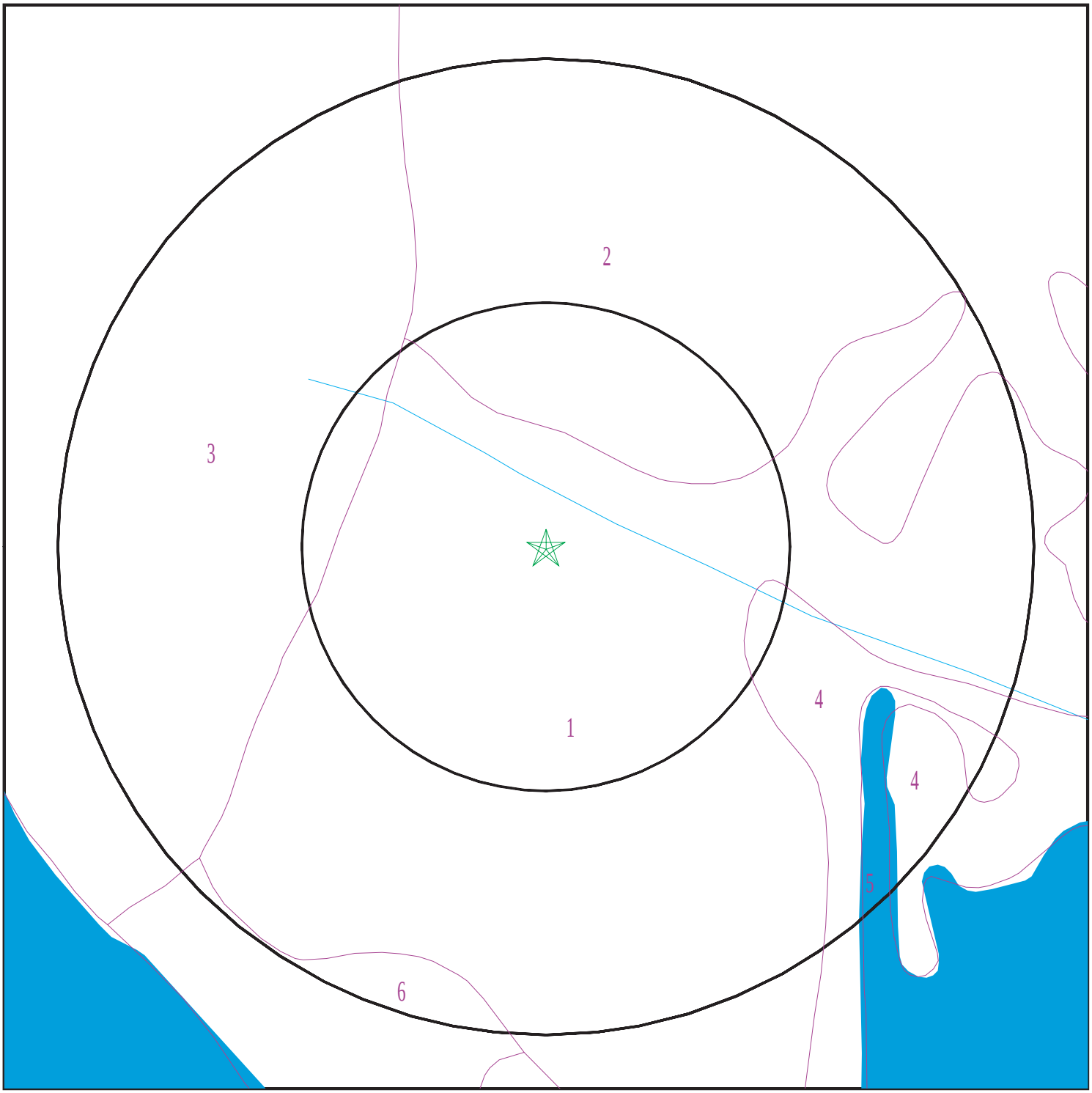
Era:	Paleozoic
System:	Silurian
Series:	Upper Silurian (Cayugan)
Code:	S3 *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 3084125.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME: Battlefield Property ADDRESS: 1220 East Elm Monroe MI 48162 LAT/LONG: 41.9135 / 83.3731	CLIENT: AKT Environmental Consultants CONTACT: Jessica Cory INQUIRY #: 3084125.2s DATE: June 01, 2011 4:00 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Lenawee

Soil Surface Texture: silty clay loam

Hydrologic Group: Class B/D - Drained/undrained hydrology class of soils that can be drained and are classified.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4
2	9 inches	33 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4
3	33 inches	59 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4

Soil Map ID: 2

Soil Component Name: Fulton

Soil Surface Texture: silty clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 53 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.1
2	7 inches	24 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.1
3	24 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.1

Soil Map ID: 3

Soil Component Name: Urban land

Soil Surface Texture: silty clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 4

Soil Component Name: Lenawee

Soil Surface Texture: silty clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Very poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
2	9 inches	33 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4
3	33 inches	59 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

Soil Map ID: 5

Soil Component Name: Water

Soil Surface Texture: silty clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 6

Soil Component Name: Aquents

Soil Surface Texture: variable

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Very poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	59 inches	variable	Not reported	Not reported	Max: Min:	Max: Min:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	MI20219306	1/4 - 1/2 Mile North
A2	MI20219305	1/4 - 1/2 Mile North
A3	MI20219304	1/4 - 1/2 Mile North
A4	MI20219303	1/4 - 1/2 Mile North
A5	MI20219302	1/4 - 1/2 Mile North
6	MI20217944	1/2 - 1 Mile North
7	MI20219307	1/2 - 1 Mile SW
B8	MI20217942	1/2 - 1 Mile NW
B9	MI20217941	1/2 - 1 Mile NW

PHYSICAL SETTING SOURCE MAP - 3084125.2s

County Boundary
Major Roads
Contour Lines
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

0 1/4 1/2 1 Miles

Groundwater Flow Direction
GI Indeterminate Groundwater Flow at Location
GV Groundwater Flow Varies at Location
HD Closest Hydrogeological Data
Oil, gas or related wells

N

SITE NAME: Battlefield Property	CLIENT: AKT Environmental Consultants
ADDRESS: 1220 East Elm Monroe MI 48162	CONTACT: Jessica Cory INQUIRY #: 3084125.2s
LAT/LONG: 41.9135 / 83.3731	DATE: June 01, 2011 4:00 pm

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Map ID Direction Distance Elevation		Database	EDR ID Number
A1 **North** **1/4 - 1/2 Mile** **Higher**		**MI WELLS**	**MI20219306**

Wellid:	58000004264	Import id:	58777904006
County:	Monroe	Township:	Frenchtown
Town range:	07S 09E	Section:	4
Owner name:	Not Reported		
Well addr:	465 HARBOR		
Well depth:	148		
Well type:	Type III public		
Wssn:	0		
Well num:	Not Reported	Driller id:	3
Const date:	1992-09-25 00:00:00.000	Case type:	PVC Plastic
Case dia:	6		
Case depth:	25		
Screen frm:	0		
Screen to:	0		
Swl:	20		
Test depth:	84		
Test hours:	2		
Test rate:	185	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	41.9174737996		
Longitude:	-83.3728455924		
Methd coll:	Interpolation-Map		
Elevation:	586		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	584	Elev dif:	2
Elev miv:	586	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	1
Pct aq d:	0	Pct aq r:	1
Pct maq:	94	Pct maq d:	0
Pct maq r:	99	Pct cm:	5
Pct cm d:	100	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	8
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

A2
North
1/4 - 1/2 Mile
Higher

MI WELLS **MI20219305**

Wellid:	58000004263	Import id:	58777904005
County:	Monroe	Township:	Frenchtown
Town range:	07S 09E	Section:	4
Owner name:	Not Reported		
Well addr:	465 HARBOR		
Well depth:	138		
Well type:	Type III public		
Wssn:	0		
Well num:	Not Reported	Driller id:	3
Const date:	1989-10-13 00:00:00.000	Case type:	PVC Plastic
Case dia:	6		

Case depth:	25		
Screen frm:	0		
Screen to:	0		
Swl:	20		
Test depth:	80		
Test hours:	3		
Test rate:	150	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	41.9176466745		
Longitude:	-83.3731346305		
Methd coll:	Interpolation-Map		
Elevation:	586		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	587	Elev dif:	1
Elev miv:	586	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	2
Pct aq d:	0	Pct aq r:	2
Pct maq:	93	Pct maq d:	0
Pct maq r:	98	Pct cm:	5
Pct cm d:	100	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	7
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

A3
North **MI WELLS** **MI20219304**
1/4 - 1/2 Mile
Higher

Wellid:	58000004262	Import id:	58777904004
County:	Monroe	Township:	Frenchtown
Town range:	07S 09E	Section:	4
Owner name:	Not Reported		
Well addr:	465 HARBOR		
Well depth:	148		
Well type:	Type III public		
Wssn:	0		
Well num:	Not Reported	Driller id:	3
Const date:	1989-10-13 00:00:00.000	Case type:	PVC Plastic
Case dia:	6		
Case depth:	25		
Screen frm:	0		
Screen to:	0		
Swl:	20		
Test depth:	85		
Test hours:	3.5		
Test rate:	200	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	41.9178229953		
Longitude:	-83.3727620389		
Methd coll:	Interpolation-Map		
Elevation:	586		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	584	Elev dif:	2
Elev miv:	586	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	1
Pct aq d:	0	Pct aq r:	1
Pct maq:	94	Pct maq d:	0
Pct maq r:	99	Pct cm:	5

Pct cm d:	100	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	8
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

Map ID Direction Distance Elevation		Database	EDR ID Number
A4 **North** **1/4 - 1/2 Mile** **Higher**		**MI WELLS**	**MI20219303**

Wellid:	58000004261	Import id:	58777904003
County:	Monroe	Township:	Frenchtown
Town range:	07S 09E	Section:	4
Owner name:	Not Reported		
Well addr:	465 HARBOR		
Well depth:	127		
Well type:	Other		
Wssn:	0		
Well num:	Not Reported	Driller id:	5
Const date:	1983-02-17 00:00:00.000	Case type:	Unknown
Case dia:	5		
Case depth:	25		
Screen frm:	0		
Screen to:	0		
Swl:	7		
Test depth:	45		
Test hours:	1		
Test rate:	100	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	41.9180224501		
Longitude:	-83.3730819752		
Methd coll:	Interpolation-Map		
Elevation:	586		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	587	Elev dif:	1
Elev miv:	586	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	1
Pct aq d:	13	Pct aq r:	0
Pct maq:	94	Pct maq d:	0
Pct maq r:	100	Pct cm:	6
Pct cm d:	88	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	8
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

A5
North
1/4 - 1/2 Mile
Higher

MI WELLS **MI20219302**

Wellid:	58000004260	Import id:	58777904002
County:	Monroe	Township:	Frenchtown
Town range:	07S 09E	Section:	4
Owner name:	Not Reported		
Well addr:	465 HARBOR		
Well depth:	146		
Well type:	Other		
Wssn:	0		
Well num:	Not Reported	Driller id:	3
Const date:	1956-04-21 00:00:00.000	Case type:	Steel-black
Case dia:	6		

Case depth:	25		
Screen frm:	0		
Screen to:	0		
Swl:	8		
Test depth:	38		
Test hours:	6		
Test rate:	80	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	41.9180058681		
Longitude:	-83.3725368937		
Methd coll:	Interpolation-Map		
Elevation:	586		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	584	Elev dif:	2
Elev miv:	586	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	0
Pct aq d:	0	Pct aq r:	0
Pct maq:	94	Pct maq d:	0
Pct maq r:	100	Pct cm:	6
Pct cm d:	100	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	9
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

6
North
1/2 - 1 Mile
Higher

MI WELLS **MI20217944**

Wellid:	58000002806	Import id:	58767933001
County:	Monroe	Township:	Frenchtown
Town range:	06S 09E	Section:	33
Owner name:	Not Reported		
Well addr:	891 N. DIXIE		
Well depth:	79		
Well type:	Other		
Wssn:	0		
Well num:	Not Reported	Driller id:	553
Const date:	1974-10-18 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	27		
Screen frm:	0		
Screen to:	0		
Swl:	8		
Test depth:	25		
Test hours:	1		
Test rate:	25	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	41.9229644792		
Longitude:	-83.3745184789		
Methd coll:	Interpolation-Map		
Elevation:	590		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	587	Elev dif:	3
Elev miv:	590	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	0
Pct aq d:	0	Pct aq r:	0
Pct maq:	94	Pct maq d:	0
Pct maq r:	100	Pct cm:	6

Pct cm d:	100	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	5
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

Map ID Direction Distance Elevation		Database	EDR ID Number
7 **SW** **1/2 - 1 Mile** **Higher**		**MI WELLS**	**MI20219307**

Wellid:	58000004265	Import id:	58777905001
County:	Monroe	Township:	Frenchtown
Town range:	07S 09E	Section:	5
Owner name:	Not Reported		
Well addr:	E THIRD		
Well depth:	51		
Well type:	Other		
Wssn:	0		
Well num:	Not Reported	Driller id:	0
Const date:	1965-10-22 00:00:00.000	Case type:	Unknown
Case dia:	0		
Case depth:	16		
Screen frm:	0		
Screen to:	0		
Swl:	10		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	41.9063893548		
Longitude:	-83.38531012		
Methd coll:	Interpolation-Map		
Elevation:	580		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	584	Elev dif:	4
Elev miv:	580	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	0
Pct aq d:	0	Pct aq r:	0
Pct maq:	88	Pct maq d:	0
Pct maq r:	100	Pct cm:	12
Pct cm d:	100	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	6
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

B8
NW
1/2 - 1 Mile
Higher

MI WELLS **MI20217942**

Wellid:	58000002804	Import id:	58767932002
County:	Monroe	Township:	Frenchtown
Town range:	06S 09E	Section:	32
Owner name:	Not Reported		
Well addr:	530 HOLLYWOOD		
Well depth:	75		
Well type:	Heat pump		
Wssn:	0		
Well num:	Not Reported	Driller id:	553
Const date:	1981-09-21 00:00:00.000	Case type:	Unknown
Case dia:	5		

Case depth:	27		
Screen frm:	0		
Screen to:	0		
Swl:	14		
Test depth:	19		
Test hours:	24		
Test rate:	25	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	41.9219507168		
Longitude:	-83.3873100626		
Methd coll:	Interpolation-Map		
Elevation:	590		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	594	Elev dif:	4
Elev miv:	590	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	3
Pct aq d:	0	Pct aq r:	3
Pct maq:	83	Pct maq d:	0
Pct maq r:	97	Pct cm:	11
Pct cm d:	73	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	4
Pct na d:	27	Pct na r:	0
Pct flag:	Not Reported	Rock top:	11
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

B9
NW
1/2 - 1 Mile
Higher

MI WELLS **MI20217941**

Wellid:	58000002803	Import id:	58767932001
County:	Monroe	Township:	Frenchtown
Town range:	06S 09E	Section:	32
Owner name:	Not Reported		
Well addr:	530 HOLLYWOOD		
Well depth:	83		
Well type:	Heat pump		
Wssn:	0		
Well num:	Not Reported	Driller id:	53
Const date:	1981-09-26 00:00:00.000	Case type:	Unknown
Case dia:	5		
Case depth:	29		
Screen frm:	0		
Screen to:	0		
Swl:	14		
Test depth:	19		
Test hours:	24		
Test rate:	25	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	41.922163475		
Longitude:	-83.3871895426		
Methd coll:	Interpolation-Map		
Elevation:	590		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	594	Elev dif:	4
Elev miv:	590	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	2
Pct aq d:	0	Pct aq r:	3
Pct maq:	84	Pct maq d:	0
Pct maq r:	97	Pct cm:	12

Pct cm d:	91	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	1
Pct na d:	9	Pct na r:	0
Pct flag:	Not Reported	Rock top:	11
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

AREA RADON INFORMATION

State Database: MI Radon

Radon Test Results

Zipcode	Test Date	LT Sign	Result
48162	11/16/2006		1.3
48162	2/26/2007		1.3
48162	11/14/2007		1.3
48162	4/21/2008		1.3
48162	2/25/2002		1.3
48162	11/9/2001		1.3
48162	3/28/2002		1.3
48162	3/1/2003		1.3
48162	10/5/2001		1.3
48162	2/26/2004		1.3
48162	5/16/2005		1.3
48162	3/9/2002		1.2
48162	11/5/2001		1.2
48162	10/27/2001		1.2
48162	3/27/2000		1.3
48162	4/29/2000		1.3
48162	5/1/2000		1.3
48162	3/23/2000		1.3
48162	10/19/2009		1.3
48162	2/25/2008		1.2
48162	1/16/2008		1.2
48162	11/3/2008		1.2
48162	5/8/2000		1.2
48162	4/29/2000		1.2
48162	4/24/2000		1.2
48162	4/8/2000		1.2
48162	3/18/2000		1.2
48162	3/27/2003		1.2
48162	2/15/2002		1.2
48162	3/1/2005		1.2
48162	2/28/2005		1.2
48162	4/18/2005		1.2
48162	2/17/2005		1.2
48162	11/16/2006		1.2
48162	4/6/2006		1.2
48162	2/1/2008		1.2
48162	2/27/1999		1.1
48162	11/29/2002		1.1
48162	11/19/2003		1.1
48162	2/3/2003		1.1
48162	2/21/2003		1.1
48162	3/20/2000		1.1
48162	4/25/2000		1.1
48162	2/9/2000		1.1
48162	4/21/2000		1.1
48162	3/23/2000		1.1
48162			

AREA RADON INFORMATION

	3/31/2000		1.1
48162	3/27/2000		1.1
48162	3/21/2000		1.1
48162	4/26/2000		1.1
48162	4/4/2000		1.1
48162	1/8/2004		1.1
48162	3/8/2005		1.1
48162	3/14/2006		1.1
48162	3/11/2008		1.1
48162	10/12/2007		1.1
48162	10/30/2008		1.1
48162	2/16/2008		1.1
48162	11/9/2001		1.0
48162	3/16/2002		1.0
48162	2/28/2002		1.0
48162	1/5/2002		1.0
48162	3/14/2003		1.0
48162	12/10/2003		1.0
48162	1/12/2004		1.9
48162	2/28/2005		1.9
48162	2/28/2005		1.9
48162	2/27/1999		1.9
48162	10/24/2003		1.9
48162	12/23/2003		1.9
48162	2/5/2003		1.9
48162	11/12/2002		1.9
48162	12/4/2000		1.0
48162	4/8/2000		1.0
48162	10/25/2000		1.0
48162	3/25/2000		1.0
48162	4/4/2009		1.0
48162	1/15/2010		1.0
48162	4/7/2006		1.0
48162	4/10/2008		1.0
48162	8/29/2007		1.0
48162	3/5/1999		1.8
48162	2/19/2003		1.8
48162	12/22/2003		1.8
48162	2/27/2003		1.8
48162	12/16/2006		1.9
48162	5/1/2007		1.9
48162	3/20/2007		1.9
48162	4/7/2000		1.9
48162	3/30/2001		1.9
48162	3/18/2000		1.9
48162	4/15/2000		1.9
48162	3/20/2000		1.9
48162	3/23/2000		1.9
48162	1/11/2010		1.9
48162	3/27/2006	<	0.3
48162	1/2/2007	<	0.3
48162	3/16/2006	<	0.3
48162	3/14/2008	<	0.3
48162	2/14/2008	<	0.3
48162	4/14/2008	<	0.3
48162	12/12/2003	<	0.3
48162			

AREA RADON INFORMATION

	2/13/2007	<	0.3
48162	2/8/2002		0.5
48162	3/18/2003		0.5
48162	3/12/2002		0.5
48162	2/21/2005		0.5
48162	2/20/2004		0.5
48162	3/11/2005		0.5
48162	6/20/2005		0.5
48162	3/12/2005		0.5
48162	1/28/2006		0.5
48162	3/16/1999	<	0.3
48162	3/2/1999	<	0.3
48162	2/17/2005	<	0.3
48162	11/3/2006		0.5
48162	10/25/2001	<	0.3
48162	11/20/2003	<	0.3
48162	3/1/2005	<	0.3
48162	1/31/2008		0.5
48162	12/2/2003	<	0.3
48162	10/29/2001	<	0.3
48162	10/29/2001	<	0.3
48162	10/29/2001	<	0.3
48162	11/22/2003	<	0.3
48162	3/13/2006	<	0.3
48162	3/27/2006	<	0.3
48162	5/1/2001		0.5
48162	8/22/2002	<	0.3
48162	10/4/2004	<	0.3
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48162	2/15/2003	<	0.3
48162	2/11/2003	<	0.3
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48162	1/31/2003	<	0.3
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48162	2/12/2002	<	0.3
48162	2/22/2002	<	0.3
48162	3/5/2005	<	0.3
48162	3/29/2005	<	0.3
48162	2/13/2004	<	0.3
48162	2/14/2004	<	0.3
48162	12/17/2007	<	0.3
48162	6/21/2003	<	0.3
48162	4/12/2002	<	0.3
48162	12/8/2006	<	0.3
48162	1/26/2007	<	0.3
48162	1/19/2007	<	0.3
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48162	4/23/2002		0.7
48162	1/15/2010		1.0
48162	2/8/1999		0.9
48162	7/24/2003		0.8
48162			

AREA RADON INFORMATION

	12/3/2003	0.8
48162	4/2/2003	0.7
48162	4/26/2004	0.7
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48162	2/25/2005	0.6
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48162	11/17/2003	0.8
48162	4/8/2003	0.8
48162	12/22/2003	0.7
48162	3/18/2005	0.7
48162	2/17/2005	0.7
48162	2/28/2005	0.7
48162	5/2/2005	0.8
48162	11/12/2001	0.9
48162	4/29/2005	0.6
48162	2/22/2005	0.6
48162	4/11/2005	0.8
48162	2/1/2005	0.8
48162	10/31/2001	0.9
48162	3/14/2006	0.6
48162	3/11/2006	0.8
48162	1/28/2008	0.7
48162	2/2/2008	0.7
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48162	1/22/2008	0.7
48162	2/18/2005	0.9
48162	2/1/2008	0.6
48162	2/24/2004	0.9
48162	1/29/2008	0.8
48162	2/19/2008	0.8
48162	9/4/2007	0.7
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48162	10/26/2000	0.7
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48162	5/16/2000	0.7
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48162	3/16/2001	0.8
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48162	3/19/2001	0.7
48162	6/8/2007	0.9
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48162	3/17/2000	0.8
48162	4/9/1999	0.8
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48162	11/2/2000	0.8
48162	1/24/2008	0.9
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AREA RADON INFORMATION

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48162	3/23/2000	0.9
48162	3/31/2000	0.9
48162	3/13/1999	0.7
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48162	2/28/2003	0.6
48162	11/14/2002	0.6
48162	2/21/2002	0.6
48162	7/6/2009	0.9
48162	7/3/2008	1.8
48162	3/5/2008	1.8
48162	3/18/2000	1.8
48162	3/20/2000	1.8
48162	3/27/2000	1.8
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48162	5/22/2009	1.8
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48162	4/27/2000	2.8
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48162	3/10/2006	2.4
48162	1/8/2007	2.4
48162	11/1/2000	2.4
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AREA RADON INFORMATION

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48162	4/29/2000	2.3
48162	6/2/2007	2.2
48162	9/13/2008	2.2
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48162	3/28/2000	2.2
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48162	5/4/2005	2.7
48162	2/6/2004	2.7
48162	3/17/2000	3.0
48162	3/20/2000	3.0
48162		

AREA RADON INFORMATION

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48162	3/27/2000		3.8
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48162	3/16/2001		3.6
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48162	3/27/2006		3.5
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48162	3/19/2001		3.5
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48162	6/9/2000	<	0.3
48162	3/28/2000	<	0.3
48162	2/11/2003		3.4
48162	11/24/2001		3.4
48162	12/24/2001		3.4
48162	2/12/2002		3.4
48162	3/7/2005		3.4
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AREA RADON INFORMATION

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48162	3/21/2000	<	0.3
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48162	2/24/2003		3.2
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48162	5/2/2000	<	0.3
48162	4/15/2000	<	0.3
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48162	4/9/2007		3.1
48162	3/29/2000		3.1
48162	5/20/2000		3.1
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48162	2/7/2003		3.3
48162	2/17/2003		3.3
48162	11/19/2003		3.3
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48162	10/10/2006		3.2
48162	3/26/2007		3.2
48162	3/25/2008		3.2
48162	4/19/2000		3.2
48162	3/18/2000		3.2
48162	11/12/2009		3.1
48162	1/25/2010		3.1
48162	12/1/2008	<	0.3
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48162	12/10/2003		3.0
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48162	3/31/2000		3.3
48162	3/17/2000		3.3
48162	2/27/1999		3.9
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48162	3/19/2003		3.1
48162	4/28/2003		3.1
48162	2/13/2003		3.1
48162	6/11/2009	<	0.3
48162	3/12/2005		3.9
48162	7/17/2007		3.9
48162	10/31/2000		3.9
48162	3/6/2006		3.7
48162	3/31/2000		3.3
48162	4/24/2000		3.3
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AREA RADON INFORMATION

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48162	3/17/2000	3.7
48162	3/28/2000	3.7
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48162	12/7/2009	3.7
48162	4/9/2007	3.4
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48162	7/29/2000	3.4
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48162	12/9/2002	3.6
48162	3/15/2008	1.7
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48162	3/31/2000	1.7
48162	4/4/2000	1.7
48162	3/31/2000	1.7
48162	4/12/1999	1.7
48162	6/9/2000	1.7
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48162	4/1/2000	1.7
48162	4/10/2000	1.7
48162	2/27/2002	1.7
48162	11/29/2002	1.7
48162	2/25/2005	1.7
48162	2/22/2005	1.7
48162	11/12/2007	6.9
48162	11/9/2002	6.8
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48162	12/23/2006	6.8
48162	11/3/2007	6.8
48162	11/15/2002	6.5
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48162	11/9/2006	6.4
48162	3/11/2008	6.4
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48162	3/27/2000	6.3
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48162	11/22/2002	6.2
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48162	11/10/2009	6.2
48162	1/8/2004	6.1
48162	4/21/2005	4.9
48162	12/2/2002	6.0
48162		

AREA RADON INFORMATION

	10/2/2004	6.0
48162	5/1/2000	5.6
48162	1/23/2010	5.6
48162	12/12/2006	5.2
48162	11/9/2007	5.2
48162	12/20/2003	4.6
48162	3/6/2006	4.6
48162	3/28/2000	6.0
48162	10/29/2001	5.5
48162	2/26/2003	5.5
48162	11/21/2002	5.5
48162	3/18/2000	5.2
48162	3/17/2000	5.2
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48162	3/31/2000	4.9
48162	11/6/2002	5.9
48162	3/10/2006	5.9
48162	3/27/2000	5.5
48162	6/2/2007	5.9
48162	4/7/2000	5.9
48162	10/30/2009	5.9
48162	4/25/2000	5.1
48162	4/14/2000	5.1
48162	3/27/2006	4.7
48162	3/11/2005	5.8
48162	3/25/2009	5.1
48162	12/1/2003	5.0
48162	12/26/2003	4.8
48162	11/12/2008	5.8
48162	11/10/2009	5.4
48162	6/19/2006	5.0
48162	1/12/2010	4.7
48162	11/4/2002	4.6
48162	11/17/2003	5.7
48162	11/20/2002	5.7
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48162	1/26/2010	5.0
48162	11/2/2007	4.7
48162	3/16/2000	4.7
48162	3/20/2000	4.7
48162	3/21/2000	4.7
48162	4/21/2000	4.7
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48162	4/13/2000	5.3
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48162	12/5/2002	5.6
48162	3/27/2000	8.0
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48162		

AREA RADON INFORMATION

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48162	11/3/2008	7.0
48162	1/28/2008	7.0
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48162	11/6/2000	7.0
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48162	10/31/2002	7.3
48162	4/4/2000	7.3
48162	3/12/2003	6.9
48162	3/12/1999	2.0
48162	11/12/2001	2.0
48162	11/20/2000	18.3
48162	10/31/2000	18.1
48162	12/1/2003	2.0
48162	2/13/2003	2.0
48162	10/25/2001	2.0
48162	4/23/2002	2.0
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48162	11/22/2003	2.0
48162	4/24/2000	43.2
48162	11/18/2002	23.3
48162	12/7/2002	22.1
48162	11/19/2002	17.5
48162	2/1/2003	15.7
48162	10/14/2004	14.0
48162	11/7/2003	13.6
48162	2/10/2003	13.2
48162	10/31/2002	13.0
48162	12/27/2002	12.9
48162	11/16/2002	12.8
48162	11/5/2001	12.8
48162	1/25/2010	12.5
48162	11/3/2008	8.9
48162	11/6/2002	12.3
48162	11/26/2002	12.1
48162	11/4/2006	11.1
48162	4/29/2000	11.0
48162	11/3/2000	10.1
48162	12/3/2002	10.0
48162	3/31/2000	8.1
48162	4/25/2000	12.0
48162	12/13/2001	11.9
48162	3/17/2000	10.8
48162	2/27/1999	10.7
48162	7/9/2007	10.0
48162	9/15/2000	10.0
48162	11/4/2006	11.8
48162	12/13/2001	11.6
48162	3/21/2005	8.4
48162	11/2/2009	11.6
48162	10/28/2004	11.5
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48162	11/1/2002	11.4
48162	2/23/2004	11.4
48162	6/24/2008	10.5
48162		

AREA RADON INFORMATION

	10/30/2001	8.3
48162	3/31/2000	11.2
48162	11/2/2009	11.2
48162	11/4/2002	10.3
48162	11/5/2002	10.2
48162	12/12/2003	10.2
48162	11/14/2002	9.5
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48162	3/23/2002	2.1
48162	3/7/2003	8.1
48162	6/4/2007	8.1
48162	3/10/2006	2.1
48162	3/13/2006	2.0
48162	3/13/2006	2.0
48162	2/3/2003	8.2
48162	11/20/2006	8.2
48162	11/8/2006	2.1
48162	3/30/2006	2.1
48162	11/4/2006	2.0
48162	6/2/2007	2.0
48162	3/31/2000	9.1
48162	3/22/2000	8.6
48162	1/25/2010	8.6
48162	4/17/2000	2.1
48162	9/15/2008	2.0
48162	10/1/2007	34.3
48162	3/30/2000	20.5
48162	4/28/2000	2.1
48162	3/23/2000	2.1
48162	3/29/2000	2.0
48162	3/27/2000	2.0
48162	3/28/2001	2.0
48162	7/27/2000	2.0
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48162	10/20/2007	31.5
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48162	11/24/2007	19.6
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48162	11/9/2009	1.7
48162	3/21/2000	4.2
48162	3/25/2000	4.2
48162		

AREA RADON INFORMATION

	3/15/2003	4.0
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48162	7/15/2005	4.0
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48162	3/23/2000	4.3
48162	2/6/1999	4.1
48162	11/28/2001	4.1
48162	5/2/2005	4.0
48162	3/16/2006	4.0
48162	4/7/2006	4.0
48162	5/23/2000	4.0
48162	4/7/2000	4.0
48162	4/11/2008	4.6
48162	3/28/2000	4.6
48162	3/24/1999	4.2
48162	8/18/2005	4.1
48162	10/18/2004	4.1
48162	11/2/2009	4.6
48162	1/25/2010	4.6
48162	3/17/2000	4.4
48162	5/8/2000	4.4
48162	11/12/2009	4.4
48162	2/13/2003	4.2
48162	11/13/2002	4.2
48162	3/1/2005	4.2
48162	3/20/2006	4.5
48162	11/29/2002	4.3
48162	10/29/2004	4.3
48162	3/17/2000	4.2
48162	4/5/2000	4.1
48162	6/23/2000	4.1
48162	2/25/1999	4.0
48162	2/21/2003	1.5
48162	3/13/2006	1.6
48162	11/2/2006	1.6
48162	12/1/2007	1.6
48162	3/17/2000	1.6
48162	3/22/2000	1.6
48162	3/18/2000	1.6
48162	3/20/2000	1.6
48162	3/29/2000	1.6
48162	3/28/2000	1.6
48162	3/20/2000	1.6
48162	11/2/2006	1.5
48162	1/26/2007	1.5
48162	3/13/2008	1.5
48162	3/17/2000	1.5
48162	5/8/2000	1.5
48162	5/2/2000	1.5
48162	3/20/2000	1.5
48162	2/12/2002	1.5
48162	2/11/2003	1.5
48162	11/29/2002	1.5
48162	11/7/2002	1.5
48162	2/24/2003	1.5
48162	2/15/2002	1.5
48162		

AREA RADON INFORMATION

	3/4/2005	1.5
48162	12/7/2004	1.5
48162	4/8/2005	1.5
48162	3/1/2005	1.5
48162	3/23/2006	1.5
48162	2/1/2003	1.4
48162	12/3/2002	1.4
48162	3/18/2003	1.4
48162	2/8/2002	1.4
48162	1/28/2002	1.4
48162	2/24/2004	1.4
48162	1/23/2001	1.5
48162	3/23/2000	1.5
48162	11/29/2008	1.5
48162	11/9/2001	1.4
48162	11/26/2001	1.4
48162	2/8/1999	1.4
48162	11/13/2002	1.4
48162	2/21/2008	1.4
48162	12/6/2007	1.4
48162	4/10/2000	1.4
48162	6/8/2000	1.4
48162	4/5/2000	1.4
48162	3/20/2000	1.4
48162	3/21/2000	1.4
48162	7/27/2001	1.4
48162	4/25/2000	1.4
48162	3/21/2000	1.4
48162	4/25/2000	1.4
48162	3/20/2000	1.4
48162	4/20/2006	1.4
48162	3/20/2006	1.4
48162	2/26/2007	1.4
48162	6/4/2007	1.4
48162	11/9/2007	1.4
48162	1/22/2008	1.4

Federal EPA Radon Zone for MONROE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for MONROE COUNTY, MI

Number of sites tested: 14

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.260 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	2.115 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Department of Natural Resources
Telephone: 517-241-2254

HYDROGEOLOGIC INFORMATION

AQUIFLOW[R] Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Data
Source: Department of Environmental Quality
Telephone: 517-335-9218

OTHER STATE DATABASE INFORMATION

Michigan Oil and Gas Wells
Source: Department of Natural Resources and Environment
Locations of oil and gas wells are compiled from permit records on file at the Geological Survey Division (GSD), Michigan Department of Natural Resources.

RADON

State Database: MI Radon
Source: Department of Environmental Quality
Telephone: 517-335-9551
Radon Test Results

Michigan Radon Test Results
Source: Department of Environmental Quality
Telephone: 517-335-8037
These results are from test kits distributed by the local health departments and used by Michigan residents. There is no way of knowing whether the devices were used properly, whether there are duplicates (or repeat verification) test (i.e., more than one sample per home), etc.

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

STREET AND ADDRESS INFORMATION

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APPENDIX E

AERIAL PHOTOGRAPH DOCUMENTATION

Battlefield Property
1220 East Elm
Monroe, MI 48162

Inquiry Number: 3084125.4
June 06, 2011

The EDR Aerial Photo Decade Package

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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Date EDR Searched Historical Sources:

Aerial Photography June 06, 2011

Target Property:

1220 East Elm

Monroe, MI 48162

Year	***Scale***	***Details***	***Source***
1937	Aerial Photograph. Scale: 1"=500'	Flight Year: 1937	AAA
1940	Aerial Photograph. Scale: 1"=500'	Flight Year: 1940	AAA
1949	Aerial Photograph. Scale: 1"=500'	Flight Year: 1949	Detroit Edison
1955	Aerial Photograph. Scale: 1"=500'	Flight Year: 1955	CSS
1964	Aerial Photograph. Scale: 1"=500'	Flight Year: 1964	ASCS
1973	Aerial Photograph. Scale: 1"=600'	Flight Year: 1973	ASCS
1980	Aerial Photograph. Scale: 1"=500'	Flight Year: 1980	SEMCOG
1985	Aerial Photograph. Scale: 1"=500'	Flight Year: 1985	SEMCOG
1992	Aerial Photograph. Scale: unknown	Flight Year: 1992	FSA
2000	Aerial Photograph. Scale: 1"=500'	Flight Year: 2000	SEMCOG
2006	Aerial Photograph. Scale: 1"=604'	Flight Year: 2006	EDR

INQUIRY #: 3084125.4
YEAR: 1937
= 500'
N

INQUIRY #: 3084125.4
YEAR: 1940
= 500'
N
EDR Environmental Data Resources Inc

INQUIRY #: 3084125.4
YEAR: 1949
= 500'
N

INQUIRY #: 3084125.4
YEAR: 1955
= 500'
N

INQUIRY #: 3084125.4
YEAR: 1964
= 500'
N

INQUIRY #: 3084125.4
YEAR: 1973
= 600'
N

INQUIRY #: 3084125.4
YEAR: 1980
= 500'
N
EDR Environmental Data Resources Inc

INQUIRY #: 3084125.4
YEAR: 1985
= 500'
N

INQUIRY #: 3084125.4
YEAR: 1992
= unknown
N

INQUIRY #: 3084125.4
YEAR: 2000
= 500'
N
EDR Environmental Data Resources Inc

INQUIRY #: 3084125.4
YEAR: 2006
= 604'
N

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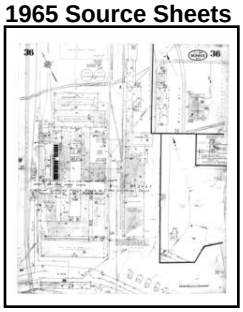
APPENDIX F

SANBORN FIRE INSURANCE MAPS

Sanborn Sheet Thumbnails

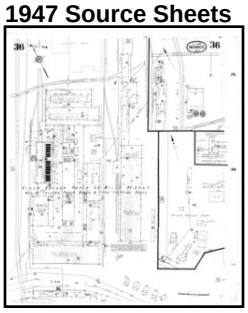
This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1965 Source Sheets



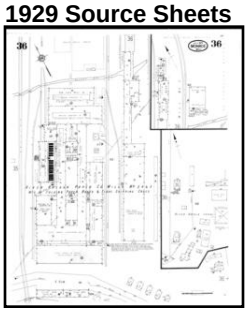
Volume 1, Sheet 36

1947 Source Sheets



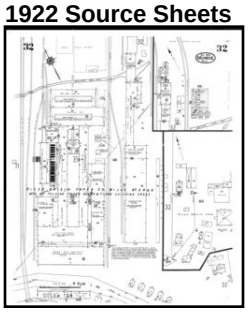
Volume 1, Sheet 36

1929 Source Sheets



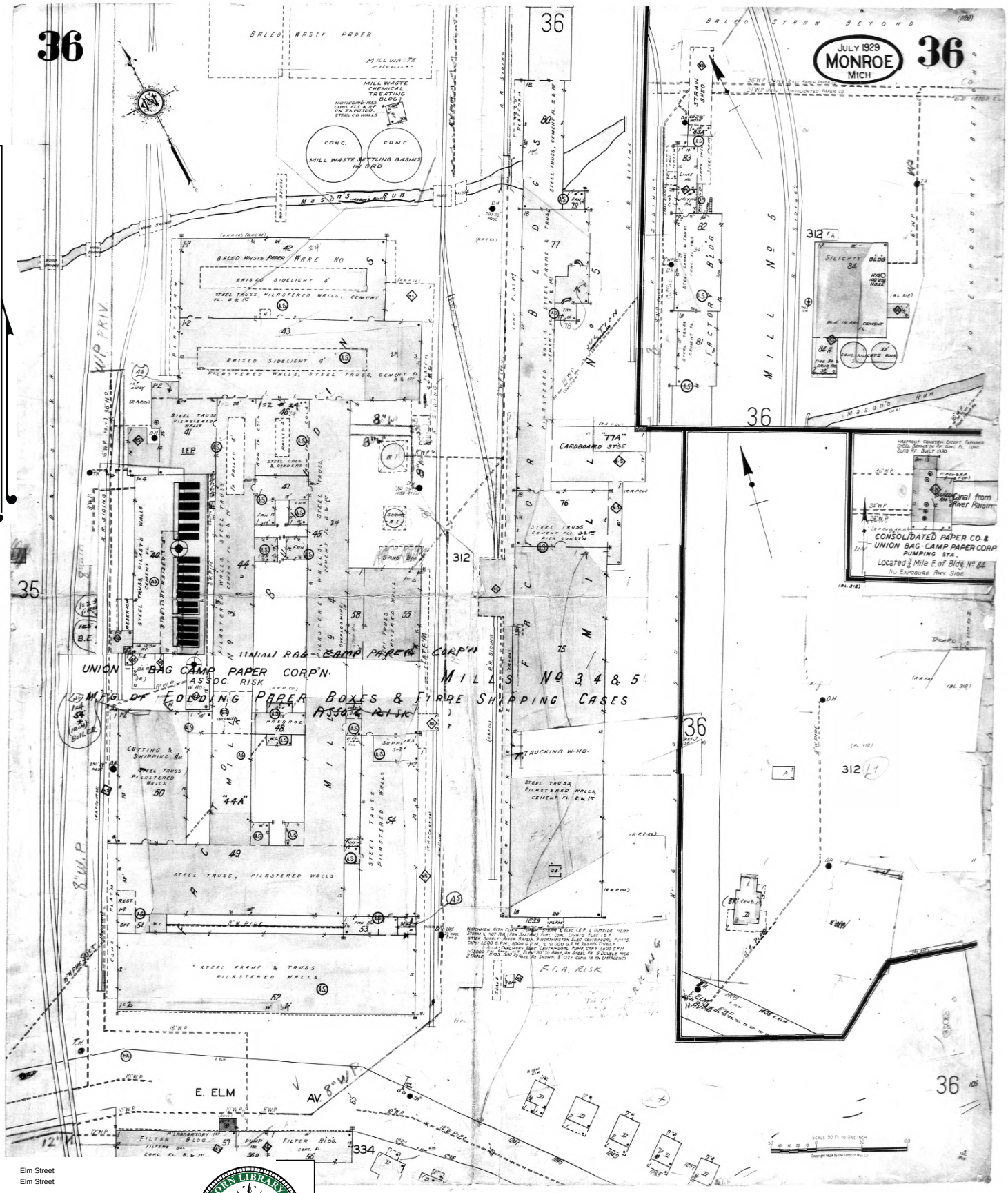
Volume 1, Sheet 36

1922 Source Sheets



Volume 1, Sheet 32

1965 Certified Sanborn Map



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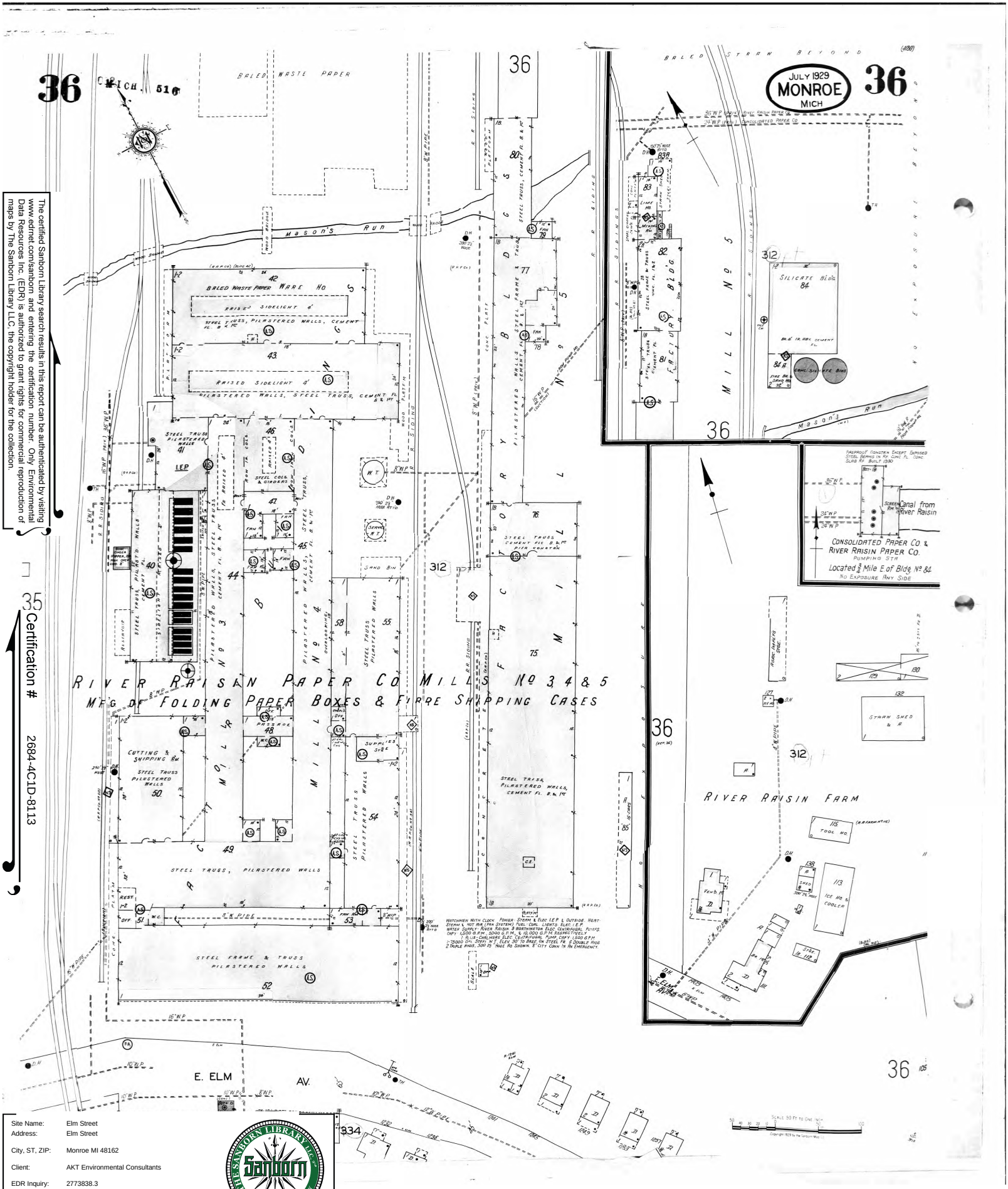
Certification # 2684-4C1D-8113

Site Name:	Elm Street
Address:	Elm Street
City, ST, ZIP:	Monroe MI 48162
Client:	AKT Environmental Consultants
EDR Inquiry:	2773838.3
Order Date:	5/24/2010 5:46:01 PM
Certification #	2684-4C1D-8113
Copyright:	1965

1947 Certified Sanborn Map



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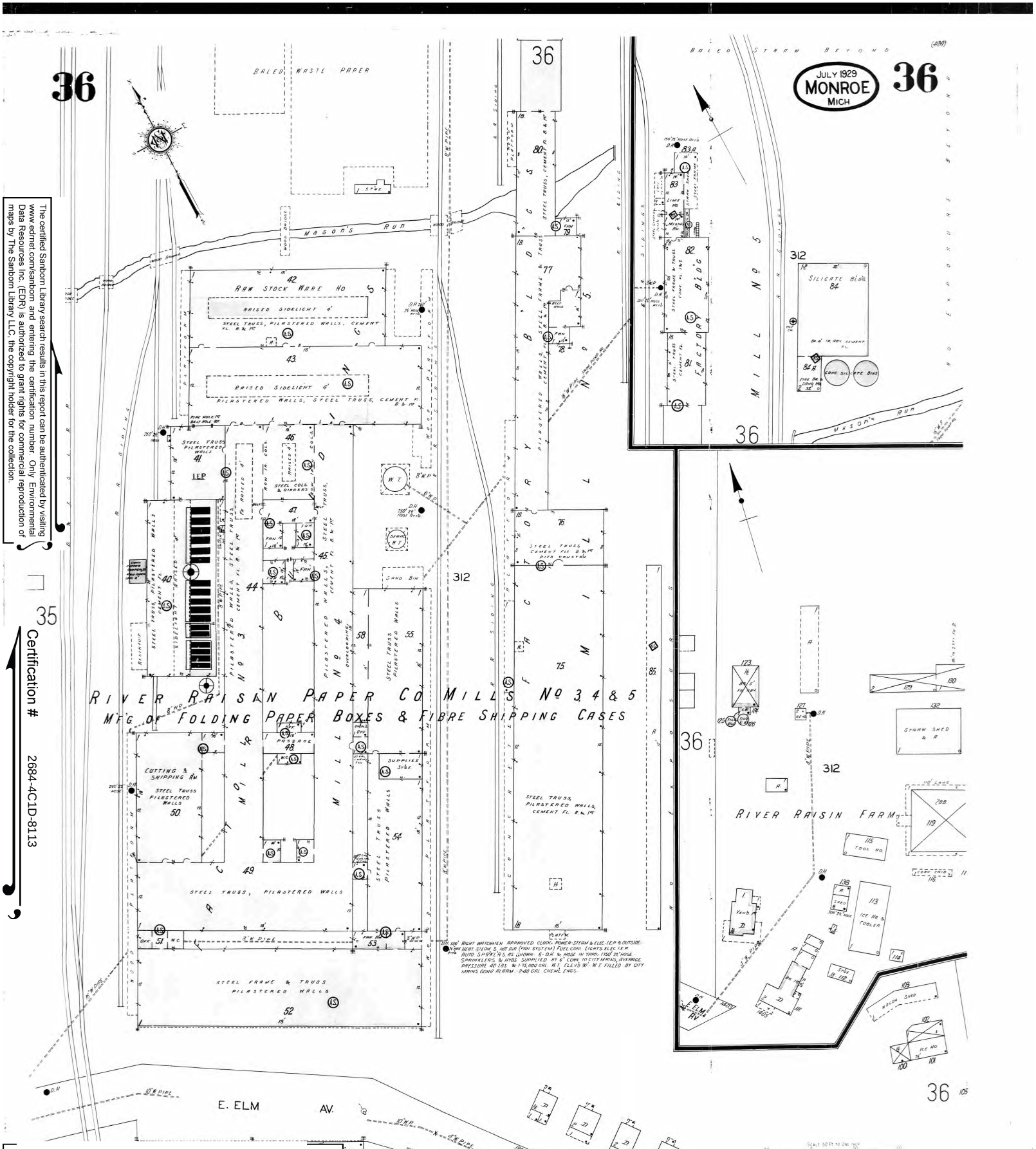
City, ST, ZIP:	Monroe MI 48162
Client:	AKT Environmental Consultants
EDR Inquiry:	2773838.3
Order Date:	5/24/2010 5:46:01 PM
Certification #	2684-4C1D-8113
Copyright:	1947

1929 Certified Sanborn Map



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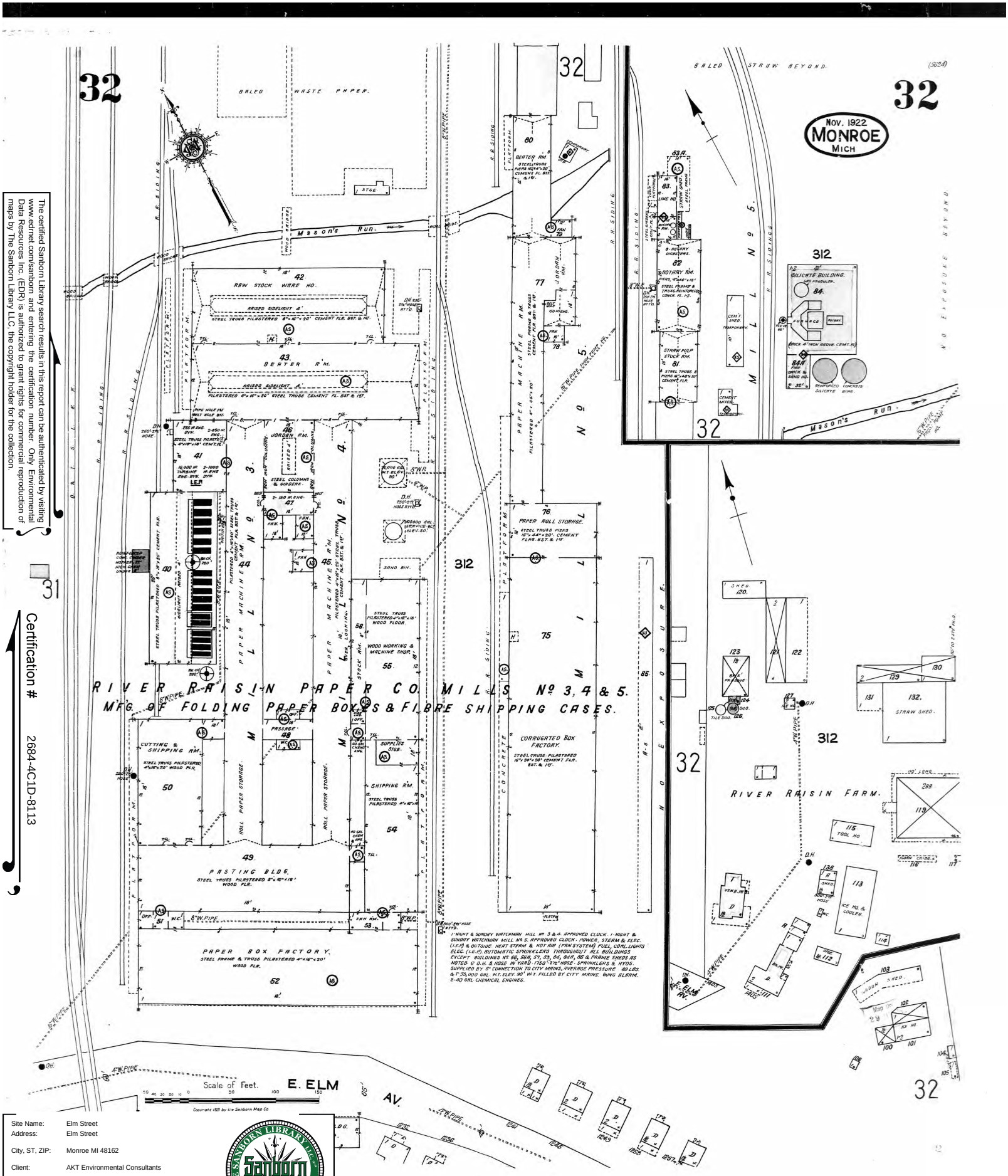
Order Date:	5/24/2010 5:46:01 PM
Certification #	2684-4C1D-8113
Copyright:	1929

1922 Certified Sanborn Map



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Site Name:	Elm Street
Address:	Elm Street
City, ST, ZIP:	Monroe MI 48162
Client:	AKT Environmental Consultants
EDR Inquiry:	2773838.3
Order Date:	5/24/2010 5:46:01 PM
Certification #	2684-4C1D-8113
Copyright:	1922

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APPENDIX G

HISTORICAL RESEARCH DOCUMENTATION

SKETCH/AREA TABLE ADDENDUM

Parcel No 59-01904-000 File No 59-01904-000-BR11

SUBJECT

Property Address 1220 E ELM AVE V

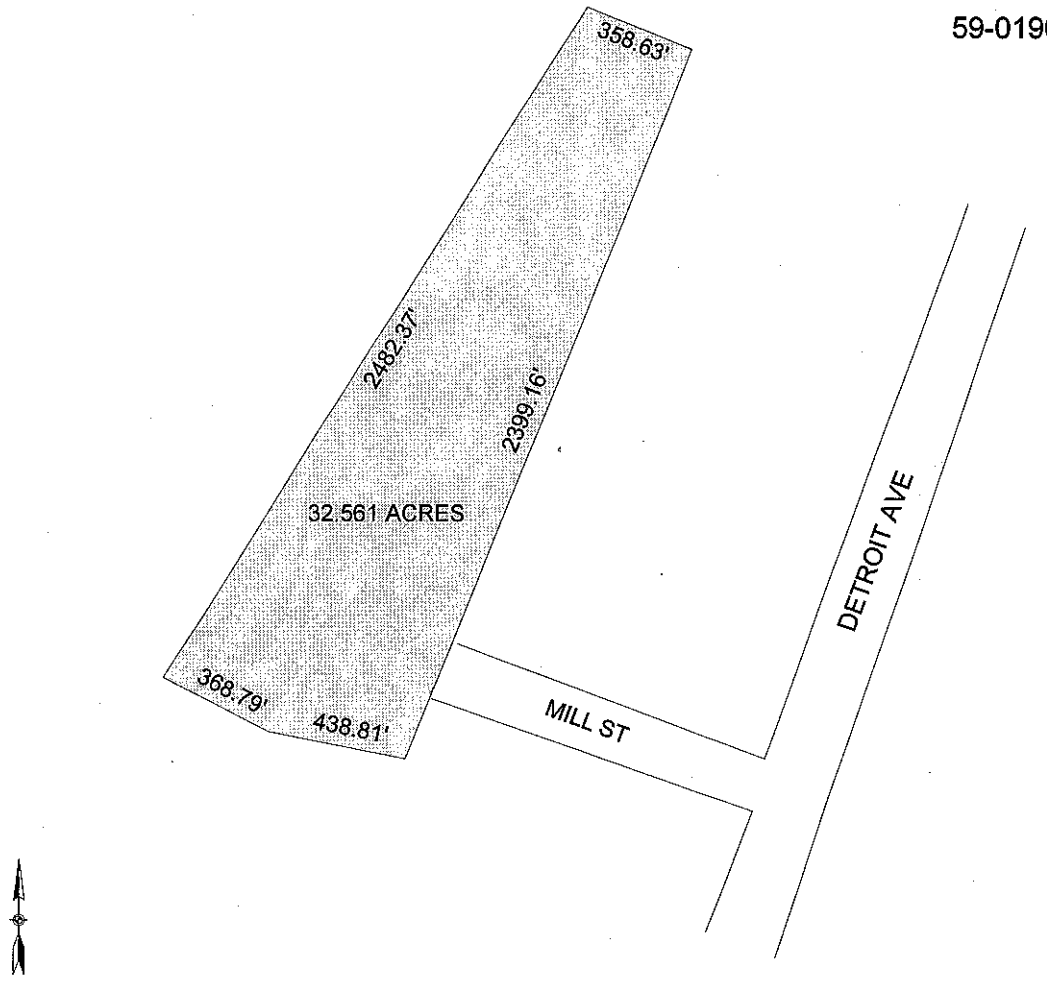
City MONROE County MONROE State MI Zip 48162

Owner HOMRICH INC

Client

Appraiser Name

IMPROVEMENTS SKETCH



Scale: 1 = 600

SURVEY DESCRIPTION

Subject Site
Beginning at a point of the Tract described by Metes and Bounds as follows:
THENCE North 31° 54' 38" East, a distance of 2482.37 Feet;
THENCE South 68° 17' 54" East, a distance of 358.63 Feet;
THENCE South 21° 42' 6" West, a distance of 2399.16 Feet;
THENCE North 78° 44' 50" West, a distance of 438.81 Feet;
THENCE North 62° 44' 51" West, a distance of 368.79 Feet to point of beginning;
Said tract containing 32.56 acres (1418364.99 sf) of land, more or less.
Perimeter = 6047.76 Feet
No significant error of closure.

RESIDENTIAL REAL ESTATE RECORD CARD Map 77-B.1-285 10

LAND DESCRIPTION

MONROE PAPER

5M1900 ~~River Raisin Paper Co.~~
1109 E. Elm Ave.
Monroe, Mich.

COMM AT INT N'LY R/O/W ELM AVE & E'LY R/O/W DETROIT AVE; TH N 22D 20M 00S E 1986.45 FT; TH S 67D 43M 05S E 770.80 FT; TH S 00D 20M E 380 FT; TH S 69D 22M E 213.82 FT; TH N 22D 33M E 1291.96 FT TO EXIST S'LY END TERNES DR; TH S 64D 53M 51S E 60.00 FT TO E'LY TERNES DR; TH N 25D 06M 09S E 340.13 FT; TH S 65D 16M E 779.11 FT TO W'LY LI I-75 FREEWAY; TH ALG SD W'LY R/O/W IN S'LY DIRECT. TO N'LY R/O/W ELM AVE; TH IN NW'LY DIRECT. ALG SD N'LY R/O/W TO E'LY R/O/W DETROIT AVE AND POB; EXCEPT RR SPUR KNOWN AS 'FORD MOTOR CO SPUR' (ABOVE DESCRIPTION FOR TAX PURPOSES ONLY/SUBJECT TO EASEMENTS OF RECORD)

10-15 85 MD (20,000 PARTIAL) L.944 P.384

REMARKS

Mrs. E. Lou Miller
1405 E Elm

154.91A

5M 1900-1

WILKINS APPRAISAL on Ld VAL.

High Land (SEE adj Ld. VAL ON NEXT sheet)

50 Acres 240 ACRE @ 300 = 12,000
310 " @ 1000 = 10,000

Marsh 93-32,200

103.61 Acres @ 450.00 = 46,624

NOTE: - 1954 app. v. = 97,650 - 43,941 assd. 68,624
- 1955 " " = 97,065 - 43,679 "

SALES DATA

DATE		CONSIDERATION		VOL	P.

EXPLANATION FOR LAND ADJUSTMENT

'85 170,075 82-83-84 — 170,065

LAND RECORD AND COMPUTATION OF VALUE

FRONT	REAR	FRONT FIGURED	DEPTH AVE.	F.F. PRICE	DEPTH PER CENT	ACTUAL F.F. PRICE	CORNER INFL.	SUB TOTAL	% ADJUST	TOTAL
6 CA pos		153.41A	@	~~44,244~~	Pers Ac	Cave				to 9,209

1977 = 151,325
1978 = 151,325 x 95 = 143,750.

APPRAISAL SUMMARY	
YEAR	7 — — —
LAND	178,635
BLDGS.	19,969
TOTAL	198,625
1977 FACTOR 1.0446 ASSESSMENT =	
SUMMARY	147,979
LAND	159,898
BLDGS.	170,065
TOTAL	329,963

LANDSCAPING POOR ✓ AVE. GOOD

M-3 ZONING IND. I.

DRIVEWAY RIBBON SLAB GRAVEL ✓ STONE

ROAD PAVED GRAVEL DIRT SIDEWALK N/O

UTILITIES NO GAS NO WATER NO ELECTRIC NO SEWER

TOPOGRAPHY LOW HIGH ✓ ROUGH BRUSH

1964 = 80,900. APPRAISERS E. T. WILKINS & ASSOCIATES ENGINEERS 1972 = 80,500 1955 = 43,
1967 = 103,000 (120) BOSTON CLEVELAND LINCOLN 1964 = 71,000 1952 = 26,

	OCCUPANCY	CONSTRUCTION	SIZE	AREA SQ. FT.	UNIT	AGE	COND.	REPLACE VALUE	PHY. DEP.	PHYSICAL VALUE	ECON. FUNC. DEP.	ACTUAL VALUE
1	~~Dwg~~	~~2 ST. FR. + BR.~~			~~C~~	~~100~~	~~P~~	~~18262~~	~~70~~	~~5844~~		~~5844~~
2	Barn	1½ ST. Br. ST. + Fr	22 x 46	1012	C	1850	P	3542	70	1062	20	(70-20) 850
3	Barn	1 ST. FR.	48 x 60	2880	D	1925	P	4032	40	2419	25	(40-25) 1814
											TOTAL	(40%) 2664

REMODELED

FOUNDATION	
CEMENT BLK. WALLS	✓
CONCRETE WALLS	
BRICK WALLS	
STONE WALLS	
PIERS	

BASEMENT AREA				
¼	½	¾	F	NO

EXTERIOR WALLS	
SIDING ON SHEATHING	✓
SINGLE SIDING	
WOOD SHINGLES	
COMPO. SHINGLES	
STUCCO ON FRAME	
STUCCO ON TILE OR C.B.	
FACE BRICK VENEER	
FACE BR. ON TILE OR C.B.	
COM. BRICK VENEER	
COM. BR. ON TILE OR C.B.	
STONE VENEER	
INSULATION	

ROOF TYPE	
HIP	GABLE ✓
MANSARD	FLAT
GAMBREL	

ROOFING	
ASPHALT SHINGLE	
WOOD SHINGLE	
ASBESTOS SHINGLE	
TIN	✓

INSULATION	

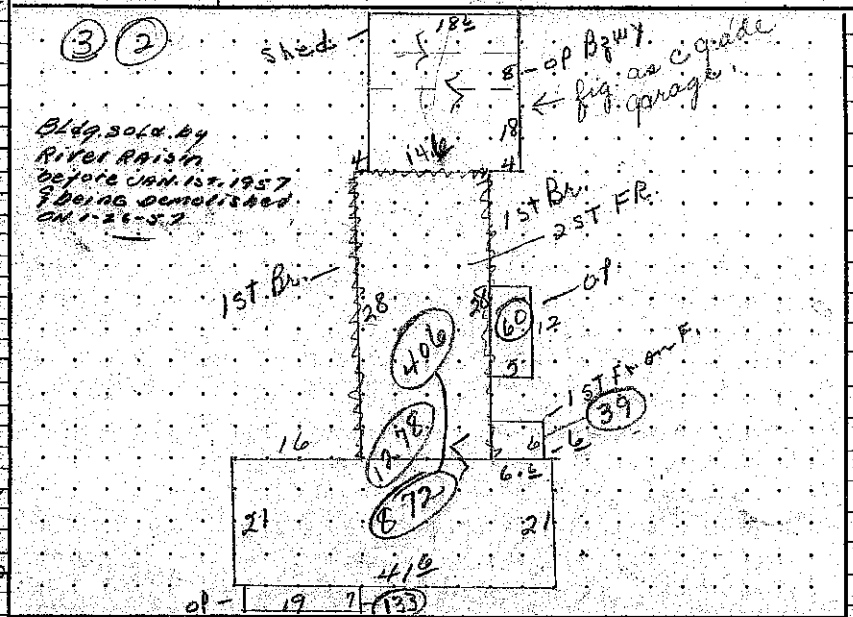
FLOORS	B	1ST	2ND	3RD
CONC				
		✓	✓	

ATTIC & BSMT. FIN.	NO
ATTIC FL. & STAIRS	
FIN. ATTIC AREA	
FIN. BSMT. AREA	
GARAGE IN BSMT.	

ROOMS			
BSMT.		1ST.	6
2ND.	8	3RD.	

INTERIOR FINISH	A	B	(C) 1ST	2ND	3RD
PINE			✓	✓	
LATH & PLAS.			✓	✓	
HARDWOOD					
WALL BOARD					
UNFIN. INT.					
		G	F	P	
INT. COND.				✓	
LAYOUT				✓	
MULTI. FAM.	2 Fam				
	Figs 1				

HEATING	NO
HOT AIR	
STEAM	
HOT WATER OR VAPOR	
FLOOR FURNACE	
AIR COND.	
PIPELESS FURNACE	
NO HEATING SYST.	✓
OIL BURNER C. U.	
COAL STOKER	
GAS BOILER C. U.	
FIREPLACES	NO
FIREPLACE STACKS	
FIREPLACES	
ERATOR	



LIGHTING	
NO LIGHTING	

PLUMBING	A	B	(C)
BATH ROOMS			1 ✓
ST. SHOWER BATH ROOM			
TOILET ROOMS			
WATER CLOSET			
LAVATORY			
SINK			2 ✓
HOT WATER TANK			Coil ✓
SEPTIC TANK OR CESSPL.			
WATER ONLY			
NO PLUMBING			

TILING	NO
BATH FLOOR & WAINSCOT.	
BATH FLOORS & WALLS	
BATH FLOOR ONLY	
TOILET RM. FL. & WAINS.	
TOILET RM. FL. & WALLS	
TOILET RM. FL. ONLY	
KITCHEN WAINSCOT	

LOCATION	
GOOD FAIR POOR	✓
YES INCOME	$35

ECON. FUNC. DEPR.	

OUTBUILDINGS		
WALL FOUNDATION	✓	✓
PIER FOUNDATION		
SINGLE WALL SDG.	✓	✓
DOUBLE WALL SDG.		
STUCCO ON		
CEMENT BLOCK		
BRICK		
CONC. FLOOR		
EARTH FLOOR		
TIN	✓	
SHINGLE ROOF		✓
ELECTRIC LIGHTS	NO	
S. H. DOOR	NO	

MEASURED BY	152
LISTED BY	152
AREA COMP. BY	151
PRICED BY	151

BUILDING COMPUTATION			
BASE	14700		
BSMT. AREA			
WALLS	+ 502		
ROOF			
FLOORS			
ATTIC			
INT. FINISH			
HEATING SYSTEM			
FIREPLACES			
PLUMBING	+ 1050		
TILING			
	133 S. F.	OP	350
	39 S. F.	Add	400
	60 S. F.	OP	190
	S. F.	(2)	1070
	S. F.		
	S. F.		
	S. F		
TOTAL			18262
COST FACTOR			
REPLACEMENT VALUE			

Healthy MONROE
COUNTY HEALTH DEPARTMENT

Harry Grenawitzke, RS, MPH, DAAS Acting *Health Officer/Director*
Carl J. Schmidt, MD, MPH *Chief Medical Examiner/Director*

RECEIVED
JUN 11 2011

June 8, 2011

Jessica Cory
22725 Orchard Lake Road
Farmington, MI. 48336

RE: Freedom of Information Act Request
1405 East Elm, 1504 and 1508 Mill, 1220 East Elm, Monroe, Monroe County MI.

Dear Ms. Cory:

This letter is in response to your request for information under the Freedom of Information Act 442 of 1976.

Division files were reviewed for the following:

- Property records

The Department of Environmental Quality (DEQ) website was reviewed for the following:

- The Michigan Environmental Mapper database

A large file is available regarding 1405 East Elm. If better addresses could be provided for the other properties a further review could be conducted. The cost for copies is $1.15 for the first page and twenty- five cents for each additional page. If you have any questions regarding this letter or would like to review the file you may contact me at (734) 240-7900.

Sincerely,

George Costello RS,
Registered Sanitarian
Environmental Health Division

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
JACKSON DISTRICT OFFICE

JENNIFER M. GRANHOLM
GOVERNOR

STEVEN E. CHESTER
DIRECTOR

June 22, 2011

Ms. Jessica Cory
AKT Peerless Environmental Services
22725 Orchard Lake Road
Farmington, Michigan 48336

Dear Ms. Cory:

SUBJECT: Request for Disclosure of Official Files from **REMEDIATION DIVISION/PART 213, JACKSON DISTRICT OFFICE.**

This notice is issued in response to your June 1, 2011, request(s) for information under the Freedom of Information Act, 1976 PA 442, as amended (FOIA), received in this office on June 2, 2011. You have requested information that you describe as **"PARCEL ID #'S 59-01900-000 (AKA) 1405 EAST ELM; 59-01900-003, 59-01900-005, 59-01900-006 (AKA) 1508 MILL STREET), 59-01900-008 (1504 MILL STREET), 59-01892-006 (NO ADDRESS), 59-01904-000 (AKA) 1220 EAST ELM; FORMERLY PART OF RIVER RAISIN BATTLEFIELD; HOMRICH INC., NE CORNER OF DETROIT & ELM, 311, 317, 319, 321 (AKA) 319-325 HARBOR AND 444 NORTH DIXIE HIGHWAY, (AKA) BEA #233, MONROE.**

The purpose of the FOIA is to provide the public with access to existing, nonexempt public records of public bodies. Your request to examine or receive a copy of the documents described above is denied.

Reason for denial: To the best of this public body's knowledge, information, and belief, the public record does not exist under the name given by the requester, or by another name reasonably known to the public body.

Authority for denial: Section 3(1) of the FOIA. Under section 10 of the FOIA, you may do either of the following:

1) Appeal this decision in writing to the Director of the Michigan Department of Natural Resources and Environment, P.O. Box 30473, Lansing, Michigan 48909-7973. The writing must specifically state the word "appeal," and must identify the reason or reasons you believe the denial should be reversed. The head of the department, or his designee, must respond to your appeal within 10 days after its receipt. Under unusual circumstances, the time for response to your appeal may be extended by 10 business days.

2) File an action in circuit court within 180 days after the date of the final determination to deny the request. If you prevail in such an action, the court is to award reasonable attorney fees, costs, and disbursements. Further, if the court finds the denial to be arbitrary and capricious, you may receive punitive damages in the amount of $500.00.

Sincerely,

Linda K. Greer
FOIA Liaison, Part 213
Remediation Division
517-780-7880

16 193
16659

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

CONFIRMATION / REQUEST FOR DISCLOSURE OF DEQ RECORDS

Under The Freedom Of Information Act

(This information is required under 1976 Pa 443, as amended, in order to request public records.)

ALL INFORMATION MUST BE TYPED OR PRINTED EXCEPT FOR WRITTEN SIGNATURES

Company Name (If Applicable) Or Organization (If Any) AKT Peerless Environmental	Business Phone # Area Code 248-615-1333
Requester's Name Jessica Cory	Daytime Phone # Area Code ( ) —
Address (Street And Number) 22725 Orchard Lake Road	Home Phone # Area Code ( ) —
City State Zip Code Farmington MI 48336	E-mail address:

I wish to ☐ examine ☐ receive a copy of the following materials:
(Provide detailed descriptions of materials being requested and specify number of copies needed of each) (Attach additional sheets if necessary)

Parcel 59-01900-000 (1405 E Elm) portions of Homrich, Inc. formerly Jefferson Smurfit Landfill)
Monroe, Monroe County
F-11-149

139 pp

☐ I hereby request a waiver or reduction in fees as provided in Section 4(1) of F.O.I.A. because I am indigent or receive public assistance. (Attach proof)

I understand the DEQ may take 10 additional business days, if necessary, to fill my request due to the diverse locations or large volume of the material. I understand that if it is determined that some or all of the materials which I have requested to review or have copied may not be disclosed, I will receive a written denial including the reason for denial and explaining my right to appeal. I also understand that I may be charged with costs associated with this request.

Signature of Requester (If available) Jessica Cory Date 6/22/11

Please submit this completed confirmation / request to:

RESOURCE MANAGEMENT DIVISION
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
301 EAST LOUIS GLICK HWY
JACKSON MI 49201

TELEPHONE NO.: (517) 780 — 7924
FAX NO.: (517) 780 — 7855

If you have any questions regarding this request, please contact:

Division/Office Name RESOURCE MANAGEMENT DIVISION R Du Mont	Unit JACKSON DISTRICT OFFICE
DEQ Employee Name R DU MONT	Telephone No. Area Code (517) 780 — 7924

Date this request was completed:
6/22/2011

-THIS IS NOT A BILL-

You will be invoiced separately for any charges listed.

FOR DEPARTMENT OF ENVIRONMENTAL QUALITY USE ONLY
This section to be completed by the DEQ division/office employee fulfilling this request

Detail of Charges		INDEX
Labor	$	33000
Labor	$	PCA 46522
Copying	$	AGENCY OBJECT **8857**
Mailing	$	PROJECT
TOTAL	$	PHASE

EQP 1046E (Rev 03/11)

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Site Contacts

483269 / MIK629183179 PORT OF MONROE
1205 E ELM ST, MONROE, MI 48161

Site

Site Name
PORT OF MONROE

Site Identification

WDS ID Number:	483269	History...
Site ID Number:	MIK629183179	History...
Legal Site Name:	PORT OF MONROE	History...
Specific Site Name:	PORT OF MONROE	History...
District:	JACKSON	

Address Identification

Location Address	Mailing Address
1205 E ELM ST MONROE MI 48161-2522	1205 E ELM ST MONROE MI 48161-2522
History...	History...

Miscellaneous

Tax Number: 38XXXXX19 History...
No Number Because:

GPS Coordinates (provide five decimal places)
Latitude Coordinate:
Longitude Coordinate:
Collection Method:

Receives All Waste?: No
Railroad?: No
Facility on Indian Reservation Land?: No
Utilization Activities:
Scrap Tires Activities:
Scrap Tires Acres:
NAICS Codes (up to four six-digit codes):
(The list of NAICS codes in WDS is based on the 2007 definitions provided by the U.S.Census Bureau.)
488310 - Port and Harbor Operations

Haz Waste Contact

First Name:	JOHN	**M.I.:**			
Last Name:	EMIG				
Phone Number:	(248) 681-7800	**Ext:**		**Fax:**	(248) 681-2660
Alternate Phone:					
Email Address:					

Owner/Operator (2) | **Activities (1)** | **Site ID Fees (1)** | **Comments (3)** | **Petitions (0)**
Used Oil Biennial Reports (0) | **Parceling (0)** | **Institutional Controls (0)**

Exemptions (0) Site ID

Discovery Date	Source of Information	Summary
7/4/2006	Site	Generator Status: CESQG Designated facility Liquid industrial waste generator

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Site Contacts

393012 / MID005039490 JEFFERSON SMURFITT CORP
1109 E ELM AVE, MONROE, MI 48161

Site

Site Name

JEFFERSON SMURFITT CORP

Site Identification

WDS ID Number:	393012	History...
Site ID Number:	MID005039490	History...
Legal Site Name:	UNION CAMP CORP	History...
Specific Site Name:	JEFFERSON SMURFITT CORP	History...
District:	JACKSON	

Address Identification

Location Address	**Mailing Address**
1109 E ELM AVE MONROE MI 48161	1220 E ELM AVE MONROE MI 48162-2523
History...	History...

Miscellaneous

Tax Number: X History...

No Number Because:

GPS Coordinates (provide five decimal places)

Latitude Coordinate: 41.91325

Longitude Coordinate: -83.37943

Collection Method: Lat/Long Interpolation

Receives All Waste?: No

Railroad?: No

Facility on Indian Reservation Land?: No

Utilization Activities:

Scrap Tires Activities:

Scrap Tires Acres:

NAICS Codes (up to four six-digit codes):

(The list of NAICS codes in WDS is based on the 2007 definitions provided by the U.S.Census Bureau.)

562910 - Remediation Services

Haz Waste Contact

First Name:	ELDON	**M.I.:**	
Last Name:	MCCUE		
Phone Number:	(313) 241-7700	**Ext:**	**Fax:**
Alternate Phone:			
Email Address:			

Owner/Operator (2) | **Activities (5)** | **Site ID Fees (0)** | **Comments (3)** | **Petitions (0)**

Used Oil Biennial Reports (0) | **Parceling (0)** | **Institutional Controls (0)**

Exemptions (0) Site ID

Discovery Date	Source of Information	Summary
9/10/2002	State	Designated facility
12/31/2001	State	Site out of business and no waste generation
7/28/1995	State	Generator Status: SQG
11/15/1980	Site	Designated facility
8/14/1980	Site	Generator Status: SQG

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Evaluations Violations Compliance Actions Processes Contacts

393012 / MID005039490 JEFFERSON SMURFITT CORP
1109 E ELM AVE, MONROE, MI 48161

Evaluations (6)

Evaluation Type	Status	Violations	Evaluation Date	Regulatory Program	Lead Agency
CEI - COMPLIANCE EVALUATION INSPECTION ON-SITE	IC	0	9/15/2006	111/121 - Hazardous Waste/Liquid Industrial Waste	S

Responsible Person: Yocum, William
Evaluation Date: 9/15/2006
Primary Reason: CEI - COMPLIANCE EVALUATION INSPECTION O
Day Zero: 9/15/2006
Branch: JK - Jackson District Office
Day In Compliance Determined: 9/15/2006
Evaluation Status: IC - In Compliance
Reclassified Secondary Violation Date:
Regulatory Program: 111/121 - Hazardous Waste/Liquid Industrial Waste
High Priority: No
Current Tire Inventory:
Secondary Reasons:
48 - SITE VISIT/SURVEY (USED FOR 111/121, 115, 169, 31/41)

Violations (0)

Determined Date	Closure (RTC) Date	Coverage Area Code	Count of Citations	Regulatory Program	Lead Agency
NRR - NON-FINANCIAL RECORD REVIEW	IC	0	2/24/2006	111/121 - Hazardous Waste/Liquid Industrial Waste	S

Responsible Person: Rogers, Joseph (Joe)
Evaluation Date: 2/24/2006
Primary Reason: NRR - NON-FINANCIAL RECORD REVIEW
Day Zero: 2/24/2006
Branch: HG - Technical Support Unit -hydrog
Day In Compliance Determined: 2/24/2006
Evaluation Status: IC - In Compliance
Reclassified Secondary Violation Date:
Regulatory Program: 111/121 - Hazardous Waste/Liquid Industrial Waste
High Priority: No
Current Tire Inventory:
Secondary Reasons:

Violations (0)

Determined Date	Closure (RTC) Date	Coverage Area Code	Count of Citations	Regulatory Program	Lead Agency
NRR - NON-FINANCIAL RECORD REVIEW	P	1	12/18/2001	111/121 - Hazardous Waste/Liquid Industrial Waste	S

Responsible Person: Spencer, Clay
Evaluation Date: 12/18/2001
Primary Reason: NRR - NON-FINANCIAL RECORD REVIEW
Day Zero: 12/18/2001
Branch: HG - Technical Support Unit -hydrog
Day In Compliance Determined:
Evaluation Status: P - Pending

Reclassified Secondary Violation Date:
Regulatory Program: 111/121 - Hazardous Waste/Liquid Industrial Waste
High Priority: No **Current Tire Inventory:**
Secondary Reasons:

Violations (1)

Determined Date	Closure (RTC) Date	Coverage Area Code	Count of Citations	Regulatory Program	Lead Agency
12/18/2001		DSC	(1 Citation) 525(1)	111/121 - Hazardous Waste/Liquid Industrial Waste	S
CEI - COMPLIANCE EVALUATION INSPECTION ON-SITE	IC	0	12/1/1988	111/121 - Hazardous Waste/Liquid Industrial Waste	S

Responsible Person: n/a, n/a (INACTIVE) **Evaluation Date:** 12/1/1988
Primary Reason: CEI - COMPLIANCE EVALUATION INSPECTION O **Day Zero:** 12/1/1988
Branch: JK - Jackson District Office **Day In Compliance Determined:** 12/1/1988
Evaluation Status: IC - In Compliance
Reclassified Secondary Violation Date:
Regulatory Program: 111/121 - Hazardous Waste/Liquid Industrial Waste
High Priority: No **Current Tire Inventory:**
Secondary Reasons:

Violations (0)

Determined Date	Closure (RTC) Date	Coverage Area Code	Count of Citations	Regulatory Program	Lead Agency
FRR - FINANCIAL RECORD REVIEW	RTC	1	12/1/1988	111/121 - Hazardous Waste/Liquid Industrial Waste	S

Responsible Person: n/a, n/a (INACTIVE) **Evaluation Date:** 12/1/1988
Primary Reason: FRR - FINANCIAL RECORD REVIEW **Day Zero:** 12/1/1988
Branch: JK - Jackson District Office **Day In Compliance Determined:**
Evaluation Status: RTC - Return to Compliance
Reclassified Secondary Violation Date:
Regulatory Program: 111/121 - Hazardous Waste/Liquid Industrial Waste
High Priority: No **Current Tire Inventory:**
Secondary Reasons:

Violations (1)

Determined Date	Closure (RTC) Date	Coverage Area Code	Count of Citations	Regulatory Program	Lead Agency
12/1/1988	9/13/1989	264.H	(1 Citation) 701(1)	111/121 - Hazardous Waste/Liquid Industrial Waste	S
CEI - COMPLIANCE EVALUATION INSPECTION ON-SITE	IC	0	12/2/1987	111/121 - Hazardous Waste/Liquid Industrial Waste	S

Responsible Person: n/a, n/a (INACTIVE) Compliance, Monitoring & Enfo **Evaluation Dat** 12/2/1987

Primary Reason: CEI - COMPLIANCE EVALUATION INSPECTION O **Day Zero:** 12/2/1987

Branch: JK - Jackson District Office **Day In Compliance Determined:** 12/2/1987

Evaluation Status: IC - In Compliance

Reclassified Secondary Violation Date:

Regulatory Program: 111/121 - Hazardous Waste/Liquid Industrial Waste

High Priority: No **Current Tire Inventory:**

Secondary Reasons:

Violations (0)

Determined Date	Closure (RTC) Date	Coverage Area Code	Count of Citations	Regulatory Program	Lead Agency

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Hazardous Waste Permitting | Corrective Action | Facility | Financial | Contacts

393012 / MID005039490 JEFFERSON SMURFITT CORP
1109 E ELM AVE, MONROE, MI 48161

Permit Series (1)

Permit Series Name	Permit Engineer	EPA Staff	Most Recent Event
Closure Certification	Tyson, Kimberly		9/13/1989

Series Name: Closure Certification **Permit Engineer:** Tyson, Kimberly
EPA Staff: **Most Recent Event:** 9/13/1989

Permit Events (5)

Permit Event Type	Responsible Agency	Received Date	Scheduled Date	Actual Date
CL310 - PLAN RECEIVED - CLOSURE	EPA			6/9/1986

Event Type: CL310 - PLAN RECEIVED - CLOSURE
Responsible Agency: EPA
Received Date: **Scheduled Date:**
Actual Date: 6/9/1986

Units (1)

Unit Name	Process	Effective Date	Legal Op Status	Capacity
DRUMPAD	S01 - CONTAINER	6/9/1986	ISOP - Interim Status - Operating, Actively Managing Rcra-regulated Waste	30,000

CL340 - PUBLIC NOTICE - CLOSURE	EPA			8/15/1986

Event Type: CL340 - PUBLIC NOTICE - CLOSURE
Responsible Agency: EPA
Received Date: **Scheduled Date:**
Actual Date: 8/15/1986

Units (1)

Unit Name	Process	Effective Date	Legal Op Status	Capacity
DRUMPAD	S01 - CONTAINER	6/9/1986	ISOP - Interim Status - Operating, Actively Managing Rcra-regulated Waste	30,000

CL360ME - PLAN APPROVED - CLOSURE-FINAL CLOSURE	State			4/6/1987

Event Type: CL360ME - PLAN APPROVED - CLOSURE-FINAL CLOSURE
Responsible Agency: State
Received Date: **Scheduled Date:**
Actual Date: 4/6/1987

Units (1)

Unit Name	Process	Effective Date	Legal Op Status	Capacity

DRUMPAD	S01 - CONTAINER	6/9/1986	ISOP - Interim Status - Operating, Activ Managing Rcra-regulated Waste	30,000

CL370YE - RECEIVE CLOSURE CERTIFICATION-ACCORDING TO PLAN	State	9/13/1989

Event Type: CL370YE - RECEIVE CLOSURE CERTIFICATION-ACCORDING TO PLAN
Responsible Agency: State
Received Date: **Scheduled Date:**
Actual Date: 9/13/1989

Units (1)

Unit Name	Process	Effective Date	Legal Op Status	Capacity
DRUMPAD	S01 - CONTAINER	4/6/1987	ISIN - Interim Status - Inactive/closing, But Not Yet Rcra Closed	30,000

CL380CA - CLOSURE VERIFICATION	State	9/13/1989

Event Type: CL380CA - CLOSURE VERIFICATION
Responsible Agency: State
Received Date: **Scheduled Date:**
Actual Date: 9/13/1989

Units (1)

Unit Name	Process	Effective Date	Legal Op Status	Capacity
DRUMPAD	S01 - CONTAINER	9/13/1989	ISCC - Interim Status - Clean Closed	30,000

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Site Contacts

390821 / MI0000254128 HOMRICH INC
NE CORNER OF THE INTESECTION OF DETROIT, MONROE, MI 48162

Site

Site Name
HOMRICH INC

Site Identification

WDS ID Number:	390821	History...
Site ID Number:	MI0000254128	History...
Legal Site Name:	HOMRICH INC	History...
Specific Site Name:	HOMRICH INC	History...
District:	JACKSON	

Address Identification

Location Address
NE CORNER OF THE INTESECTION OF DETROIT
& E. ELM AVENUES
MONROE MI 48162-2523

History...

Mailing Address
200 MATLIN RD
CARLETON MI 48117-9397

History...

Miscellaneous

Tax Number: History...
No Number Because: Out of Business

GPS Coordinates (provide five decimal places)
Latitude Coordinate: 41.90952
Longitude Coordinate: -83.37543
Collection Method: Lat/Long Interpolation

Receives All Waste?: No
Railroad?: No
Facility on Indian Reservation Land?: No
Utilization Activities:
Scrap Tires Activities:
Scrap Tires Acres:
NAICS Codes (up to four six-digit codes):
(The list of NAICS codes in WDS is based on the 2007 definitions provided by the U.S.Census Bureau.)
111320 - Citrus (except Orange) Groves

Haz Waste Contact

First Name:	ROGER	**M.I.:**	I
Last Name:	HOMRICH		
Phone Number:	(734) 654-9800	**Ext:**	**Fax:**
Alternate Phone:			
Email Address:			

Owner/Operator (3) | **Activities (3)** | **Site ID Fees (1)** | **Comments (6)** | **Petitions (0)**
Used Oil Biennial Reports (0) | **Parceling (0)** | **Institutional Controls (0)**

Exemptions (0)

Site ID

Name	Organization Type	Active Date	Inactive Date	Owner and/or Operator
HOMRICH INC (MI0000254128)	Private	9/25/1997	8/1/2006	Operator
ROGER I HOMRICH (MI0000254128)	Private	9/25/1997	8/1/2006	Owner
JEFFERSON SMURFIT CORP	Private	1/1/1970	9/25/1997	Owner

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FAX COVER SHEET

TO	Roger Homrich
COMPANY	Homrich
FAX NUMBER	17344572969
FROM	Aaron Holdread
DATE	2010-09-24 21:13:13 GMT
RE	TCLP Data

COVER MESSAGE

Roger,

As requested here is a copy of the TCLP testing performed on the steel slag aggregate that was produced at our facility located at Gerdau-MacSteel-Monroe, in Monroe, MI. If you have any further questions please feel free to contact me at any time.

Regards,

Aaron Holdread
Director of Aggregate Sales
Tube City IMS

IMS Quality Services Laboratory
October 22, 2008

Laboratory Number: INO100955
PO Number: 79232

TCLP Extractions

Method of Tests : TCLP Leaching Procedure SW846-1311
Metals 6010B Mercury 7471A Selenium 7740
Arsenic 7060A Antimony 7041 Thallium 7841
Lead 7421

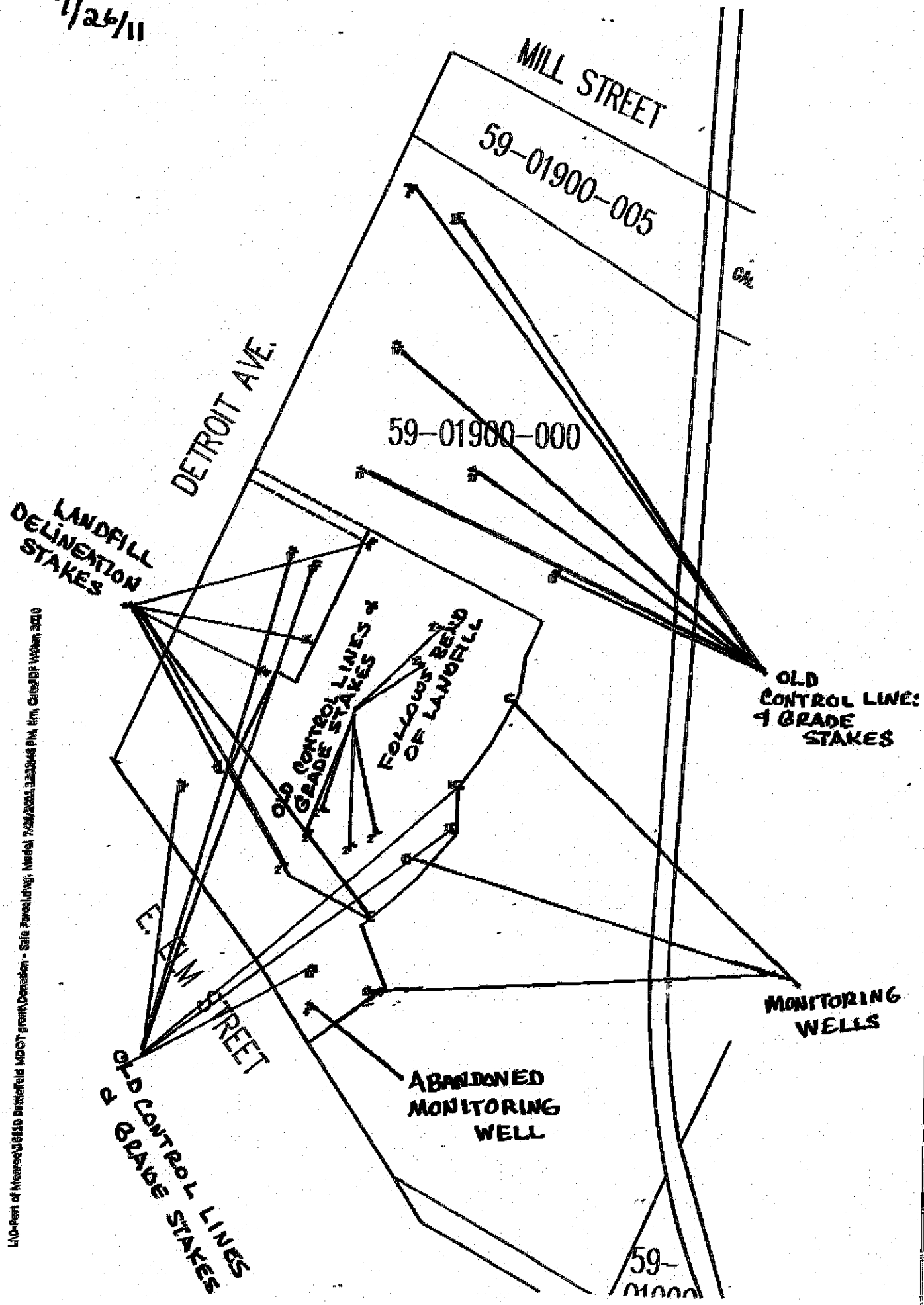
Element	Sample ID P-08-057 Results, mg/L TCLP	Detection Limit, mg/L	Maximum Allowable (40CFR261), mg/L (TCLP Only)
Silver (Ag)	<0.003	0.003	5.0
Arsenic (As)	<0.004	0.004	5.0
Barium (Ba)	0.338	0.001	100.0
Cadmium (Cd)	<0.002	0.002	1.0
Chromium Total (Cr)	0.011	0.001	5.0
Mercury (Hg)	<0.001	0.001	0.2
Lead (Pb)	<0.003	0.003	5.0
Selenium (Se)	<0.004	0.004	1.0
Beryllium (Be)	<0.001	0.001	Not Listed
Chrome +6 (Hexavalent)	<0.04	0.04	Not Listed
Nickel (Ni)	<0.01	0.01	Not Listed
Thallium (Tl)	<0.001	0.001	Not Listed
Vanadium (V)	<0.01	0.01	Not Listed
Zinc (Zn)	<0.001	0.001	Not Listed
Antimony (Sb)	<0.003	0.003	Not Listed
Copper (Cu)	<0.002	0.002	Not Listed

Respectfully Submitted,
MODERN INDUSTRIES, INC.

James R. Yarris
Chemistry Department Manager

1-Client
JRY/dla

7/26/11


MILL STREET
59-01900-005
DETROIT AVE.
59-01900-000
LANDFILL DELINEATION STAKES
OLD CONTROL LINES & GRADE STAKES
FOLLOWS FIELD OF LANDFILL
OLD CONTROL LINES & GRADE STAKES
E. ELM STREET
MONITORING WELLS
ABANDONED MONITORING WELL
OLD CONTROL LINES & GRADE STAKES
59-01000

AKTPEERLESS
environmental & energy services

APPENDIX H

PREVIOUS ENVIRONMENTAL REPORTS

PRC Environmental Management, Inc.
233 North Michigan Avenue
Suite 1621
Chicago, IL 60601
312-856-8700
Fax 312-938-0118

PRC

PRELIMINARY ASSESSMENT/ VISUAL SITE INSPECTION

JEFFERSON SMURFIT CORPORATION (FORMERLY UNION CAMP CORPORATION) MONROE, MONROE COUNTY, MICHIGAN MID 005 039 490

FINAL REPORT

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
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contains recycled fiber and is recyclable

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1.0 INTRODUCTION

PRC Environmental Management, Inc. (PRC), received Work Assignment No. C05087 from the U.S. Environmental Protection Agency (EPA) under Contract No. 68-W9-0006 (TES 9) to conduct preliminary assessments (PA) and visual site inspections (VSI) of hazardous waste treatment and storage facilities in Region 5.

As part of the EPA Region 5 Environmental Priorities Initiative, the RCRA and CERCLA programs are working together to identify and address RCRA facilities that have a high priority for corrective action using applicable RCRA and CERCLA authorities. The PA/VSI is the first step in the process of prioritizing facilities for corrective action. Through the PA/VSI process, enough information is obtained to characterize a facility's actual or potential releases to the environment from solid waste management units (SWMU) and areas of concern (AOC).

A SWMU is defined as any discernible unit at a RCRA facility in which solid wastes have been placed and from which hazardous constituents might migrate, regardless of whether the unit was intended to manage solid or hazardous waste.

The SWMU definition includes the following:

- RCRA-regulated units, such as container storage areas, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, and underground injection wells
- Closed and abandoned units
- Recycling units, wastewater treatment units, and other units that EPA has usually exempted from standards applicable to hazardous waste management units
- Areas contaminated by routine and systematic releases of wastes or hazardous constituents. Such areas might include a wood preservative drippage area, a loading or unloading area, or an area where solvent used to wash large parts has continually dripped onto soils.

An AOC is defined as any area where a release of hazardous waste or constituents to the environment has occurred or is suspected to have occurred on a nonroutine and nonsystematic basis. This includes any area where a strong possibility exists that such a release might occur in the future.

The purpose of the PA is as follows:

- Identify SWMUs and AOCs at the facility
- Obtain information on the operational history of the facility
- Obtain information on releases from any units at the facility
- Identify data gaps and other informational needs to be filled during the VSI

The PA generally includes review of all relevant documents and files located at state offices and at the EPA Region 5 office in Chicago.

The purpose of the VSI is as follows:

- Identify SWMUs and AOCs not discovered during the PA
- Identify releases not discovered during the PA
- Provide a specific description of the environmental setting
- Provide information on release pathways and the potential for releases to each medium
- Confirm information obtained during the PA regarding operations, SWMUs, AOCs, and releases

The VSI includes interviewing appropriate facility staff; inspecting the entire facility to identify all SWMUs and AOCs; photographing all visible SWMUs; identifying evidence of releases; making a preliminary selection of potential sampling parameters and locations, if needed; and obtaining additional information necessary to complete the PA/VSI report.

This report documents the results of a PA/VSI of the Jefferson Smurfit Corporation (Smurfit) facility (EPA Identification No. MID 005 039 490) in Monroe, Monroe County, Michigan. The PA was completed on June 17, 1992. PRC gathered and reviewed information from the Michigan Department of Natural Resources (MDNR); EPA Region 5 RCRA files; and the U.S. Geological Survey (USGS), Federal Emergency Management Agency, U.S. Department of Conservation (USDOC), and U.S. Department of Agriculture (USDA). The VSI was conducted on July 1, 1992. It included interviews with facility representatives and a walk-through inspection of the facility. PRC identified six SWMUs and four AOCs at the facility.

PRC completed EPA Form 2070-12 using information gathered during the PA/VSI. This form is included in Attachment A. The VSI is summarized and 18 inspection photographs are included in Attachment B. Field notes from the VSI are included in Attachment C. Reports on bedrock monitoring well installation and a SWMU 1 site investigation are included in Attachment D.

2.0 FACILITY DESCRIPTION

This section describes the facility's location; past and present operations; waste generating processes and waste management practices; history of documented releases; regulatory history; environmental setting; and receptors.

2.1 FACILITY LOCATION

The Smurfit facility is located at 1205 East Elm Avenue in Monroe, Monroe County, Michigan. Figure 1 shows the location of the facility in relation to the surrounding topographic features (latitude 41°55'00" N and longitude 83°22'00" W). The facility occupies 200 acres in a mixed-use area.

The facility is bordered on the north by Nationwide Galvanizing; on the west by B & A Auto Repair and a tavern; on the south by residential and recreational developments; and on the east by an 8-acre farm, wetlands, and the Ford Motor Company.

2.2 FACILITY OPERATIONS

The facility is currently owned by Smurfit. The facility was originally built in 1920 by River Raisin Paper Corporation. The facility was later acquired on an unknown date by the Union Camp Corporation (Union). In 1988, Union sold the facility to a partnership composed of Smurfit and an individual named Bob Mitchell. In 1991, Smurfit acquired full ownership of the facility.

Currently, the Smurfit facility employs about 100 people over three shifts, 7 days a week. The facility consists of Building No. 1, where all production takes place; the site of Building No. 2, now demolished; Building No. 5, now used for storage and formerly a container storage area (CSA); agricultural and undeveloped land; and a landfill area.

The Smurfit facility manufactures paper products from recycled waste paper for industrial and commercial uses. Waste paper is received in bales and mixed with water to form a pulp. This pulp is then fed through a series of rollers that heat and dry the pulp and form it into various grades of paper. This method of production has remained essentially the same since the facility was first opened in 1920 by River Raisin Paper Corporation.

The facility maintains three active underground storage tanks (UST), two inactive USTs, and two active aboveground storage tanks for gasoline. The facility has no storage areas for hazardous waste.

Solid wastes generated from facility operations and the SWMUs where the wastes are managed are discussed in detail in Section 2.3.

2.3 WASTE GENERATION AND MANAGEMENT

The Smurfit facility has four primary waste generating processes. Soil was generated from site investigations at the area of the now demolished Building No. 2. Nonhazardous scrap metal is generated from demolition and rehabilitation activities at the facility. Nonhazardous pulper waste and waste process water are generated from waste paper pulping operations. Nonhazardous waste oil is generated from routine machine maintenance throughout the facility. Nonhazardous coal boiler ash and slurry water are generated from the burning of coal for power generation and the transport of the coal boiler ash to the Landfill Area settling ponds. Hazardous waste mineral spirits (EPA waste codes D008, D018, and D039) is generated from use of four Safety-Kleen Corporation (Safety-Kleen) parts washers. These waste generation processes are discussed below; generation rates for the wastes are based on estimates provided by facility representatives. The facility's SWMUs are identified in Table 1. The facility layout, including SWMUs and AOCs, is shown in Figures 2, 3, and 4. The facility's waste streams are summarized in Table 2.

The facility has a total of six SWMUs:

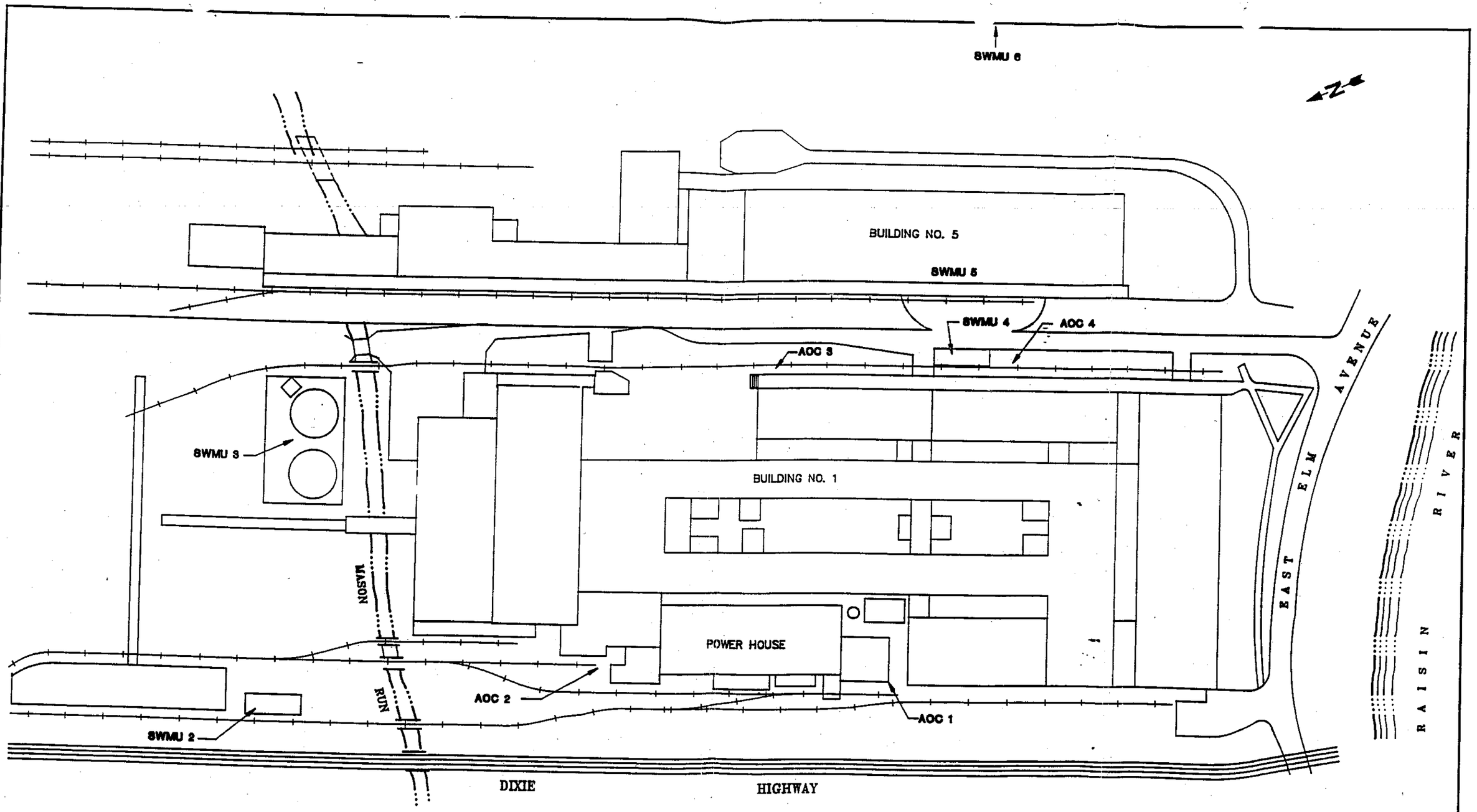
- A demolished production building (Building No. 2) where site investigation soil is stored (SWMU 1)
- A dumpster used to accumulate scrap metal (SWMU 2)
- A wastewater clarifier used to separate pulper waste from process water (SWMU 3)
- Two containers used to accumulate waste oil (SWMU 4)
- One container storage area (CSA) formerly used to accumulate waste solvent-based ink (SWMU 5)
- An on-site landfill area used for disposal of coal boiler ash and dewatered pulper waste (SWMU 6)

TABLE 1
SOLID WASTE MANAGEMENT UNITS

SWMU Number	SWMU Name	RCRA Hazardous Waste Management Unit[a]	Status
1	Building No. 2	No	Active due to presence of soil from site investigation; Building No. 2 was demolished in 1991; release to soil and ground water before demolition
2	Scrap Metal Dumpster	No	Active; handles nonhazardous scrap metal
3	Wastewater Clarifier	No	Active; separates nonhazardous process water from nonhazardous pulper waste
4	Waste Oil Containers	No	Active; accumulates nonhazardous waste oil
5	Former Container Storage Area	Yes	RCRA-closed by MDNR in 1989, handled waste solvent-based ink (K086)
6	Landfill Area	No	Active; handles nonhazardous coal boiler ash and nonhazardous pulper waste

Note:

[a] A RCRA hazardous waste management unit is one that currently requires or formerly required submittal of a RCRA Part A or Part B permit application.



LEGEND

SWMU 1	BUILDING NO. 2	AOC 1	UNDERGROUND STORAGE TANK (UST) NO. 1
SWMU 2	SCRAP METAL DUMSTER	AOC 2	UST NOS. 2 AND 3
SWMU 3	WASTEWATER CLARIFIER	AOC 3	UST NO. 4
SWMU 4	WASTE OIL CONTAINERS	AOC 4	UST NO. 5
SWMU 5	FORMER CONTAINER STORAGE AREA		
SWMU 6	LANDFILL AREA		

SWMU 1

NOT TO SCALE

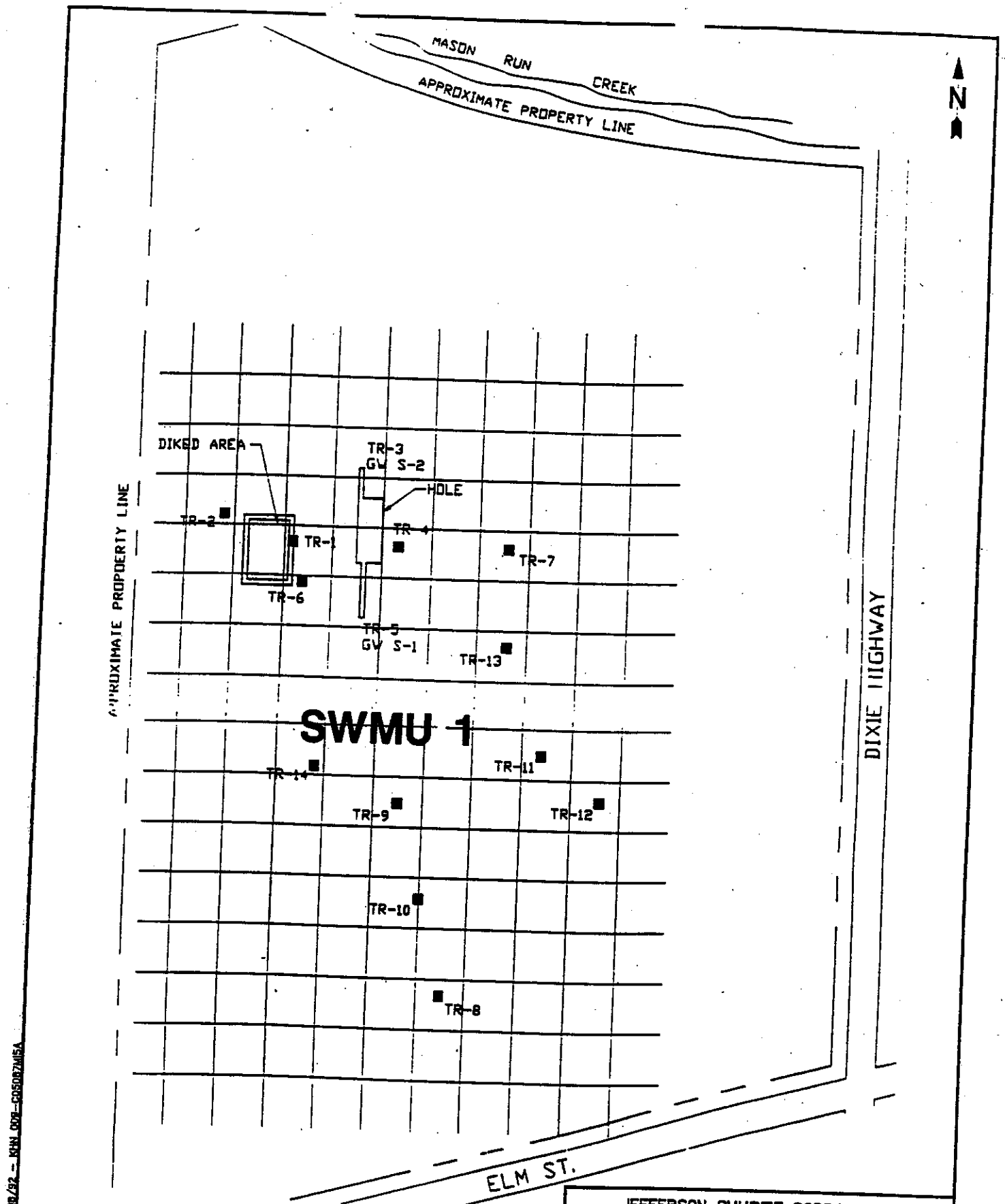
SOURCE: MODIFIED FROM SKETCH RECEIVED FROM SMURFIT CORPORATION, ON JULY 1, 1992

JEFFERSON SMURFIT CORPORATION
MONROE, MICHIGAN

FIGURE 2
BUILDING NO. 1 LAYOUT

PRC ENVIRONMENTAL MANAGEMENT, INC.

SMURFIT2.DWG – 09/10/92 – KHN 009–C05087M5A



SOURCE: MODIFIED FROM PAULSON, JAMES S. AND HUFF, LINDA L. 1992

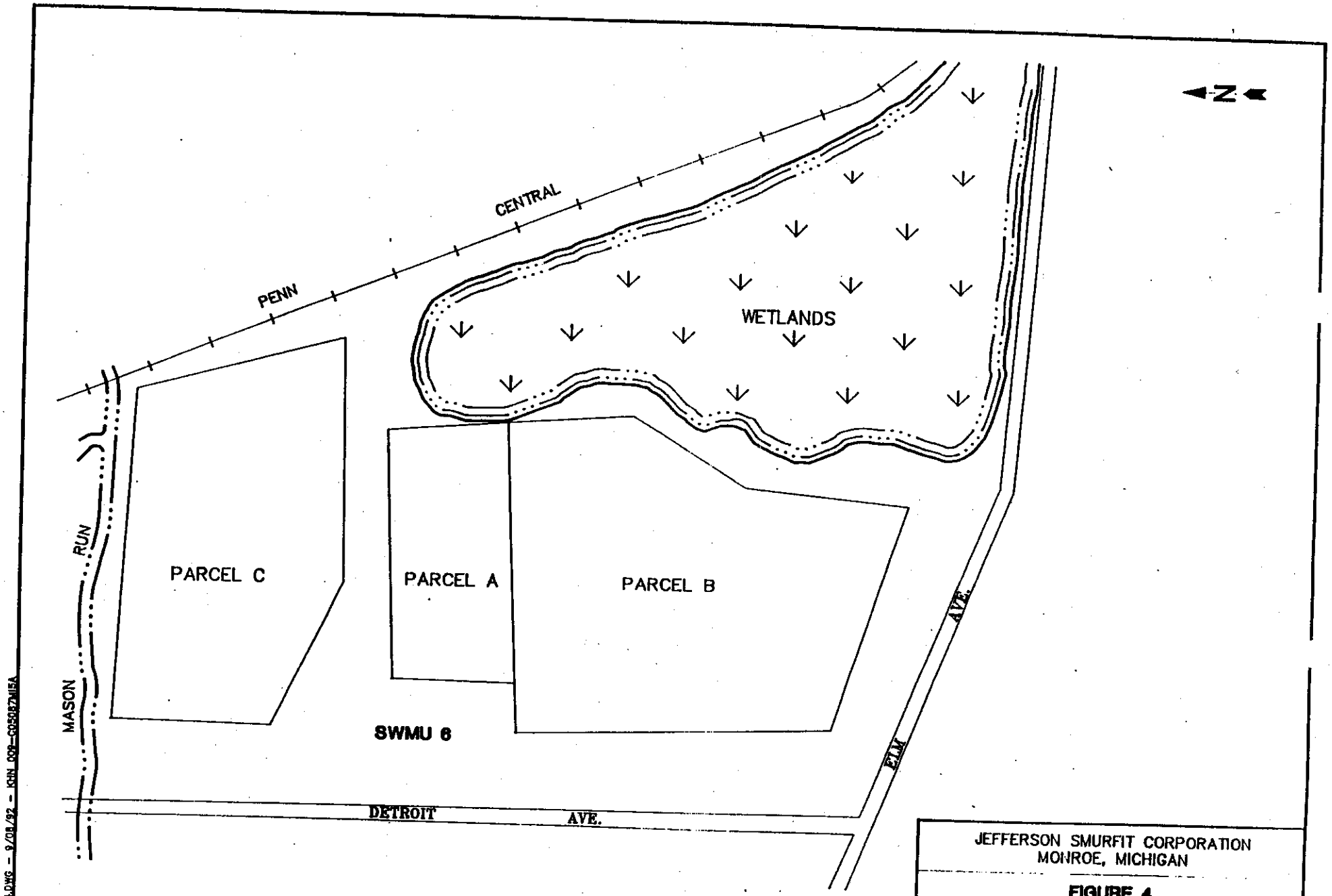
NOT TO SCALE

JEFFERSON SMURFIT CORPORATION
MONROE, MICHIGAN

FIGURE 3
BUILDING NO. 2 (DEMOLISHED) LAYOUT

PRC ENVIRONMENTAL MANAGEMENT, INC.

SMURFIT3.DWG – 9/08/92 – KHN 009–C05087M15A



SOURCE: MODIFIED FROM SKETCH RECEIVED FROM SMURFIT ON JULY 1, 1992

JEFFERSON SMURFIT CORPORATION
MONROE, MICHIGAN

FIGURE 4

LANDFILL AREA LAYOUT

PRC ENVIRONMENTAL MANAGEMENT, INC.

TABLE 2
SOLID WASTES

Waste/EPA Waste Code[a]	Source	Solid Waste Management Unit[b]
Soil/ NA	UST Excavation	SWMU No. 1
Scrap Metal/ NA	Demolition and Rehabilitation	SWMU No. 2
Waste Process Water/ NA	Wastewater Clarifier	SWMU 3
Pulper Waste/ NA	Pulping of Waste Paper	SWMUs No. 3 and 6
Waste Oil/ NA	Machine Maintenance	SWMU No. 4
Coal Boiler Ash/ NA	Coal Boiler	SWMU No. 6
Slurry Water/ NA	Landfill Area Settling Ponds	SWMU No. 6
Waste Mineral Spirits /D008, D018, and D039	Parts Washers	None
Waste Solvent-Based Ink /K086[c]	Discontinued Labeling Uses	SWMU No. 5

Notes:

a Not applicable (NA) designates nonhazardous waste.

b "None" indicates that the waste is not managed on site.

c This waste is no longer generated at the facility

The facility demolished Building No. 2 (SWMU 1), an abandoned paper production plant, in 1991. During this demolition, an UST for waste hydraulic oil and a sump that held waste motor oil were removed. During the removal, past releases of these oils to the environment were observed as soil staining. An unknown amount of soil from the excavation of the UST and the sump was generated and is stockpiled in the areas immediately adjacent to the excavations. The facility is awaiting test results for samples of this soil to determine potential disposal options. The entire area is considered as SWMU 1 due to the unknown amount of contamination remaining in the soil from the UST and sump releases and the known presence of contaminated soil stockpiled next to the UST area. These releases are discussed further in Section 2.4.

Demolition and rehabilitation of facility buildings have generated nonhazardous scrap metal. The scrap metal is stored in a 30-cubic-yard Scrap Metal Dumpster (SWMU 2) in the facility parking area. The scrap metal is sold to Magnimet of Monroe, Michigan, for recycling. The scrap metal generation rate is irregular and unknown.

The paper production process requires waste paper to be pulped with large amounts of water. As a result, a large amount of nonhazardous waste process water with some paper pulp is generated. This water is hard-piped to a 200,000-gallon Wastewater Clarifier (SWMU 3) that allows the pulp and water to separate. After clarification, the nonhazardous process water is piped back to the facility for reuse. At times, when the water can no longer be used in the process, the waste process water is discharged into the City of Monroe sanitary sewer system; the rate of discharge to the sanitary sewer system is unknown. The nonhazardous pulper waste that remains in the clarifier is periodically removed and trucked to the facility Landfill Area (SWMU 6). Pulper waste is generated at a rate of 3,000 cubic yards per year.

Nonhazardous waste oil is generated from routine machine maintenance. The waste oil has been analyzed and found to be nonhazardous. This oil is periodically collected throughout the facility and is then stored in two 250-gallon, plastic totes. These Waste Oil Containers (SWMU 4) are located on the loading dock at the east side of Building No. 1. These totes are picked up by Safety-Kleen of Toledo, Ohio (EPA Identification No. OHD 981 097 876), for recycling. The Smurfit facility generates about 3,000 gallons of waste oil per year.

The facility produces its own electrical power by use of a coal-fired boiler that powers a generator. This boiler generates nonhazardous coal boiler ash that remains from coal burning. The ash is combined with water to form a slurry, which is then hard-piped to the settling ponds at the facility Landfill Area (SWMU 6). The Landfill Area consists of settling ponds and a landfill. The ash is allowed to separate from the water in the settling ponds. After the ash has

separated, it is disposed of in the landfill area. The generation rate for the coal boiler ash is about 6,000 cubic yards per year.

After the coal boiler ash has separated in the settling pond, the waste slurry water from the settling ponds is allowed to flow through any of the permitted NPDES outfalls into Mason Run, a tributary to the River Raisin that flows along the north side of the Landfill Area. The generation rate of the wastewater is unknown.

Metal tools and metal machine parts are cleaned in four Safety-Kleen parts washers. These parts washers contain mineral spirits and are located in the power house maintenance area, the millwright area, the plant maintenance area, and the forklift garage area. The waste mineral spirits (EPA waste codes D008, D018, and D039) is picked up from the parts washers on an irregular basis by Safety- Kleen of Toledo, Ohio. The generation rate for the waste mineral spirits is unknown.

In 1980, when the facility was owned and operated by Union, 660 gallons of hazardous waste-solvent based ink (EPA waste code K086) was stored in drums in a Former CSA in Building No. 5 (SWMU 5). This waste was generated when the facility changed over to nonhazardous water-based ink. The nonhazardous water-based ink is not generated as a solid waste. Since the waste solvent-based ink was disposed of in July 1981 at an unknown off-site location, the Former CSA has not been used (Union, 1986a). The Former CSA was approved as closed under RCRA regulations (RCRA-closed) by MDNR as of September 13, 1989 (MDNR, 1989). Currently, several pieces of decommissioned equipment are being stored in the Former CSA, but no solid wastes of any sort are being stored in this area.

2.4 HISTORY OF DOCUMENTED RELEASES

This section discusses the history of documented releases to ground water and on-site soils at the facility.

In 1991, Smurfit demolished Building No. 2 (SWMU 1), an abandoned paper production plant located across Dixie Highway west of the main production building, Building No. 1. On the west side of Building No. 2 was a vehicle maintenance area that included an aboveground fuel tank, an underground waste motor oil collection sump, and a waste hydraulic oil UST. The entire area where Building No. 2 stood, as well as the surrounding land, is considered SWMU 1. During the removal of the sump and the UST, contractors observed that the soil surrounding the UST and the sump was discolored, indicating that releases of waste oils may have occurred.

James S. Paulson and Linda L. Huff, P.E., contractors hired by Smurfit, performed a site investigation to determine the degree and extent of contamination from these possible releases. Eleven test pits were dug to a depth of 9 to 10 feet around the general area of discoloration; these pits were allowed to fill with water, presumably ground water. Also, four monitoring wells were installed to bedrock around the excavations. Soil and ground-water samples were collected from all 11 pits as well as ground-water samples from the four monitoring wells. These samples were analyzed for benzene, ethylbenzeze, xylene, toluene, and polynuclear aromatic hydrocarbons (PNA). Sampling locations are identified and analytical results are included in the report prepared by the contractor, which is included in Attachment D. Soil from the excavations stockpiled in the SWMU 1 area have been sampled and the facility is awaiting test results (Paulson, 1992).

The analytical results indicated contamination of the soils and ground water in the area of the excavations. Xylene and toluene were detected in the soil samples, and xylene, toluene, and ethylbenzene were detected in the ground-water samples (Paulson, 1992).

The Landfill Area (SWMU 6) is a 21.45 acre area at the eastern edge of the facility. Pulper waste and coal boiler ash are disposed of in this area and constitute a release of solid wastes to surface soil. The wastes have been sampled and analyzed by the facility and have been determined to be nonhazardous.

2.5 REGULATORY HISTORY

Union submitted a Notification of Hazardous Waste Activity form to EPA on July 29, 1980 (Union, 1980a). The notification listed the facility as a generator of toxic wastes (EPA waste code D000) and as a treatment, storage, and disposal (TSD) facility. Also in 1980, Union submitted a RCRA Part A permit application (Union, 1980b). The application listed storage of wastes in containers (S01) (SWMU 5) with D001 and D007 waste codes and annual generation rates of 21,600 gallons and 250,000 gallons, respectively. The facility has not filed a Part B permit application and is operating as a small-quantity generator of hazardous waste.

On February 3, 1986, Union sent a letter to EPA requesting information on changing the facility's status to that of a generator only (Union, 1986a). On March 18, 1986, Union submitted a closure plan for the Former CSA (SWMU 5) and a request for withdrawal of its Part A permit application and termination of its interim status (Union, 1986b). Union submitted a revised closure plan to EPA on June 4, 1986 (Union, 1986c). On August 6, 1986, MDNR sent a Notice of Deficiency to EPA concerning the closure plan (MDNR, 1986). On September 26, 1986 EPA sent a notice to Union that the closure plan and withdrawal of the Part A permit application

would not be approved (EPA, 1986). On September 13, 1989, MDNR certified that the Smurfit facility was released from the financial responsibility requirements for closure based on the closure certifications of July 23 and May 15, 1989 (MDNR, 1989).

The facility is currently operating as a small-quantity generator of hazardous waste. The facility is currently operating a licensed State of Michigan Type III Landfill Area (SWMU 6) that is used for disposal of nonhazardous coal boiler ash, slurry water, and nonhazardous pulper waste. The Landfill Area was licensed by MDNR in 1980, and Smurfit is currently negotiating a renewal of the licence (MDNR, 1990 and 1992). No record of compliance inspections at the facility is available.

The facility is required to have operating air permits. The facility is currently operating a coal-fired boiler under a permit issued by the Air Quality Division of MDNR (MDNR, 1991). The facility has not been cited for violating its air permits. The facility has no history of odor complaints from area residents.

On August 31, 1983, MDNR reissued a permit to the facility for seven outfalls regulated under the National Pollutant Discharge Elimination System (NPDES) (MDNR, 1983). This permit is for discharge of noncontact cooling water and slurry water to Mason Run and River Raisin. The facility is required to sample the outfalls weekly for total suspended solids analysis. No violations of the permit have been recorded.

The facility has three active USTs and two inactive USTs; and has removed one UST (see Figure 2). USTs No. 2 and 3 (AOC 2) and UST No. 4 (AOC 3) are currently in use, and all contain fuel oil. These three USTs are constructed of steel; they have no liners, leak detection devices, or overflow protection. USTs No. 2 and 3 are located near the northeast corner of the facility and have a capacity of 30,000 gallons each. UST No. 4 is located on the east side of the facility and has a capacity of 1,000 gallons. USTs No. 1 (AOC 1) and 5 (AOC 4) both became inactive in 1989. UST No. 1 formerly contained fuel oil; has a capacity of 10,000 gallons; and is constructed of steel. UST No. 1 has no liner, leak detection devices, or overflow protection. UST No. 5 formerly contained fuel oil and lacquer thinner; has a capacity of 8,000 gallons; and is constructed of steel. UST No. 5 also has no liner, leak detection devices, or overflow protection.

The facility demolished Building No. 2 (SWMU 1), an abandoned paper production plant, in 1991. During demolition, an UST for waste hydraulic oil was removed. During the removal, evidence of releases of oil to the environment was observed. These releases are discussed further in Section 2.4.

No CERCLA activity has occurred at the facility.

2.6 ENVIRONMENTAL SETTING

This section describes the climate; flood plain and surface water; geology and soils; and ground water in the vicinity of the facility.

2.6.1 Climate

The climate in Monroe County is temperate with localized effects resulting from its proximity to Lake Erie. The average daily temperature is 60 degrees Fahrenheit (°F). The lowest average daily temperature is 18°F in January. The highest average daily temperature is 85°F in July (USDOC, 1963 and 1968).

The total annual precipitation for the county is 30 inches. The mean annual lake evaporation for the area is about 30 inches. The 1-year, 24-hour maximum rainfall is about 2 inches (USDOC, 1963 and 1968).

The prevailing wind is from the south at an annual average of 11.5 miles per hour. Average wind speed is highest in January and April at 13 miles per hour (USDOC, 1963 and 1968).

2.6.2 Flood Plain and Surface Water

The Smurfit facility is not located in a flood-prone area. Although the River Raisin is located 0.25 mile to the south and Mason Run is adjacent to the facility on the north, the facility is not located in a flood plain (HUD, 1977). The nearest surface water body, Mason Run, is located on the facility's northern boundary and is used solely for process water discharge from the facility. The River Raisin is 0.25 mile to the south and is used for recreational and industrial purposes. Mason Run flows into the River Raisin 1.25 miles east of the facility, and River Raisin flows into Lake Erie an additional 0.75 mile to the east.

Surface water at the facility runs in several directions depending on the portion of the facility in question. Surface water from the area of demolished Building No. 2 (SWMU 1) runs about 0.25 mile to the south to Elm Street, where it enters the City of Monroe storm sewer system. This system discharges into the River Raisin. Surface water from the area of Buildings No. 1 and 5 runs into the facility storm sewers and then into the River Raisin via an NPDES

outfall. Surface water from the Landfill Area (SWMU 6) drains into Mason Run via an NPDES outfall. Mason Run flows into the River Raisin.

2.6.3 Geology and Soils

The surface soils and subsurface soils in the area of the Smurfit facility are lake plain glacial deposits. These soils consist of silty sand or black loam from the surface to a depth of 1 foot and then of tan to grey, silty clay from a depth of 1 foot to bedrock. The glacial deposits range from 6.5 to 17 feet in thickness above bedrock. The soils have a 0 to 2 percent slope and are poorly drained (Chester, 1991).

The bedrock unit immediately beneath the soils is of the Bass Island Group. The Bass Island Group consists of tan, thin-bedded limestone and dolomite that become grey to light grey with depth. Core samples from monitoring wells installed around the facility Landfill Area (SWMU 6) revealed zones of calcite-filled vugs along with deposits of gypsum and anhydrite. The core samples also revealed occasional porous zones and small fractures (Chester, 1991).

2.6.4 Ground Water

The following description of ground-water conditions is based on well logs for three bedrock monitoring wells installed around the facility Landfill Area (SWMU 6). The bedrock monitoring wells were bored to an average depth of 49 feet below ground surface and were screened in bedrock from an average depth of 38 to 48 feet below ground surface. Depth to ground water ranges from about 4 feet to 8 feet below ground surface. Ground water in the area flows south toward the River Raisin. The monitoring wells produced an average of 7 gallons of water per hour. Horizontal hydraulic conductivity ranged from 0.6137 feet per day (ft/day) to 1.59 ft/day (Chester, 1991).

A site investigation report (see Attachment D) for the demolished Building No. 2 (SWMU 1) presents evidence of ground-water contamination in the area. Xylene, toluene, and ethylbenzene were found in ground-water samples from the area where releases of waste motor oil and waste hydraulic oil are believed to have occurred (Paulson, 1992).

Ground water in the Monroe area is not used for drinking water purposes. All drinking water for both the city and the facility is drawn from Lake Erie (Chester, 1991).

2.7 RECEPTORS

The facility occupies 200 acres in a mixed-use area in Monroe, Michigan. Monroe has a population of about 23,000.

The facility is bordered on the north by Nationwide Galvanizing; on the west by B & A Auto Repair and a tavern; on the south by residential and recreational developments; and on the east by an 8-acre farm, wetlands, and the Ford Motor Company.

The nearest residential area, which includes 24 single-family homes, is located about 0.8 mile southeast of the facility. Facility access is controlled by security guards who patrol all of the facility property 24 hours a day. The facility is not fenced.

The nearest surface water body, Mason Run, is located on the northern boundary of the facility and is used for industrial process water discharge only. No water intakes are located along Mason Run. Other surface water bodies in the area include the River Raisin, about 0.25 mile south of the facility and Lake Erie, about 2 miles east of the facility. Both are extensively used for recreation, and Lake Erie is the source of all local drinking water.

Ground water is not used in the vicinity of the facility. There are no nearby drinking water or industrial wells (Chester, 1991).

Sensitive environments are not located on site. The nearest sensitive environment is an emergent wetland immediately east of the facility property and adjacent to the Landfill Area (SWMU 6). This wetland is a fresh water marsh dominated by soft-stemmed vegetation such as cattail, reeds, and grasses (USGS, 1979; Niering, 1988). Other sensitive habitats include hundreds of acres of fresh water marshes and flood plain wetlands, Sterling State Park, and Lake Erie. All these areas are within 2 miles of the Smurfit facility (USGS, 1973 and 1979).

3.0 SOLID WASTE MANAGEMENT UNITS

This section describes the six SWMUs identified during the PA/VSI. The following information is presented for each SWMU: description of the unit, dates of operation, wastes managed, release controls, history of documented releases, and PRC's observations. Figures 2, 3, and 4 show the SWMU locations.

SWMU 1	**Building No. 2**
Unit Description:	Building No. 2 is a demolished paper recycling plant west of Building No. 1 and across Dixie Highway. During demolition activities in 1991, one waste hydraulic oil UST and one waste motor oil sump were discovered and removed. Soil discoloration was observed, and an investigation was performed to determine the extent of any soil and ground-water contamination. Soil and ground-water contamination has been verified. The entire area where Building No. 2 stood, as well as the surrounding property, is considered as SWMU 1. Soil from the excavations is currently stockpiled on the ground in the SWMU 1 area awaiting analysis results to determine disposal options.
Date of Startup:	This unit began operation in 1920. Operations in Building No. 2 ceased on an unknown date. Waste hydraulic oil remained in an UST and waste motor oil remained in a sump until 1991.
Date of Closure:	This unit no longer stores waste but is currently active.
Wastes Managed:	This unit managed waste motor oil and waste hydraulic oil with an unknown hazard potential and now manages excavated soil.
Release Controls:	This unit has no release controls.
History of Documented Releases:	Evidence of release of waste motor oil and waste hydraulic oil has been observed. Benzene, ethylbenzene, and xylene have been detected in the ground water. Xylene and toluene have been detected in the surrounding soil.

Observations:	During the VSI, the disturbed nature of the soils in the demolition and excavation areas made direct observation possible. The unit contained material excavated during sampling prior to the VSI. Photographs of the excavations and stockpiled soil are included in Attachment B (see Photographs No. 1 through 5).
SWMU 2	**Scrap Metal Dumpster**
Unit Description:	The Scrap Metal Dumpster is located outdoors at the northwestern corner of the facility property and is based on bare soil. This dumpster is used to store scrap steel and other metals until they are picked up by a recycling company. The dumpster has a capacity of 30 cubic yards.
Date of Startup:	This unit began operation in 1991.
Date of Closure:	This unit is currently active.
Wastes Managed:	This unit manages nonhazardous scrap steel and other scrap metals and is shipped to Magnimet of Monroe, Michigan for recycling.
Release Controls:	This unit has no release controls.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	This unit contained scrap metals at the time of the VSI. PRC noted no evidence of release (see Photograph No. 7).
SWMU 3	**Wastewater Clarifier**
Unit Description:	The Wastewater Clarifier consists of two 200,000-gallon, concrete, aboveground treatment tanks at the north end of the facility property. Only one tank is in service. Waste process water from the paper pulping and forming processes is piped into the clarifier, where pulper waste is allowed to separate from the wastewater. The wastewater is then either returned to the production areas for reuse or discharged into the City of Monroe sanitary sewer system.

	The city conducts daily tests for pH at the point of entry into their system.
Date of Startup:	This unit began operation before 1980.
Date of Closure:	This unit is currently active.
Wastes Managed:	This unit manages nonhazardous waste process water and nonhazardous pulper waste generated from paper production. The wastewater is discharged into the City of Monroe sanitary sewer system and the pulper waste is disposed of in the Landfill Area (SWMU 6).
Release Controls:	This unit has no release controls.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	This unit contained waste process water and pulper waste at the time of the VSI. PRC noted no evidence of release (see Photograph No. 9).
SWMU 4	**Waste Oil Containers**
Unit Description:	The Waste Oil Containers are two 250-gallon, portable, plastic containers stored on the east concrete loading dock of Building No. 1. This loading dock has no nearby drains and is covered by an overhang. The waste oil is generated from routine maintenance activities.
Date of Startup:	This unit began operation in May 1992. Each time a container is started it is considered a separate SWMU.
Date of Closure:	This unit is currently active.
Wastes Managed:	This unit manages nonhazardous waste oil. This oil is picked up by Safety-Kleen of Toledo, Ohio.

Release Controls:	This unit has no release controls.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, this unit contained about 500 gallons of waste oil. The waste oil was awaiting pickup by Safety-Kleen. PRC noted no evidence of release (see Photograph No. 10).

SWMU 5 **Former Container Storage Area**

Unit Description:	The Former CSA is located in Building No. 5, a poorly maintained building located about 150 feet east of Building No. 1. The unit is a curbed, concrete pad in the northwest corner of the building and measures 36 by 26 feet. The unit last stored hazardous wastes in 1981, when 660 gallons of waste solvent-based ink (EPA waste code K086) was removed from the unit. The unit has not been used for storage of wastes since that time and was approved as RCRA-closed by MDNR in 1989.
Date of Startup:	This unit began operation before 1981.
Date of Closure:	This unit has been inactive since 1981 and was RCRA-closed by MDNR on September 13, 1989.
Wastes Managed:	This unit managed hazardous waste solvent-based ink (K086).
Release Controls:	This unit is located below grade. It is a concrete pad surrounded by a 12-inch-high curb.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	During the VSI, this unit contained no waste, but several pieces of decommissioned machinery were being stored in the unit. PRC noted no evidence of release (see Photographs No. 13 and 14).

SWMU 6	**Landfill Area**
Unit Description:	The Landfill Area is a 21.45-acre area at the eastern edge of the facility property. The Landfill Area is separated into three parcels: A, B, and C. Parcel A is 3.15 acres in size and is filled, covered, and inactive. Parcel B is 9.6 acres in size and is currently receiving nonhazardous coal boiler ash and nonhazardous pulper waste. Parcel C is 8.7 acres in size and consists of a pond used to receive nonhazardous waste coal boiler ash slurry piped from Building No. 1. This slurry is allowed to settle, and the ash is then added to the fill on Parcel B. The wastewater from the slurry (slurry water) is allowed to flow into Mason Run through a permitted NPDES outfall at the north end of the fill.
Date of Startup:	This unit began operation before 1980.
Date of Closure:	This unit is active.
Wastes Managed:	This unit manages nonhazardous waste coal boiler ash and nonhazardous pulper waste. This unit is the ultimate destination. The slurry water is discharged to Mason Run.
Release Controls:	This unit has no release controls.
History of Documented Releases:	The Landfill Area is a release of pulper waste and coal boiler ash to surface soils.
Observations:	This unit contained nonhazardous waste coal boiler ash and nonhazardous pulper waste at the time of the VSI. The unit was not covered and was exposed to the elements. Releases of pulper waste and coal boiler ash were observed but these waste are nonhazardous in nature (see Photographs No. 15 through 18).

4.0 AREAS OF CONCERN

PRC identified four AOCs during the PA/VSI. These AOCs are discussed below; their locations are shown in Figure 2.

AOC 1 **Underground Storage Tank No. 1**

UST No. 1 is located near the west side of the facility next to a parking area. This UST has a capacity of 10,000 gallons and held fuel oil from 1970 until 1989. Facility representatives claim that UST No. 1 is empty. While it was in use, leak detection and overflow protection devices were not used, and integrity testing was not performed. This UST is considered an AOC because of the lack of leak detection devices and integrity testing (see Photograph No. 6).

AOC 2 **Underground Storage Tanks No. 2 and 3**

USTs No. 2 and 3 are located near the northwest corner of the facility next to the parking area. These USTs contain fuel oil, each has a capacity of 30,000 gallons. Each UST has been in service since about 1970. These USTs are considered an AOC because they lack leak detection and overflow protection devices and no integrity testing has been performed on them (see Photograph No. 8).

AOC 3 **Underground Storage Tank No. 4**

UST No. 4 is located next to the east side of Building No. 1. This UST contains fuel oil and has a capacity of 10,000 gallons. The UST has been in service since about 1970. This UST is considered an AOC because it lacks leak detection and overflow detection devices and no integrity testing has been performed on it (see Photograph No. 11).

AOC 4 **Underground Storage Tank No. 5**

UST No. 5 is located near the east side of Building No. 1 next to the loading dock. This UST formerly contained lacquer thinner and fuel oil and has a capacity of 8,000 gallons. The UST was active from 1970 to 1989. This UST is considered an AOC because it lacks leak detection and overflow protection devices and no integrity testing has been performed on it (see Photograph No. 12).

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CATEGORY A
BASELINE ENVIRONMENTAL ASSESSMENT

Conducted Pursuant to Section 20126(1)(c)
of 1994 PA 451, Part 201, as amended

Former Jefferson Smurfit Property
1205 East Elm Avenue
Monroe, Michigan

Prepared for:

Homrich Incorporated
200 Matlin Road
Carleton, Michigan 48117

Report Date:

November 4, 1997: Substantially Completed
January 27, 1998: Final Edits and Production

Techna Project No. 00696-02R-001

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Notice of Noncompliance No. 11-93-04-017D, MDNR, November 2, 1993;
Response to Notice of Noncompliance, Jefferson Smurfit Corporation, November 23, 1993;
Ford Motor Wet-land Remediation in Monroe, MI, Jefferson Smurfit Corporation interoffice memorandum, October 14, 1994; and,
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CATEGORY A
BASELINE ENVIRONMENTAL ASSESSMENT

Conducted Pursuant to Section 20126(1)(c)
of 1994 PA 451, Part 201, as amended

Former Jefferson Smurfit Property
1205 East Elm Avenue
Monroe, Michigan

1.0 INTRODUCTION

Techna Corporation, on behalf of Homrich Incorporated, has performed a Category A Baseline Environmental Assessment (BEA) of the property located at 1205 East Elm Avenue, City of Monroe, County of Monroe, State of Michigan (the property).

The property's location within the City of Monroe is shown in Figure 1 (United States Geological Survey 7.5-Minute Topographic Quadrangle Map, Monroe and Stony Point, dated 1967, photo revised 1979 and 1973). Its boundaries (Figure 2) are irregularly shaped and discontinuous, extending north of the River Raisin and east of the Conrail and Grand Trunk Western Railroad tracks near North Dixie Highway. The property is comprised of wooded land, wetlands, surface water channels (Mason Run Stream and Fresh Water Canal), and currently unoccupied industrial buildings. The property is roughly bisected by Interstate Highway I-75 and a railroad spur.

The property was purchased by Homrich Incorporated on September 25, 1997. No development or use of the property will be conducted by the present owner in which hazardous substances will be used at levels above typical household or office operations.

1.1 Background

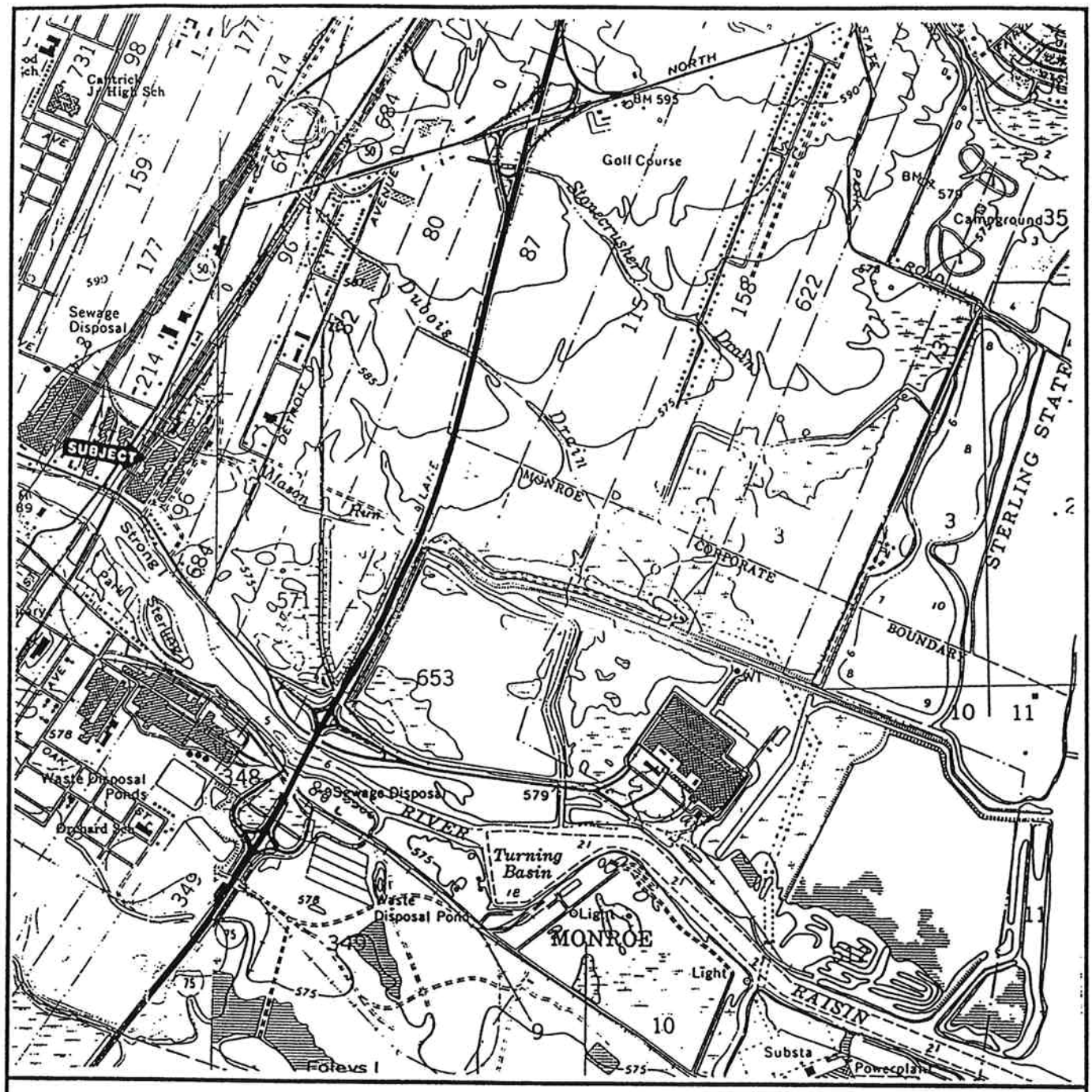
Available historical information indicates that the property was used exclusively for paper manufacturing from the early 1900s until the mid-1990s. Paper mill operations were restricted to the southern half of the property, west of Detroit Avenue. Existing buildings which formerly comprised

the paper mill complex (East Mill Complex) are shown in Figure 3. A portion of the property, located north of Elm Avenue and south of the Mason Run Stream, between Detroit Avenue and the railroad spur and marsh land, was licensed for disposal of fly ash and nonhazardous pulp and paper wastes associated with former coal-fired boiler operations and recycled-paper manufacturing processes. The remaining portion of the property east of Detroit Avenue has not been developed and consists primarily of marsh land, with associated streams and ponds. Additional information related to property history and ownership is contained in Appendix B (***Environmental Site Assessment (Physical Walk-Through) of Monroe Paper Company***, Gary J. Davis, July 10, 1991, and ***A History of the Jefferson Monroe Mill Complex***, Jefferson Monroe Complex Steering Team, undated).

Environmental investigations at the property have revealed the presence of at least eight areas of environmental contamination. The approximate location of each of these environmental areas of interest (AOI) is presented in Figure 4. Identified contaminants include volatile organic compounds (VOC), metals, semivolatile organic compounds (SVOCs), including polycyclic aromatic hydrocarbons (PAH/PNA), sulfates, and ammonia. Contaminants have been detected in several areas at levels above default residential use criteria established by the Michigan Department of Environmental Quality (MDEQ), thus making the property a facility as defined in ***Part 201 of the Michigan Natural Resources and Environmental Protection Act*** (NREPA), 1994 PA 451, as amended.

1.2 Purpose

Environmental information and data were collected and evaluated to identify any contamination existing before Homrich Incorporated's acquisition of the property. The identification of contaminants in environmental media above MDEQ default residential use criteria was sufficient to define the property as a "facility", supporting the establishment of liability exemptions for the present owner. The liability exemptions for existing contaminants were based on future land uses not involving significant quantities of hazardous substances as defined in Part 201 of NREPA.



Source: USGS

Monroe and Stony Point, Michigan
7.5 Minute Quadrangles 1967 (Photorevised 1979 and 1973)

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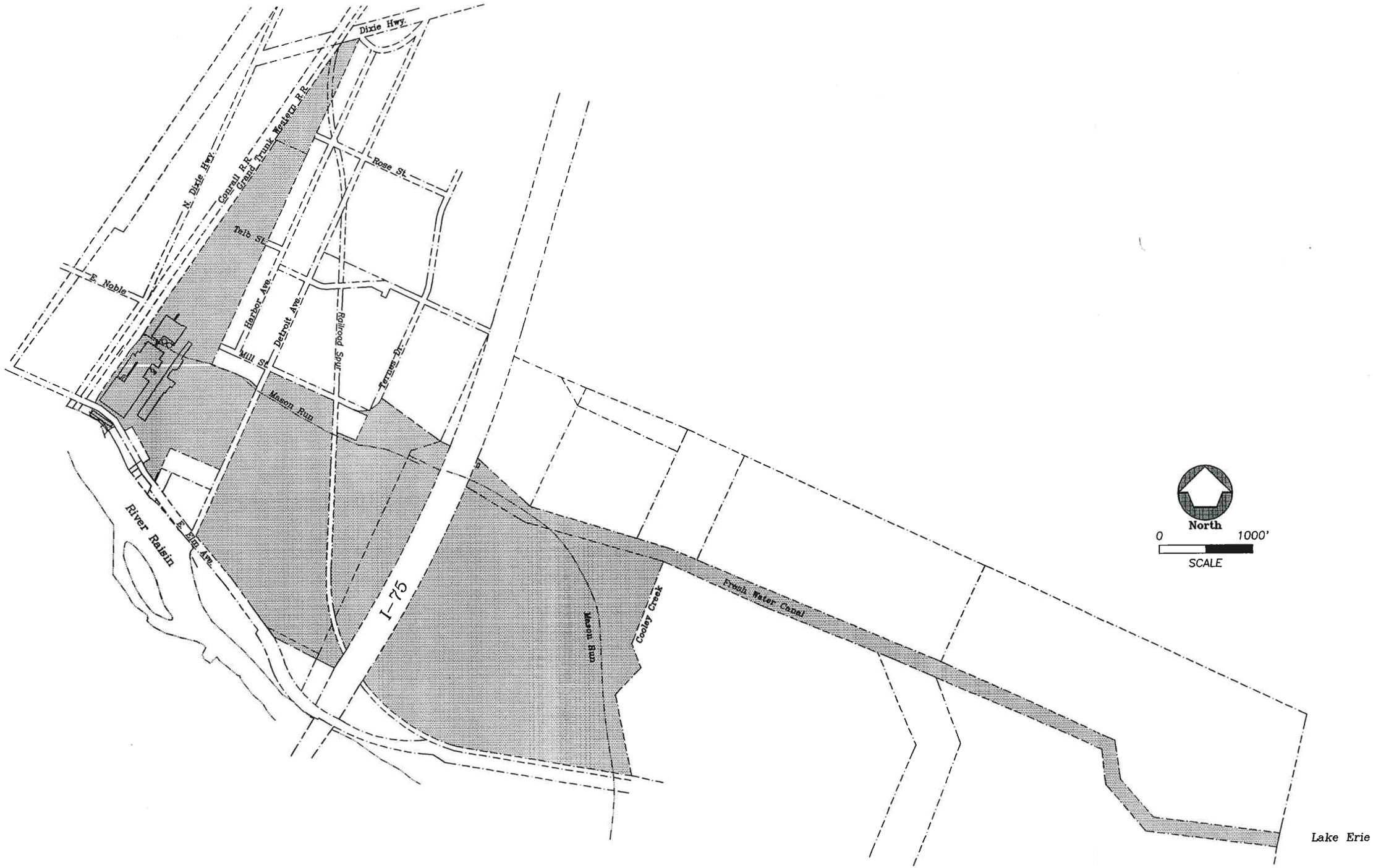
Figure 1
Site Location Map
Former Jefferson Smurfit Corporation Property
Monroe, MI
T7S R9E

TPN: 00696-02R
Date: 10-27-97
Rev.
Drn: 060
Ref:
File: 69602R-L.DWG



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TPN: 00696-02R
Date: 1-19-98
File: 69602R-2.DWG

Figure 2
Site Diagram

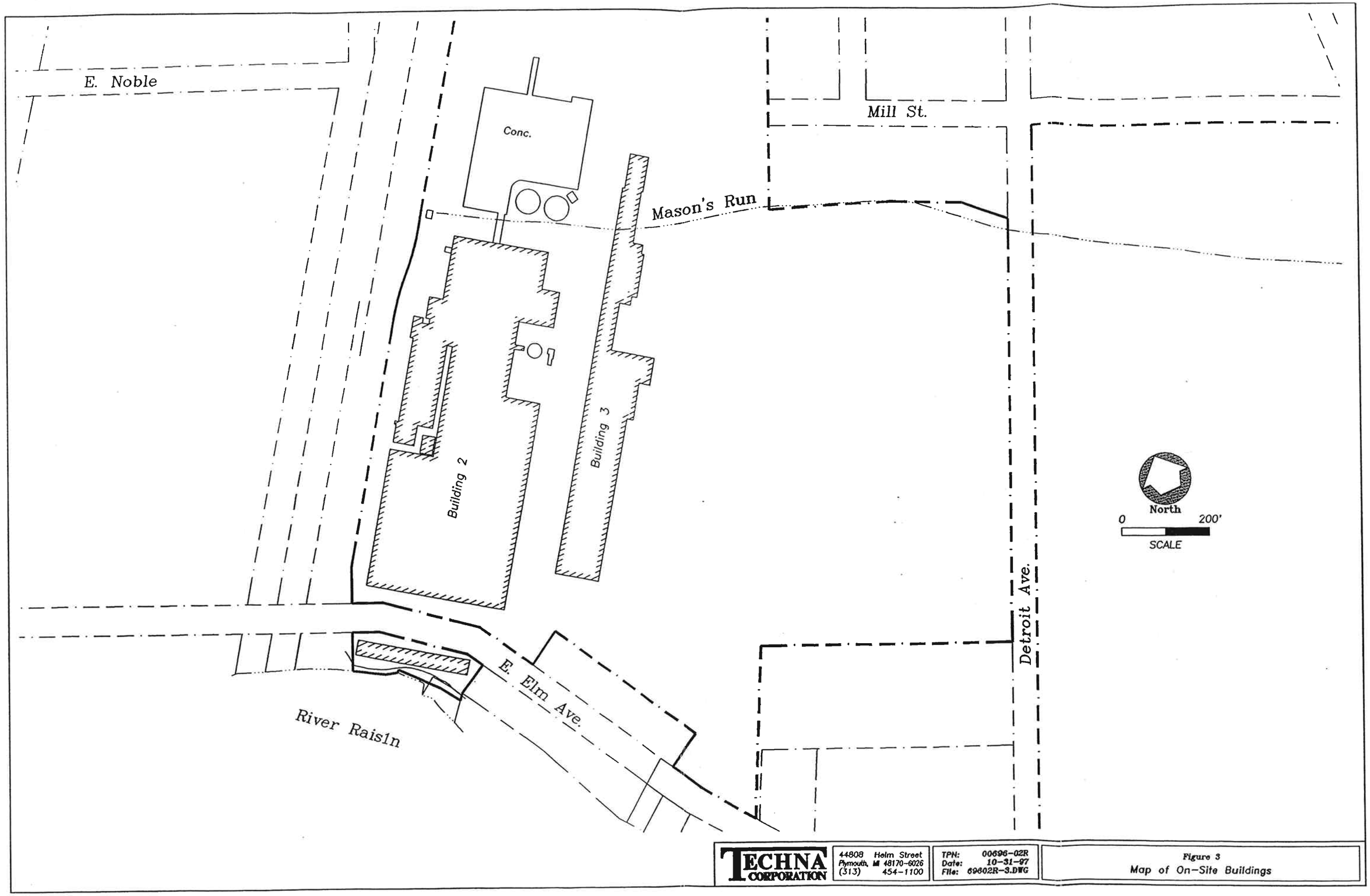
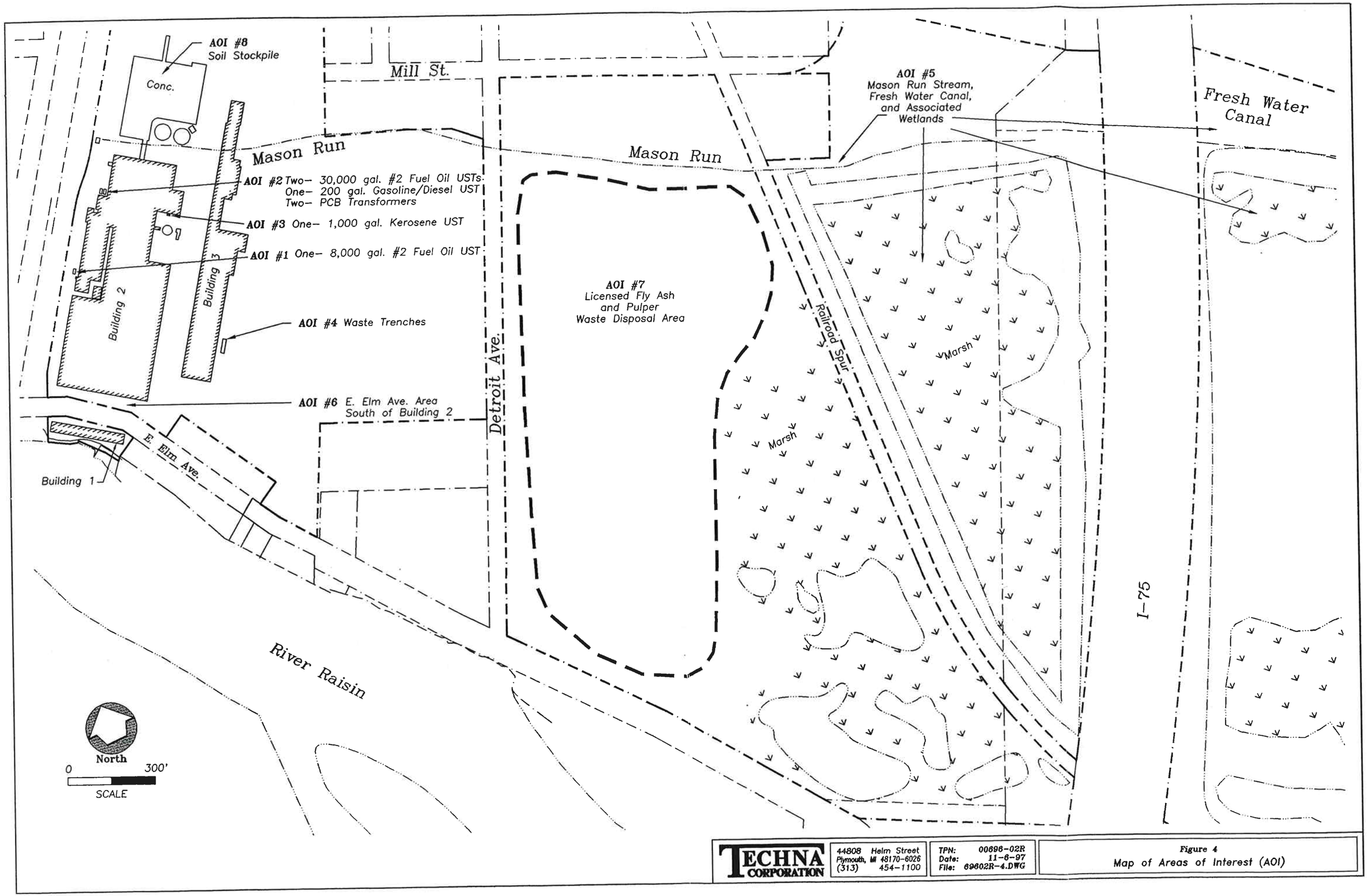


Figure 3
Map of On-Site Buildings



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TPN: 00696-02R
Date: 11-6-97
File: 69602R-4.DWG

Figure 4
Map of Areas of Interest (AOI)

This BEA report presents and evaluates information and data collected through environmental assessments of the property, states the intended future use of the property, and describes the bases for the present owner's exemption from liability for existing contamination. BEA protection under Part 201 of NREPA is being sought for of the entire property.

Techna Corporation's scope of work was based on Section 20126(1)(c) of ***Part 201 of the Natural Resources and Environmental Protection Act***, 1994 PA 451, as amended, and MDEQ ***Revised Interim Instructions for the Preparing and Submitting of Baseline Environmental Assessments to the Department of Environmental Quality*** dated January 22, 1996, and ***Addendum to the January 22, 1996 "Revised Interim Instructions for Preparing and Submitting Baseline Environmental Assessments"*** dated January 30, 1997.

2.0 PROPERTY DESCRIPTION AND INTENDED HAZARDOUS SUBSTANCE USE

2.1 Property Location and Vicinity Characteristics

The property lies within Section 4, Township 7 South, Range 9 East, City of Monroe, County of Monroe, State of Michigan. Its location relative to surrounding communities is shown in Figure 1. Its boundaries (Figure 2) are irregular and discontinuous, extending north of the River Raisin and east of the Conrail/Grand Trunk Western Railroad tracks within the vicinity of North Dixie Highway. Light industrial and residential buildings are located to the north of the property and a Ford Motor complex lies immediately to the east. The City of Monroe is extensively developed with commercial, industrial, and residential building zones.

2.2 Property Description

The property (Figure 2) comprises approximately 350 acres of wooded land, wetlands, surface water channels, and vacated industrial buildings. The mean elevation of the property is approximately 575 feet above National Geodetic Vertical Datum. The topography is generally flat with surface drainage directed towards the Mason Run Stream and Fresh Water Canal.

The property is improved by three currently unoccupied buildings (Figures 2, 3 and 4). One of the buildings (Building 1) is located south of E. Elm Street and east of N. Dixie Highway near the northern bank of the River Raisin. The remaining two buildings (Buildings 2 and 3) are located on the northeast corner of the N. Dixie Highway/E. Elm Street intersection. These buildings comprised a portion of the former East Mill Complex which was used for the production of paper products. A list of areas within the complex identified by their former functional uses, and plan view maps designating the locations of the areas, are presented in Appendix A.

A formerly operational industrial waste disposal area (Figure 4) is located north of E. Elm Avenue, south of the Mason Run Stream, west of a railroad spur, and immediately east of Detroit Avenue. This area was licensed for the disposal of fly ash from former coal-fired boiler operations and later

for disposal of nonhazardous industrial wastes associated with the East Mill Complex's recycled paper manufacturing operations.

At least 165 acres of wetlands composed of marsh, small ponds and streams lie to the east of the former waste disposal area. The wetlands occupy a portion of the subject property located between Detroit Avenue and Interstate Highway I-75. The wetlands occupy a large portion of the property east of I-75, and extend beyond the subject property's eastern border defined by Cooley Creek (Figure 2). Ford Motor Company property lies immediately east of Cooley Creek and south of the property's Fresh Water Canal.

Two open water channels, the Mason Run Stream and Fresh Water Canal, lie within the property's borders (Figure 2). East of Detroit Avenue the Mason Run Stream flows to the southeast along the property's northern border, and changes to a more southerly direction as it approaches Cooley Creek. The Mason Run Stream is presently obscured beneath flooded wetlands east of I-75. The Fresh Water Canal flows to the southeast across the northern border of the property east of I-75. Approximately 7,575 feet of the canal extends beyond Cooley Creek until it empties into Lake Erie, forming an appendage or arm of the property. Ford Motor Company (Ford) has remediated and reclaimed wetland areas east of Cooley Creek. Ford conducted these activities in response to releases associated with their facility and negative environmental impacts associated with construction activities in wetland areas. The wetlands and surface water bodies within and extending beyond the property's borders are hydrologically interconnected.

A complete legal description of the property is presented in Attachment C. The property tax identification numbers for the individual parcels comprising the property are 58-55-59-01882-000; 58-55-59-01892-000; 58-55-59-01892-007; 58-55-59-01900-000; 58-55-59-01900-005; 58-55-59-01900-006; 58-55-59-01900-008; 58-55-59-01903-000; 58-55-01904-000; 58-55-59-01892-006; and, 58-55-59-01900-003.

2.3 Regional and Property Geology

Surficial unconsolidated glacial till deposits occur over much of the Monroe area. The till consists predominantly of unstratified clay with varying amounts of silt, sand, and gravels. Soils within this formation tend to be very poorly drained. The glacial deposit is underlain by bedrock consisting of limestone, dolomite, and shale.

Hydrogeologic investigations of the western portion of the property were performed by Quality Environmental Professionals, Inc. (QEPI) in 1994, 1995, and 1996. Fill material, consisting of sand and gravel containing brick and coal debris, was encountered from one to five feet below ground level (BGL). The fill material overlaid native clay with discontinuous sand lenses to a maximum depth of 16 feet BGL. Limestone and shale bedrock were encountered between 9.5 feet and 16 feet BGL, beneath the near-surface fill materials and clay/sand stratum. Discontinuous shallow groundwater was reported at depths of three to five feet BGL in the near-surface unconsolidated materials. An underlying confined aquifer was indicated within the upper one to five feet of the bedrock unit. Additional hydrogeological information is presented in Appendix D (***Hydrogeologic Investigation, East Mill***, QEPI, June 14, 1996).

2.4 Intended Hazardous Substance Use

No hazardous substance use is anticipated beyond that normally associated with residential communities and typical office/commercial operations.

3.0 KNOWN CONTAMINATION

The available environmental assessment data collected from the subject property was reviewed and evaluated to determine the presence of hazardous substances in environmental media at the property. Results from this activity revealed the presence of contamination in eight areas of the property. These areas have been defined as environmental areas of interest (AOI) for purposes of discussion in this BEA report.

Surface and/or subsurface contamination confirmed through environmental assessment activities is discussed below for each AOI. Most of the information presented below was derived from reports of environmental assessments conducted by QEPI. QEPI performed subsurface investigative and UST closure activities during July, August, and September of 1994, February through July of 1995, and March of 1996 (Appendix D). Petroleum hydrocarbon and/or metal impacted soil and groundwater were confirmed in the vicinities of former regulated and unregulated underground storage tanks (USTs) and one above ground storage tank (AST) at various locations surrounding Building #2 of the former East Mill Complex and along East Elm Avenue (AOI-1, AOI-2, AOI-3, and AOI-6). Tables 4 through 12 of QEPI's report (Appendix D) summarize laboratory results for soil and groundwater samples collected within the above referenced AOIs. References for other data used below are indicated within the specific discussions.

Specific chemicals whose measured concentrations exceeded MDEQ default residential use criteria are presented in each AOI section. Identified samples with the highest reported analyte concentrations are shown in parentheses. AOI locations on the property are shown in Figure 4. A summary of contaminant classes detected in each AOI is presented in Table 1.

TABLE 1
Summary of MDEQ Default Residential Use Criteria Exceedences

AOI Numbers	Contaminant Classes	Groundwater or Surface Water * Samples				Soil, Sediment**, & Waste Stream*** Samples		
		DW[1]	VIA[4]	GSI[1]	GCC[2]	20 times DW[1]	DC[1]	DBG[3]
AOI-1†	VOCs					X		
	PAHs	X			X	X		
	Metals			X				
AOI-2	VOCs	X	X	X	X	X		
	SVOCs	X		X				
	PAHs					X		
	Metals	X		X			X	X
	Sulfate	X		X				
AOI-3‡	PAHs					X		
	Metals						X	X
AOI-4	VOCs					X		
	Metals	X		X		X		X
AOI-5	Metals						X**	X**
	PCBs							
AOI-6	Metals						X	X
AOI-7	SVOCs					X***		
	Metals	X/X***		X***				
	Sulfate	X*						
	Ammonia			X/X*				
AOI-8	VOCs							
	PAHs							

[1] MDEQ Interim Environmental Response Division Operational Memorandum #8, Revision 4 (June 5, 1995)
DW = Residential Drinking Water Criteria
DC = Residential Direct Contact Criteria
GSI = Groundwater/Surface Water Interface Criteria

[2] MDEQ Generic Groundwater Contact Criteria: Technical Support Document (January 17, 1997)
GCC = Groundwater Contact Criteria

[3] MDEQ MERA Operational Memorandum #15 (September 30, 1993)
DBG = Default Background Soil Values

[4] Draft MDEQ Interim Generic Groundwater Contact Criteria For Utility Workers In Urban Areas (April 12, 1996)
VIA = Residential Groundwater Volatilization to Indoor Air Screening Criteria

* Surface Water Samples ** Stream Sediment Samples *** Waste Stream Samples
† Free Phase Petroleum Product was encountered in groundwater at AOI-1
‡ Free Phase Petroleum Product was encountered in soil at AOI-3

AOI-1

AOI-1 contained a former 8,000-gallon UST that held #2 fuel oil. The location of the former tank and associated soil borings and observation wells are presented in Figure 4 of Appendix D.

Impacted Soil

The following contaminants were measured in soil at concentrations greater than MDEQ default residential use criteria (20 times residential drinking water (DW) criteria based on the MDEQ ***Interim Environmental Response Division Operational Memorandum #8, Revision 4*** (Op. Memo #8) issued June 5, 1995):

- benzene (B19: 140 μg/kg)
- acenaphthylene (B12: 1,700 μg/kg)
- fluoranthene (B12: 25,000 μg/kg)
- naphthalene (B12: 15,000 μg/kg)
- phenanthrene (B19: 5,400 μg/kg)

Impacted Groundwater

Results of laboratory analyses revealed the presence of the following chemicals at levels above MDEQ default residential use criteria (DW and groundwater/surface water interface (GSI) criteria based on Op. Memo #8 and/or generic groundwater contact criteria (GCC) based on the MDEQ ERD ***Generic Groundwater Contact Criteria: Technical Support Document*** issued January 17, 1997):

- benzo(a)anthracene (MW19: 610 μg/l) - above DW and GCC
- benzo(a)pyrene (MW19: 70 μg/l) - above DW and GCC
- chrysene (MW19: 960 μg/l) - above DW

- fluoranthene (MW19: 4,800 µg/l) - above DW
- fluorene (MW19: 2,100 µg/l) - above DW
- phenanthrene (MW19: 3,800 µg/l) - above DW
- pyrene (MW19: 680 µg/l) - above DW
- cadmium (MW19: 0.82 µg/l) - above GSI
- silver (MW19: 0.27 µg/l) - above GSI.

Free phase petroleum hydrocarbons were reported in groundwater observation well MW19 (Appendices D and E). This material is understood to be a fuel oil.

AOI-2

AOI-2 is an area containing 1) two 30,000-gallon #2 fuel oil USTs which have been closed in place, 2) one empty 200-gallon gasoline and/or diesel AST, and 3) two polychlorinated biphenyl (PCB) containing electrical transformers. Figure 3 of Appendix D presents soil boring and observation well locations in and around AOI-2.

Impacted Soil

The following contaminants were measured in soil at concentrations greater than MDEQ default residential use criteria (20 times DW and residential direct contact (DC) criteria based on Op. Memo #8 and/or MDEQ default background soil criteria (DBG) based on ***MERA Operational Memorandum #15*** issued September 30, 1993):

- benzene (B21: 260 µg/kg) - above 20 times DW
- phenanthrene (MW2: 530 µg/kg) - above 20 times DW
- arsenic (B36/B38: 16,000 µg/kg) - above DBG and DC
- barium (B37: 140,000 µg/kg) - above DBG
- chromium (B38: 120,000 µg/kg) - above DBG
- lead (B36: 160,000 µg/kg) - above DBG

- mercury (B36: 150 µg/kg) - above DBG
- zinc (B36: 150,000 µg/kg) - above DBG

PCBs, as Aroclor 1260, were detected in one soil sample (410 µg/kg), but at a concentration below applicable MDEQ cleanup criteria.

Impacted Groundwater

The following compounds were measured in groundwater at concentrations greater than the indicated default residential use criteria (including residential groundwater volatilization to indoor air screening criteria (VIA) based on the draft ***Interim Generic Groundwater Contact Criteria for Utility Workers in Urban Areas*** issued April 12, 1996):

- benzene (MW21: 9,900 µg/l) - above DW, GSI, GCC, and VIA
- toluene (MW21: 7,700 µg/l) - above DW and GSI
- ethylbenzene (MW21: 190 µg/l) - above DW and GSI
- xylenes (MW21: 2,100 µg/l) - above DW and GSI
- arsenic (MW21: 19 µg/l) - above GSI
- cadmium (MW11: 12 µg/l) - above DW and GSI
- chromium (MW11: 360 µg/l) - above DW and GSI
- copper (MW11: 450 µg/l) - above GSI
- lead (MW11: 400 µg/l) - above DW and GSI
- selenium (MW1: 12 µg/l) - above GSI
- silver (MW11: 61 µg/l) - above DW and GSI
- zinc (MW4: 240 µg/l) - above GSI
- manganese (MW11: 2,400 µg/l) - above DW
- phenols (MW21: 30,000 µg/l) - above DW and GSI
- sulfate (MW11: 380,000 µg/l) - above DW and GSI

AOI-3

AOI-3 contains a 1,000-gallon kerosene UST which has been closed in place. The locations of soil borings, observation well, and other pertinent structures relative to the UST are presented in Figure 6 of Appendix D.

Soil at AOI-3 was found to contain the following contaminants at concentrations above the indicated default residential use criteria:

- phenanthrene (B5: 3,100 µg/kg) - above 20 times DW
- arsenic (SP2: 38,000 µg/kg) - above DBG and DC
- barium (B35: 120,000 µg/kg) - above DBG
- chromium (B35: 29,000 µg/kg) - above DBG
- zinc (B35: 58,000 µg/kg) - above DBG.

Free phase petroleum product (gasoline and diesel hydrocarbons indicated by fuel scan) was observed in soils (B5 and B6) between 4 feet and 5 feet BGL at this AOI (Appendix D).

AOI-4

AOI-4 is an area east of the south end of Building #3 where disposal of containers containing glues, inks, and resins was alleged to have occurred in trenches and/or pits. The Chester Engineers conducted a subsurface investigation of this area in May 1989 (***Results of Preliminary Sampling of Waste Disposal Pits***, The Chester Engineers, July 13, 1989; Appendix F). A composite sample of groundwater contained the following compounds at levels above the indicated default residential use criteria:

- cadmium (Subsurface #1: 20 µg/l) - above DW and GSI
- copper (Subsurface #1: 220 µg/l) - above GSI
- lead (Subsurface #1: 70 µg/l)- above DW and GSI

- nickel (Subsurface #1: 160 µg/l) - above DW and GSI
- zinc (Subsurface #1: 600 µg/l) - above GSI.

The following compounds were detected in soil at levels above the indicated default residential use criteria:

- toluene (Subsurface #3: 320,000 µg/kg) - above 20 times DW
- trichloroethene (Subsurface #4: 1,000 µg/kg) - above 20 times DW
- chlorobenzene (Subsurface #3: 50,000 µg/kg) - above 20 times DW
- zinc (Subsurface #3: 400,000 µg/kg) - above DBG
- lead (Subsurface #4: 91,000 µg/kg) - above DBG.

An investigation conducted by Delta Environmental Consultants, Inc. (Delta) in March of 1997 (***Subsurface Investigation Summary***; Appendix F) also identified the following metal species in soils at levels greater than the indicated default residential use criteria:

- barium (GP-B: 99,000 µg/kg) - above DBG
- lead (GP-7: 39,000 µg/kg) - above DBG.

Delta reported the presence of volatile organic species in soil above laboratory detection limits, but less than applicable MDEQ cleanup criteria. Groundwater samples were not obtained during Delta's investigation.

AOI-5

AOI-5 encompasses the hydrologically connected Mason Run Stream, Fresh Water Canal, and associated wetlands (Figure 4). Contamination of these surface water bodies was confirmed in previous assessment reports.

A February 8, 1994 MDNR interoffice communication (Appendix G) indicated elevated arsenic, copper, lead, and zinc concentrations Mason Run Stream sediments. A March 1, 1994 Chester Environmental memorandum documented the following metal concentrations, greater than the indicated default residential use criteria, in Mason Run Stream sediments at various locations (Table 1, Attachment G):

- arsenic (11,000 µg/kg) - above DBG and DC
- chromium (22,000 µg/kg) - above DBG
- copper (105,000 µg/kg) - above DBG
- lead (147,000 µg/kg) - above DBG
- mercury (180 µg/kg) - above DBG
- nickel (26,000 µg/kg) - above DBG
- selenium (1,100 µg/kg) - above DBG
- zinc (300,000 µg/kg) - above DBG.

An August 9, 1994 MDNR letter to the former property owner, Jefferson Smurfit Corporation, indicated that elevated arsenic, copper, lead, and zinc concentrations had been confirmed in sediment samples collected within the Mason Run Stream. PCB contamination within the general outlet area of Mason Run at the River Raisin was also documented in the MDNR letter (Appendix G). Jefferson Smurfit Corporation received a November 2, 1993 Notice of Noncompliance (NNC) for failing to comply with the terms and conditions of their National Pollutant Discharge Elimination System Permit No. MI0002046. (Appendix G). Negative impact to the Mason Run Stream's aquatic life were documented within the NNC.

Negative environmental impacts to sediments and the surface waters of the Fresh Water Canal and wetlands from off-site sources have been confirmed. Elevated levels of metals have been identified within the sediments and surface waters of both the Fresh Water Canal on the subject property and West Marsh on the Ford Motor Company property, located immediately east of the subject property. Tables of surface water and sediment laboratory analyses results, as well

as a Ford Motor Company Public Notice outlining canal and wetland remediation and reclamation activities are presented in Appendix G.

AOI-6

QEPI collected soil samples for laboratory analyses from an area (AOI-6 in Figure 4) immediately north of East Elm Avenue and south of Building #2 of the East Mill Complex. These samples were collected during QEPI's investigations at AOI-1, AOI-2, and AOI-3. Results of laboratory analyses revealed the presence of the following contaminant species at levels above the indicated default residential use criteria:

- arsenic (SB8: 24,000 μg/kg) - above DBG and DC
- barium (SB8: 120,000 μg/kg) - above DBG
- chromium (SB9: 25,000 μg/kg) - above DBG
- zinc (SB8: 66,000 μg/kg) - above DBG.

AOI-7

AOI-7 (Figure 4) was licensed for the disposal of fly ash from former coal-fired boiler operations and later for the disposal of nonhazardous waste products from the recycled paper manufacturing processes. Surface water, groundwater, and solid waste assessments were performed by Jefferson Smurfit Corporation. Summary results presented below are based on the following documents presented in Appendix I: September 10, 1993, January 5, 1995 and July 28, 1995 Data Release Letters, Jefferson Smurfit Corporation, and ***December 1996 Quarterly and Background Monitoring Results***, Jefferson Smurfit Corporation, January 23, 1997.

Results of laboratory analyses of waste stream samples (ash, plastic, and paper) revealed the presence of the following chemicals at concentrations greater than the indicated default residential use criteria:

- Toxicity Characteristic Leaching Procedure (TCLP) for barium (#5 Plastic & Paper: 4,900 μg/l) - above DW
- TCLP copper (#7 Plastic & Paper: 1600 μg/l) - above DW and GSI
- TCLP lead (#7 Plastic & Paper: 800 μg/l) - above DW and GSI
- TCLP nickel (Pulp Waste #1: 71 μg/l) - above DW and GSI.
- TCLP zinc (Pulp Waste #2: 7,400 μg/l) - above DW and GSI
- boron (#2 Ash: 38,000 μg/kg) - above 20 times DW
- hexachloroethane (#1 Plastic & Paper: 4,700 μg/kg) - above 20 times DW
- hexachlorobenzene (#5 Plastic & Paper: 3,400 μg/kg) - above 20 times DW
- 2-nitrophenol (#7 Plastic & Paper: 2,000 μg/kg) - above 20 times DW
- pentachlorophenol (#5 Plastic & Paper: 4,900 μg/kg) - above 20 times DW
- phenols (#7 Plastic & Paper: 160,000 μg/kg) - above 20 times DW.

These results are indicative of the levels of hazardous substances suspected to be present in disposal materials currently present in AOI-7 (disposal area).

The following compounds were measured in groundwater and surface water at levels greater than the indicated default residential use criteria at various locations around the disposal area (Appendix I: Figure 1 in ***December 1996 Quarterly and Background Monitoring Results***, Jefferson Smurfit Corporation, January 23, 1997):

<u>Groundwater</u>

- manganese (AO7U: 56 μg/l) - above DW
- ammonia (AO3D: 400 μg/l) - above GSI
- sulfate (AO3D: 1,600,000 μg/l) - above DW.

Surface Water

- ammonia (SW4: 560 μg/l) - above GSI
- sulfate (SW4: 1,200,000 μg/l) - above DW.

AOI-8

AOI-8 (Figure 4) is an area of stockpiled soil (approximately 3,500 cubic yards) removed from off-site sump/UST excavations and deposited on the subject property. A May 28, 1997 Huff & Huff Inc. draft letter addressed to the MDEQ documenting background information and location of the stockpiled soil is presented in Appendix H.

Analysis results (Appendix H: Table 1) for discrete soil samples collected from the soil stockpile indicated the presence of VOCs and PAHs at concentrations below MDEQ residential cleanup criteria. However, the number of soil samples may not have been sufficient to adequately characterize contaminant concentrations within the excavated soil.

3.1 Chemical Abstract Service Numbers

The Chemical Abstract Service Numbers (CAS#s) of all the substances known to have impacted the property are listed in Table 2.

TABLE 2

CAS NUMBERS OF KNOWN CONTAMINANTS

Chemical Name	CAS #
METALS	
Arsenic	7440-38-2
Barium	7440-39-3
Boron	7440-42-8
Cadmium	7440-43-9
Chromium	7440-43-7
Copper	7440-50-8
Lead	7439-92-1
Manganese	7439-96-5
Mercury	7439-97-6
Nickel	7440-02-0
Selenium	7782-49-2
Silver	7440-22-4
Zinc	7440-66-6
VOCs	
Benzene	71-43-2
Toluene	108-88-3
Ethylbenzene	100-41-4
Xylenes	1330-20-7
Trichloroethene	79-01-6

TABLE 2 (cont'd)

CAS NUMBERS OF KNOWN CONTAMINANTS

Chemical Name	CAS #
SVOCs/PAHs	
Acenaphthylene	208-96-8
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Chlorobenzene	108-90-7
Chrysene	218-01-9
Fluoranthene	206-44-0
Fluorene	86-73-7
Hexachlorobenzene	118-74-1
Naphthalene	91-20-3
PCBs	Multiple
Pentachlorophenol	87-86-5
Pyrene	129-00-0
Phenanthrene	85-01-8
Phenol	108-95-2
2,4,6- Trichlorophenol	88-06-2
2-Nitrophenol	88-75-5
INORGANICS	
Sulfate	14808-79-8
Ammonia	7664-41-7

4.0 LIKELIHOOD OF OTHER CONTAMINATION

The subject property has been used for industrial purposes for many decades. Investigative activities conducted prior to Homrich Incorporated's acquisition of the property included analyses for PCBs, metals, VOCs, SVOCs/PAHs, sulfates, and ammonia. Although these indicator parameters were appropriate for identification of significant impacts from industrial activities, other contaminants arising from the same sources may be present. Furthermore, the property has not been fully characterized to identify all likely locations and sources of potential contamination. The industrial history of the property makes the presence of contaminants in other locations likely.

One specific potential source of contaminants is a former 8,000 gallon lacquer UST located at the southeast corner of Building #2 of the former East Mill Complex (Figure 4). The release assessment at time of closure only included analyses for total petroleum hydrocarbons (TPH). Historical releases of VOCs (e.g. ketones, aliphatic hydrocarbons, and aromatic hydrocarbons) and other contaminants from this tank cannot be ruled out.

5.0 CONCLUSIONS

Metals, VOCs, SVOCs/PAHs, ammonia, and sulfate were detected above MDEQ default residential use criteria in several areas of the property. Therefore, the property described in Section 2.2 meets the definition of facility as defined in Part 201 of Michigan Act 451 of 1994. The nature and extent of the impact on the property indicate that the sampling results are likely indicative of general levels of metals, VOCs, SVOCs/PAHs, ammonia, and sulfate on the property.

No hazardous substances will be used as part of future property development by the current owner beyond that normally associated with residential communities and standard office operations. The information presented herein is therefore sufficient to provide a basis for distinguishing future contamination of the property from the contamination existing at time of purchase.

6.0 REFERENCES

Revised Interim Instructions for Preparing and Submitting Baseline Environmental Assessments to the Department of Environmental Quality, Michigan Department of Environmental Quality, January 22, 1996.

Addendum to the January 22, 1996 "Revised Interim Instructions for Preparing and Submitting Baseline Environmental Assessments", January 30, 1997.

Interim Environmental Response Division Operational Memorandum #8, Revision 4: Generic Residential Site Clean-up Criteria, Environmental Response Division, Michigan Department of Environmental Quality, June 5, 1995.

MERA ***Operational Memorandum #15: Default Type A Cleanup Criteria,*** Environmental Response Division, Michigan Department of Environmental Quality, September 30, 1993.

Generic Groundwater Contact Criteria: Technical Support Document, Environmental Response Division, Michigan Department of Environmental Quality, January 17, 1997.

Draft ***Interim Generic Groundwater Contact Criteria: Addendum to Interim Operational Memorandum #8, Revision 4 (June 5, 1995) and #14, Revision 2 (June 6, 1995),*** Environmental Response Division, Michigan Department of Environmental Quality, April 12, 1996:

Environmental Site Assessment (Physical Walk-Through) of Monroe Paper Company, Gary J. Davis, July 10, 1991.

Hydrogeologic Investigation, East Mill, Quality Environmental Professionals, Inc., June 14, 1996.

Quarterly Progress Report, Jefferson Smurfit East Mill, Quality Environmental Professionals, Inc., June 19, 1997.

Results of Preliminary Sampling of Waste Disposal Pits, The Chester Engineers, July 13, 1989.

Subsurface Investigation Summary, Delta Environmental Consultants, Inc., April 11, 1997.

River Raisin and Mason Run Sediment Sampling, Michigan Department of Natural Resources (MDNR) Interoffice Communication, February 8, 1994.

Jefferson Smurfit Mason Run Remediation, Chester Environmental memorandum, March 1, 1994.

Work Plan for Evaluation of Ash Content in Mason Run, MDNR Interoffice Communication, August 9, 1994.

Notice of Noncompliance No. 11-93-04-017D, MDNR, November 2, 1993.

Response to Notice of Noncompliance, Jefferson Smurfit Corporation letter, November 23, 1993.

Ford Motor Wet-land Remediation in Monroe, MI, Jefferson Smurfit Corporation Interoffice Memorandum, October 14, 1994.

Public Notice, MDNR, September 23, 1994.

Jefferson Smurfit Corporation, East Mill Site, Huff & Huff Inc.'s Draft Letter to the Michigan Department of Environmental Quality Concerning the Disposition of Stockpiled Soil, May 28, 1997.

Data Release Letters, Jefferson Smurfit Corporation, September 10, 1993, January 5, 1995 and July 28, 1995.

December 1996 Quarterly and Background Monitoring Results, Jefferson Smurfit Corporation, January 23, 1997.

7.0 IDENTIFICATION OF AUTHOR AND DATE OF BEA COMPLETION

Techna Corporation prepared this BEA on behalf of Homrich Incorporated for the property at 1205 East Elm Street, City of Monroe, County of Monroe, State of Michigan as described in Section 2.2 of this report. Techna Corporation's scope of work was based on Section 20126 (1)(c) of ***Part 201 of the Natural Resources and Environmental Protection Act*** (NREPA), 1994 PA 451, as amended, the MDEQ ***Revised Interim Instructions for the Preparing and Submitting of Baseline Environmental Assessments*** dated January 30, 1997, and the MDEQ ***Addendum to the January 22, 1996 "Revised Interim Instructions for Preparing and Submitting Baseline Environmental Assessments"*** dated January 30, 1997. This BEA, including all data collection dates, conclusion, and report preparation, was substantially completed on November 4, 1997 under the direction of Dr. James M. Harless, CHMM. Final report edits and document production were completed on January 27, 1998.

TECHNA CORPORATION

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James M. Harless Ph.D., CHMM
Principal Scientist

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TECHNA CORPORATION

James M. Harless Ph.D., CHMM
Principal Scientist

APPENDIX A

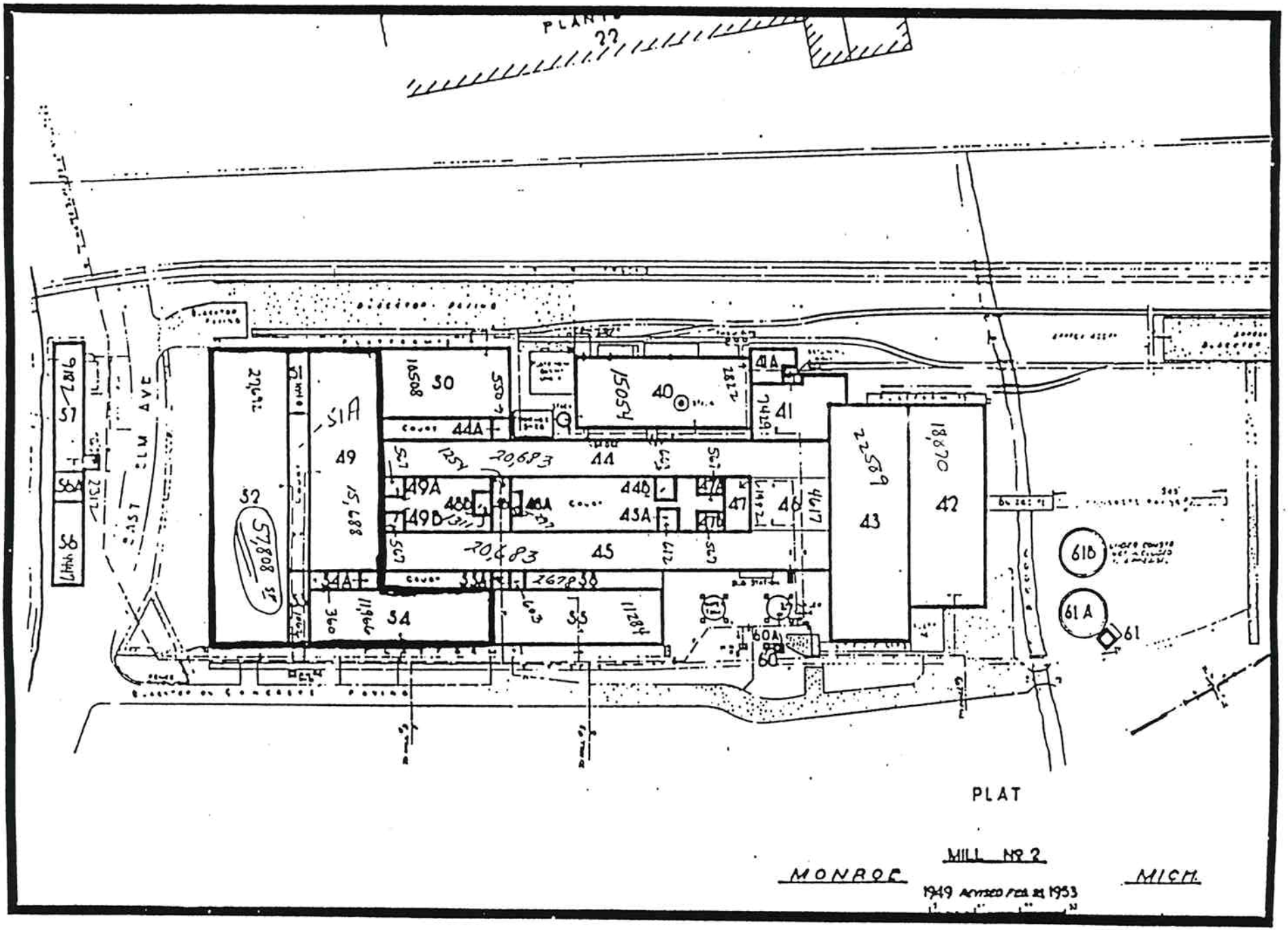
Areas and Plan View Maps of the Former East Mill Complex

SCHEDULE OF BUILDINGS - MILLS 3 & 4				
Building Number	Description	Dimensions	Year Built	Gross Area (sq. ft.)
40	Engine Room - 1 High Story Brick, Steel Frame	77'0" x 195'6"	1918	15,054
41	Engine Room - 1- High Story & Part Basement, Brick & Reinforced Concrete, Steel Frame	62'0" x 81'0" 19'0" x 31'2" 9'3" x 30'3"	1918 to 1929	7,429
41/A	Air Compressor & Switch House - 1-Story & Basement, Brick, Tile, Steel & Reinforced Concrete	35'9" x 36'0" 14'0" x 21'0"	1948	2,822
42	Hydrapulper & Storage - 1-Story & Basement, Brick, Reinforced Concrete & Steel Frame	85'0" x 222'0"	1918	37,740
43	Beater Room - 1-Story & Basement, Brick, Reinforced Concrete & Steel Frame	86'0" x 262'8"	1918	45,178
44	#3 Paper Machine Room - 1-Story & Part Basement, Brick, Reinforced Concrete & Steel Frame	43'0" x 481'0"	1918	36,206
44/A	Passage - 1-Story, Brick, Wood Frame	22'0" x 25'0"	1918	550
44/B	Heater Room - 1-Story, Brick, Steel Frame	25'9" x 25'9"	1923	663
45	#4 Paper Machine Room - 1-Story & Part Basement, Brick, Reinforced Concrete & Steel Frame	43'0" x 481'0"	1918	35,303
45/A	Heater Room - 1-Story, Brick, Concrete, Steel Frame	24'0" x 25'6"	1922	612
46	Jordan Room- 1-Story & Basement, Brick, Reinforced Concrete & Steel Frame	57'0" x 81'0"	1918	9,234
47	Paper Machine/Engine Room - 1-Story, Brick, Steel Frame	26'0" x 57'0"	1918	1,482
47/A	Control Room - 1-Story, Brick, Steel Frame	21'0" x 27'0"	1918	567
47/B	Control Room - 1-Story, Brick, Steel Frame	21'0" x 27'0"	1918	567
48	Passage - 1-Story, Brick, Wood Frame	22'0" x 57'0"	1918	1,254
48/A	Factory Office - 1-Story, Brick, Wood Frame	11'0" x 27'0"	1918	297
48/B	Wash & Toilet Room - 1-Story, Brick, Wood Frame	21'0" x 27'0"	1963	567
49	Laminating Room - 1-High Story, Brick, Steel, Reinforced Concrete & Wood Frame	74'0" x 212'0"	1918	15,688
49/A	Heater Room - 1-High Story, Brick, Steel Frame	21'0" x 27'0"	1918	567
49/B	Heater Room - 1-High Story, Brick, Steel Frame	21'0" x 27'0"	1918	567
50	Shipping Room - 1-High Story, Brick, Steel Frame	74'0" x 142'0"	1918	10,508

SCHEDULE OF BUILDINGS - MILLS 3 & 4 CONTINUED				
Building Number	**Description**	**Dimensions**	**Year Built**	**Gross Area (sq. ft.)**
51	Factory Office, Passage & Toilet - 1-Story, Brick, Steel & Wood Frame	20'0" x 52'0"	1918	1,040
52	Box Factory - 1-High Story, Brick, Steel Frame	86'0" x 322'0"	1918	27,692
53	Passage & Die Room - 1-High Story, Brick, Steel Frame	18'0" x 59'0"	1918	1,062
54	Box Slotting, Storage & Shipping - 1-Story, Brick, Steel & Reinforced Concrete Frame	62'0" x 193'0"	1918	11,966
54/A	Passage - 1-Story, Brick, S -l & Reinforced Concrete	18'0" x 20'0"	1918	360
55	Machine Shop - 1-Story, Brick, Steel & Reinforced Concrete	62'0" x 182'0"	1918	11,284
55/A	Office & Passage - 1-Story, Brick, Steel & Reinforced Concrete	18'0" x 33'6"	1918	603
56	Filter & Electrical Repair - 1-Story & Part Basement, Brick, Reinforced Concrete & Wood Frame	34'0" x 91'0"	1918	4,447
56/A	Water Filter Pump Room - 1-Story & Basement, Brick, Reinforced Concrete & Wood Frame	34'0" x 34'0"	1918	2,312
57	Water Filter, Sample Room, First Aid and Laboratory with Fire Pump Room -1-Story & - Basement, Brick, Reinforced Concrete & Wood Frame	18'0" x 14'0" 34'0" x 131'4"	1918	9,182
58	Supply Room - 1-Story & Basement, Frame	18'0" x 148'9"	1920	2,678
59	Storage- 1-Story, Brick & Concrete	7'8" x 10'6"	1918	81
60	Waste Water Pump House - 1-Story & Pit, Concrete, Wood Frame	7'0" x 14'0"	1930	98
60/A	Waste Water Pump House - 1-Story & Pit, Brick & Reinforced Concrete Pit Superstructure	11'3" x 11'10" 9'4" x 11'3"	1947	266
61	Chemical House - 1-Story & Basement, Brick, Steel & Reinforced Concrete	15'6" x 17'6"	1947	542
61/A	Clarator Basin - 1-Story, Reinforced Concrete	50'0" diameter x 15'0" high	1947	2,083
Total				**298,551**

SCHEDULE OF BUILDINGS - MILL 5				
Building Number	Description	Dimensions	Year Built	Gross Area (sq. ft.)
75	Laminating & Box Plant - 1-Story & Basement, Brick, Reinforced Concrete, Steel Frame	100'0" x 401'0"	1918	80,200
76	Roll Paper Storage - 1-Story, Brick, Reinforced Concrete, Steel Frame	100'0" x 61'2"	1920	12,234
77	Machine Room - 1-Story & Basement, Brick, Reinforced Concrete, Steel Frame	38'0" x 301'8" 36'8" x 101'8"	1920	30,382
78	Heater Room - 1-Story, Brick, Reinforced Concrete, Steel Frame	19'8" x 23'6"	1920	463
79	Millwright Room - 1-Story, Brick, Reinforced Concrete, Steel Frame	20'0" x 23'6"	1920	470
80	Beater Room - 1-Story & Basement, Brick, Reinforced Concrete, Steel Frame	42'9" x 138'7"	1920	11,848
81	Stock Room - 1-Story, Brick, Reinforced Concrete, Steel Frame	46'6" x 80'0"	1920	3,720
82	Rotary Room - 2-Story, Brick, Reinforced Concrete, Steel Frame	50'0" x 104'0"	1920	10,400
83	Lime House - 1-Story, Brick, Reinforced Concrete, Steel Frame	22'3" x 71'8"	1920	1,595
83/A	Straw Conveyor Building - 1-Story, Wood, Concrete, Steel Frame	25'0" x 103'0" 15'3" x 40'6"	1920-1942	3,193
84	Silicate Plant & Storage Tanks - 1-Story, Brick, Metal Clad, Steel Frame Two Tanks Addition	80'0" x 102'0" 32'0" diameter 15'0" x 25'6"	1920	10,151
84/A	Sand & Soda Ash Storage - 1-Story, Concrete, Metal Clad, Steel Frame	27'3" x 40'3"	1920	1,097
85	Garage - 1-Story, Frame	16'8" x 152'0"	1919	2,533
86	Watchmen House - 1-Story, Frame	12'4" x 12'4"	1920	152
87	Scale House - 1-Story, Brick Veneer, Wood Frame	12'0" x 14'0"	1943	168
88	Roll Storage Warehouse - 1-Story, Quonset	61'6" x 100'0" 13'6" x 87'0"	1949	7,325
Total				175,931

Source: Jefferson Smurfit Corporation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July 22, 2004

RECEIVED
JUL 27 2004
DEQ-WHMD JACKSON

Mr. Roger Homrich
Homrich Incorporated
200 Matlin Road
Carleton, Michigan 48117

RE: Report of Landfill Delineation Activities
Performed in Response to MDEQ Comments
Former Jefferson Smurfit Landfill
Monroe, Michigan
SME Project Number: PE46643-01

Dear Mr. Homrich:

Soil and Materials Engineers, Inc. (SME) has completed the landfill and stratigraphic delineation activities at the above referenced site (Figure 1) in Monroe, Michigan (hereinafter referred to as Property). These activities were conducted in response to MDEQ concerns described in Item 1 of the February 27, 2004 letter from Mr. Patrick Brennan to Mr. Roger Homrich of Homrich Incorporated (Homrich).

The objectives of this project were to verify the defined extent of industrial fill (as defined by the presence of pulper waste mixed with coal ash), previously defined by Homrich, determine the elevation of the top of the native clay layer below the industrial fill area, and verify the existence of at least two feet of native clay layer beneath the industrial fill area.

SCOPE OF SERVICES

The objectives of the project were accomplished through implementation of the following tasks:

- Excavate 28 test pits at ≤100-foot intervals around the perimeter of the industrial waste disposal area to verify the disposal area boundaries.
- Install 32 soil probes around the perimeter of and through the industrial fill area to evaluate determine elevation and thickness of the native clay layer.
- Survey the locations and ground surface elevations at soil probe and test pit locations.
- Prepare a summary report.

Plymouth
Bay City
Grand Rapids
Kalamazoo
Lansing
Shelby Township
Toledo

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FIELD PROCEDURES

Test Pits for Delineation of Industrial Waste Boundaries

Homrich Construction of Carleton, Michigan excavated the test pits using a tracked excavator. SME was onsite to observe and guide test pit excavations and to document findings.

Twenty eight test pits (TP1 through TP28; Figure 2) were excavated at ≤100-foot intervals around the perimeter of the industrial landfill area to verify the waste boundaries. Homrich previously defined the perimeter of the industrial landfill using test pitting techniques.

A four-foot wide test pit was excavated to a depth of approximately six to eight feet below grade at the presumed industrial waste boundary at each test location (extrapolated from driven steel markers installed by Homrich). If pulper waste, evidenced by the presence of plastic and other pulper insolubles, was identified in the fill material visible on the walls of the trench, the trench was extended outward away from the landfill along an axis perpendicular to the landfill boundary. The trench was extended until the transition point between fill containing pulper waste and fill composed only of coal ash was identified. If pulper waste was not observed in the initial test pit, the test trench was extended inward toward the landfill until pulper waste was encountered. The transition point between the industrial waste and surrounding coal ash fill in each test trench was marked with a driven steel rod.

The locations of the waste delineation markers were subsequently surveyed, as discussed below. Figure 2, in Attachment A shows the test pit locations and the revised pulper waste boundary.

Soil Probes for Clay Layer delineation

Twenty four soil probes (SP9 – SP32; Figure 2) were advanced around the perimeter of the Type III industrial waste landfill area, and eight probes (SP1 – SP8; Figure 2) were advanced in the interior of the landfill, to determine the depth to native clay and the thickness of the clay stratum. SME advanced soil probes using a truck mounted, direct push sampling rig. The soil probes were advanced to depths ranging from 8 to 18 feet below grade as needed to accomplish the task objectives. SME field staff observed soil probe sampling, and documented the field activities.

Continuous soil samples from were obtained each soil boring using a 1-3/8 inch outside diameter GeoProbe® Large Bore Sampler lined with a disposable acetate liner. Soil samples were collected for classification from each soil probe at two-foot intervals vertically. SME field staff classified soil samples collected from the soil probes and recorded the findings on soil probe logs. Logs of soil borings are included in Attachment B.

The void space resulting from the soil probes was backfilled with bentonite chips. The locations of soil probes were surveyed.

Test Pit and Soil Probe Survey

G.B. Warnke & Associates, Inc. (Warnke) of Temperance, Michigan was retained to survey the locations and elevations of each boundary delineation marker and soil probe location. Test pit and soil probe locations and ground surface elevations were surveyed relative to mean sea level with an accuracy of +/-0.01 feet. Results of the survey were used to prepare the Soil Probe and Test Pit Location Diagram, included in Attachment 1 as Figure No. 2.

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FINDINGS

Extent of Pulper Waste

The limit of the pulper waste as defined by SME's test pit activities is depicted on Figure 2 in Attachment A. In general, the revised limit of the pulper waste corresponded accurately with the limit previously defined by Homrich. Only a small area of waste near TP5 on the western perimeter was found to be outside the previously determined boundaries. Waste in this area was confined to a small layer buried several feet below the ground surface. The waste boundaries in Figure 2 were adjusted to encompass the additional waste identified near TP5 and SP26.

Clay Layer Elevations and Thickness

Elevations of the ground surface and underlying native clay stratum are presented in Table 1, Attachment C. A contour map of the top-of-clay surface is presented in Figure 3, Attachment A.

The thickness of the native clay layer encountered in each soil boring is presented in Table 1 and depicted graphically in the isopleth diagram shown in Figure 4. At least two feet of native clay were encountered along the perimeter of the landfill except as described below:

- Southwest corner (SP28 – SP31) – 1.5 feet to 13 feet of clayey silt, instead of silty clay, was encountered in this area
- South portion of east perimeter (SP10 – SP11) – less than two feet of native clay was present in this area

The native clay layer in one area under the interior of the landfill, approximately bounded by SP2, SP3, SP7 and SP8, was found to be between 0.5 feet to two feet in thickness.

SME is pleased to be of continued service to you on this project. If you have any questions, please feel free to call.

Very truly yours,

SOIL AND MATERIALS ENGINEERS, INC.

for Daniel R. Cassidy
Daniel R. Cassidy
Project Geologist

James M. Harless, Ph.D, CHMM
Senior Consultant

Attachment 1 - Figures
Attachment 2 - Tables
Attachment 3 - Soil Probe Logs

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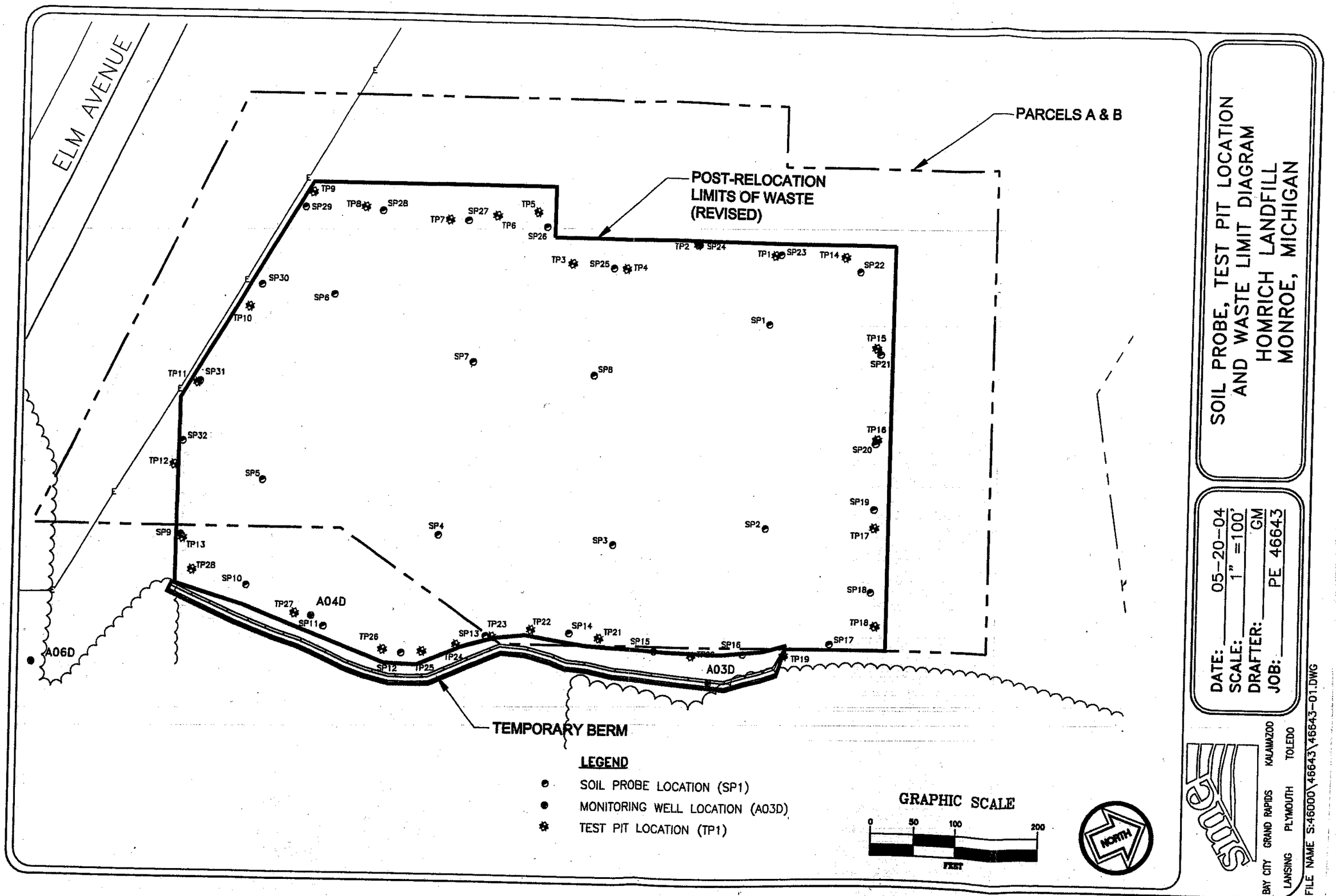
ELM AVENUE
PARCELS A & B
POST-RELOCATION LIMITS OF WASTE (REVISED)
TEMPORARY BERM
A04D
A03D
A06D
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
TP9
TP10
TP11
TP12
TP13
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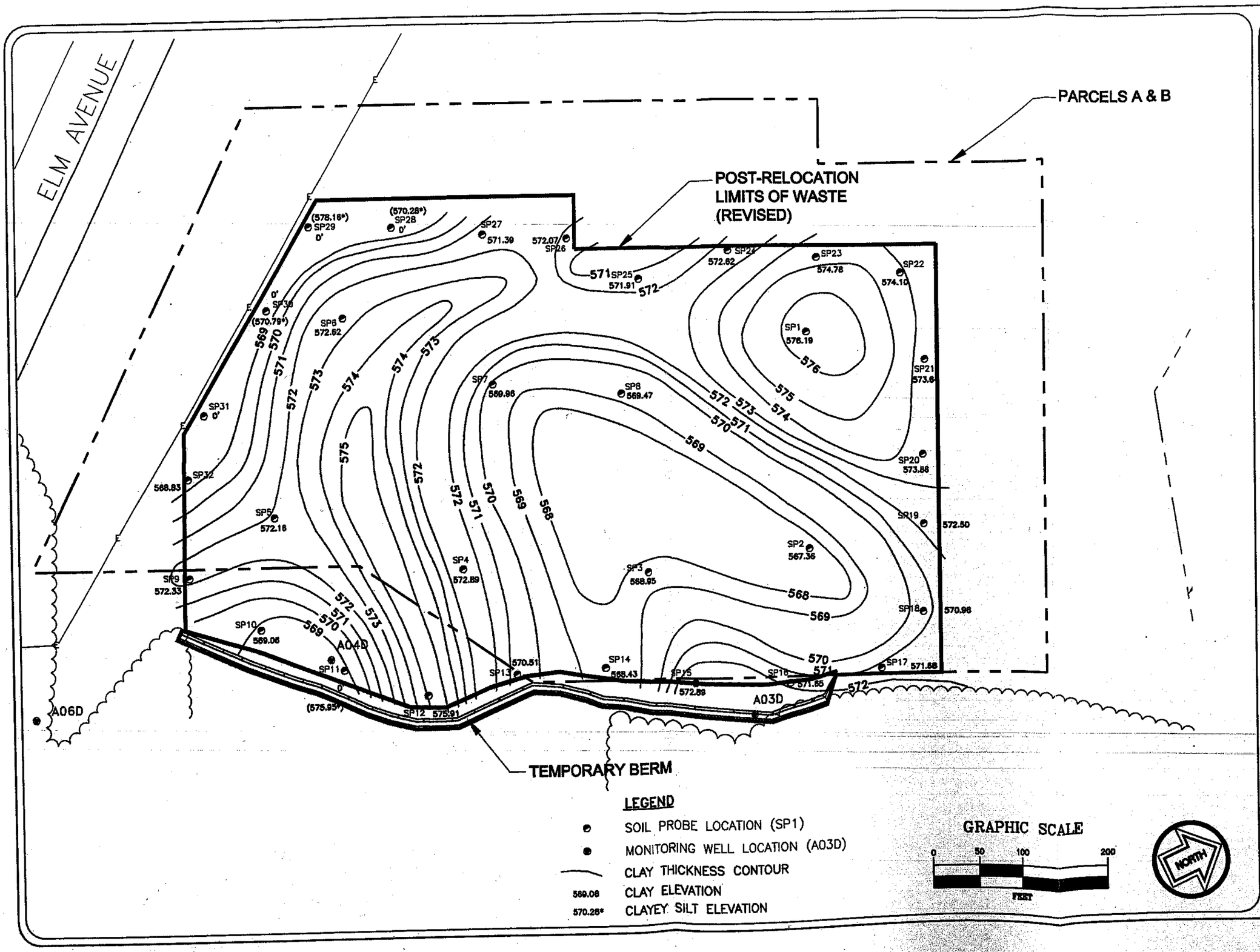
SP27
SP28
SP29
SP30
SP31
SP32
LEGEND
SOIL PROBE LOCATION (SP1)
MONITORING WELL LOCATION (A03D)
TEST PIT LOCATION (TP1)
GRAPHIC SCALE
0
50
100
200
FEET
NORTH
SOIL PROBE, TEST PIT LOCATION AND WASTE LIMIT DIAGRAM
HOMRICH LANDFILL
MONROE, MICHIGAN
DATE: 05-20-04
SCALE: 1" =100'
DRAFTER: GM
JOB: PE 46643
BAY CITY GRAND RAPIDS KALAMAZOO
LANSING PLYMOUTH TOLEDO
FILE NAME S:46000\46643\46643-01.DWG

Figure No. 2



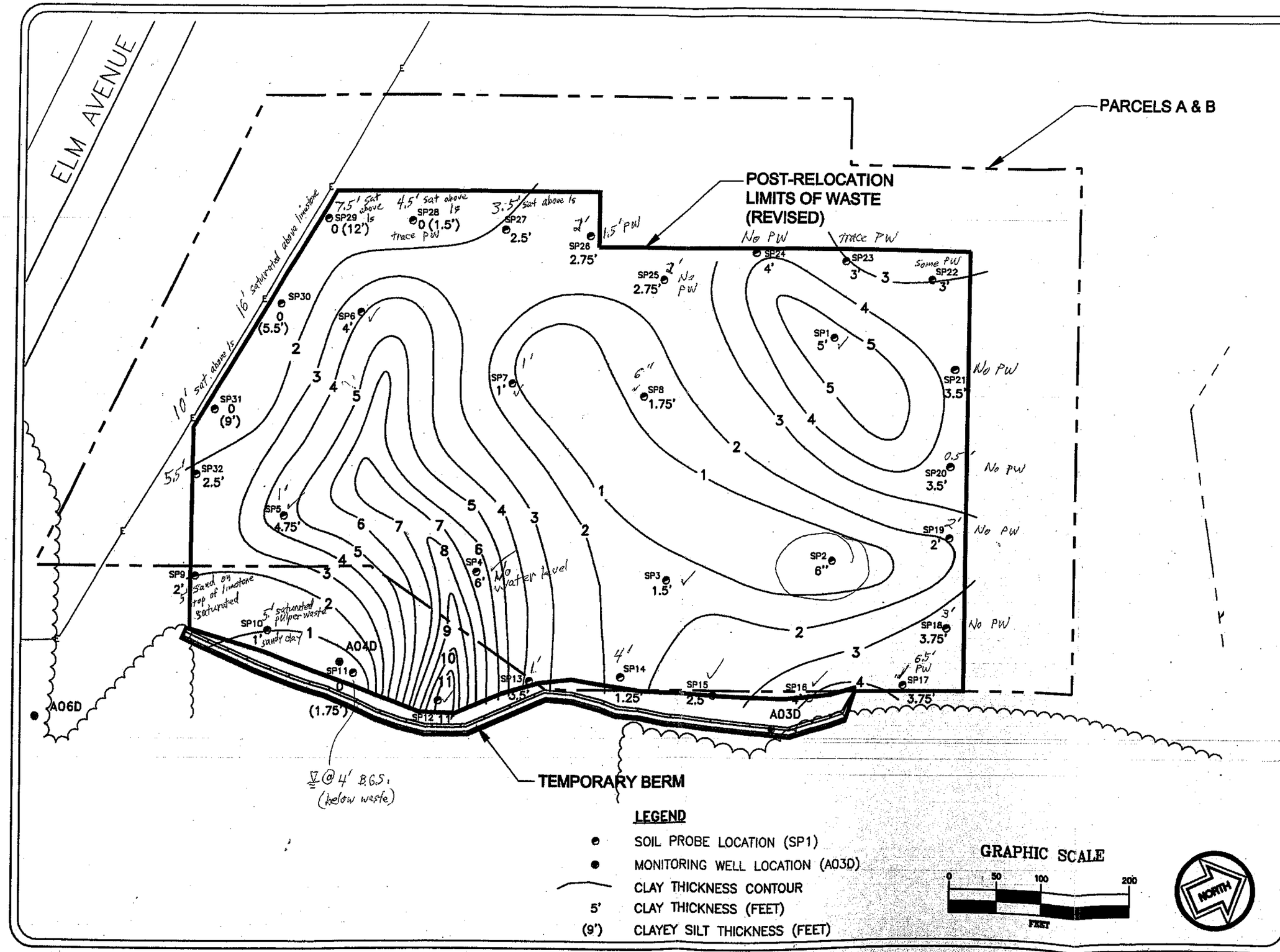
TOP OF CLAY ELEVATION DIAGRAM
HOMRICH LANDFILL
MONROE, MICHIGAN

DATE: 06-04-04
SCALE: 1" =100'
DRAFTER: GM
JOB: PE 46643

BAY CITY GRAND RAPIDS KALAMAZOO
LANSING PLYMOUTH TOLEDO

FILE NAME S:46000\46643\46643-01.DWG

Figure No. 3



CLAY THICKNESS DIAGRAM
HOMRICH LANDFILL
MONROE, MICHIGAN

DATE: 06-03-04
SCALE: 1" =100'
DRAFTER: GM
JOB: PE 46643

BAY CITY GRAND RAPIDS KALAMAZOO
LANSING PLYMOUTH TOLEDO

FILE NAME S:46000\46643\46643-01.DWG

Figure No. 4

TABLE 1
ELEVATION RESULTS
HOMRICH LANDFILL
MONROE, MICHIGAN
SME PROJECT NO. PE46643

Sample ID	Ground Surface Elevation (Feet)	Top of Clay Elevation (Feet)	Clay Thickness (Feet)
SP1	582.19	576.19	5
SP2	584.36	567.36	0.5
SP3	583.45	568.95	1.5
SP4	582.89	572.89	6
SP5	583.16	572.16	4.75
SP6	582.62	572.62	4
SP7	582.96	569.96	1
SP8	583.47	569.47	1.75
SP9	580.33	572.33	2
SP10	577.56	569.06	1
SP11	577.70	575.95*	0 (1.75)
SP12	576.91	575.91	11
SP13	577.51	570.51	3.5
SP14	578.42	568.42	1.25
SP15	578.39	572.89	2.5
SP16	578.65	571.65	4
SP17	578.68	571.68	3.75
SP18	577.98	570.98	3.75
SP19	578.50	572.50	2
SP20	578.36	573.86	3.5
SP21	578.14	573.64	3.5
SP22	579.10	574.10	3
SP23	579.78	574.78	3
SP24	579.62	574.62	4
SP25	579.91	571.91	2.75
SP26	580.07	572.07	2.75
SP27	578.89	571.39	2.5
SP28	579.28	570.28*	0 (1.5)
SP29	578.66	578.16*	0 (12)
SP30	577.79	570.79*	0 (5.5)
SP31	NS	NS	0 (9)
SP32	578.33	568.83	2.5

Notes:
NS = Elevation not surveyed.
* = Elevation measured from top of clayey silt.
(9) = Clayey silt thickness

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Timothy J. Mitchell, PE
Daniel O. Roeser, PG
John C. Zarzecki, CWI, CDT

October 14, 2005

Mr. Roger Homrich
Homrich, Inc.
200 Matlin Road
Carleton, Michigan 48117

RE: Leachate Sampling Summary Report
Jefferson Smurfit Corporation Industrial Landfill
SME Project Number: PE46643-02

Dear Mr. Homrich:

This letter presents SME's summary of landfill leachate testing conducted at the above referenced site (Figure 1) in Monroe, Michigan. The landfill leachate sampling was conducted in accordance with the scope of work described in the following:

- SME's November 22, 2004, letter in response to the Michigan Department of Environmental Quality's (MDEQ's) request for additional data collection
- MDEQ's December 21, 2004, letter concerning "Closure and Monitoring of the Landfill" (Mr. Lee Carter)

Groundwater collected for this assessment corresponded to perched water encountered within the landfill material. This groundwater represents the *in situ* leachate produced by the landfilled industrial wastes.

The results of the leachate testing will be used to evaluate chemical constituents for inclusion/exclusion from the post-closure bedrock aquifer Hydrogeological Monitoring Plan (HMP).

SCOPE OF SERVICES

The objectives of the project were accomplished through implementation of the following tasks:

1. Advancement of three soil probes on February 15, 2005, inside the industrial landfill area to be closed under Part 115, and installation of temporary groundwater monitoring wells - soil probes were labeled SP301 through SP303 and were advanced to a depth of approximately 12 feet below grade, corresponding to the depth where groundwater was previously encountered within the landfill material at the fill/clay interface. Figure No. 2 of Attachment A shows the soil probe locations.

Plymouth
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Grand Rapids
Kalamazoo
Lansing
Shelby Township
Toledo

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2. Collection of a groundwater sample from monitoring well SMW-1, previously installed near the northeast corner of the landfill, and temporary wells installed in this sampling episode

3. Measurement of pH, conductivity, and temperature in groundwater samples from the three temporary wells and SMW-1.

4. Submittal of four groundwater samples for laboratory analysis of target monitoring parameters - parameters selection was based on current HMP parameter list and Part 115 regulatory requirements (R299.4450 - 4452)

4. Comparison of analytical results to published MDEQ Act 307 Type B Cleanup Criteria (February 1994).

5. Preparation of this report to document the leachate sampling and analysis activities.

SME provided soil probe services, and Fibertec Environmental Services of Holt, Michigan provided subcontracted laboratory services.

PROCEDURES

Soil probes were advanced using a truck-mounted GeoProbe® brand direct push sampling device. SME collected soil samples continuously to the termination depth of each soil probe. Soil samples were collected using a 48-inch long, 2-inch outside diameter (OD) Geoprobe ® Macro Sampler lined with a disposable acetate liner. Soil samples were collected from the acetate liner by cutting open the liner with a utility knife and transferring the soil to the appropriate container.

SME field staff transferred soil samples collected for classification to an 8-ounce glass jar. SME field staff classified the soil samples in general accordance with the Unified Soil Classification System (USCS) and recorded the USCS classification on the soil probe log. Copies of the soil probe logs are presented in Attachment B.

SME installed a temporary well point at each soil probe location. A groundwater sample was then recovered from each location using a stainless steel, GeoProbe® Screen Point-15 Sampler, driven into the saturated zone. The well screen was four feet in length with a slot size of 0.005 inches. The well screen was placed approximately 2 feet above and 2 feet below the depth that groundwater was encountered during probing, and water was purged prior to sampling. Each well was purged using a variable flow rate, portable peristaltic pump with 3/8-inch inside diameter (ID) silicone tubing at a low-flow pumping rate of 100 milliliters to 400 milliliters per minute (ml/min). SME field staff purged the wells by slowly lowering the pump intake to a level approximately half-way between the water level surface and the bottom of the well. SME measured and recorded pH, conductivity, and temperature of groundwater samples collected from each well using a multi-parameter meter to determine groundwater equilibration. Groundwater equilibration was deemed to have been reached when two consecutive sets of measurements (pH, conductivity, and temperature) were within 10% of the previous results.

SME then collected groundwater samples for laboratory analysis. Groundwater samples were collected by transferring samples directly from the pump outlet into the appropriate containers. The analytical laboratory supplied pre-cleaned containers for the groundwater samples. After

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sample collection, containerized samples were maintained at 4° C until delivery to the analytical laboratory. Chain of custody procedures documenting the sample handling sequence were followed by the SME field staff.

Sampling tools were cleaned prior to probing and between each sample location with a high pressure/temperature wash. A new pair of disposable nitrile sampling gloves was used to collect each set of groundwater samples.

Residual soil cuttings generated from the soil probes were returned to the corresponding soil probe hole after sampling activities were completed. Purged groundwater was returned to the respective well. Any remaining space in the soil probe holes was backfilled with bentonite chips.

Groundwater samples were analyzed by Fibertech using MDEQ-approved methods and reporting limits (Operation Memorandum Gen-86, Rev. 6). The analytical methods and method reporting limits (MRLs) used by Fibertec are described on the laboratory data sheets included in Attachment E.

FINDINGS

Subsurface Conditions

Subsurface soil conditions encountered during the leachate sampling consisted of approximately one foot of silty clay fill over pulper waste and fill sand. The pulper waste contained trace gravel and cinders, and occasional sand layers. The pulper waste and fill sand extended to a depth of approximately 11 feet below grade. Beneath the pulper waste and/or fill sand, SME encountered native silty clay extending to the termination depth of the probes at 12 feet below grade. SME encountered no staining or odors at the soil probe locations. Perched groundwater was encountered at approximately 11 feet below grade, corresponding to the depth of the fill/clay interface. Soil probe logs are included in Attachment B.

Analytical Results

The results of the leachate testing will be used to evaluate chemical constituents for inclusion/exclusion from the post-closure bedrock Hydrogeologic Monitoring Plan (HMP); therefore, SME compared analytical results to MDEQ Act 307 Type B Cleanup Criteria (February 1994) for applicable pathways as specified in the Solid Waste Management Act Administrative Rules promulgated pursuant to Part 115. Since groundwater use is prohibited within the City of Monroe by City ordinance, the only applicable Type B groundwater exposure pathway is the groundwater-surface water interface (GSI) pathway.

Results from the leachate testing are summarized in Table 1 of Attachment C. The MDEQ Act 307 Type B Cleanup Criteria for the applicable pathway are also included on Table 1. Results that exceed Type B levels are highlighted on the table. Method reporting limits that exceeded Type B levels are depicted with a box on the table; method reporting limits complied with MDEQ guidance for target detection limits. A copy of the laboratory analytical data report is presented in Attachment D.

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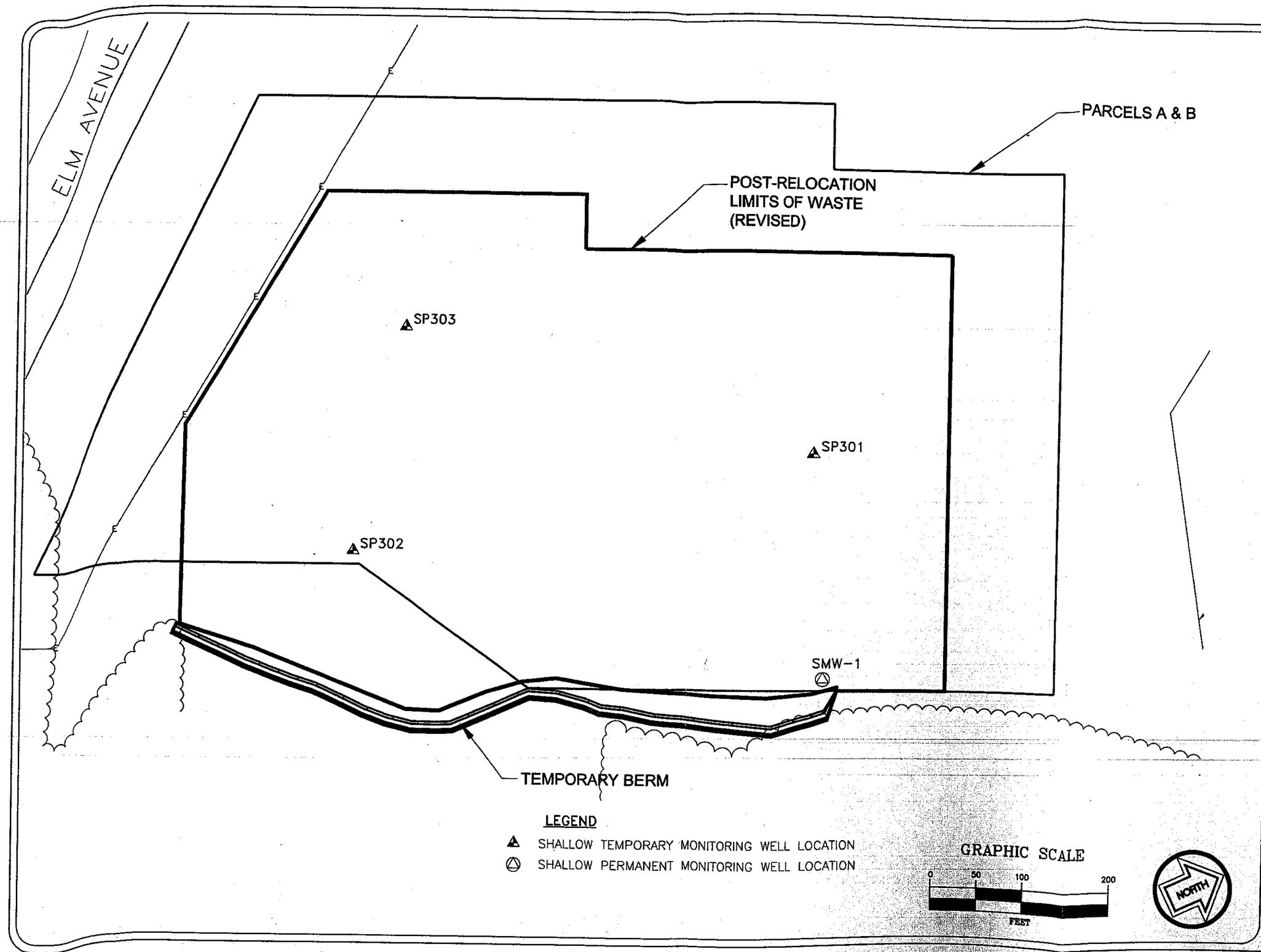

LEACHATE SAMPLE LOCATION DIAGRAM
FORMER JEFFERSON-SMURFITT
CORPORATION INDUSTRIAL
LANDFILL
MONROE, MICHIGAN

DATE: 05-20-04
SCALE: 1" =100'
DRAFTER: GM
JOB: PE 46643

BAY CITY GRAND RAPIDS KALAMAZOO
LANSING PLYMOUTH TOLEDO

FILE NAME S:46000\46643\46643-01.DWG

Figure No. 2

TABLE 1
LANDFILL LEACHATE ANALYTICAL RESULTS
FORMER JEFFERSON SMURFIT CORPORATION INDUSTRIAL LANDFILL
MONROE, MICHIGAN

Constituents	TDL	MDEQ ACT 307 TYPE B CLEANUP CRITERIA, Dated February 1994.			Sample Identification and Sample Collection Date				
		HBDW	ADW	GSI	SMW-1 9/16/2003	SMW-1 2/15/2005	SP301 11' 2/15/2005	SP302 11' 2/15/2005	SP303 11' 2/15/2005
Alkalinity, Bicarbonate	20,000	NA	NA	NA	440,000	27,000	1,100,000	550,000	620,000
Alkalinity, Carbonate	20,000	NA	NA	NA	<20,000	<20,000	<20,000	<20,000	<20,000
Conductivity	NA	NA	NA	NA		0.212	1.750	1.220	1.617
Chemical Oxyen Demand (COD)	5,000	NA	NA	NA	31,000	<5,000	50,000	58,000	110,000
Chloride	10,000	ID	250,000	NA	10,000	<10,000	13,000	34,000	37,000
Cyanide, Total	20	150*	NA*	6.5*	16	<5	<5	<5	6
Nitrogen, Ammonia	25	NA	NA	NA	1,200	<25	6,200	440	9,100
Nitrogen, Nitrate	23	10,000	NA	NA	79	24	<23	<23	<23
Nitrogen, Nitrite	30	1,000	NA	NA	33	<30	<30	<30	<30
Total Inorganic Nitrogen	100	NA	NA	NA		<100	6,200	440	9,100
pH	NA	NA	NA	NA		6.60	6.81	7.16	6.70
Phenols, Total	50	4,200	NA	1,100	<50	<50	<50	<50	<50
Sulfate	NA	ID	250,000	NA	1,100,000	<1,000	9,700	420,000	480,000
Total Organic Carbon (TOC)	1,000	NA	NA	NA	16,000	<1,000	8,200	4,500	16,000
Volatile Organic Compounds (VOC)	Multiple	Multiple	Multiple	Multiple	<TDL				
Antimony	2	2.4	NA	4,300	<5	<2	<2	<2	3
Arsenic	5	0.02	NA	1.4	12.0	<5	9	16	6
Barium	100	2,400	NA	630	140	<100	820	130	280
Beryllium	1	NA	NA	NA	<1	<1	<1	<1	<1
Boron	10	420	NA	NA	2,300	<300	3,700	1,100	770
Cadmium	0.2	3.5	NA	0.64	<0.50	<0.50	<0.50	<0.50	1.6
Chromium (III)**	5	37,000	NA	77	<5	<5	<5	22	14
Cobalt	20	NA	NA	NA		<20	<20	<20	<20
Copper	4	1,300	1,000	18	<4	<4	<4	110	89
Iron	200	ID	300	NA	28,000	780	56,000	28,000	150,000
Lead	3	4	NA	6.6	<3	<3	<3	21	68
Lithium	10	NA	NA	NA	210	53	460	32	87
Manganese	50	170	50	NA		300	2,500	970	5,200
Nickel	20	530	NA	57	<20	<20	<20	34	48
Potassium	1,000	NA	NA	NA	13,000	4,600	36,000	5,400	16,000
Selenium	5	35	NA	5	<5	<5	<5	<5	<5
Silver	0.2	33	100	0.1	<0.50	0.8	0.51	1	14
Sodium	1,000	150,000	NA	NA	28,000	6,400	130,000	53,000	41,000
Thallium	2	0.58	NA	6.3	<2	<2	<2	<2	<2
Vanadium	4	61	NA	8	<4	<4	<4	29	9
Zinc	50	2,300	5,000	81	<50	<50	<50	80	380

NOTES:

1. TDL = Target Detection Limit
2. HBDW = Health Based Drinking Water Value
3. ADW = Aesthetic Drinking Water Value
4. GSI = GSI Value
5. CS = Criteria is compound specific.
6. <RL = Less than reporting limit.
7. ID = Inadequate data to develop criterion.
8. NLV = Not likely to volatilize.
9. NA = No criterion available
10. *GSI Value based on free cyanide.
11. **Total chromium results compared to both trivalent chromium and hexavalent chromium.

12. Concentration exceeds the corresponding Act 307 Value.

13. Laboratory Method Reporting Limit exceeds Act 307 Value.

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~~H5 Monroe~~
~~Jefferson Smurfit~~
Extra

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October 14, 2005

Mr. Roger Homrich
Homrich, Inc.
200 Matlin Road
Carleton, Michigan 48117

RE: Due Care Evaluation Summary Report
Jefferson Smurfit Corporation Industrial Landfill
SME Project Number: PE46643-05

Dear Mr. Homrich:

This letter presents SME's summary of the Due Care Evaluation of surficial coal ash at the above referenced site (Figure 1) in Monroe, Michigan. The Due Care Evaluation was conducted in accordance with the May 3, 2004, *Due Care Assessment Plan* submitted to Mr. James Arduin of the Michigan Department of Environmental Quality (MDEQ) Waste and Hazardous Materials Division. The assessment plan was subsequently approved by the MDEQ on November 9, 2004. A copy of both the Work Plan and approval letter are included in Attachment B.

The objective of the Due Care Evaluation was to evaluate the potential threat posed by the surficial coal ash layer to human health via the direct contact pathway and particulate soil inhalation pathway.

SCOPE OF SERVICES

The objectives of the project were accomplished through implementation of the following tasks:

1. Advanced 14 soil probes at the site on February 15, 2005, in surficial coal ash deposits located outside the industrial landfill area to be closed under Part 115. The soil probes were labeled SP201 through SP214 and were advanced to a depth of approximately 4 feet below grade. Figure No. 2 of Attachment A shows the soil probe locations.

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Bay City
Grand Rapids
Kalamazoo
Lansing
Shelby Township
Toledo

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To provide adequate distribution of samples to be representative of site conditions, one sample was collected at a random location and depth (up to four feet below ground surface), to be determined in the field, in each of the 14 sampling units shown on Figure No. 2 of Attachment A. The sampling units enclose areas of approximately 1.5 acres.

2. Submitted fourteen soil samples for laboratory analysis of the polynuclear aromatic hydrocarbons (PAHs) and arsenic.

3. Compared soil analytical results to MDEQ Part 201 Generic Industrial Cleanup Criteria and Screening Levels, dated December 2004, for the direct contact and particulate soil inhalation exposure pathways.

4. Prepared this report to document the Due Care Evaluation activities.

SME provided soil probe services, and Fibertec Environmental Services of Holt, Michigan provided subcontracted laboratory services.

PROCEDURES

Soil probes were advanced using a truck-mounted GeoProbe ® brand direct push sampling rig. SME collected soil samples continuously to the termination depth at each soil probe. Soil samples were collected using a 48-inch long, 2-inch outside diameter (OD) Geoprobe ® Macro Sampler lined with a disposable acetate liner. Soil samples were collected from the acetate liner by cutting open the liner with a utility knife and transferring the soil to the appropriate container.

SME field staff transferred soil samples collected for classification to an 8-ounce glass jar. SME field staff classified the soil samples in general accordance with the Unified Soil Classification System (USCS).

Soil samples collected for laboratory analysis were transferred to pre-cleaned jars provided by the analytical laboratory using a stainless steel putty knife. Fourteen soil samples collected from SP201 through SP214 were submitted for laboratory analysis of PAHs and arsenic. SME selected laboratory soil samples from the coal ash, which was encountered in the top 2 feet at each soil probe location The analytical methods, reporting limits (RLs) and containers for the indicated analytical parameters are listed below.

Analytical Parameter	EPA Method Number	Method Reporting Limits (ppb)
PAHs	8270C	330
Arsenic	6020	100

Notes:

(1) Reporting limits are presented in parts per billion (ppb or micrograms per kilogram (ug/kg).

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The analytical laboratory supplied pre-cleaned containers for the soil samples. After sample collection, the containerized samples were kept cool, i.e. refrigerated, until delivery to the analytical laboratory. SME field staff followed chain of custody procedures to document the sample handling sequence.

Soil probe sampling tools were cleaned prior to probing and between each probe location with a high pressure/temperature wash. In addition, the utility knife and putty knife were cleaned with a laboratory grade detergent and rinsed with distilled water prior to cutting each acetate liner. A new pair of disposable nitrile sampling gloves was also used to transfer each sample from the acetate liner or to the sample jars.

Residual soil cuttings generated from the soil probes were returned to the corresponding soil probe hole after sampling activities were completed. The remaining space in the soil probe holes, if available, was then backfilled with bentonite chips.

FINDINGS

Subsurface Conditions

Surficial material at the site consisted of coal ash with sporadic vegetation. The coal ash extended from the surface to approximately 2 to 4 feet below grade. Beneath the coal ash, SME encountered native silty clay, with trace sand and gravel. SME encountered no staining and odors at the soil probe locations. SME encountered no groundwater during soil probe activities.

Exposure Pathway Evaluation

SME evaluated the potential exposure pathways for the following property use scenarios:

- Current site use - undeveloped; no routine human presence (zoned industrial).
- Landfill closure activities – construction (industrial).

Based on the proposed uses of the site, the following human exposure pathways may be complete at the site:

- Dermal contact
- Inhalation

Based on the above listed exposure pathway, the following cleanup criteria are judged to be applicable during site use:

- Direct contact criteria (soil)
- Particulate soil inhalation criteria (soil)
- Soil volatilization to indoor air inhalation
- Infinite source volatile inhalation

Drinking Water was not considered a complete human exposure pathway at the site since groundwater use is prohibited by City of Monroe ordinance (Monroe Code 1044.28 (g)) and municipal water is supplied to the site and surrounding areas. Groundwater or Surface Water Contact was not considered a complete human exposure pathway because available leach test data indicated that no constituents of concern are reasonably expected to leach from the coal ash to groundwater or surface water at levels that could pose a risk to human health via the direct

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contact pathway. This finding was confirmed by historic groundwater and surface water monitoring results at the landfill. Volatilization to Ambient Air was not considered a complete human exposure pathway at the site since no coal ash samples or leachates have been found to contain volatile constituents of concern at concentrations greater than *de minimus* levels.

Based on current and anticipated use of the site during and after closure, the appropriate MDEQ reference exposure criteria for initial data comparison are the industrial use values for relevant and applicable pathways.

Analytical Results

The analytical results have been compared to the applicable Part 201 Generic Industrial Cleanup Criteria and Screening Levels provided in MDEQ Operational Memorandum #1, which took effect on December 10, 2004. Table 1 of Attachment C lists the analytical results. A copy of the laboratory analytical report is presented in Attachment D.

The concentration of arsenic in 7 of the 14 soil samples was detected above MDEQ Part 201 Generic Industrial Direct Contact Criteria. The concentration of arsenic at the other soil probe locations were detected above method reporting limits, but were below MDEQ Part 201 Generic Industrial Cleanup Criteria, judged by SME to be applicable. The concentration of various PAHs were detected above method reporting limits, but were below MDEQ MDEQ Part 201 Generic Industrial Cleanup Contact Criteria , judged by SME to be applicable.

CONCLUSION

SME conducted the Due Care Evaluation to evaluate the potential threat posed by the surficial coal ash layer to human health via direct contact and particulate inhalation associated with the current undeveloped use of the site, and the future interim use of site for landfill closure construction activities. Based on the presence of arsenic at levels exceeding MDEQ Part 201 Industrial Direct Contact Criteria, Homrich, Inc will be required to implement procedures in accordance with 29 CFR 1910.120 (HAZWOPER) to protect workers, including health and safety training and personal protection, during future interim landfill closure activities. Due care procedures for future landfill closure activities will be documented in a Due Care Plan in accordance with Section 20107a of Part 201.

No specific due care requirements are indicated to be necessary to protect workers or third parties based on the current use of the site. The site is currently undeveloped with no routine human presence. Although arsenic was detected at the site above MDEQ Part 201 Generic Industrial Direct Contact Criterion, the assumptions used in calculating the MDEQ's Generic Industrial Direct Contact Criterion are based on an exposure frequency far greater than would actually occur at the site. The presence of humans on the site, with the exception of landfill closure activities, is expected to be intermittent and de minimis compared to the MDEQ's exposure assumptions. Therefore, dermal exposure to the levels of arsenic at the site for the current site use are not indicated to be a concern.

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If you have any questions or comments regarding this report please call.

Sincerely,

SOIL AND MATERIALS ENGINEERS, INC.

Daniel R. Cassidy, CPG
Project Geologist

James M. Harless, PhD, CHMM
Senior Consultant

Attachment A: Figures

Attachment B: May 3, 2004, *Due Care Assessment Plan* and November 9, 2004 MDEQ approval letter

Attachment C: Analytical Results Table

Attachment D: Laboratory Analytical Data Sheets

T:\PROJ\46000\PE46643\PE46643-101405-DUE CARE PLAN.DOC

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ATTACHMENT A

FIGURES

Figure No. 1 – Site Location Map
Figure No. 2 – Soil Probe Location Diagram

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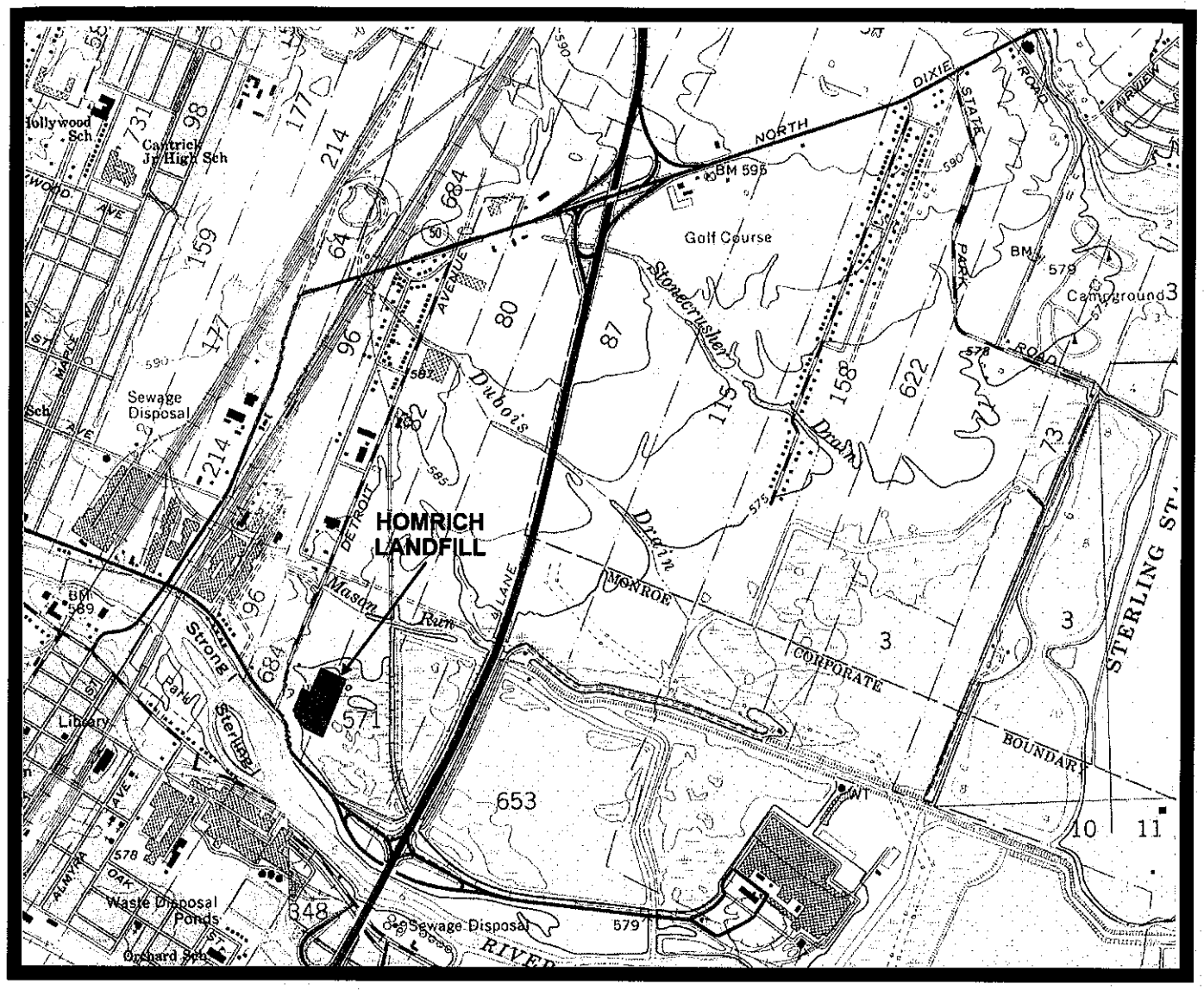

SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

QUADRANGLE LOCATION

STONY POINT, MICH.
41083-H3-TF-024
PHOTOINSPECTED 1978
1967
PHOTOREVISED 1973
DMA 4367 IV NE—SERIES V862

N

sme 43980 Plymouth Oaks Blvd. Plymouth, Michigan 48170	BAY CITY GRAND RAPIDS KALAMAZOO LANSING PLYMOUTH TOLEDO	DATE 07-21-04 DRAWN BY ARR SCALE AS SHOWN JOB PE 46643	PROPERTY LOCATION MAP HOMRICH LANDFILL MONROE, MICHIGAN

FILE NAME S:46000 \46643-01.DOC

Figure No. 1

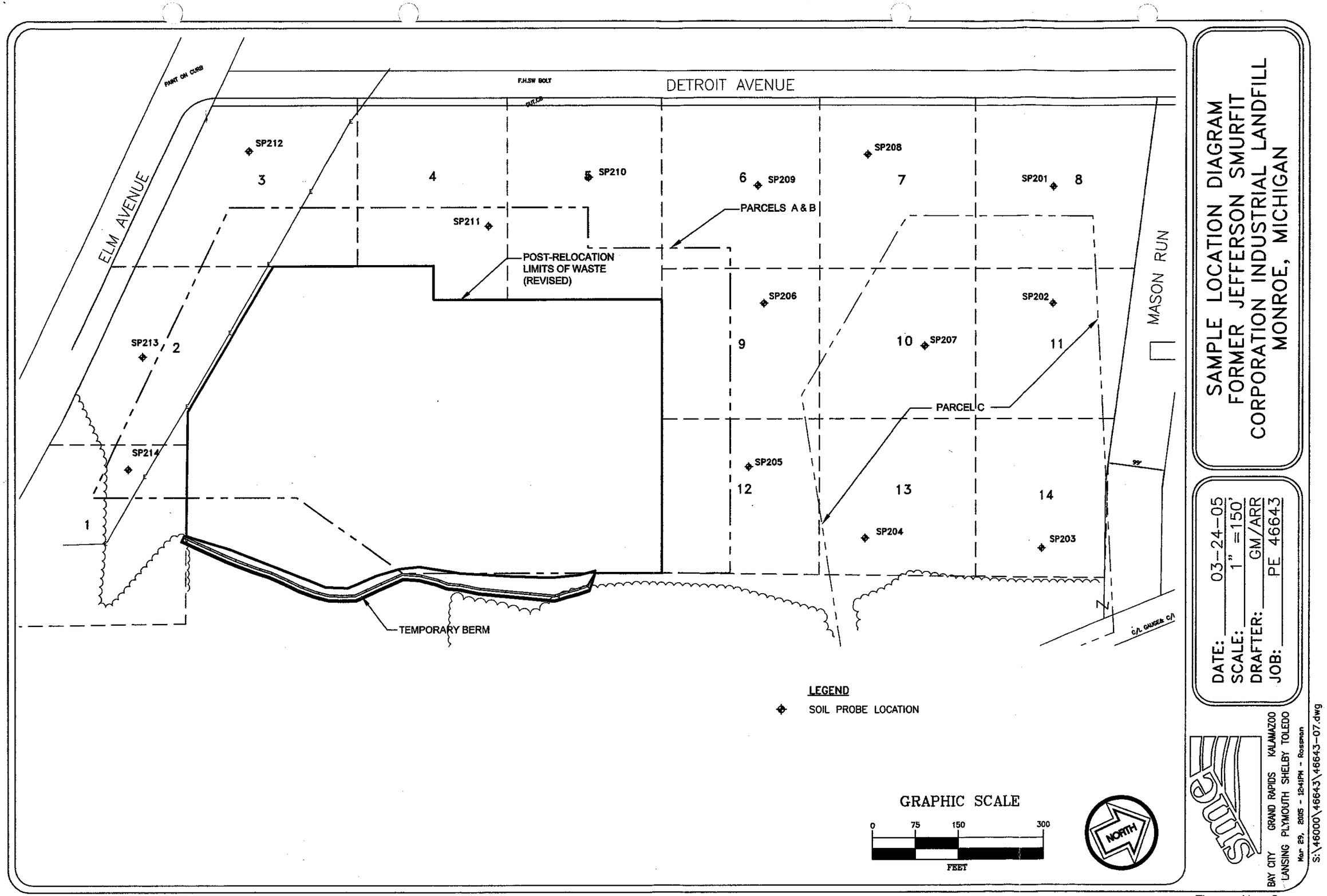
DETROIT AVENUE
ELM AVENUE
MASON RUN
PARCELS A & B
PARCEL C
POST-RELOCATION LIMITS OF WASTE (REVISED)
TEMPORARY BERM
SP212
SP210
SP209
SP208
SP201
SP211
SP206
SP202
SP213
SP207
SP214
SP205
SP204
SP203
1
2
3
4
5
6
7
8
9
10
11
12
13
14
LEGEND
SOIL PROBE LOCATION
GRAPHIC SCALE
0
75
150
300
FEET
NORTH
SAMPLE LOCATION DIAGRAM
FORMER JEFFERSON SMURFIT
CORPORATION INDUSTRIAL LANDFILL
MONROE, MICHIGAN
DATE: 03-24-05
SCALE: 1" =150'
DRAFTER: GM/ARR
JOB: PE 46643
BAY CITY GRAND RAPIDS KALAMAZOO
LANSING PLYMOUTH SHELBY TOLEDO
Mar 29, 2005 - 12:41PM - Rossman
S:\46000\46643\46643-07.dwg

Figure No. 2

ATTACHMENT B

MAY 3, 2004, DUE CARE ASSESSMENT PLAN AND

NOVEMBER 9, 2004 MDEQ APPROVAL LETTER

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Kenneth W. Kramer, PE
Chairman Emeritus

Mark K. Kramer, PE
Frank A. Henderson, PG
Timothy H. Bedenis, PE
Gerald M. Belian, PE
Larry P. Jedele, PE
Starr D. Kohn, PhD, PE
Edward S. Lindow, PE
Gerard P. Madej, PE
Robert C. Rabeler, PE

J. William Coberly, CET
Sheryl K. Fountain
Chuck A. Gemayel, PE
Davie J. Hurlburt, PE
Cheryl Kehres-Dietrich, CGWP
Jeffery M. Krusinga, PE, GE
James M. Less, CIH
Michael S. Meddock, PE
Timothy J. Mitchell, PE
Daniel O. Roeser, PG
John C. Zarzecki, CWI, CDT

May 3, 2004

Mr. James Arduin
Environmental Engineer
Waste and Hazardous Materials Division
Michigan Department of Environmental Quality
Jackson State Office Building
301 Louis Glick Hwy.
Jackson, Michigan 49201

RE: Due Care Assessment Plan
Former Jefferson Smurfit East Mill Landfill Closure Plan Comments
SME Project Number: PE46643-004

Dear Mr. Arduin:

This letter is provided in follow-up to our April 15, 2004 telephone conversation and contains our plan for collecting appropriate data to use in evaluating Due Care obligations of Homrich Incorporated's (Homrich)at the former East Mill landfill property.

In our April 15 conversation we discussed the sampling approaches to be used for collecting coal ash characterization data on the landfill property. This sampling is being performed in response to and compliance with Item 3 of the February 5, 2004 letter from Mr. George Bruchmann. Item 3 requires Homrich to submit a plan, including implementation schedule, to address due care responsibilities under Section 20107a of Part 201 of NREPA. It is my understanding from our conversation that simple random sampling of surficial coal ash fill on the property will be sufficient for collecting chemical characterization data. If this is not correct, please advise immediately, as the data collection portion of this plan is based on that understanding. This data will be used to evaluate applicable human exposure pathways for the subsequent due care analysis.

PLAN FOR EVALUATING DUE CARE RESPONSIBILITIES

This plan for assessment of due care issues related to coal ash fill on the former Jefferson Smurfit East Mill landfill property was prepared by James M. Harless, Ph.D., CHMM and other staff at Soil and Materials Engineers. Inc. (SME) on behalf of Homrich Incorporated.

Background

The landfill parcel is bounded on the south by East Elm Avenue, on the west by Detroit Street, on the north by Mason Run, and on the east by wetlands and an elevated railroad right-of-way (ROW). Coal ash from the former Jefferson Smurfit East Mill (f/k/a River Raisin Paper Company and Union Camp Paper Company) was deposited on the property and in adjoining wetlands from the 1920s through the mid-1990s. Insoluble pulper wastes and coal ash from the East Mill were disposed in a licensed landfill constructed on a portion of the property.

Plymouth
Bay City
Grand Rapids
Kalamazoo
Lansing
Shelby Township
Toledo

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Waste characterization data is available in MDEQ files for 15 samples of the coal ash generated from plant boilers between 1980 and 1993. It is reasonable to assume for purposes of due care risk evaluation that these data are representative of the ash deposited on the surface of the landfill property. These data are results from analyses of leachates from ASTM and TCLP testing of coal ash. Results from all tests consistently demonstrate that no target constituents leach to water at levels that would constitute a risk to human health via the direct contact pathway (Part 201 generic groundwater contact criteria). Target leachate analytes included the following: As, Ba, Cd, Ca, Cr, Fe, Pb, Mn, Mg, Hg, Ni, Se, Ag, Na, chloride, nitrate, nitrite, sulfate, and sulfide; some samples were not tested for all parameters.

Additional characterization data are available for coal ash generated from the Consolidated Packaging Corporation (CPC) Northside Plant, formerly located on East Elm Avenue approximately one-half mile west of the landfill property. Coal ash was generated from the CPC facility and distributed on the land surface contemporaneously with the generation and deposition from the East Mill plant. Between 1998 and 2000 thirteen grab samples and six representative samples of coal ash deposited on the CPC property between 1920 and the 1940s were collected and analyzed. Arsenic was measured in three samples at a concentration greater than the local background value (15,700 µg/Kg) and generic human residential direct contact criterion. No other target analytes (Part 115 inertness determination analyte list) were measured at concentrations greater than MDEQ Part 201 generic human health protection criteria for residential use, and no analytes were present at levels above generic industrial use criteria. These data previously were provided to the MDEQ in the following document: ***Cinder/Ash Fill Characterization Report and Reuse Plan, Mason Run Development, ...***, prepared by Haley & Aldrich of Michigan, Inc, August 2000.

Historical groundwater monitoring data are available for both the bedrock aquifer and groundwater perched in the ash fill. No target analytes have been reported at levels greater than MDEQ generic groundwater contact, inhalation or drinking water protection criteria.

Due Care Assessment Strategies

SME considered the materials of concern for human exposure, current and proposed property usage, site specific relevant and potentially complete pathways for potential human exposure, and data gaps in historical site assessment results during development of this due care evaluation scope of work. The landfill due care evaluation plan is based in the following determinations:

- Potential material of concern – coal ash on the property outside the boundaries of the disposal area to be closed under Part 115
- Proposed property use (exposure scenarios)
  - Landfill closure period – construction (industrial)
  - Post-closure period - undeveloped; no routine human presence
  - Current zoning – heavy industrial (I2)
- Relevant and applicable human exposure pathways of concern (see discussions below)
  - Ash fill - direct contact and ambient air particulate inhalation
  - Surface water – direct contact
- Chemical constituents of concern - reliable coal ash characterization data are available to support identification of analytes reasonably expected to be present at levels of concern and evaluation of exposure pathways (see discussions below)

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consultants in the geosciences, materials, and the environment

The objective of the Due Care Evaluation Work Plan (Work Plan) is to evaluate the potential threat posed by the surficial ash layer to human health via the following pathways:

- direct contact (industrial use) and
- particulate soil inhalation (industrial use).

The following potential human exposure pathways are not reasonably expected to be applicable or complete based on historic site characterization data discussed above and/or site conditions:

- groundwater drinking water – not applicable; groundwater use is prohibited by City of Monroe ordinance (Monroe Code 1044.28 (g)); municipal water is supplied to the site and surrounding areas;
- groundwater or surface water contact – based on available leach test data, no constituents of concern are reasonably expected to leach from the ash to groundwater or surface water at levels that could pose a risk to human health via the direct contact pathway; this finding was confirmed by historic groundwater and surface water monitoring results at the landfill; and
- volatilization to ambient air – no coal ash samples or leachates have been found to contain volatile constituents of concern at concentrations greater than *de minimus* levels.

Based on current and anticipated use of the property during and after closure, the appropriate MDEQ reference exposure criteria will be the industrial use values for relevant and applicable pathways.

No target analytes were detected in ash samples from the CPC property at levels greater than MDEQ generic industrial use human health protection criteria for the direct contact and particulate inhalation exposure pathways. Only arsenic and benzo(a)pyrene have been measured in one or more samples at concentrations greater than 10%, one order of magnitude below, the respective MDEQ generic industrial direct contact criterion for either of the target exposure pathways. These data are anticipated to be representative of the East Mill coal ash, especially within the two orders of magnitude or greater variances required for other constituents to pose a potential threat to human health; therefore, arsenic and polycyclic aromatic hydrocarbons (PAH, PNA) will be the target analytes for the due care evaluation.

SCOPE OF WORK AND TECHNICAL APPROACHES

Fourteen ash samples will be collected from the surficial deposits located outside the industrial landfill area to be closed under Part 115. To provide adequate areal distribution of samples to be representative of site conditions, one sample will be collected at a random location and depth (up to four feet below ground surface), to be determined in the field, in each of the 14 sampling units shown in the attached figure. The sampling units enclose areas of approximately 1.5 acres.

Samples will be collected with a trowel or hand auger, depending on sample depth. Sampling equipment will be decontaminated before each use. Samples will be transferred to labeled, pre-cleaned sample containers. Samples for PAH analyses will be stored at ≤ 4° C prior to analyses. All samples will be managed under chain-of-custody protocols.

Coal ash samples will be submitted to Fibertec Environmental Services of Holt, Michigan for analyses of arsenic and PAH species using U.S. EPA and MDEQ approved methods (SW-846).

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After receipt of laboratory analysis reports, the due care evaluation data will be compiled, interpreted and provided to the MDEQ in a letter report format.

SCHEDULE

Sample collection is anticipated to occur within two weeks after MDEQ approval of this due care assessment plan. Please let me know as soon as possible whether this pan and approved schedule is approved because Homrich is very interested in having this work conducted promptly. Laboratory analysis data will be received within two to four weeks after sample collection. A letter report of findings will be issued to the MDEQ approximately two weeks after receipt of laboratory analysis reports. Thank you for your attention to this matter.

Very truly yours,

SOIL AND MATERIALS ENGINEERS, INC.

James M. Harless, Ph.D., CHMM
Senior Consultant

Distribution: Mr. Roger Homrich – Homrich Incorporated
Mr. Richard Baron, Esq. - Foley, Baron & Metzger
Mr. Jim Sygo - MDEQ
Mr. George Bruchmann – MDEQ
Mr. Frank Ruswick – MDEQ
Mr. Pat Brennan - MDEQ
Ms. Marta Fisher - MDEQ
Ms. Susan Holben – MEDC
Ms. Kathleen Cavanaugh - DAG

T:\PROJ\PE46000\PE46643-004\PE46643-004-050304.DUE CARE.DOC

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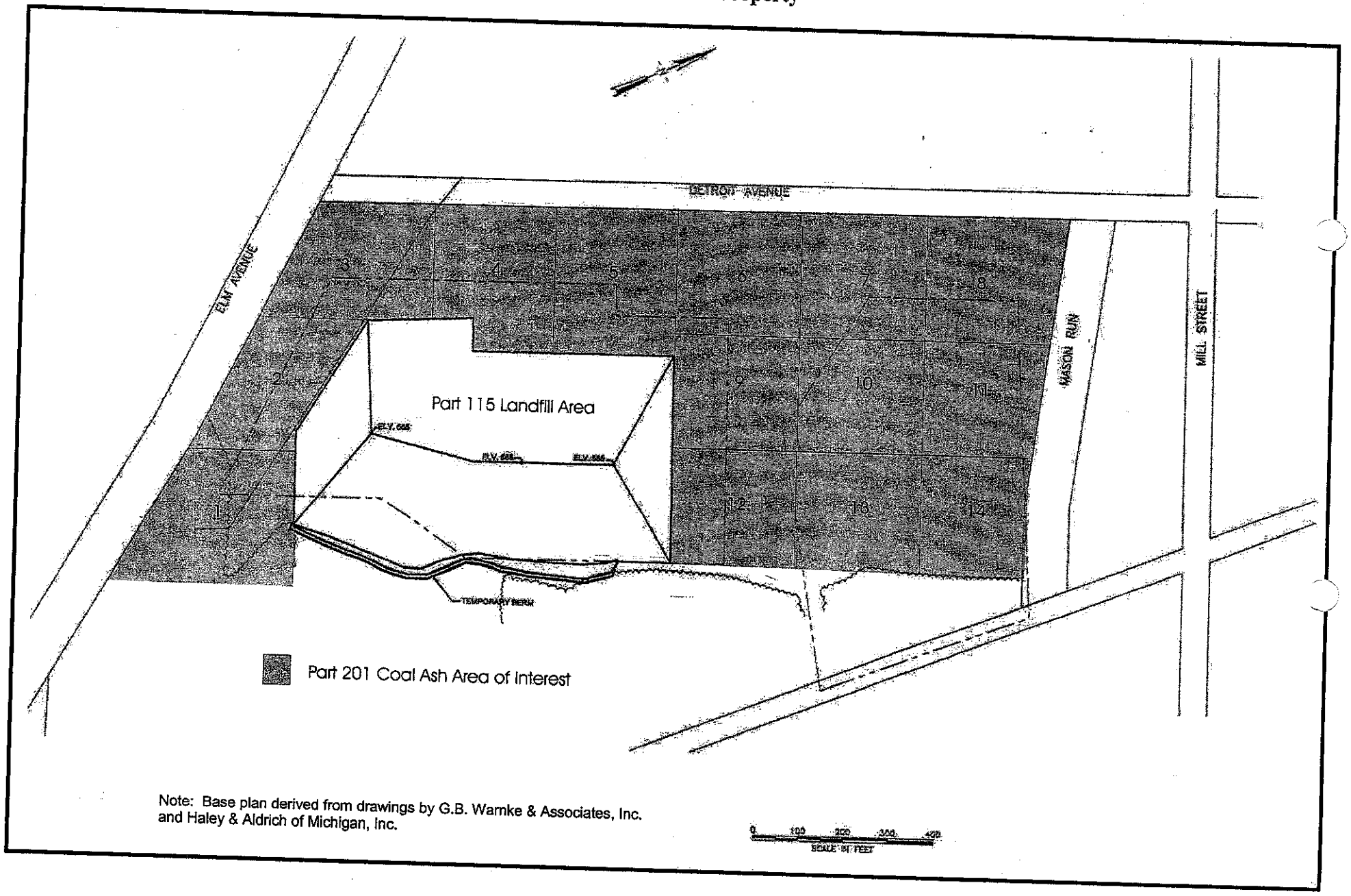
SAMPLING LOCATION DIAGRAM

Due Care Evaluation
Homrich Landfill Property



Note: Base plan derived from drawings by G.B. Warnke & Associates, Inc. and Haley & Aldrich of Michigan, Inc.

JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
JACKSON DISTRICT OFFICE

REC'D NOV 1 0 2004

STEVEN E. CHESTER
DIRECTOR

November 9, 2004

Mr. Roger Homrich
Homrich, Inc.
200 Matlin Road
Carleton, Michigan 48117

Dear Mr. Homrich:

SUBJECT: Due Care Assessment Plan
Former Jefferson Smurfit East Mill Landfill

The Department of Environmental Quality (DEQ), Waste and Hazardous Materials Division (WHMD) has reviewed the Due Care Assessment Plan for the former Jefferson Smurfit East Mill Landfill dated May 3, 2004. This review was conducted pursuant to Part 115, Solid Waste Management, Michigan Compiled Laws (MCL) 324.11501 et seq. and Part 201, Environmental Response, MCL 324.20101 et seq. of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) and any rules promulgated pursuant to the Act. Based on that review, the WHMD has determined that the Due Care Assessment Plan is acceptable and is hereby approved. At the time the Laboratory Analysis Report is submitted to the DEQ please provide a copy of the Response Action Plan or a schedule for completion of the Response Action Plan. The Response Action Plan should be in compliance with Section 20107a of the NREPA and should include a schedule for completion of the proposed action.

If you have any questions, feel free to contact me at e-mail address beanl@michigan.gov or at the number below.

Sincerely,

Lawrence E Bean

Lawrence E Bean, Geologist
Waste and Hazardous Materials Division
517-780-7842

cc: Ms. Jamie Dean, Monroe County Health Dept
Mr. James Harless, Soil and Materials Engineers
Ms. Sue Holben, Michigan Economic Development Corporation
Ms. Kathy Cavanaugh, Department of the Attorney General
Mr. Jim Sygo, Deputy Director, DEQ
Mr. George W. Bruchmann, DEQ
Mr. Philip Roycraft, DEQ
Ms. Marta Fisher, DEQ
Ms. Becky Kocsis, DEQ
Mr. Lee Carter, DEQ
Mr. Patrick Brennan, DEQ

ATTACHMENT C
ANALYTICAL RESULTS TABLE

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TABLE 1
DUE CARE SOIL SAMPLING ANALYTICAL RESULTS
FORMER JEFFERSON SMURFIT CORPORATION LANDFILL
MONROE, MICHIGAN

Constituents	MDEQ Part 201 Generic Residential Cleanup Criteria							Sample Identification, Sample Depth, and Sample Collection Date													
	DWP	GSIP	GCP	SVIA	ISVSI	PSI	DC	SP201 0-2' 2/15/04	SP202 0-2' 2/15/05	SP203 0-2' 2/15/05	SP204 0-2' 2/15/05	SP205 0-2' 2/15/05	SP206 0-2' 2/15/05	SP207 0-2' 2/15/05	SP208 0-2' 2/15/05	SP209 0-2' 2/15/05	SP210 0-2' 2/15/05	SP211 0-2' 2/15/05	SP212 0-2' 2/15/05	SP213 0-2' 2/15/05	SP214 0-2' 2/15/05
PAHs																					
Benzo(a)anthracene	NLL	NLL	NLL	NLV	NLV	NLV	20,000	<330	<330	480	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Chrysene	NLL	NLL	NLL	ID	ID	ID	2,000,000	<330	<330	590	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Fluoranthene	730,000	5,500	730,000	1,000,000,000	740,000,000	9,300,000,000	46,000,000	<330	<330	580	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
2-Methylnaphthalene	57,000	ID	5,500,000	ID	ID	ID	8,100,000	<330	<330	<330	<330	400	380	<330	<330	<330	540	<330	<330	<330	<330
Phenanthrene	56,000	5,300	1,100,000	2,800,000	160,000	6,700,000	1,600,000	<330	<330	340	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Pyrene	480,000	ID	480,000	1,000,000,000	650,000,000	6,700,000,000	29,000,000	<330	<330	890	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Remaining PAHs	CS	CS		CS	CS	CS	CS	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Metals	MDEQ Part 201 Generic Residential Cleanup Criteria																				
Arsenic	23,000	70,000	2,000,000	NLV	NLV	720,000	7,600	78,000	17,000	11,000	24,000	13,000	43,000	53,000	25,000	31,000	55,000	68,000	37,000	86,000	59,000
	MDEQ Part 201 Generic Industrial Cleanup Criteria																				
Arsenic	23,000	70,000	2,000,000	NLV	NLV	910,000	37,000	78,000	17,000	11,000	24,000	13,000	43,000	53,000	25,000	31,000	55,000	68,000	37,000	86,000	59,000

NOTES:

1. DWP = Drinking Water Protection Criteria
2. GSIP = Groundwater Surface Water Interface Protection Criteria
3. GCP = Groundwater Contact Protection Criteria
4. SVIA = Soil Volatilization to Indoor Air Inhalation Criteria
5. ISVIA = Infinite Source Volatile Inhalation Criteria
6. PSI = Particulate Soil Inhalation Criteria
7. DC = Direct Contact Criteria
8. CS = Criteria is compound specific.
9. <RL = Less than reporting limit.
10. ID = Inadequate data to develop criterion.
11. NLV = Not likely to volatilize.
12. NA = Parameter not selected for analysis.

ATTACHMENT D

LABORATORY ANALYTICAL DATA SHEETS

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ANALYTICAL LABORATORY RESULTS

CLIENT IDENTIFICATION:	**SME**	SAMPLE MATRIX:	**SOIL**
FIBERTEC PROJECT NO:	**81302**	FIBERTEC SAMPLE NUMBER:	**005**

CLIENT SAMPLE INFORMATION

PROJECT IDENTIFICATION:	**HOMRICH LANDFILL**	CLIENT SAMPLE DESCRIPTION:	**SP201 (0-2')**
PROJECT NUMBER:	**PE46643**	CLIENT SAMPLE NUMBER:	**5**
SAMPLE DATE:	**2/15/2005**	CHAIN OF CUSTODY NUMBER:	**47871**

COMMENTS: **ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 19%**

DEFINITIONS: **ND** = NOT DETECTED AT OR ABOVE REPORTING LIMIT; **RL** = REPORTING LIMIT
N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	BATCH	PREPARATION DATE	ANALYSIS DATE	TECH. INIT.
ACENAPHTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
ACENAPHTHYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(a)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(a)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(b)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(ghi)PERYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(k)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
CHRYSENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
DIBENZO(a,h)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
FLUORENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
INDENO(1,2,3-cd)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
2-METHYLNAPHTHALENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
NAPHTHALENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
PHENANTHRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
ARSENIC	78,000	ug/Kg	100	3050B/6020	32550	2/18/2005	2/21/2005	JAG

ANALYTICAL LABORATORY RESULTS

CLIENT IDENTIFICATION:	**SME**	SAMPLE MATRIX:	**SOIL**
FIBERTEC PROJECT NO:	**81302**	FIBERTEC SAMPLE NUMBER:	**006**

CLIENT SAMPLE INFORMATION

PROJECT IDENTIFICATION:	**HOMRICH LANDFILL**	CLIENT SAMPLE DESCRIPTION:	**SP202 (0-2')**
PROJECT NUMBER:	**PE46643**	CLIENT SAMPLE NUMBER:	**6**
SAMPLE DATE:	**2/15/2005**	CHAIN OF CUSTODY NUMBER:	**47871**

COMMENTS: **ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 21%**

DEFINITIONS: **ND** = NOT DETECTED AT OR ABOVE REPORTING LIMIT; **RL** = REPORTING LIMIT
N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	BATCH	PREPARATION DATE	ANALYSIS DATE	TECH. INIT.
ACENAPHTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
ACENAPHTHYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(a)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(a)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(b)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(ghi)PERYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(k)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
CHRYSENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
DIBENZO(a,h)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
FLUORENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
INDENO(1,2,3-cd)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
2-METHYLNAPHTHALENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
NAPHTHALENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
PHENANTHRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
ARSENIC	17,000	ug/Kg	100	3050B/6020	32550	2/18/2005	2/21/2005	JAG

ANALYTICAL LABORATORY RESULTS

CLIENT IDENTIFICATION:	**SME**	SAMPLE MATRIX:	**SOIL**
FIBERTEC PROJECT NO:	**81302**	FIBERTEC SAMPLE NUMBER:	**007**

CLIENT SAMPLE INFORMATION

PROJECT IDENTIFICATION:	**HOMRICH LANDFILL**	CLIENT SAMPLE DESCRIPTION:	**SP203 (0-2')**
PROJECT NUMBER:	**PE46643**	CLIENT SAMPLE NUMBER:	**7**
SAMPLE DATE:	**2/15/2005**	CHAIN OF CUSTODY NUMBER:	**47871**

COMMENTS: **ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 23%**
***RAISED RL DUE TO SAMPLE MATRIX**

DEFINITIONS: **ND** = NOT DETECTED AT OR ABOVE REPORTING LIMIT; **RL** = REPORTING LIMIT
N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	BATCH	PREPARATION DATE	ANALYSIS DATE	TECH. INIT.
ACENAPHTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
ACENAPHTHYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(a)ANTHRACENE	480	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(a)PYRENE	ND	ug/Kg	1,700*	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(b)FLUORANTHENE	ND	ug/Kg	1,700*	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(ghi)PERYLENE	ND	ug/Kg	1,700*	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(k)FLUORANTHENE	ND	ug/Kg	1,700*	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
CHRYSENE	590	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
DIBENZO(a,h)ANTHRACENE	ND	ug/Kg	1,700*	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
FLUORANTHENE	580	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
FLUORENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
INDENO(1,2,3-cd)PYRENE	ND	ug/Kg	1,700*	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
2-METHYLNAPHTHALENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
NAPHTHALENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
PHENANTHRENE	340	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
PYRENE	890	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
ARSENIC	11,000	ug/Kg	100	3050B/6020	32550	2/18/2005	2/21/2005	JAG

ANALYTICAL LABORATORY RESULTS

CLIENT IDENTIFICATION:	**SME**	SAMPLE MATRIX:	**SOIL**
FIBERTEC PROJECT NO:	**81302**	FIBERTEC SAMPLE NUMBER:	**008**

CLIENT SAMPLE INFORMATION

PROJECT IDENTIFICATION:	**HOMRICH LANDFILL**	CLIENT SAMPLE DESCRIPTION:	**SP204 (0-2')**
PROJECT NUMBER:	**PE46643**	CLIENT SAMPLE NUMBER:	**8**
SAMPLE DATE:	**2/15/2005**	CHAIN OF CUSTODY NUMBER:	**47871**

COMMENTS: **ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 38%**

DEFINITIONS: **ND** = NOT DETECTED AT OR ABOVE REPORTING LIMIT; **RL** = REPORTING LIMIT
N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	BATCH	PREPARATION DATE	ANALYSIS DATE	TECH. INIT.
ACENAPHTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
ACENAPHTHYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(a)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(a)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(b)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(ghi)PERYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(k)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
CHRYSENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
DIBENZO(a,h)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
FLUORENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
INDENO(1,2,3-cd)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
2-METHYLNAPHTHALENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
NAPHTHALENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
PHENANTHRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
ARSENIC	24,000	ug/Kg	100	3050B/6020	32550	2/18/2005	2/21/2005	JAG

ANALYTICAL LABORATORY RESULTS

CLIENT IDENTIFICATION:	**SME**	SAMPLE MATRIX:	**SOIL**
FIBERTEC PROJECT NO:	**81302**	FIBERTEC SAMPLE NUMBER:	**009**

CLIENT SAMPLE INFORMATION

PROJECT IDENTIFICATION:	**HOMRICH LANDFILL**	CLIENT SAMPLE DESCRIPTION:	**SP205 (0-2')**
PROJECT NUMBER:	**PE46643**	CLIENT SAMPLE NUMBER:	**9**
SAMPLE DATE:	**2/15/2005**	CHAIN OF CUSTODY NUMBER:	**47871**

COMMENTS: **ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 23%**

DEFINITIONS: **ND** = NOT DETECTED AT OR ABOVE REPORTING LIMIT; **RL** = REPORTING LIMIT
N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	BATCH	PREPARATION DATE	ANALYSIS DATE	TECH. INIT.
ACENAPHTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
ACENAPHTHYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(a)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(a)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(b)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(ghi)PERYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(k)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
CHRYSENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
DIBENZO(a,h)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
FLUORENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
INDENO(1,2,3-cd)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
2-METHYLNAPHTHALENE	400	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
NAPHTHALENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
PHENANTHRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
ARSENIC	13,000	ug/Kg	100	3050B/6020	32550	2/18/2005	2/21/2005	JAG

ANALYTICAL LABORATORY RESULTS

CLIENT IDENTIFICATION:	**SME**	SAMPLE MATRIX:	**SOIL**
FIBERTEC PROJECT NO:	**81302**	FIBERTEC SAMPLE NUMBER:	**010**

CLIENT SAMPLE INFORMATION

PROJECT IDENTIFICATION:	**HOMRICH LANDFILL**	CLIENT SAMPLE DESCRIPTION:	**SP206 (0-2')**
PROJECT NUMBER:	**PE46643**	CLIENT SAMPLE NUMBER:	**10**
SAMPLE DATE:	**2/15/2005**	CHAIN OF CUSTODY NUMBER:	**47871**

COMMENTS: **ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 26%**

DEFINITIONS: **ND** = NOT DETECTED AT OR ABOVE REPORTING LIMIT; **RL** = REPORTING LIMIT
N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	BATCH	PREPARATION DATE	ANALYSIS DATE	TECH. INIT.
ACENAPHTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
ACENAPHTHYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(a)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(a)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(b)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(ghi)PERYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(k)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
CHRYSENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
DIBENZO(a,h)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
FLUORENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
INDENO(1,2,3-cd)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
2-METHYLNAPHTHALENE	380	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
NAPHTHALENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
PHENANTHRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
ARSENIC	43,000	ug/Kg	100	3050B/6020	32550	2/18/2005	2/21/2005	JAG

ANALYTICAL LABORATORY RESULTS

CLIENT IDENTIFICATION:	**SME**	SAMPLE MATRIX:	**SOIL**
FIBERTEC PROJECT NO:	**81302**	FIBERTEC SAMPLE NUMBER:	**011**

CLIENT SAMPLE INFORMATION

PROJECT IDENTIFICATION:	**HOMRICH LANDFILL**	CLIENT SAMPLE DESCRIPTION:	**SP207 (0-2')**
PROJECT NUMBER:	**PE46643**	CLIENT SAMPLE NUMBER:	**11**
SAMPLE DATE:	**2/15/2005**	CHAIN OF CUSTODY NUMBER:	**47872**

COMMENTS: **ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 22%**

DEFINITIONS: **ND** = NOT DETECTED AT OR ABOVE REPORTING LIMIT; **RL** = REPORTING LIMIT
N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	BATCH	PREPARATION DATE	ANALYSIS DATE	TECH. INIT.
ACENAPHTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
ACENAPHTHYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(a)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(a)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(b)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(ghi)PERYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(k)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
CHRYSENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
DIBENZO(a,h)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
FLUORENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
INDENO(1,2,3-cd)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
2-METHYLNAPHTHALENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
NAPHTHALENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
PHENANTHRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
ARSENIC	53,000	ug/Kg	100	3050B/6020	32550	2/18/2005	2/21/2005	JAG

ANALYTICAL LABORATORY RESULTS

CLIENT IDENTIFICATION:	**SME**	SAMPLE MATRIX:	**SOIL**
FIBERTEC PROJECT NO:	**81302**	FIBERTEC SAMPLE NUMBER:	**012**

CLIENT SAMPLE INFORMATION

PROJECT IDENTIFICATION:	**HOMRICH LANDFILL**	CLIENT SAMPLE DESCRIPTION:	**SP208 (0-2')**
PROJECT NUMBER:	**PE46643**	CLIENT SAMPLE NUMBER:	**12**
SAMPLE DATE:	**2/15/2005**	CHAIN OF CUSTODY NUMBER:	**47872**

COMMENTS: **ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 22%**

DEFINITIONS: **ND** = NOT DETECTED AT OR ABOVE REPORTING LIMIT; **RL** = REPORTING LIMIT
N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	BATCH	PREPARATION DATE	ANALYSIS DATE	TECH. INIT.
ACENAPHTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
ACENAPHTHYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(a)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(a)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(b)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(ghi)PERYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(k)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
CHRYSENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
DIBENZO(a,h)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
FLUORENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
INDENO(1,2,3-cd)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
2-METHYLNAPHTHALENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
NAPHTHALENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
PHENANTHRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
ARSENIC	25,000	ug/Kg	100	3050B/6020	32550	2/18/2005	2/21/2005	JAG

ANALYTICAL LABORATORY RESULTS

CLIENT IDENTIFICATION:	**SME**	SAMPLE MATRIX:	**SOIL**
FIBERTEC PROJECT NO:	**81302**	FIBERTEC SAMPLE NUMBER:	**013**

CLIENT SAMPLE INFORMATION

PROJECT IDENTIFICATION:	**HOMRICH LANDFILL**	CLIENT SAMPLE DESCRIPTION:	**SP209 (0-2')**
PROJECT NUMBER:	**PE46643**	CLIENT SAMPLE NUMBER:	**13**
SAMPLE DATE:	**2/15/2005**	CHAIN OF CUSTODY NUMBER:	**47872**

COMMENTS: **ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 34%**

DEFINITIONS: **ND** = NOT DETECTED AT OR ABOVE REPORTING LIMIT; **RL** = REPORTING LIMIT
N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	BATCH	PREPARATION DATE	ANALYSIS DATE	TECH. INIT.
ACENAPHTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
ACENAPHTHYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(a)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(a)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(b)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(ghi)PERYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(k)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
CHRYSENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
DIBENZO(a,h)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
FLUORENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
INDENO(1,2,3-cd)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
2-METHYLNAPHTHALENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
NAPHTHALENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
PHENANTHRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
ARSENIC	31,000	ug/Kg	100	3050B/6020	32550	2/18/2005	2/21/2005	JAG

ANALYTICAL LABORATORY RESULTS

CLIENT IDENTIFICATION:	**SME**	SAMPLE MATRIX:	**SOIL**
FIBERTEC PROJECT NO:	**81302**	FIBERTEC SAMPLE NUMBER:	**014**

CLIENT SAMPLE INFORMATION

PROJECT IDENTIFICATION:	**HOMRICH LANDFILL**	CLIENT SAMPLE DESCRIPTION:	**SP210 (0-2')**
PROJECT NUMBER:	**PE46643**	CLIENT SAMPLE NUMBER:	**14**
SAMPLE DATE:	**2/15/2005**	CHAIN OF CUSTODY NUMBER:	**47872**

COMMENTS: **ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 35%**

DEFINITIONS: **ND** = NOT DETECTED AT OR ABOVE REPORTING LIMIT; **RL** = REPORTING LIMIT
N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	BATCH	PREPARATION DATE	ANALYSIS DATE	TECH. INIT.
ACENAPHTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
ACENAPHTHYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(a)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(a)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(b)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(ghi)PERYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(k)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
CHRYSENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
DIBENZO(a,h)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
FLUORENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
INDENO(1,2,3-cd)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
2-METHYLNAPHTHALENE	540	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
NAPHTHALENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
PHENANTHRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
ARSENIC	55,000	ug/Kg	100	3050B/6020	32550	2/18/2005	2/21/2005	JAG

ANALYTICAL LABORATORY RESULTS

CLIENT IDENTIFICATION:	**SME**	SAMPLE MATRIX:	**SOIL**
FIBERTEC PROJECT NO:	**81302**	FIBERTEC SAMPLE NUMBER:	**015**

CLIENT SAMPLE INFORMATION

PROJECT IDENTIFICATION:	**HOMRICH LANDFILL**	CLIENT SAMPLE DESCRIPTION:	**SP211 (0-2')**
PROJECT NUMBER:	**PE46643**	CLIENT SAMPLE NUMBER:	**15**
SAMPLE DATE:	**2/15/2005**	CHAIN OF CUSTODY NUMBER:	**47872**

COMMENTS: **ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 27%**

DEFINITIONS: **ND** = NOT DETECTED AT OR ABOVE REPORTING LIMIT; **RL** = REPORTING LIMIT
N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	BATCH	PREPARATION DATE	ANALYSIS DATE	TECH. INIT.
ACENAPHTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
ACENAPHTHYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(a)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(a)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(b)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(ghi)PERYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(k)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
CHRYSENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
DIBENZO(a,h)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
FLUORENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
INDENO(1,2,3-cd)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
2-METHYLNAPHTHALENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
NAPHTHALENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
PHENANTHRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
ARSENIC	68,000	ug/Kg	100	3050B/6020	32550	2/18/2005	2/21/2005	JAG

ANALYTICAL LABORATORY RESULTS

CLIENT IDENTIFICATION:	**SME**	SAMPLE MATRIX:	**SOIL**
FIBERTEC PROJECT NO:	**81302**	FIBERTEC SAMPLE NUMBER:	**016**

CLIENT SAMPLE INFORMATION

PROJECT IDENTIFICATION:	**HOMRICH LANDFILL**	CLIENT SAMPLE DESCRIPTION:	**SP212 (0-2')**
PROJECT NUMBER:	**PE46643**	CLIENT SAMPLE NUMBER:	**16**
SAMPLE DATE:	**2/15/2005**	CHAIN OF CUSTODY NUMBER:	**47872**

COMMENTS: **ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 34%**

DEFINITIONS: **ND** = NOT DETECTED AT OR ABOVE REPORTING LIMIT; **RL** = REPORTING LIMIT
N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	BATCH	PREPARATION DATE	ANALYSIS DATE	TECH. INIT.
ACENAPHTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
ACENAPHTHYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(a)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(a)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(b)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(ghi)PERYLENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
BENZO(k)FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
CHRYSENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
DIBENZO(a,h)ANTHRACENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
FLUORANTHENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
FLUORENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
INDENO(1,2,3-cd)PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
2-METHYLNAPHTHALENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
NAPHTHALENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
PHENANTHRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
PYRENE	ND	ug/Kg	330	3550B/8270C	32540	2/22/2005	2/24/2005	LAN
ARSENIC	37,000	ug/Kg	100	3050B/6020	32550	2/18/2005	2/21/2005	JAG

ANALYTICAL LABORATORY RESULTS

CLIENT IDENTIFICATION:	**SME**	SAMPLE MATRIX:	**SOIL**
FIBERTEC PROJECT NO:	**81302**	FIBERTEC SAMPLE NUMBER:	**017**

CLIENT SAMPLE INFORMATION

PROJECT IDENTIFICATION:	**HOMRICH LANDFILL**	CLIENT SAMPLE DESCRIPTION:	**SP213 (0-2')**
PROJECT NUMBER:	**PE46643**	CLIENT SAMPLE NUMBER:	**17**
SAMPLE DATE:	**2/15/2005**	CHAIN OF CUSTODY NUMBER:	**47872**

COMMENTS: **ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 43%**
***RAISED RL DUE TO SAMPLE MATRIX**

DEFINITIONS: **ND** = NOT DETECTED AT OR ABOVE REPORTING LIMIT; **RL** = REPORTING LIMIT
N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	BATCH	PREPARATION DATE	ANALYSIS DATE	TECH. INIT.
ACENAPHTHENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
ACENAPHTHYLENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
ANTHRACENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(a)ANTHRACENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(a)PYRENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(b)FLUORANTHENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(ghi)PERYLENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(k)FLUORANTHENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
CHRYSENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
DIBENZO(a,h)ANTHRACENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
FLUORANTHENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
FLUORENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
INDENO(1,2,3-cd)PYRENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
2-METHYLNAPHTHALENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
NAPHTHALENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
PHENANTHRENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
PYRENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
ARSENIC	86,000	ug/Kg	100	3050B/6020	32550	2/18/2005	2/21/2005	JAG

ANALYTICAL LABORATORY RESULTS

CLIENT IDENTIFICATION:	**SME**	SAMPLE MATRIX:	**SOIL**
FIBERTEC PROJECT NO:	**81302**	FIBERTEC SAMPLE NUMBER:	**018**

CLIENT SAMPLE INFORMATION

PROJECT IDENTIFICATION:	**HOMRICH LANDFILL**	CLIENT SAMPLE DESCRIPTION:	**SP214 (0-2')**
PROJECT NUMBER:	**PE46643**	CLIENT SAMPLE NUMBER:	**18**
SAMPLE DATE:	**2/15/2005**	CHAIN OF CUSTODY NUMBER:	**47872**

COMMENTS: **ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 41%**
***RAISED RL DUE TO SAMPLE MATRIX**

DEFINITIONS: **ND** = NOT DETECTED AT OR ABOVE REPORTING LIMIT; **RL** = REPORTING LIMIT
N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	BATCH	PREPARATION DATE	ANALYSIS DATE	TECH. INIT.
ACENAPHTHENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
ACENAPHTHYLENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
ANTHRACENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(a)ANTHRACENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(a)PYRENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(b)FLUORANTHENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(ghi)PERYLENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
BENZO(k)FLUORANTHENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
CHRYSENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
DIBENZO(a,h)ANTHRACENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
FLUORANTHENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
FLUORENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
INDENO(1,2,3-cd)PYRENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
2-METHYLNAPHTHALENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
NAPHTHALENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
PHENANTHRENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
PYRENE	ND	ug/Kg	660*	3550B/8270C	32540	2/22/2005	2/23/2005	LAN
ARSENIC	59,000	ug/Kg	100	3050B/6020	32550	2/18/2005	2/21/2005	JAG

Fibertec environmental services

Analytical Laboratory
1914 Holloway Drive, Holt, MI 48842, Phone: 517 699 0345, Fax: 517 699 0388
8660 S. Mackinaw Trail, Cadillac, MI 49601, Phone: 231 775 8368, Fax: 231 775 8584
email: lab@fibertec-usa.com

Industrial Hygiene Services, Inc.
1914 Holloway Drive, Holt, MI 48842, Phone: 517 699 0345, Fax: 517 699 0382
email: asbestos@fibertec-usa.com

Geoprobe
7794 Boardwalk Road, Brighton, MI 48116, Phone: 248 446 5700, Fax: 248 446 5701

Chain of Custody # 47871

Client Name: SME

Contact Person: DAN CASSIDY

Project Name/ Number: HOMRICH LANDFILL PE 46643

Purchase Order#

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	BICARB/CARB ALKALINITY	AMMONIA/COD	NITRATE/NITRITE	CHLORIDE & SULFATE	T I Nitrogen	TOTAL PHENOLS	TOTAL ORGANIC CARBON	* TOTAL METALS	TOTAL CYANIDE	PAHs + ARSENIC
1	2/15/05			SMW-1	W	7	Y	X	X	X	X	X	X	X	X	X	
2				SP301	W	8	Y	X	X	X	X	X	X	X	X	X	
3				SP302	W	7	Y	X	X	X	X	X	X	X	X	X	
4				SP303	W	7	Y	X	X	X	X	X	X	X	X	X	
5				SP201 0-2'	S	1	N										X
6				SP202 0-2'	S	1	N										X
7				SP203 0-2'	S	1	N										X
8				SP204 0-2'	S	1	N										X
9				SP205 0-2'	S	1	N										X
10				SP206 0-2'	S	1	N										X

Turnaround:
- 24 hour RUSH (surcharge applies)
- 48 hour RUSH (surcharge applies)
- 72 hour RUSH (surcharge applies)
- [X] Standard (5-7 bus. days)
- Other: Specify

Matrix Code:
- S Soil
- W Water
- A Air
- O Oil
- P Wipe
- X Other: Specify

Remarks: *TOTAL METALS INCLUDE: ANTIMONY, ARSENIC, BARIUM, BERYLLIUM, IRON, SODIUM, BORON, CADMIUM, CHROMIUM, COBALT, COPPER, LEAD, MANGANESE, NICKEL, SELENIUM, SILVER, THALLIUM, VANADIUM, ZINC, POTASSIUM, LITHIUM

Comments:

Relinquished By:	Date/ Time	Received By:
R. L. Scheppach	2/15/05 530p	SME COLD STORAGE
[illegible]	2/16/05 0806	[illegible]
[illegible]	2/16/05 0914	[illegible]

LAB USE ONLY:
fibertec project number:
Laboratory Tracking:
Temperature at Receipt: 0° 8/30 2 C 3 [illegible]

COC Revision October 2003

TERMS & CONDITIONS ON BACK

Fibertec environmental services

Analytical Laboratory
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email: asbestos@fibertec-usa.com

Geoprobe
7794 Boardwalk Road, Brighton, MI 48116, Phone: 248 446 5700, Fax: 248 446 5701

Chain of Custody # 47872

Client Name: SME

Contact Person: DAN CASSIDY

Project Name/ Number: HOMRICH LANDFILL PE46643

Purchase Order#

Turnaround: 24 hour RUSH (surcharge applies); 48 hour RUSH (surcharge applies); 72 hour RUSH (surcharge applies); X Standard (5-7 bus. days); Other: Specify

Matrix Code: S Soil; W Water; A Air; O Oil; P Wipe; X Other: Specify

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	PAHs	ARSENIC	Remarks:
11	2/15/05			SP207 0-2'	S	1	N	X	X	
12				SP208 0-2'	S	1	N	X	X	
13				SP209 0-2'	S	1	N	X	X	
14				SP210 0-2'	S	1	N	X	X	
15				SP211 0-2'	S	1	N	X	X	
16				SP212 0-2'	S	1	N	X	X	
17				SP213 0-2'	S	1	N	X	X	
18				SP214 0-2'	S	1	N	X	X	

Comments:

Relinquished By:	Date/ Time	Received By:
R. L. Schappel	2/15/05 530p	SME COLD STORAGE
[signature]	2/16/05 0809	[signature]
[signature]	2/16/05 0914	Received By Laboratory: [signature]

LAB USE ONLY:
Fibertec project number:
Laboratory Tracking:
Temperature at Receipt: 0° 81302 C5

COC Revision: October 2003

TERMS & CONDITIONS ON BACK

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Jefferson Smurfit

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OCT 4 2010
DEQ-WHMD JACKSON

September 30, 2010

Mr. Patrick Brennan
Environmental Engineer
Waste and Hazardous Materials Division
Michigan Department of Natural Resources and Environment
Jackson State Office Building
301 E. Louis Glick Hwy.
Jackson, Michigan 49201

RE: Revised Addendum to Closure Plan
Former Jefferson Smurfit Corporation Industrial Landfill
Monroe, Michigan
SME Project Number: Closure Project PE46643-03 /
SME Construction Observation Number: PE56602A

Dear Mr. Brennan:

Soil and Materials Engineers, Inc. (SME), on behalf of Homrich Incorporated (Homrich), has prepared the enclosed revised addenda to the Closure Plan Report for the former Jefferson Smurfit Industrial Waste Landfill and Landfill Parcel, now owned by Homrich Incorporated. The revised addenda is submitted in response to the letter prepared by Mr. Lawrence Bean of the Department of Natural Resources & Environment, Jackson District Supervisor, and dated July 23, 2010. As outlined in the DNRE letter of July 23, 2010, it is our understanding that the DNRE has concern regarding the disturbance of the certified cap. The objective of this revised submission is to revert to the original Erosion Layer protocols, previously approved by the DNRE (fka MDEQ). Following approval of the attached amendment, it is the intention of Homrich to proceed to closure and long-term maintenance and monitoring of the landfill. We trust that the revised program meets the approval of DNRE.

The following modifications to the Closure Plan are provided in this addendum:

1. The enclosed Closure Plan Revised Amendment No. 4 includes appropriate revisions to "Section 3, Design Considerations" and "Section 4, Construction Methodology" to address revisions to the proposed closure to use soil suitable for establishment of a vegetative cover over the infiltration layer as the primary and intended approach to closure of the landfill.

2. The enclosed Closure Plan Revised Amendment includes additional sub sections to "Section 3, Design Considerations" and "Section 4, Construction Methodology" to address future installation of a Load Bearing Surface Layer over the vegetative cover layer, if and when market conditions are supportive of such use modification. Note that the current Closure Plan is written to install a Bearing Surface Layer on the infiltration layer.

3. Homrich incorporated acknowledges that following approval, all work must be documented to be complete and in accordance with the approved plans, the Part 115 rules, and the Construction Quality Control/Quality Assurance Plan.

Please feel free to contact us if you have any questions concerning the above responses or enclosed documents.

Very truly yours,

SOIL AND MATERIALS ENGINEERS, INC.

Anthony B. Thomas, PE
Senior Project Engineer

James M. Harless, Ph.D., CHMM
Vice President

Enclosures: Closure Plan Revised Addendum No. 4 (2 copies)

Distribution: Mr. Roger Homrich, Homrich Incorporated
Mr. Larry Bean, DNRE
Ms. Jamie Dean, Monroe County Health Department (w/o enclosures)
Mr. Steve Sliver, DNRE (w/o enclosures)

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above ground storage tank
air quality
asbestos/lead-based paint
baseline environmental assessment
brownfield redevelopment
building/infrastructure restoration
caisson/piles
coatings
concrete
construction materials services
corrosion
dewatering
drilling
due care analysis
earth retention system
environmental compliance
environmental site assessment
facility asset management
failure analyses
forensic engineering
foundation engineering
geodynamic/vibration
geophysical survey
geosynthetic
greyfield redevelopment
ground modification
hydrogeologic evaluation
industrial hygiene
indoor air quality/mold
instrumentation
masonry/stone
metals
nondestructive testing
pavement evaluation/design
property condition assessment
regulatory compliance
remediation
risk assessment
roof system management
sealants/waterproofing
settlement analysis
slope stability
storm water management
structural steel/welding
underground storage tank

HOMRICH LANDFILL CLOSURE PLAN
MONROE PAPER COMPANY
MONROE, MICHIGAN

REVISED ADDENDUM 4

SME Project Numbers: PE46643-03 / PE56602A

September 30, 2010

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Soil and Materials Engineers, Inc.

HOMRICH LANDFILL CLOSURE PLAN
MONROE PAPER COMPANY
MONROE, MICHIGAN

REVISED ADDENDUM 4

September 30, 2010

1. INTRODUCTION

This Addendum to the ***Homrich Landfill Closure Plan*** (Haley & Aldrich of Michigan, Inc., November 2003), the Closure Plan, was prepared in response to revision of the proposed post closure use of the site as summarized below:

- In an MDNRE-approved Closure Plan addendum, dated December 13, 2005, the design for the erosion layer was modified to consist of crushed stone, or equivalent bearing surface placed on a geotextile fabric over the infiltration layer. The proposed bearing layer was intended to allow reuse of the site for seasonal storage site of recreational vehicles, boats, trailers, or other similar vehicles.

- Based on current economic market conditions, Homrich Incorporated is requesting to revert to the erosion layer design described in the original, MDNRE-approved Closure Plan. That erosion layer consisted of soil with vegetation.

- Additionally, Homrich also requests that they be allowed at a later date, and only if market conditions warrant modification of site use, to place a geotextile separation fabric and then the load bearing surface layer consisting of crushed aggregate (limestone, natural stone, concrete, iron/blast furnace slag, or equivalent) directly over the top of the vegetative growth erosion layer of the closed landfill. If site modifications are warranted, the geotextile separation fabric and load bearing surface layer will be placed directly over the top of the vegetative growth erosion layer within the facility and solid waste boundary limits of the closed landfill. Modification of the site use and installation of the geotextile separation fabric and load bearing surface layer consisting of crushed aggregate would be undertaken only after submission to the DNRE of a Notification of Intent to place the geotextile separation fabric and load bearing surface layer. There will be no further filling, grading, excavating, drilling or mining of the closed landfill unless written authorization therefore is obtained from the DNRE.

2. WORK PLAN AMENDMENTS

The proposed Closure Plan amendments are presented in this section. Closure Plan changes pertinent to this Amendment are referenced by Closure Plan section.

3.3.3 Erosion Layer

3.3.3.1 Vegetative Erosion Layer

The erosion layer will provide support for vegetation and will be placed in a continuous layer with a minimum six-inch thickness above the infiltration layer. Soil for this layer will be selected based on the material's ability to promote and support rapid establishment and preservation of vegetative growth and resist erosion. Installed vegetative growth layer (soil) will be tracked parallel to contour lines to reduce erosion and promote seed retention.

3.3.3.2 Geotextile Separation Fabric and Load Bearing Surface Layer (Future Modification of Use)

As a future modified approach to that listed in section 3.3.3.1 above, should reuse, or partial re-use of the site become economically preferable in future market conditions, a geotextile separation fabric and a load bearing surface layer consisting of crushed aggregate (limestone, natural aggregate, concrete, iron/blast furnace slag, or equivalent) will be placed directly over the top of the vegetative erosion layer of the closed landfill. The fabric will separate the vegetated erosion layer from the overlying load bearing surface layer to prevent the long term intrusion of the load bearing surface material.

3.3.4 Vegetation

3.3.4.1 Vegetative Layer

After the vegetative erosion layer has been placed and final grading has been completed, it will be seeded with a mix of annual and perennial grasses selected for quick cover, long term stability, and compatibility with the local environment. Fertilizer will be applied as needed to maintain the vegetative cover.

4.1.6 Erosion Layer Construction

4.1.6.1 Vegetated Erosion Layer

Upon completion of placement of the full thickness of the infiltration layer in an area of the landfill, the vegetated erosion layer will be placed. This layer will be constructed of soils capable of supporting vegetation and will be placed in a single lift of a minimum of six inches. Steeper slopes will be tracked perpendicular to the slope to minimize erosion and facilitate seed retention and germination of the vegetation grasses. Once placement of the erosion layer is complete, seeding and mulching of the erosion layer will be implemented to establish the vegetative cover.

4.1.6.2 Geotextile Separation Fabric and Load Bearing Surface

If conversion to a geotextile separation fabric and load bearing surface layer consisting of crushed aggregate (limestone, natural stone, concrete, iron/blast furnace slag, or equivalent) is selected (outlined in Section 3.3.3.2), the existing vegetated erosion layer will not be removed. The geotextile separation fabric and load bearing surface layer will be placed directly over the top of the vegetated erosion layer.

4.1.7 Seeding/Mulching

4.1.7.1 Vegetated Erosion Layer

Seeding will consist of applying seed for permanent cover in a uniform manner and at a rate of approximately 170 lbs. per acre. Seed will be applied using one or more of several methods including broadcast seeding, drill seeding, or hydroseeding. Dormant seeding may also be done when soil conditions allow if the work is performed between November 1 and February 28. If this type of seeding is performed, seeding rates will be increased by 50% and will be applied using a cyclone seeder, drill, cultipacker seeder, or hydroseeder (slurry may include seed and fertilizer) on a firm, moist seedbed.

STATE OF MICHIGAN

DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENT

LANSING

JENNIFER M. GRANHOLM
GOVERNOR

REBECCA A. HUMPHRIES
DIRECTOR

October 6, 2010

Mr. Roger Homrich
200 Matlin Road
Carleton, Michigan 48117

Dear Mr. Homrich:

SUBJECT: Addendum to Due Care Evaluation Summary Report and Closure Plan
Homrich Landfill

This letter is in response to a letter dated September 30, 2010, written in behalf of Homrich, Inc. (Homrich) by Mr. Anthony B. Thomas and Mr. James M. Harless, Soil and Materials Engineers, Inc. (SME), regarding the Homrich Landfill, also known as the former Jefferson Smurfit Corporation Industrial Landfill. Attached to the letter was the Revised Addendum 4 to the Homrich Landfill Closure Plan, dated June 18, 2010 (Addendum). The letter requests approval of the Addendum that would allow the final cover to have a vegetative layer instead of an aggregate surface, and would allow the owner the option to convert the cover to an aggregate surface in the future.

Staff of the Department of Natural Resources and Environment (DNRE), Environmental Resource Management Division (ERMD) have reviewed the proposal for compliance with Part 115, Solid Waste Management, and Part 201, Environmental Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA).

The request to approve the Addendum is approved, subject to the following clarification:

Prior to converting to an aggregate cover before the 50-year closure period, the owner must submit a proposal including detailed plans and requesting approval to disturb the final cover, consistent with Section 11518 and with the restrictive covenant dated May 2, 2007, Document No. 2009R01560. Upon receiving the director's approval of the proposal, the owner may modify the final cover.

Section 11518.(1) requires a landfill to have a restrictive covenant in place that prohibits the owner from engaging in filling, grading, excavating, drilling, or mining on the property during the first 50 years following completion of the landfill without authorization of the department. Please note that the date of completion of the landfill is the date that the department approves the closure certification report.

If you have any questions, please feel free to contact me by telephone or e-mail as noted below, or you may contact Mr. Patrick Brennan by writing, at DNRE-ERMD, Jackson State Office Building, 301 East Louis Glick Highway, Jackson, Michigan 49201; by telephone at at 517-780-7935; or at brennanp@michigan.gov.

Sincerely,

Patrick J Brennan, for

Lawrence Bean
Jackson District Supervisor
Environmental Resource Management Division
517-780-7920
beanl@michigan.gov

cc: Ms. Jamie Dean, Monroe County Health Department
Mr. James M. Harless, Soil and Materials Engineers, Inc.
Mr. Anthony B. Thomas, Soil and Materials Engineers, Inc.
Mr. Steve Sliver, DNRE
Mr. Patrick Brennan, DNRE

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Michael J. Thelen, PE
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December 3, 2010

Mr. Lawrence Bean
Jackson District Supervisor
Waste and Hazardous Materials Division
Michigan Department of Natural Resources and Environment
Jackson District Office
301 E. Louis Glick Hwy.
Jackson, Michigan 49201

RE: Homrich Landfill Closure Certification Report
Former Jefferson Smurfit Corporation Industrial Landfill
Monroe, Michigan
SME Project Number: Closure Project PE46643-03 /
SME Construction Observation Number: PE56602A

Dear Mr. Brennan:

Soil and Materials Engineers, Inc. (SME), on behalf of Homrich Incorporated (Homrich), has prepared the appended Closure Certification Report for the former Jefferson Smurfit Industrial Waste Landfill and Landfill Parcel, now owned by Homrich Incorporated. The objective of this submission is to present the results of the testing and observation completed in pursuit of obtaining closure certification and to begin the 30-year post closure period. The installation of the closure system was performed in general accordance with the Homrich Landfill Closure Plan prepared by Soil and Materials Engineers, Inc. and Haley & Aldrich of Michigan, and dated October 26, 2007, and Addendum 4, prepared by Soil and Materials Engineers, Inc., dated September 30, 2010, and approved by the DNRE in a response letter dated October 6, 2010.

Please feel free to contact us if you have any questions concerning the appended Closure Certification Report.

Very truly yours,

SOIL AND MATERIALS ENGINEERS, INC.

Anthony B. Thomas, PE
Senior Project Engineer

James M. Harless, Ph.D., CHMM
Vice President

Enclosures: Closure Certification Report (2 copies)

Distribution: Mr. Roger Homrich – Homrich Incorporated (1 copy of report)
Ms. Jamie Dean, Monroe County Health Department (w/o enclosures)
Mr. Steve Sliver, DNRE (w/o enclosures)

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1.0 INTRODUCTION

This Landfill Closure Certification Report (CCR) was prepared for the Homrich Landfill (landfill), formerly the Jefferson Smurfit Corporation Industrial Landfill, Facility ID 58-000017, located at the northeast corner of the intersection of East Elm Street Avenue and Detroit Street in Monroe, Michigan. A Site Location Map is presented in Figure 1, included in Appendix A. This CCR was prepared on behalf of Homrich Incorporated by Mr. Anthony Thomas, PE (Project Engineer) and Dr. James Harless, CHMM of Soil and Materials Engineers, Inc. (SME), of Plymouth, Michigan. This report was prepared to document the testing and monitoring activities completed during the installation of the closure system for the landfill. The testing and monitoring were performed in general accordance with the Homrich Landfill Closure Plan, dated October 26, 2007 and the requirements of applicable State and Federal regulations, agreements and permits.

The following references were reviewed and used to assist with preparation of this CCR:

- Michigan Department of Environmental Quality (MDEQ), Waste Management Division (WMD), Solid Waste Management Act Administrative Rules, Part 115, Natural Resources and Environmental Protection Act, 1994 PA 451, April 12, 1999.
- Soil and Materials Engineers, Inc. and Haley & Aldrich of Michigan, Homrich Landfill Closure Plan, Monroe Paper Company, Final - MDEQ Approved, October 2007.
- Soil and Materials Engineers, Inc., Addendum 4 to Closure Plan, Homrich Landfill, September 30, 2010 (Revised).
- Letter from the Department of Natural Resource & Environment (DNRE) to Roger Homrich, RE: Addendum to Due Care Evaluation Summary Report and Closure Plan, Homrich Landfill, October 6, 2010.

1.1 Purpose and Scope Overview

The purpose of this CCR is to present a narrative summary (text report) and appended data presenting observations and test results completed for the construction for the final cover of the landfill in accordance with the approved Closure Plan. Upon acceptance of the closure certification report by the DNRE, the 30 year post closure period shall begin.

As presented in the Final Closure Plan, the components of the final cover system include an infiltration layer and a vegetative growth erosion layer which shall be installed in accordance with R299.4303 (6). The infiltration layer consists of a minimum of two feet of compacted soil that is in accordance with the requirements of R299.4913. The erosion layer consists of a

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minimum of 6-inches of soil capable of supporting vegetation. Physical requirements of the landfill closure include side slopes that do not exceed 25% (one in four, vertical to horizontal), and the top slope areas are a minimum of 2% to minimize infiltration.

This CCR describes the pre-construction operations which were performed prior to installation of the closure system; testing conducted for borrow source materials verification; observation of the infiltration layer system installation (consisting of the clay cap and keyway elements); and installation of the vegetative growth layer.

Narrative descriptions regarding installation of the following CCR components are presented herewith this text, and are further described by supporting field and laboratory test data, which are appended to this document:

- description of pre-construction site work;
- description of the borrow source evaluation and testing;
- field testing during clay cap and keyway installation;
- description of field observations during construction;
- results of laboratory testing of soil samples; and
- Final survey and topographic map of clay cap.

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2.0 PRE-CONSTRUCTION SITE WORK

2.1 Site Survey and Construction Layout

The waste materials were regraded and relocated in 2002 and 2003. On December 20, 2007, a topographic survey of the regraded waste surface was performed by a licensed surveyor. Prior to construction in 2008, a surveyor provided construction staking to delineate the perimeter limits (key alignment) of the landfill and to provide final surface grades for the clay cap installation.

The final waste elevation and limits of the proposed key are shown on the attached Sheet 1, Final Clay Surface, Elm and Detroit Avenue, prepared by G.B. Warnke & Associates, Inc., Professional Land Surveyors, dated July 22, 2009, included in Appendix A. Sheet 1 also documents the final top of clay cap elevation and revised key limits.

2.2 Installation of Temporary Soil Erosion Control Measures

Prior to the start of construction in September 2008, temporary soil erosion control measures were installed to minimize transport and migration of soils off site. These measures included installation of aggregate check dams within diversion swales along the perimeter of the landfill, installation of silt fencing and installation of staked hay bales along the southeast section of the landfill, which is adjacent to the wetland. The temporary soil erosion control measures were maintained during the construction process and will remain in-place until the permanent soil erosion features and vegetation is established on side slopes and other areas where erosion resulting in sediment migration is a concern.

Additional stormwater management and erosion controls were instituted during the construction activities in accordance with SWPPP, as necessary to limit impact of soil movement to down gradient wetlands and waterways.

2.3 Subgrade Preparation

At the beginning of construction in September of 2008, the landfill surface was cleared and grubbed of surface vegetation which had developed following the final waste relocation and grading operations conducted in 2002 and 2003. The 2003 waste relocation program included reshaping of the entire landfill surface to establish lines and grades consistent with the proposed final cover system. The elevations of the final waste ranged from 580 feet above mean sea level (msl) to 585 feet above msl. The top slope contours were established at approximately 2 percent, and localized side slope contours were grades such as not to exceed 4H:1V.

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Clearing and grubbing in 2008 consisted of removing vegetation such as grass and other low lying plant species as required to facilitate construction of the final cover. Larger vegetation, such as trees were not present in 2008. Additional preparation included removal of rocks and other deleterious or obstructive materials prior to placement of the infiltration layer.

The top of waste elevation is shown on Sheet 1, Final Clay Surface Elm and Detroit Avenue, prepared by G.B. Warnke & Associates, Inc., December 20, 2007. The Existing Conditions (After 2003 Waste Relocation) are shown on Sheet 3, dated June 3, 2004, as prepared by Soil and Materials Engineers, Inc., included in Appendix A.

2.4 Borrow Source Evaluation and Testing

Borrow source materials were procured from two sources during construction. For clay materials utilized during the 2008 site work, materials were obtained from the Homrich Matlin Road landfill, located in Carleton, Michigan. For work conducted in 2009, the clay materials were obtained from Sylvania Minerals located in Flat Rock, Michigan. A description of the borrow source material evaluation for each source is presented below.

2.4.1 – 2008 Matlin Road Borrow Source

Prior to the start of construction in September of 2008, the borrow source soils were tested initially to establish if the soil meets the requirements for the infiltration layer. The borrow source materials consisted of clay soils excavated from a landfill expansion program being constructed by Homrich, Incorporated at the Homrich Matlin Road Facility located in Carleton, Michigan. Homrich obtained three samples of available materials for initial verification testing. The first three samples represent the initial 15,000 cubic yards of material stockpiled and available for importing to the subject landfill site. The material excavated from the Matlin Road facility represents the imported clay placed on the landfill starting in September of 2008 through November of 2008. The material represented by the Matlin Road testing was placed for the first three lifts of the infiltration layer and for the clay keyway construction around the perimeter of the landfill. The total estimated volume of tested and certified material, as imported from the Matlin Road borrow source is approximately 17, 800 cubic yards.

The samples were submitted by Homrich to a subconsultant laboratory for verification testing as follows. Results of the laboratory testing are included in Appendix B.

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- The source soils were tested to determine that they meet the Unified Soil Classification System (USCS) designation of SC, CH, CL, CL/ML, or ML using the ASTM standard D2487-93. Results of the borrow source verification testing indicate that the material, has a USCS classification of CL.
- The source soils were tested to generate moisture-density curves using ASTM D 1557-91 modified proctor test to determine the optimum moisture content and associated dry density of the material. Three (3) samples were then tested using ASTM D-5084 to determine compliance of the source material with respect to meeting the hydraulic conductivity requirement of 1.0×10^{-7} cm/sec. Results of the borrow source testing indicate samples remolded to between 94.16 and 95.65% of the modified proctor density and ranging from -1.0% to +1.7% of optimum moisture content had flexible wall permeability (ASTM D-5084) ranging from 4.69×10^{-8} cm/sec to 4.75×10^{-8} cm/sec. The three samples obtained and tested are representative of the first 15,000 cubic yards of material stockpiled for installation.

Based on the results of the borrow source testing, a minimum percent compaction of 95% of the modified proctor value was targeted for observation of field compaction and testing procedures to obtain the target material hydraulic conductivity of 1.0×10^{-7} cm/sec. Results of field verification and testing are presented in Section 3.0.

Results of the borrow source testing are included in Appendix B. Testing was conducted by CTI and Associates, on behalf of the Homrich.

2.4.2 – 2009 Sylvania Minerals Borrow Source

An alternate borrow source was identified to provide the soil materials to complete the clay cap construction in 2009. The 2009 borrow source was identified as Sylvania Minerals located in Flat Rock, Michigan. The total estimated volume of tested and certified materials obtained from the Sylvania Minerals borrow source is approximately 12,900 cubic yards.

Imported borrow soil samples were submitted to a subconsultant laboratory for verification testing which included the following:

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- The source soil was tested to determine that they meet the Unified Soil Classification System (USCS) designation of SC, CH, CL, CL/ML, or ML using the ASTM standard D2487-93. Results of the borrow source verification testing indicate that the soil material has a USCS classification of CL.
- The source soil was tested to generate moisture-density curve using ASTM D 1557-91 modified proctor test to determine the optimum moisture content of the material. The sample was also tested using ASTM D-5084 to determine if the source material meets the hydraulic conductivity requirement of 1.0×10^{-7} cm/sec. Results of the borrow source testing indicate the remolded sample at approximately 94% of the modified proctor density and +0.4% of optimum moisture content had flexible wall permeability (ASTM D-5084) of 3.45×10^{-8} cm/sec. The testing conducted for the 2009 borrow source represents the first 5,000 cubic yards of material stockpiled for installation.

2.4.3 – Construction Phase Borrow Source Testing

During construction, samples of the imported soils from the previously tested borrow sources (Matlin Road and Sylvania Minerals) were obtained with testing conducted to confirm compliance with material requirements.

Prior to the start of construction in 2008, materials were stockpiled at the Matlin Road facility. These materials were initially tested as outlined in Section 2.4.1, with permeability testing representing the initial 15,000 cubic yards of stockpile material performed. During installation of infiltration layer materials from October 2008 through July 2009 samples of imported materials were obtained at approximate 5,000 cubic yard intervals to confirm material compliance with project specifications.

For the period from October 2008 through November 2008, representing materials imported from the Matlin Road stockpile (17,800 cubic yards of installed material), five (5) bulk material samples were obtained from the on-site stockpile and submitted for laboratory for testing. Tests conducted on these samples included; Grain Size Distribution, Atterberg Limits and Moisture Density relationship evaluation in accordance with ASTM D1557 "Modified" method. Two (2) bulk samples were obtained and submitted for permeability testing. Results of Atterberg limits indicated the materials meet a USCS classification of CL, and the remolded permeability achieved the 1.0×10^{-7} cm/sec requirement. Results of the tests are included in Appendix B.

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For the period from June 2009 through July 2009, representing materials imported from Sylvania Minerals stockpile, approximately 12,900 cubic yards of material were installed for the clay cap. Initial borrow source testing was conducted as outlined in Section 2.4.2, with material testing representing the first 5,000 cubic yards of material stockpiled at this source for installation. During the course of construction, three (3) bulk material samples were obtained from the on-site stockpile and submitted for laboratory testing. Tests conducted on these samples included: Atterberg Limits and Moisture Density relationship evaluation in accordance with ASTM D 1557 "Modified" method. One (1) bulk sample was obtained and submitted for permeability testing. Results of Atterberg limits indicated the material meet a USCS classification of CL, and the remolded permeability achieved the 1.0×10^{-7} cm/sec requirement. Results of the tests are included in Appendix B.

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3.0 CONSTRUCTION OBSERVATION

3.1 Construction Quality Assurance Plan

A Construction Quality Assurance (CQA) program was implemented prior to start of the capping of the landfill. The CQA program will document that final cover construction is in compliance with the design criteria and specifications for the approved closure plan. A registered professional engineer (Project Engineer) functioned as the CQA officer and was responsible to document and certifying that the work was performed in general accordance with approved design plans and specifications.

The CQA plan included the steps as necessary to document the quality of materials and the condition and manner of their installation and consisted of the following:

- identification of key project personnel responsible for the development and implementation of the CQA plan;
- a complete description of the inspection and sampling activities that will be implemented during the construction of the final cover;
- a description of the protocols that will be used to address appropriate sample sizes and sample locations, sampling frequency and data evaluation procedures, sample results acceptance and rejection protocols, criteria for all construction materials and plans for implementing corrective action for non compliance with the CQA plan requirements;
- frequency for oversight, inspections, testing, and measurements to ensure structural stability and integrity of the final cover and to ensure that construction specifications have been followed; and
- document procedures that will result in a final certification closure report.

The developed CQA plan is a two component document that includes requirements for testing during test pad evaluation and for production earthwork operations. The second component is the requirements for survey control to support construction and for final post closure survey to document as-constructed elevations and limits. A copy of the developed CQA document for construction is included in Appendix E.

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3.2 Final Cover System Inspection and Testing

Construction of the final clay cap was performed under the part-time observation of qualified personnel to document that installation of the final cover system for this landfill is consistent with the intent of the closure plan and is in compliance with and the project plans, specifications, and applicable sections of Part 115, specifically R 299.4304, 4913, 4916, and 4917. Measures were taken to verify that construction was performed in accordance with approved construction plans and specifications. These measures included, but not be limited to: 1) daily field oversight, 2) field measurements to determine lift locations and lateral positions of certain stages of the construction, and 3) soil testing to verify physical properties of the materials being used in construction of the final cover. Part-time observation and/or testing were provided during the following major component installations:

- Test pad for Infiltration Layer installation;
- Test pad for Keyway installation;
- Daily oversight during final clay cap installation;
- Daily oversight during clay keyway installation; and
- Field thickness measurements of final vegetative growth erosion layer installation.

3.2.1 Final Clay Cap - Test Pad Evaluation

Following grading and preparation of the landfill material, an area was selected for construction of a test pad. Test pad construction was initiated to document installation and compaction protocols to be implemented during production earthwork activities. The material preparation requirements; loose and compacted lift thickness; type of equipment used to spread and compact the material; and the number of passes of the construction equipment necessary to obtain the required compaction were evaluated and documented during test pad construction. A thin walled Shelby tube was obtained from the clay placed within the test pad footprint to document that the installed material achieved the permeability of 1.0×10^{-7} cm/sec requirement. The results of laboratory testing of the test pad Shelby tube were 3.7×10^{-8} cm/sec. The approximate Shelby tube location is shown on Figure No. 6, in Appendix C.

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Based on the observations and test results of test pad construction, clay material installation was specified to be placed and compacted to a maximum thickness of 6 inches and compacted to a minimum of 95% of maximum density as determined by ASTM D 1557 "Modified" method. A description of the field observations, including test results and test locations are included in the Field Observation Reports and Report of Density-In-Place, included in Appendix D.

3.2.2 Keyway Trench - Test Pad Evaluation

Utilizing elevation grade stakes and alignment off-set stakes, provided by the surveyor prior to construction, a keyway trench test pad was constructed at the northern end of the landfill. The alignment of the keyway trench was from west to east and spanned a distance of approximately 21 lineal feet. The keyway was excavated with a hydraulic backhoe with the depth sufficient to key into the native silty clay or clayey silt to a minimum depth of two feet. The initial keyway was excavated to an approximate width of two (2) feet, which is the minimum width as outlined in the closure plan. The clay material was stockpiled along the outside of the trench and placed utilizing a backhoe bucket. The clay clod size was typically reduced by tracked equipment prior to installation so as to provide smaller material size for easier installation, manipulation and compaction within the trench. Initial compaction of the trench was performed utilizing a sheep-foot roller attached the boom arm of an excavator. The first length of trench (21 lineal feet) was constructed utilizing this compaction procedure. Testing for material density was performed for each six inch lift (compacted) of material placed. A Shelby Tube (ST-2) was obtained to verify that placement of clay in 6 inch compacted lifts, and compacting a density of 95% percent of the maximum density, achieved the permeability of 1.0×10^{-7} cm/sec. Based on the results of the laboratory testing of ST-2, a laboratory permeability of 5.3×10^{-8} cm/sec was recorded. The approximate Shelby tube location is shown on Figure No. 6, in Appendix C.

Following this portion of clay keyway installation, the installation procedure was modified slightly to utilize a narrow body, self-propelled rubber tired sheep-foot roller. The modification of the compaction process was selected due to the time necessary to obtain the required density (utilizing the backhoe mounted sheep-foot implement) and the need to change out implements during the construction process. The use of the rubber tired equipment required that the keyway trench be widened to approximately five (5) feet to accommodate the vehicle width and provide additional space to allow for side to movement of the equipment to achieve homogenous compaction across the width of the

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trench. Following modification of the compaction procedure, a new segment of keyway trench test pad was installed. The same method for excavation (expanded to five feet in width to accommodate the compaction equipment), and installation of the clay material were followed as presented previously. Based on the revised compaction process, 95% compaction was achieved with lower effort and work production was improved.

Based on the results of the keyway test pad, production operations for keyway installation included excavation of the keyway to a minimum width of five (5) feet and to the necessary depth to key into the native silty clay or clayey silt by a minimum of two feet. Installation and compaction of the material was performed at six inch lifts compacted to a minimum of 95% of the maximum density as determined by the ASTM D 1557 "Modified" procedure.

A description of the field observations, number of passes of construction equipment and the results of the field density testing performed, including test results and test locations are included in the Field Observation Reports and Report of Density-In-Place, included in Appendix D.

3.2.3 Final Clay Cap Installation

Placement of the infiltration layer was initiated following development of compaction and required density requirements as outlined in Section 3.2.1 and 3.2.2. Soils used in construction of the infiltration layer were imported from either the Matlin Road stockpile during the 2008 work or from the Sylvania Minerals stockpile in 2009. Materials were typically trucked on site and stockpiled prior to manipulation with tracked equipment or sheep-foot roller.

Infiltration layer construction was completed with placement of appropriate soils in lifts that resulted in six-inch thickness after compaction. Each lift was thoroughly compacted to the approved density utilizing a sheep-foot roller. Density testing was conducted for each placement area at rate of 1 test / acre / lift or a minimum of 3-tests per day or lift. The density of the in-place materials were compared to bulk sample density characteristics as determined by laboratory testing. Density testing was performed to ensure that the compacted materials achieved a minimum density of 95% of the material maximum density as determined by the ASTM D 1557 "Modified" method. The requirement of 95% of maximum density was utilized to assure that materials would achieve an in-place permeability of 1.0×10^{-7} cm/sec.

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Prior to installation of a subsequent lift of clay, the previous (underlying) lifts were prepared by scarifying the surface with tracked equipment or by using a sheep-foot roller. Moisture conditioning of layers were performed as conditions warranted.

The in-place density test locations performed during the clay cap installation are presented in Figure Nos. 1 through 4, which represent the four lifts of clay placement, included in Appendix C. Also shown on these Figures are the approximate area (limits) of clay placement and also include the date(s) in which in-place tests were conducted.

Installation of the clay cap and the keyway were typically performed as simultaneous operations. To facilitate installation of the keyway, an area measuring approximately 20 feet in width, and parallel with the keyway was not constructed with the clay material for the cap. These areas were generally constructed following completion of the keyway installation to the bottom of clay cap elevation (See Section 3.2.4 below).

For the areas of described setback, the edge of the lifts of the main clay cap were benched back and scarified such that each layer of clay placed within the setback were then butted up to the equivalent layer of the main cap system with compaction performed across the interface to achieve a cohesive layer. The placement of the subsequent layer was again benched back such that a continuous vertical interface was eliminated. Density testing was performed to ensure that the compacted materials achieved a minimum density of 95% of the material maximum density as determined by the ASTM D 1557 "Modified" method. Test locations and dates of placement along the setback are also presented in Figure Nos. 1 through 4, in Appendix C. Following placement of the clay cap system, Shelby tubes were obtained to evaluate the in-place permeability. Shelby tubes were obtained to represent approximately each 10,000 cubic yards of clay material, or a minimum of 3 tests per landfill unit. Shelby tubes (ST-1, and ST-4 through ST-8) were obtained within the clay cap footprint with Shelby tubes ST-1, ST-4, ST-5 and ST-6, representative of clay cap placement from the Matlin Road source in 2008. Shelby tubes ST-7 and ST-8 are representative of clay placed for the 2009 materials obtained from the Sylvania Minerals source. Results of the laboratory test results indicate that the permeability ranged from 3.7×10^{-8} cm/sec to 2.5×10^{-7} cm/sec. Laboratory test results for the extracted Shelby tube tests are included in Appendix A. Shelby tube test locations are shown in an approximate manner on Figure No. 6, included in Appendix C.

Observations and test results obtained during the placement of the clay cap system are included in the Field Observation Reports and Report of Density In-Place Tests, included in Appendix D.

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Following completion of the clay cap installation, G.B. Warnke performed a survey of the surface elevations. The information obtained from this survey is shown on Sheet 1, Final Clay Surface Elm and Detroit Avenue, dated July 7, 2009. This sheet shows final contours for the clay cap and also shows calculated clay cap thickness values at point locations across the cap. Based on review of the provided data, Warnke survey confirms that the clay cap thickness meets or exceeds the minimum thickness requirement of 2 feet.

3.2.4 Keyway Installation and Testing

The edge of the clay cap was keyed into the underlying native soil layer along the perimeter of the landfill. A keyway trench was excavated to a depth of two feet into the underlying native soil or to bedrock, whichever was achieved first. The depth of excavation of the clay keyway trench was based on field observations as noted during excavation of each length of the trench. The edge trench was typically excavated to a width of five (5) feet as was necessary to accommodate the construction equipment. As such, the five foot width was in excess of the required three feet minimum width in areas where clayey silt or less than two feet of native silty clay were encountered. During construction, the trench was shored and dewatered as needed to facilitate construction.

Testing of the keyway clay material typically included performance of in-place density testing to confirm that the materials achieved a minimum of 95% of the maximum density. Density testing was typically performed for each six-inch lift of placement and typically one test per each 100 lineal feet, or less, of keyway construction. Keyway construction was typically limited to lengths of trench that could be excavated and returned to the bottom of the clay cap elevation. The approximate limits of keyway installation and the dates of installation are shown in Figure No. 5, included in Appendix C. Observations and test results obtained during the placement of the keyway system are included in the Field Observation Reports and Report of Density In-Place Tests, included in Appendix D. The calculated volume of compacted clay placed for keyway installation is approximately 2,500 cubic yards. The source of clay for the keyway construction is the Matlin Road borrow source.

A Shelby tube (ST-3) was obtained from the north portion of the keyway to verify that keyway installation techniques achieve an in-place permeability of 1.0×10^{-7} cm/sec. The laboratory permeability of ST-3 was 7.9×10^{-8} cm/sec. The Shelby tube test locations are shown in an approximate manner on Figure No. 6, included in Appendix C.

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Shelby tubes ST-2 and ST-3 represent the approximate 2,500 cubic yards of in-place clay materials placed for the keyway.

3.3 Vegetative Growth Layer Installation and Testing

Following installation and testing performed for the clay cap infiltration system; the surface of the clay cap was covered with a protective layer consisting of a six (6) inch thick protective vegetative growth layer. The modification of the final landfill cover system to include the vegetative growth layer was approved by the DNRE and conveyed to Roger Homrich, RE: Addendum to Due Care Evaluation Summary Report and Closure Plan, Homrich Landfill, October 6, 2010. Thickness verification tests were performed at random locations across the landfill cap. Based on these thickness checks, the minimum thickness of the vegetative growth layer was confirmed as six inches with a maximum thickness of 7 inches measured. The surface of the growth layer was tilled prior to installation of seed and fertilization, which are part of the permanent stormwater management facilities, see Section 3.4 below.

The approximate test locations and the measured thickness of the vegetative growth layer are shown on Figure No. 7, included in Appendix C. The vegetative growth layer installation was extended beyond to landfill boundary and included the exterior swale alignment. Observations and test results for the vegetative growth layer are included in Appendix D, in Field Observation Reports.

3.4 Permanent Stormwater Management Facilities

Around the perimeter of the landfill, shallow swales were constructed to collect sheet flow from the surface of the landfill. The swales then convey water to the east side of the property (northeast and southeast corners) and flow into the adjacent wetlands. Swales were typically constructed with longitudinal grades of less than two (2) percent. The alignment and slopes of the swales were generally constructed to limit high velocity run-off and such that swales have a flat enough slopes such that future mowing and landscape maintenance could be performed.

As noted previously, the six inch vegetative growth layer was extended to cover the swale alignments and also to restore areas of earth disturbed during construction. Following preparation of the vegetative growth layer (tilling), a blend of perennial and annual grass seed were distributed across the prepared vegetative cover areas in a mix of mulch. The application of seed and mulch was performed using a pneumatic distribution system. An application of fertilizer was applied to promote seed germination and growth. Because of the gradual slopes

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constructed in the swales, diversion or rock check dams were not deemed required to slow the rate of surface water flow.

The limits and grades of the constructed swales are shown on Sheet 1, Final Clay Surface Elm and Detroit Avenue, prepared by G.B. Warnke & Associates, Inc., December 20, 2007, included in Appendix A.

3.4.1 Landfill Post-Closure Maintenance and Monitoring

After the landfill final closure is complete, and the thirty (30) year post-closure maintenance and monitoring period is convened, routine maintenance and inspections shall begin. The post closure monitoring activities shall be performed in accordance with the approved closure plan.

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4.0 FINAL DOCUMENTATION AND REPORTING

The previous narrative sections of this construction certification report present a summary of the construction testing and observations as performed during installation of the final cover system for the former Jefferson Smurfit Industrial Waste Landfill and Landfill Parcel, now owned by Homrich Incorporated. The construction testing and observation were observed in the field on a part-time basis by a qualified construction representative with oversight and guidance provided by the Project Engineer of record. The overall certification of this closure system includes both the narrative text, laboratory and field test results, field observation reports, CQA documents, as well as additional supporting documentation, of which some were prepared and submitted by other agencies involved with the closure process, and include at a minimum the following:

- Borrow source information and documentation – This will include the borrow location, description of source, and laboratory testing results documenting that the material meets or exceeds the requirements for the specific application in the rule. This includes USCS designations based on ASTM materials testing, moisture-density and relationships based on ASTM testing. Additional documentation includes field observations of materials as they arrived on site including observations of roots, rocks, debris, or off-specification soils and the corresponding volumes.
- Field documentation - This consisted of the type and weight of compaction equipment, methods of surface preparation, methods of adjusting soil moisture if necessary, methods used to control desiccation cracking, and thickness of each lift after compaction. Additional documentation included data related to in-place testing for each lift of soil after compaction based on the scheduled testing frequency. This includes soil density and moisture content by nuclear methods, ASTM D2922-96.
- Results of laboratory testing of soil samples.
- Final survey and topographic map.

Based on the results of the testing conducted for borrow source evaluation, test results obtained during the course of installation of the clay cap (field and laboratory) and vegetative growth system, and the final clay cap thicknesses as recorded by the Surveyor, it is our professional opinion that the installation and construction of the final closure system at the referenced facility were completed in general compliance with the approved closure plan.

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Mr. Stan Idziak
MDNRE – Environmental Resource Management Div.
Jackson State Office Building
301 E. Louis Glick Highway
Jackson, Michigan 49201

January 25, 2011
NTH Project No. 62-090118-Q410

RE: Jefferson Smurfit Monroe Landfill
Quarterly Groundwater Monitoring Results
Fourth Quarter 2010

Dear Mr. Idziak:

On behalf of Homrich, Inc., (Homrich) NTH Consultants, Ltd. (NTH), has prepared the enclosed Hydrogeologic Monitoring Report for the Fourth Quarter 2010 at the former Jefferson Smurfit Corporation (JSC) Industrial Waste Landfill, located in Monroe, Michigan. This report was prepared to fulfill the requirements of Part 115 of P.A. 451 and the site's *Hydrogeologic Monitoring Plan (HMP)*, dated October 14, 1996.

This report also serves as notification to the MDNRE, Environmental Resource Management Division that a notice has been placed in the facility Operating Record, pursuant to R299.4318(9)(a) of the Part 115 Rules. An apparent statistically significant increase (SSI) was confirmed for dissolved manganese at monitoring well A03D. Details regarding SSIs are presented in Section 3.1 of this report.

In accordance with R299.4318(9), Homrich has 30 days from the date of determination to demonstrate that the cause of the statistical exceedance is a source other than the landfill. That demonstration is included within the report.

If you have any questions regarding the information presented in this report, please contact either of us at (248) 553-6300.

Sincerely,
NTH Consultants, Ltd.

Mary L. Siegan, P.E.
Project Engineer

Alan C. Erickson, P.E.
Senior Project Engineer

MLS/ACE/tt

enclosure

cc: Roger Homrich – Homrich, Inc.
Rick Burns – NTH

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Hydrogeologic Monitoring Report – Fourth Quarter 2010
Jefferson Smurfit Monroe Landfill
NTH Project No. 62-090118-Q410

1.0 INTRODUCTION

On behalf of Homrich, Inc., NTH Consultants, Ltd. (NTH) has prepared this Hydrogeologic Monitoring Report for the Fourth Quarter 2010 at the former Jefferson Smurfit Corporation (JSC) Industrial Waste Landfill, located in Monroe, Michigan. This report was prepared to fulfill the requirements of Part 115 of P.A. 451 and the site's *Hydrogeologic Monitoring Plan (HMP)*, dated October 14, 1996.

The former JSC facility is a Type III industrial waste landfill located on Elm Street in Monroe, Michigan, just north of the Raisin River. The property, now owned by Homrich, Inc., is approximately 2 miles west of Lake Erie. A relatively small creek, Mason Run, flows through the northern portion of the property.

Two types of wastes were placed in the landfill, boiler ash and pulper waste. The materials placed in the landfill were tested annually to confirm their composition and classification as Type III waste materials. The coal-fired boiler at the JSC plant was replaced by natural gas in mid-1992, and consequently no additional boiler ash was brought to the site after that time. The boiler ash stockpiled on-site as of mid-1992 was placed over the pulper waste on a monthly basis as interim cover material. Pulper waste disposal in the landfill ceased in September 1995. No other waste material has been disposed of at the site since 1995.

2.0 GROUNDWATER MONITORING RESULTS

Personnel from NTH performed groundwater and surface water sampling for the Fourth Quarter on November 23 and December 28, 2010. Brighton Analytical, L.L.C., of Brighton, Michigan, performed the laboratory analyses. The analytical data report for the Fourth Quarter 2010, along with field sampling data forms, is included in Appendix B.

2.1 GROUNDWATER ELEVATION MEASUREMENTS

During completion of the groundwater sampling, water level elevations were recorded from each well at the JSC landfill. Table 1, Groundwater Elevations (in Appendix A), summarizes groundwater elevations recorded at the site over approximately the last 5 years. To confirm the groundwater flow direction at the site, NTH developed Plate 1, Groundwater Elevation Contour Map – December 2010, using the groundwater elevations recorded during the Fourth Quarter sampling event. As shown on Plate 1, the groundwater flow direction in the rock aquifer during the December event is toward the southeast, which is consistent with previous findings.

2.2 GROUNDWATER GRADIENT & FLOW VELOCITY

The groundwater flow velocity across the site can be estimated with the following equation:

$$V = \frac{ki}{n_e}$$

Where:

V = groundwater flow velocity (ft/day)

k = hydraulic conductivity (ft/day)

i = horizontal gradient (dimensionless)

n_e = effective porosity (dimensionless)

Based on in situ permeability tests, the hydraulic conductivity of the rock aquifer is approximately 1.2 x 10^{-3} cm/sec (3.4 ft/day). The estimated porosity is approximately 0.01. Using these parameters and the measured horizontal gradient for the Fourth Quarter 2010 (0.0029 ft/ft), the calculated groundwater velocity within the uppermost groundwater flow system is approximately 0.97 ft/day (355 ft/year). This value is within the range of calculated groundwater velocities during previous sampling events.

3.0 ANALYTICAL RESULTS & STATISTICAL EVALUATION

Designated sampling parameters, test methods, method detection limits, and corresponding containers, preservatives, and holding times for samples collected at the JSC site are summarized in the HMP, dated October 14, 1996, prepared by NTH. Water level measurement procedures, monitoring well sample collection methods, and decontamination procedures for the November/December 2010 sampling event were performed in accordance with the HMP and applicable P.A. 451, Part 115 Rules. Note that monitoring well A02D was frozen at the time of both attempted sampling events and could not be sampled.

The Fourth Quarter was a quarterly sampling event; therefore, groundwater samples were analyzed for the designated inorganic indicator parameters. Surface water samples were collected from one sample location in Mason Run, SW-1 (upstream). The other surface water sampling locations were dry (SW-4 and SW-5) or frozen (SW-3) at the time of the sampling event. The surface water sample was analyzed for designated indicator parameters and total metals. The analytical results for groundwater and surface water samples collected in the Fourth Quarter 2010 are summarized on Tables 2 and 3, respectively, in Appendix A.

The selected statistical methods for the indicator parameters have been applied to the groundwater monitoring data from Fourth Quarter 2010. Intra-well control charts have been plotted for chemical oxygen demand (COD), total organic carbon (TOC), ammonia-nitrogen,

and dissolved manganese. The background monitoring period for each indicator parameter was completed in December 2002. The control chart plots are included in Appendix A. The statistical results for nitrate-nitrogen and phenolics are summarized on individual spreadsheet calculation packages, included as Tables 4 and 5, respectively, in Appendix A.

The statistical evaluation indicates the reported concentration of each parameter was within the statistical limit at each monitoring well, with the exception of dissolved manganese at A03D. This apparent statistically significant increase (SSI) of dissolved manganese is likely due to natural variability in groundwater chemistry and is not attributable to an impact from the former landfill.

Concentrations of manganese in groundwater at the JSC site have been relatively variable. Similar short-term increases have occurred previously at A03D and at other monitoring wells. In each instance, the subsequent samples have exhibited manganese concentrations within historical ranges. An impact by landfill leachate would result in detectable organic compounds and increasing trends and/or statistical failure of multiple inorganic compounds – none of which are occurring at JSC. Concentrations of other parameters analyzed at this well are similar to concentrations previously observed. Therefore, the apparent SSI of dissolved manganese at A03D is attributed to the natural variability of groundwater quality and not a result of a release from the unit.

This narrative serves as an Alternate Source Demonstration (ASD) that the reported SSI in the Fourth Quarter 2010 is not the result of a release from the closed landfill, and that no further action (i.e., assessment monitoring) is warranted. This ASD has been prepared to fulfill the requirements of R299.4318(9)(b) of the Part 115 Rules. Unless otherwise notified by MDNRE, the landfill will remain in detection monitoring.

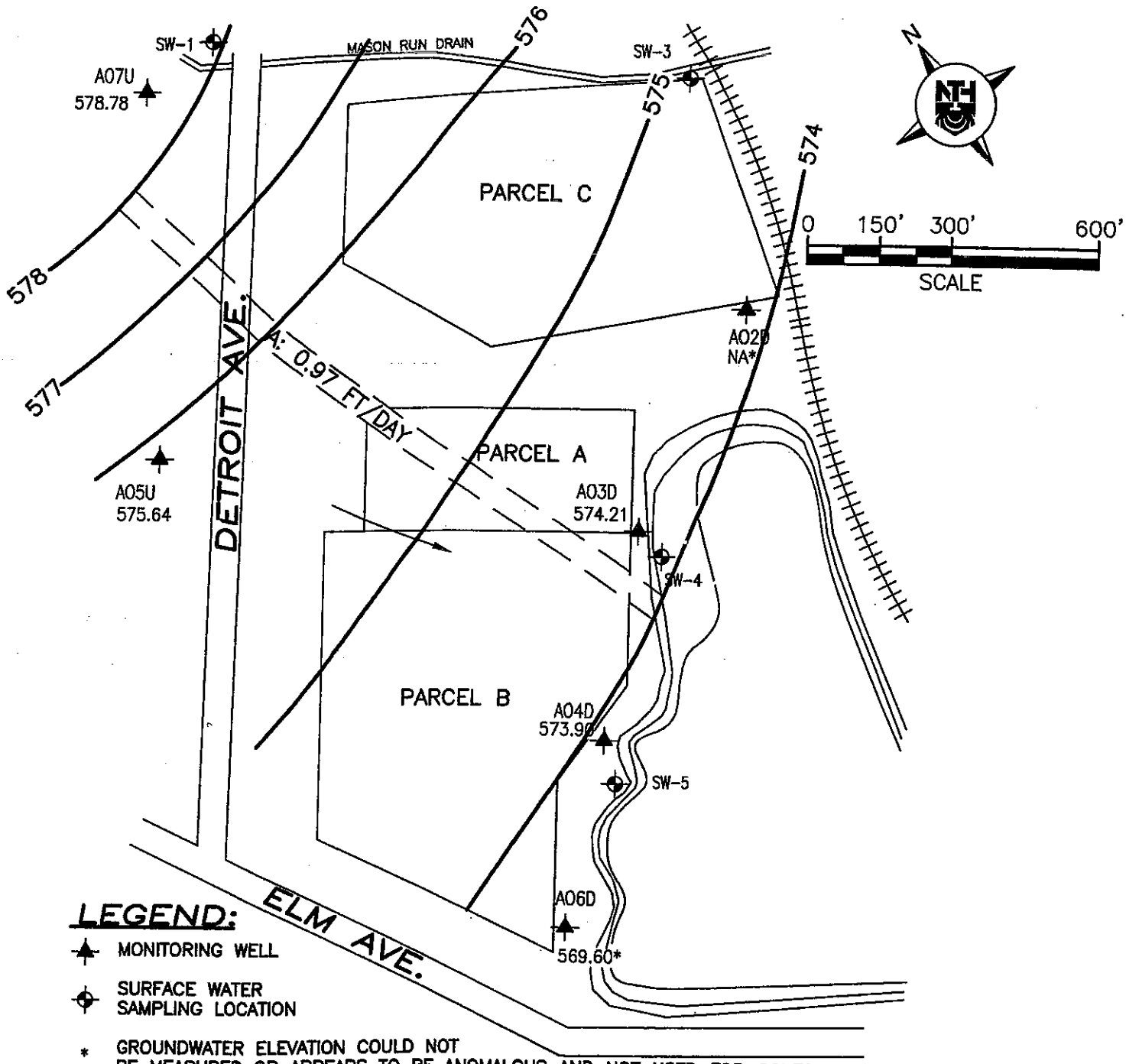
Note that a *Post-Closure Hydrogeologic Monitoring Plan*, dated October 26, 2007, was submitted to the Michigan Department of Natural Resources and Environment (MDNRE) as

part of the closure activities for the landfill. This Post-Closure HMP includes provisions for replacing monitoring well A03D with a well that is screened at a more appropriate elevation, consistent with other wells at the site. Homrich, Inc., plans to begin monitoring in accordance with the Post-Closure HMP upon approval of the closure certification for the landfill.

4.0 DISCUSSION OF SURFACE WATER MONITORING RESULTS

The administrative rules promulgated under Part 115, P.A. 451 of 1994, as amended, do not require statistical evaluation of surface water monitoring data. As stated previously, the downstream surface water sampling location in Mason Run was frozen in the Fourth Quarter and could not be sampled. The upstream sampling results are summarized on Table 3 and are similar to previous sampling results.

Surface water samples were not obtained from sampling locations SW-4 and SW-5 for the Fourth Quarter 2010 sampling event because the locations were dry. Historically, these sampling locations have been dry on a seasonal basis.



LEGEND:

- MONITORING WELL
- SURFACE WATER SAMPLING LOCATION
- * GROUNDWATER ELEVATION COULD NOT BE MEASURED OR APPEARS TO BE ANOMALOUS AND NOT USED FOR CONTOURS.
- 575.51 GROUNDWATER ELEVATION MEASURED IN MONITORING WELL ON 12-28-10. EXCEPT A05U WHICH WAS MEASURED ON 11-23-10
- —575— CONTOUR LINE OF EQUAL GROUNDWATER ELEVATION
- A: FLOW PATH USED TO CALCULATE GROUNDWATER FLOW VELOCITY (FT/DAY)
- DIRECTION OF GROUNDWATER FLOW

NOTE: THE PIEZOMETRIC SURFACE CONTOUR LINES PRESENTED ON THIS FIGURE ARE GENERALIZED, BASED ON WATER LEVEL MEASUREMENTS AT INDIVIDUAL MONITORING WELL LOCATIONS. THE ACTUAL PIEZOMETRIC ELEVATIONS AT LOCATIONS AWAY FROM THE WELLS MAY BE DIFFERENT.

NTH PROJECT No.: 62-090118-Q410	CAD FILE NAME: 62090118-Q410	NTH Consultants, Ltd. Infrastructure Engineering and Environmental Services	GROUNDWATER ELEVATION CONTOUR MAP DECEMBER 2010	PLATE:
DESIGNED BY: MLS	PLOT DATE: 1/24/2011		JEFFERSON SMURFIT CORPORATION MONROE, MICHIGAN	1
DRAWN BY: CWS	DRAWING SCALE: AS SHOWN			
CHECKED BY: ACE	INCEPTION DATE: 3/20/09			

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TABLE 1

GROUNDWATER ELEVATIONS

JEFFERSON SMURFIT CORPORATION LANDFILL

NTH PROJECT No. 62-090118-Q410

Well ID	Top of Casing Elev.	Groundwater Elevation on Indicated Date																			
		Mar 2006	Jun 2006	Aug 2006	Nov 2006	Feb 2007	Jun 2007	Sept 2007	Oct 2007	Jan 2008	Jun 2008	Aug 2008	Dec 2008	Feb 2009	Jun 2009	Sept 2009	Nov 2009	Jan 2010	May 2010	Aug 2010	Dec 2010
A02D	584.16	575.25	575.25	573.88	574.91	575.57	574.64	574.70	574.59	575.60	575.42	574.86	574.81	575.57	575.86	574.73	574.86	575.21	575.86	574.50	NA
A03D	584.39	575.39	575.51	573.97	574.84	575.90	575.00	574.72	574.50	575.58	575.79	575.29	574.83	575.62	576.25	575.71	574.79	574.91	575.69	574.79	574.21
A04D	582.33	574.08	575.21	573.79	574.32	575.42	574.94	574.52	574.04	575.27	575.42	575.23	574.24	575.18	575.99	574.78	574.3	574.55	575.03	574.84	573.90
A05U	582.51	579.25	578.71	573.60*	577.27	579.45	576.71	577.68	576.85	580.26**	578.00	577.21	577.22	580.09	578.91	576.13	576.31	578.22	581.01	576.46	575.64[4]
A06D	579.73	574.59	574.77	572.99	571.66	575.06	574.49	573.89	573.68	574.69	575.27	574.79	574.31	575.13	575.83	574.46	570.18*	571.75	575.48	574.38	569.60*
A07U	585.06	580.56	579.74	578.25	580.04	580.45	578.51	579.68	579.52	580.67	579.74	578.59	581.21	580.21	580.33	578.47	579.41	580.05	581.89	577.99	578.78

NOTES:

[1] Groundwater and top of casing elevations reported in feet above mean sea level (msl).

[2] * - Groundwater elevation on this date appears to be anomalous, based on historic data.

[3] ** - Water column in monitoring well A05U was frozen during the January 2008 sampling event. Groundwater elevation was measured and well was sampled on 03-20-08.

[4] - Well cap was frozen and depth to groundwater could not be measured on 12-28-10. Groundwater elevation given is from 11-23-2010 when the well was sampled.

[5] - NA - Well cap was frozen and well could not be opened to sample on 12-28-10

TABLE 2
RESULTS OF QUARTERLY GROUNDWATER QUALITY ANALYSIS (NOVEMBER/DECEMBER 2010)
JEFFERSON SMURFIT CORPORATION LANDFILL
NTH PROJECT No. 62-090118-Q410

PARAMETER	SAMPLE DESIGNATION						MDL
	A05U	A07U	A02D	A03D	A04D	A06D	
INDICATOR PARAMETERS (mg/L)							
Manganese (dissolved)	0.013	0.033	Note 4	0.083	0.082	0.028	0.001
Ammonia	0.21	0.080		0.38	0.39	0.35	0.02
Nitrate/Nitrite	ND/ND	ND/ND		ND/ND	ND/ND	ND/ND	0.02/0.02
Total Inorganic Nitrogen	0.21	0.080		0.38	0.39	0.35	0.02
COD	10	15		30	50	40	5.0
Phenols	ND	ND		ND	0.01	0.01	0.01
TOC	1.5	2.4		4.7	4.0	2.8	0.5
Temperature (°C)	10.6	12.5		10.6	10.7	10.8	--
Specific Conductance (umhos/cm)	1,872	1,741		2,020	2,630	2,350	--
pH (S.U.)	6.73	6.65		6.76	7.12	7.20	--

NOTES:

1. **MDL** = Method Detection Limit; **ND** = Not Detected
2. **mg/L** = milligrams per liter; **S.U.** = Standard Unit; **umhos/cm** = micromhos per centimeter; **°C** = degrees centigrade.
3. Samples collected by NTH on November 23, and December 28, 2010 and analyzed by Brighton Analytical, L.L.C.
4. Well A02D could not be opened at time of sampling, well cap was frozen on.

TABLE 3
RESULTS OF SURFACE WATER QUALITY ANALYSES (NOVEMBER 2010)
JEFFERSON SMURFIT CORPORATION LANDFILL
NTH PROJECT No. 62-090118-Q410

PARAMETER	SAMPLE DESIGNATION				MDL
	SW-1 (Upstream)	SW-3 (Downstream)	SW-4*	SW-5*	
GENERAL INDICATOR PARAMETERS (mg/L)					
Ammonia	0.10	FROZEN	-	-	0.02
Nitrate/Nitrite	1/ND		-	-	0.02
pH (S.U.)	5.90		-	-	-
Phosphorus (total)	0.32		-	-	0.01
Specific Conductance (umhos/cm)	713		-	-	-
Sulfates	250		-	-	2.0
Temperature (°C)	8.9		-	-	-
Total Dissolved Solids	470		-	-	20
Total Inorganic Nitrogen	1.1		-	-	0.02
BOD5	8.0		-	-	1.0
TOTAL METALS (mg/L)					
Arsenic	0.009	FROZEN			0.001
Calcium	150		-	-	1.0
Magnesium	34		-	-	1.0
Manganese	0.2		-	-	0.001
Sodium	15		-	-	1.0
Zinc	0.28		-	-	0.004

NOTES:

1. **MDL** = Method Detection Limit; **ND** = Not Detected.
2. **mg/L** = milligrams per liter; **ppm** = parts per million; **S.U.** = Standard Unit; **umhos/cm** = micromhos per centimeter; **°C** = degrees centigrade.
3. Samples collected by NTH on November 23, 2010, and analyzed by Brighton Analytical, L.L.C.
4. * - The designated sampling location was dry during this sampling event.

TABLE 4

Statistical Analysis of Nitrate-Nitrogen
Using Method of Proportions
NTH PROJECT No. 6Z-090118-Q410

Date	Upgradient		Downgradient				MDL
	A05U	A07U	A02D	A03D	A04D	A06D	
04/24/91	0.07		0.03	ND			0.04
08/02/91	ND		ND	ND			0.04
11/15/91	ND		ND	ND			0.04
05/22/92	ND		ND	ND			0.04
06/14/93	0.32	0.18	0.20	0.10	0.13	0.47	0.10
06/29/94	ND	ND	ND	ND	ND	ND	0.01
06/20/96	0.04	0.06	0.05	0.05	ND	0.05	0.01
09/30/96	ND	ND	ND	ND	ND	ND	0.01
12/06/96	ND	ND	ND	ND	ND	ND	0.01
12/11/96	ND	ND	ND	ND	0.04	ND	0.01
12/18/96	ND	0.01	0.02	0.02	0.06	0.02	0.01
12/30/96	ND	0.04	0.07	ND	ND	ND	0.01
04/03/97	ND	0.04	ND	0.02	0.05	0.03	0.01
06/30/97	0.01	0.03	0.05	0.06	0.04	0.03	0.01
03/30/98	ND	ND	ND	ND	ND	ND	0.01
06/28/98	ND	0.01	0.01	0.03	ND	ND	0.01
09/02/98	ND	0.02	ND	ND	ND	ND	0.01
12/07/98	ND	ND	ND	ND	ND	ND	0.01
03/11/99	ND	ND	ND	0.03	ND	0.03	0.01
06/03/99	0.08	0.01	0.05	0.01	0.02	ND	0.01
09/07/99	ND	ND	ND	ND	ND	0.60	0.01
12/08/99	ND	ND	ND	ND	ND	ND	0.01
02/23/00	ND	ND	ND	ND	ND	ND	0.01
05/23/00	ND	ND	ND	ND	ND	ND	0.01
09/07/00	ND	ND	ND	ND	ND	ND	0.01
11/20/00	ND	ND	ND	ND	ND	ND	0.01
02/15/01	ND	ND	ND	ND	ND	ND	0.01
04/16/01	ND	0.15	ND	0.01	ND	ND	0.01
08/06/01	0.02	ND	0.03	ND	ND	ND	0.01
11/06/01	ND	ND	ND	ND	ND	ND	0.01
01/28/02	ND	0.04	ND	ND	0.11	0.03	0.01
05/20/02	ND	ND	ND	ND	ND	ND	0.02
08/22/02	ND	ND	ND	ND	ND	ND	0.02
11/26/02	ND	ND	ND	0.02	ND	ND	0.02
02/20/03	0.93	ND	0.05	0.11	0.88	ND	0.02
05/15/03	ND	ND	ND	ND	ND	ND	0.02
09/22/03	ND	0.07	ND	ND	ND	ND	0.02
12/29/03	ND	ND	ND	ND	ND	ND	0.02
03/01/04	ND	ND	ND	ND	ND	ND	0.02
06/09/04	ND	ND	ND	ND	ND	ND	0.02
08/05/04	0.02	0.37	ND	0.73	0.26	0.03	0.02
11/30/04	ND	ND	ND	ND	ND	ND	0.02
03/16/05	ND	ND	ND	ND	ND	ND	0.02
6/23-24/05	ND	ND	ND	ND	ND	ND	0.02
08/21/05	ND	ND	ND	ND	ND	ND	0.02
12/19/05	ND	ND	0.05	0.46	0.07	0.08	0.02
03/02/06	ND	ND	ND	ND	ND	ND	0.02
06/08/06	ND	ND	ND	ND	ND	ND	0.02
08/24/06	ND	ND	0.04	0.11	0.03	0.04	0.02
11/07/06	3.5	ND	0.09	ND	0.06	0.11	0.02
02/02/07	ND	ND	ND	ND	ND	ND	0.02
06/29/07	0.07	0.49	ND	0.16	0.29	0.27	0.02
09/20/07	0.17	0.02	0.08	0.05	0.2	0.04	0.02
10/30/07	ND	ND	0.06	ND	ND	ND	0.02
01/21/08	ND	ND	ND	ND	ND	ND	0.02
06/12-18/08	ND	0.03	ND	ND	ND	ND	0.02
08/05/08	ND	0.09	0.08	ND	ND	0.04	0.02
12/18/08	ND	ND	ND	ND	ND	ND	0.02
02/26/09	ND	ND	ND	0.4	0.21	ND	0.02
06/04/09	ND	0.03	0.02	ND	ND	ND	0.02
09/14/09	ND	ND	0.02	ND	ND	ND	0.02
11/19/09	ND	0.08	ND	0.06	ND	ND	0.02
01/13/10	ND	ND	ND	0.27	0.14	0.31	0.02
05/12/10	0.21	ND	ND	0.34	ND	0.20	0.02
08/17/10	0.02	ND	ND	ND	ND	ND	0.02
11/23-12/28/10	ND	ND	ND	ND	ND	ND	0.02

Test of Proportions:

N =	128	M =	255
X =	32	Y =	71
Pu =	0.250	Pd =	0.278
X + Y =	103	F1 =	0.269
N + M =	383	F2 =	0.731
1/N =	0.008	F3 =	0.012
1/M =	0.004		
		Sd =	0.048
		Z =	0.592

97.5th Percentile of Normal Distribution = 1.96

Z < 1.96 Therefore: No statistically significant evidence that proportion of samples above MDL is different in background and compliance wells.

TABLE 5

Statistical Analysis of Phenolics
Using Method of Proportions
NTH PROJECT No. 62-090118-Q410

Date	Upgradient		Downgradient				MDL
	A05U	A07U	A02D	A03D	A04D	A06D	
04/24/91	ND		ND	ND			0.004
05/22/92	ND		ND	ND			0.004
06/14/93*	0.041	0.038	0.023	0.032	0.068	0.032	0.005
06/29/94	0.005	ND	ND	ND	ND	ND	0.005
06/20/96	ND	ND	ND	ND	ND	ND	0.010
09/30/96	ND	ND	ND	ND	ND	ND	0.010
12/06/96	ND	ND	0.030	ND	ND	ND	0.010
12/11/96	0.060	0.030	ND	ND	ND	ND	0.010
12/18/96	ND	ND	ND	ND	ND	ND	0.010
12/30/96	ND	ND	ND	ND	ND	ND	0.010
04/03/97	ND	ND	ND	ND	ND	ND	0.010
06/30/97	ND	ND	ND	ND	ND	ND	0.010
03/30/98	ND	ND	ND	ND	ND	0.340	0.010
06/28/98	ND	ND	ND	ND	ND	ND	0.010
09/02/98	ND	ND	ND	ND	ND	ND	0.010
12/07/98	0.010	0.060	0.100	0.030	0.030	0.020	0.010
03/11/99	ND	ND	ND	ND	ND	ND	0.010
06/03/99	ND	ND	ND	ND	0.010	ND	0.010
09/07/99	ND	ND	ND	ND	ND	ND	0.010
12/08/99	0.030	0.020	0.040	0.090	0.030	0.050	0.010
02/23/00	ND	0.020	0.060	0.030	0.050	0.050	0.010
05/23/00	ND	ND	ND	0.030	ND	ND	0.010
09/07/00	ND	ND	ND	ND	ND	ND	0.010
11/20/00	0.02	0.02	0.02	0.02	0.01	ND	0.010
02/15/01	0.03	0.03	0.04	0.04	0.03	0.04	0.010
04/16/01	0.01	ND	0.03	0.07	ND	ND	0.010
08/06/01	ND	ND	ND	ND	ND	ND	0.010
11/06/01	0.01	0.01	0.03	0.22	0.19	0.01	0.010
01/28/02	ND	ND	ND	ND	ND	ND	0.010
05/20/02	ND	ND	ND	ND	ND	ND	0.010
08/22/02	ND	ND	ND	ND	0.01	ND	0.010
11/26/02	ND	ND	ND	ND	ND	ND	0.010
02/20/03	ND	ND	ND	ND	ND	ND	0.010
05/15/03	0.02	0.04	0.01	ND	0.02	0.01	0.010
09/22/03	ND	0.02	0.02	0.01	ND	0.02	0.010
12/29/03	ND	0.02	ND	ND	0.03	0.02	0.010
03/01/04	ND	ND	ND	ND	ND	ND	0.010
06/09/04	ND	ND	ND	ND	0.02	ND	0.010
08/05/04	ND	ND	ND	ND	ND	ND	0.010
11/30/04	ND	ND	ND	ND	ND	ND	0.010
03/16/05	ND	ND	ND	ND	ND	ND	0.010
6/23-24/05	0.01	0.01	ND	ND	ND	ND	0.010
08/21/05	0.01	0.02	ND	0.01	0.01	0.02	0.010
12/19/05	0.02	0.02	0.14	0.02	0.02	0.02	0.010
03/02/06	0.04	0.01	0.04	0.03	0.02	0.03	0.010
06/08/06	ND	0.02	0.01	ND	ND	0.01	0.010
08/24/06	ND	0.11	ND	ND	ND	ND	0.010
11/07/06	0.02	ND	ND	ND	ND	ND	0.010
02/02/07	0.02	ND	ND	ND	ND	ND	0.010
06/29/07	0.03	ND	ND	ND	ND	ND	0.010
09/20/07	ND	ND	ND	ND	ND	ND	0.010
10/30/07	ND	ND	0.01	ND	ND	ND	0.010
01/21/08	ND	ND	ND	ND	0.01	ND	0.010
06/12-18/08	ND	ND	ND	ND	ND	ND	0.010
08/05/08	ND	ND	ND	ND	ND	ND	0.010
12/18/08	0.05	0.02	0.05	0.03	0.06	0.03	0.010
02/26/09	0.07	0.07	ND	0.12	0.02	0.06	0.010
06/04/09	ND	ND	ND	ND	ND	ND	0.010
09/14/09	ND	ND	ND	ND	ND	0.02	0.010
11/19/09	0.01	0.01	0.01	0.02	0.02	0.05	0.010
01/13/10	ND	ND	ND	ND	0.18	0.07	0.010
05/12/10	ND	ND	ND	ND	ND	ND	0.010
08/17/10	ND	ND	ND	ND	ND	ND	0.010
11/29-12/28/10	ND	ND	ND	ND	0.01	0.01	0.010

*Detected in Trip and Equip. Blanks and was not included in the statistical analysis

Test of Proportions:

N =	124	M =	247
X =	38	Y =	70
Pu =	0.306	Pd =	0.283
X + Y =	108	F1 =	0.291
N + M =	371	F2 =	0.709
1/N =	0.008	F3 =	0.012
1/M =	0.004		
		Sd =	0.0500
		Z =	0.461

97.5th Percentile of Normal Distribution = 1.96

Z < 1.96 **Therefore: No statistically significant evidence that proportion of samples above MDL is different in background and compliance wells.**

AECOM Environment

Prepared for:
Michigan Department of Transportation
Lansing, MI

Prepared by:
AECOM
Lansing, MI
60157928
October 1, 2010

Phase I Environmental Site Assessment

River Raisin Battlefield
1220 E. Elm Avenue, Monroe, Michigan

AECOM Environment

Prepared for:
Michigan Department of Transportation
Lansing, MI

Prepared by:
AECOM
Lansing, MI
60157928
October 1, 2010

Phase I Environmental Site Assessment

River Raisin Battlefield
1220 E. Elm Avenue, Monroe, Michigan

Prepared By Bridget A. Walsh, PE

Reviewed By Scott G. Park, CPG

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Appendix B EDR Radius Map Report

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Appendix G Gray Slag Aggregate Analytical Data

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Executive Summary

AECOM Environment was retained by the Michigan Department of Transportation (MDOT) to perform an ASTM E1527-05 Phase I Environmental Site Assessment (ESA) of the property located at 1220 East Elm Street, City of Monroe, Monroe County, Michigan, the subject property.

The information presented in this report, and the conclusions and recommendations contained herein, are based upon information obtained by AECOM. This Phase I ESA was conducted in accordance with a proposal of cost and hours dated June 17, 2010 and in general conformance with the American Society for Testing and Materials (ASTM) document E1527-05. This report is a summary of our findings and conclusions regarding environmental conditions at the subject property.

The subject property is located west of Detroit Street, north of East Elm Street, and east of the Conrail Railroad in Monroe, Michigan. The property has a land area of approximately 32.56 acres.
The subject property is undeveloped and is largely covered with gray slag aggregate (slag). The site is not currently improved with any structures, but has a large concrete slab (approximately 300 x 250') on its south end.

The subject property was the site of the battles of the River Raisin during the War of 1812. The property has historically been used as a storage area for a paper mill that was located on the adjacent property to the south. The paper mill was built around 1918 by the River Raisin Paper Company. Union Camp Corporation purchased the River Raisin Paper Company in 1960. The paper mill complex was operated by Union Camp until the mid-1980's, when it sold the facilities and adjoining land to the Monroe Paper Company, a partnership of Jefferson Smurfitt Corporation and an individual, Bob Mitchell. Jefferson Smurfitt acquired full ownership of the property in 1991. The paper mill was operated by Jefferson Smurfitt until 1995. The property was purchased by the current owner, Mr. Roger Homrich, in 1997. After its purchase, Mr. Homrich covered the property with the gray slag aggregate and allowed its use by Chrysler as an overflow parking area for newly manufactured vehicles. Mr. Homrich has used the property for no other purpose during his ownership. This has included no generation, storage, or disposal of any hazardous substances.

Although the site is covered with the gray slag aggregate, during the site reconnaissance on July 12, 2010, AECOM observed evidence of cinders, slag, coal, and some construction debris in shallow fill at various locations on the site.

Based on the site reconnaissance conducted by AECOM, interviews with Mr. Roger Homrich (current owner of the subject property), a review of the environmental databases and other materials supplied by Environmental Data Resources, and other pertinent historical records, AECOM identified the following RECs on the subject property:

- Historical use of the subject property as part of a paper mill for material storage including some potentially impacted soil; use of clarifiers in the paper mill operations; and for the storage of coal, used to fire the boilers in the mill.

- Historical placement of fill on site, consisting of cinders, slag, coal, and some construction debris.

It is AECOM's opinion that further investigation, by means of a Limited Phase II ESA, is warranted to ascertain the absence/presence of hazardous materials that may have affected the subject property throughout its history.

1.0 Introduction

1.1 Purpose

The purpose of this Phase I ESA is to identify, to the extent feasible, recognized environmental conditions (RECs) and historical RECs in connection with the subject property at 1220 E Elm Street, Parcel Number 58-55-59-01904-00, Monroe County, Michigan. The Phase I ESA was completed in general conformance with the American Society for Testing and Materials (ASTM) document E1527-05 entitled *Standard Practice for Environmental Site Assessments: Phase I Environmental Assessment Process* and of our proposal dated April 27, 2010.

The purpose of this Phase I ESA is to identify, to the extent feasible, RECs and historic RECs in connection with the subject property.

ASTM Standard E1527-05 defines a REC as:

> *The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis are not recognized environmental conditions.*

The ASTM Standard E1527-05 defines a historical REC as an:

> *Environmental condition which in the past would have been considered a recognized environmental condition, but may or may not be considered a recognized environmental condition currently.*
>
> The ASTM Standard E1527-05 states:
>
> *The Phase I Environmental Site Assessment is intended to permit a user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitation on Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) liability; that is, the practices that constitute "all appropriate inquiry into previous ownership and uses of the property consistent with good commercial or customary practice, as defined at 42 USC, Section 9601(35)(B).*

1.2 Detailed Scope-Of-Services

This Phase I ESA includes a site historical review, government environmental database search, a site reconnaissance, interviews, and a written report.

As part of the historical search, AECOM reviewed aerial photographs, historical topographic maps, Sanborn Fire Insurance Maps, and historical directory information. Additionally, AECOM interviewed Mr. Roger Homrich, the current owner of the subject property and representatives of government agencies.

The following non-scope items defined in Section 13.1.5 of ASTM E1527-05 were not addressed as part of this Phase I ESA:

- Radon
- Lead-based paint
- Lead in drinking water
- Wetlands
- Asbestos-containing building materials
- Cultural and historic resources
- Industrial hygiene
- Mold
- Health and safety
- Environmental compliance
- Ecological resources
- Endangered species
- Indoor air quality
- High voltage power lines
- Biological agents
- Vapor Intrusion Condition

Resumes of AECOM project personnel who conducted this Phase I ESA are included in Appendix A.

1.3 Significant Assumptions

AECOM assumes that all information obtained from Environmental Data Resources (EDR), the client, third parties, government agencies, the user, past and present owners and operators of the subject property and other available resources, is correct and complete. AECOM also assumes that the client has provided AECOM with all reasonably ascertainable prior environmental reports and related materials concerning the subject property. Finally, AECOM assumes that this report will be read as a whole by the user.

1.4 Limitations and Exceptions of Assessment

The purpose of this Phase I ESA is to identify past and current subject property uses that are considered RECs or historical RECs.

This Phase I ESA reflects conditions, operations, and practices as observed on the date of the site visit. Changes or modifications to the subject property made after the site visit are not included.

The preparation of this Phase I ESA is in general accordance with ASTM Standard E1527-05, and in a manner consistent with other professionals performing Phase I ESAs under the same conditions and in the same locality. No sampling or testing was performed during this Phase I ESA.

1.5 Data Gaps

A data gap is considered the lack of or inability to obtain information required by ASTM E1527-05 despite good faith efforts by AECOM to gather such information. The significance of a data gap is

determined by the judgment of the environmental professional. The following data gaps identified during performance of this Phase I ESA, as well as the significance of each data gap are discussed below:

- A chain-of-title search was not conducted as part of this Phase I ESA.

It is the opinion of AECOM that these data gaps are not significant and do not result in RECs and/or historic RECs with respect to the subject property.

1.6 User Reliance

This report is confidential and is prepared for the Michigan Department of Transportation (MDOT) (Client). AECOM recommends that this report be used only for the purpose intended by the client and AECOM, as of the date of this report. This report may be unsuitable for other uses, and reliance on its contents by anyone other than the client is done at the sole risk of the user. AECOM accepts no responsibility for application or interpretation of the results by anyone other than the client.

2.0 Site Description

2.1 Location and Legal Description

The subject property is located west of Detroit Street, north of East Elm Street, and east of the Conrail Railroad in Monroe, Michigan. According to the City of Monroe Assessor, the deed holder and taxpayer of the subject property is listed as Homrich Incorporated. The property has a parcel ID number of 58-55-59-01904-000. The Legal Description of the property is as follows:

COMM AT NE CORNER OF ELM AVE; TH N 21D 24M 00S E 84.34 FT; TH N 31D 54M 38S E 567.33; TH CURVE TO THE RT, CENTRAL ANGLE 10D 43M 01S, RADIUS 572.96 FT AN ARC LENGTH OF 107.17 FT AND A CHORD BEARING 37D 16M 09S E 107.01 FT; TH ON A CURVE TO THE LT, CENTRAL ANGLE OF 7D 33M 00S A RADIUS DISTANCE OF 572.96 FT, AN ARC LENGTH OF 75.50 FT AND A CHORD BEARING A DISTANCE OF N 38D 51M 09S E 75.45 FT, CONTINUING ON SD CURVE TO THE LEFT A CENTRAL ANGLE OF 03D 09M 58S A RADIUS DISTANCE OF 572.96 FT, AN ARC LENGTH OF 31.66 FT AND A CHORD BEARING N 33D 29M 38S E 31.66 FT, TH N 31D 54M 38S E 67.75 FT TO THE POB: TH N 31D 54M 38S E 2482.37 FT; TH S 68D 17M 54S E 358.63 FT; TH S 21D 42M 06S W 2399.16 FT; TH N 78D 44M 50S W 438.81 FT; TH N 62D 44M 50S W 368.79 FT TO THE POB. 32.561 ACRES MORE OF LESS.

Refer to Figure 1 for the approximate project site location. Refer to Figure 2 for a project site plan.

2.2 Site and Vicinity General Characteristics

The subject property is located in Monroe, Michigan, in an area consisting of mixed commercial/industrial, residential, and agricultural properties. The property has a land area of approximately 32.56 acres and is a vacant portion of a larger property once operated by a paper mill, formerly owned by Jefferson Smurfitt Corporation, called the “East Mill”.

2.3 Current Use of the Property

The subject property is currently undeveloped and is vacant.

2.4 Description of Improvements on the Site

The subject property is undeveloped and is largely covered with gray slag aggregate. The site is not currently improved with any structures, but has a large concrete slab (approximately 300 x 250’) on its south end. Information obtained by AECOM indicates that the concrete slab was historically used by the past property owner (former paper mill) for the storage of paper and other materials. Additionally, information pertaining to the former paper mill is included in Section 5.2 of this report.

2.5 Current uses of the adjoining properties

- North – Vacant woodlot
- South – County Drain, called the Mason Run, followed by vacant parcel (formerly occupied by the paper mill called the East Mill site)
- East – Industrial park

- West – Conrail and Grand Trunk Western Railroad tracks followed to the west by an industrial park

3.0 User Provided Information

3.1 Environmental Liens or Activity and Use Limitations

It is AECOM's understanding that the Client, MDOT, has no knowledge of any environmental liens against the subject property. In addition, AECOM's review of standard environmental record sources (Refer to Section 4.1 of this report) did not identify activity and use limitations, such as environmental or engineering controls or deed restrictions concerning the subject property.

3.2 Specialized Knowledge

MDOT has no specialized knowledge with respect to the subject property.

3.3 Valuation Reduction for Environmental Issues

MDOT is unaware of any valuation reduction of the subject property with respect to environmental issues.

3.4 Owner-Subject Property Manager and Occupant Information

The subject property is owned by Homrich Inc. and is currently unoccupied.

3.5 Reason for Performing Phase I ESA

This report is prepared for MDOT. The purpose of the Phase I ESA is to qualify for the innocent landowner defense to CERCLA liability and liability under Part 201 of NREPA. In addition to satisfying one of the requirements for CERCLA and Part 201 liability, MDOT would also like to understand potential environmental conditions that could materially impact future development or occupation of the subject property, and to aid in the purchase of the subject property.

4.0 Records Review

Current Federal and State database listings for hazardous waste and other potentially impaired sites within specified search distances were identified for the subject site and vicinity by Environmental Data Resources, Inc. (EDR). These listed sites were reviewed by AECOM to identify possible sites of concern. The databases reviewed by EDR are most recently available as of June 14, 2010. The EDR report is included in Appendix B. The database sources and distances searched are listed below:

Database	Minimum search distance (miles)	Number of sites reported within search distance
Federal ASTM Records:		
National Priority List (NPL), De-listed NPL, and Proposed NPL	1.0	0
NPL Recovery (Federal Superfund Liens)	Subject property only	0
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) list	0.5	1
CERCLIS No Further Remediation Action Planned (NFRAP) list	0.5	0
Resource Conservation Recovery Act (RCRA) Corrective Action Report (CORRACTS) facilities list	1.0	2
RCRA Treatment, Storage, and Disposal (RCRA-TSDF) list	0.5	1
RCRA Large Quantity Hazardous Waste Generator list (RCRA LQG)	0.25	0
RCRA Small Quantity Hazardous Waste Generator list (RCRA SQG)	0.25	0
RCRA Conditionally Exempt Small Quantity Generator (CESQG) List	0.25	4
RCRA Non-Generator (NonGen) List	0.25	7
Emergency Response Notification System (ERNS)	Subject property only	0
Hazardous Materials Information Reporting System (HMIRS)	Subject property only	0
Engineering Controls Sites List (US ENG CONTROLS)	0.5	0

Database	Minimum search distance (miles)	Number of sites reported within search distance
Sites with Institutional Controls (US INST CONTROLS)	0.5	0
Department of Defense Sites (DOD) list	1.0	0
Formerly Used Defense Sites (FUDS) list	1.0	0
US Brownfields list	0.5	0
Superfund (CERCLA) Consent Decrees (CONSENT)	1.0	0
Records of Decision (ROD) list	1.0	0
Uranium Mill Tailings (UMTRA) list	0.5	0
Open Dump Inventory (ODI)	0.5	0
Toxic Chemical Release Inventory System (TRIS)	Subject property only	0
Toxic Substance Control Act (TSCA) list	Subject property only	0
FIFRA/TSCA Tracking System (FTTS) and FTTS INSP liAECOM	Subject property only	0
Section 7 Tracking Systems (SAECOM)	Subject property only	0
PCB Activity Database System (PADS)	Subject property only	0
Material Licensing Tracking System (MLTS)	Subject property only	0
Mines Master Index Files (MINES)	0.25	0
Facility Index System/Facility Registry System (FINDS)	Subject property only	0
RCRA Administrative Action Tracking System (RAATS)	Subject property only	0
State ASTM Records: (or pertinent state records)		
State Hazardous Waste Site (SHWS) List	1.0	4
Delisted List of Contaminated Sites (DEL SHWS)	1.0	4
State Solid Waste/Landfill Facilities (SWLF) list	0.5	0
Inactive Solid Waste Facilities (HIST LF)	0.5	0
State Leaking Underground Storage Tank (LUST) list	0.5	6
State Underground Storage Tank (UST) list	0.25	7

Database	Minimum search distance (miles)	Number of sites reported within search distance
State Aboveground Storage Tanks (AST)	0.25	3
Pollution Emergency Alerting System (PEAS List)	Subject property only	0
Sites with Engineering and Institutional Controls (AUL)	0.5	0
State Drycleaning Establishments (DRYCLEANERS) list	0.25	0
Brownfields and UST Field Site Database (BROWNFIELDS)	0.5	2
List of Active NPDES Permits	Subject property only	0
Permit and Emissions Inventory Data (AIRS)	Subject property only	0
Baseline Environmental Assessment Database (BEA)	0.5	6
Tribal Records		
Indian Reservations (INDIAN RESERV) list	1.0	0
Leaking Underground Storage Tanks on Indian Land (INDIAN LUST)	0.5	0
Underground Storage Tanks on Indian Land (INDIAN UST)	0.25	0
Proprietary Records		
Manufactured Gas Plants database	1.0	0

4.1 Environmental Database Results

AECOM reviewed the EDR report to ascertain how many sites of known or potential environmental concern are located within the specified ASTM minimum search distances. AECOM also reviewed the "orphan" list included within the EDR report. The orphan list includes sites whose locations could not be mapped by EDR. It should be noted that the priary Paper Mill operations were conducted on the adjacent parcel to the south of the subject site with the same address of 1220 E. Elm Avenue. Information obtained by AECOM, documented in this report, indicates that the regulatory listings above relate to operations on the southern parcel of the East Mill site and not the subject property

The address of the subject property was listed on the RCRA Non-Generators list and the aboveground storage tank (AST) list under the name Jefferson Smurfit Corp. The EDR report lists the name of the facility as Homrich, Inc on the RCRA Non-Generators list. According to EDR, the site has an EPA ID of MI0000254128 and the date the form was received from the agency is listed as March 9, 2006. EDR also lists historical generators for the site. Homrich, Inc. is listed as a small quantity generator with the form received from the agency on May 19, 2003, and Homrich, Inc. is listed as a large quantity generator with the form received on February 11, 1998. Information obtained by AECOM indicates that these

listings are likely related to the operation and subsequent demolition of the former paper mill (East Mill site) which was almost entirely contained on the parcel located south of the Mason Run adjacent to the subject property. According to EDR, a 1,000 gallon liquid propane gas AST was installed at the site on March 22, 1995 and was removed from the site on January 1, 1996. The AST is listed as closed.

In addition to the subject property, additional sites of potential environmental impact were identified within the appropriate ASTM minimum search distances. These sites are listed below. Some of the sites are listed on multiple databases. The EDR report provides more detail on each site.

4.2 Federal Sites

National Priority List (NPL)

- No properties listed.

Proposed NPL

- No properties listed.

Delisted NPL

- No properties listed.

NPL Liens

- No properties listed.

Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)

- Consolidated Packing Corp, located at 1521 E. First Street, between ¼ and ½ mile west of the subject property.

CERCLIS-NFRAP

- No properties listed.

Corrective Action Report (CORRACTS)

- Union Camp Corp., located at 1109 East Elm Avenue, between 1/8 and ¼ mile south-southwest of the subject property.
- Salco Industrial Service, located at 704 Conant, between ½ and 1 mile south-southwest of the subject property.

RCRA-TSDF

- Union Camp Corp., located at 1109 East Elm Avenue, between 1/8 and ¼ mile south-southwest of the subject property.

RCRA Large Quantity Generators (LQG)

- No properties listed.

RCRA Conditionally Exempt Small Quantity Generators (CESQG)

- Ray Tool Manufacturing, located at 455 Detroit Avenue, between 0 and 1/8 mile east-southeast of the subject property.
- Actuator Specialties Inc., located at 1620 Rose Street, between 1/8 and ¼ mile east of the subject property.
- Advanced Heat Treat Corp., located at 1625 Rose Street, between 1/8 and ¼ mile east of the subject property.
- Howard Ternes Packaging Co., located at 910 Detroit Avenue, between 1/8 and ¼ mile east-northeast.

RCRA-Small Quantity Generator (SQG)

- No properties listed.

RCRA-Non Generators (NonGen) List

- Monroe Electric Motor Co., located at 317 Harbor Avenue, between 0 and 1/8 mile east-southeast of the subject property.
- Monroe AMT Inc., located at 615 Harbor Avenue, 0 to 1/8 mile east-northeast of the subject property.
- North Dixie Collision, located at 512 N Dixie Highway, 0 to 1/8 mile west-northwest of the subject property.
- Premier Industries Corporation, located at 513 N Dixie Highway, 0 to 1/8 mile west-northwest of the subject property.
- P&A Industries Inc., located at 523 Detroit Avenue, 0 to 1/8 mile east-southeast of the subject property.
- Union Camp Corp., located at 1109 East Elm Avenue, 1/8 to ¼ mile south-southwest of the subject property.
- Jefferson Smurfit Corp., located at 1220 E Elm Avenue, 1/8 to ¼ mile southwest of the subject property.

Emergency Response Notification System (ERNS)

- No properties listed.

Hazardous Materials Information Reporting System (HMIRS)

- No properties listed.

US Engineering Controls List

- No properties listed.

US Institutional Controls List

- No properties listed.

Department of Defense Sites (DOD)

- No properties listed.

Formerly Used Defense Sites (FUDS)

- No properties listed.

Brownfield sites (US Brownfields)

- No properties listed.

Superfund (CERCLA) Consent Decrees (CONSENT)

- No properties listed.

Records of Decision (ROD)

- No properties listed.

Uranium Mill Tailings Sites (UMTRA)

- No properties listed.

Open Dump Inventory (ODI)

- No properties listed.

Toxic Chemical Release Inventory System (TRIS)

- No properties listed.

Toxic Substances Control Act (TSCA)

- No properties listed.

TSCA/FIFRA Tracking System (FTTS)

- No properties listed.

Section 7 Tracking Systems (SAECOM)

- No properties listed.

Land Use Control Information System (LUCIS)

- No properties listed.

Incident and Accident Data (DOT OPS)

- No properties listed.

Integrated Compliance Information System (ICIS)

- No properties listed.

FIFRA/TSCA Tracking system Administrative Case Listing (HIST FTTS)

- No properties listed.

Clandestine Drug Labs (US CDL)

- No properties listed.

Radiation Information Database (RADINFO)

- No properties listed.

CERCLA Lien Information (LIENS 2)

- No properties listed.

PCB Activity Database System (PADS)

- No properties listed.

Material Licensing Tracking System (MLTS)

- No properties listed.

Mines Master Index File (MINES)

- No properties listed.

Facility Index System/Facility Registry System (FINDS)

- No properties listed.

RCRA Administrative Action Tracking System (RAATS)

- No properties listed.

4.3 State and Local Records

State Hazardous Waste Sites (SHWS)

- Former K&H Transport, located at 515 Harbor Avenue, between 0 and 1/8 mile east-southeast of the subject property.
- 321 Harbor Avenue, located at 319-325 Harbor Avenue, between 0 and 1/8 mile east-southeast of the subject property.
- CPC-Northside, located at 921 E. Elm Street, between ¼ and ½ mile west-southwest of the subject property.
- Consolidated Packaging Corp., located at 1521 E. Front Street, between ½ and 1 mile south-southwest of the subject property.

Delisted SHWS

- Former Monroe Hospital, located at 188-120 Maple Boulevard, between ¼ and ½ miles west-northwest of the subject property.
- Monroe Paper Company, located at 1200 E Elm Avenue, between 1/8 and ¼ mile southwest of the subject property.

- Kadim Saiedm, located at 1101 E Front, between ¼ and ½ mile southwest of the subject property.
- CPC Green Space, located at 1530 E Front Street, between ½ and 1 mile south of the subject property.

Solid Waste Facilities Database (SWF/LF)

- No properties listed.

Inactive Solid Waste Facilities (HIST LF)

- No properties listed.

Lien List (LIENS)

- No properties listed.

Leaking Underground Storage Tanks (LUST)

- Pilot Travel Centers #024, located at 1100 N Dixie Highway, between ½ and ½ mile northeast of the subject property.
- Former K&H Transport located at 515 Harbor Avenue, between 0 and 1/8 mile east-southeast of the subject property.
- Jefferson Smurfit Corp., located at 1205 East Elm Avenue, between 1/8 and ¼ mile south-southwest of the subject property.
- B&A Standard Service, located at 1031 E Elm Avenue, between 1/8 and ¼ mile west-southwest of the subject property.
- Kadium Saied, located at 1101 E Front Street, between ¼ and ½ mile southwest of the subject property.
- Gene German I, located at 72 Winchester Street, between ¼ and ½ mile southwest of the subject property.

Underground Storage Tank (UST)

- Floral City Tree Service, located at 805 N Dixie Highway, between 1/8 and ¼ mile north of the subject property.
- Ziebart, located at 891 N Dixie Highway, between 1/8 and ¼ mile north-northeast of the subject property.
- Fleischmanns Vinegar, located at 465 Harbor Avenue, between 0 and 1/8 miles east-southeast of the subject property.
- D-X Trucking, Inc., located at 1107 E Noble Avenue, between 1/8 and ¼ mile west-northwest of the subject property.
- Union Camp Corp., located at 1109 East Elm Avenue, between 1/8 and ¼ mile south-southwest of the subject property.
- Monroe Paper Co., located at 1109 E Elm Avenue, between 1/8 and ¼ mile southwest of the subject property.

- B&A Standard Service, located at 1031 E Elm Avenue, between 1/8 and ¼ mile west-southwest of the subject property.

Aboveground Tanks (AST)

- Bakers Gas & Welding, located at 905 N Dixie Highway, between 1/8 and ¼ north-northeast of the subject property.
- Bakers Gas & Welding, located at 905-B North Dixie Highway, between 1/8 and ¼ north-northeast of the subject property.
- Jefferson Smurfit Corp., located at 1220 E Elm Avenue, between 1/8 and ¼ mile southwest of the subject property.

Brownfields

- Jefferson Smurfit Corp., located at 1205 E. Elm Avenue, between 1/8 and ¼ mile south-southwest of the subject property.
- Kadim Saied, located at 1101 E Front, between ¼ and ½ mile southwest of the subject property.

Baseline Environmental Assessment (BEA)

- 601 North Dixie, 0 to 1/8 mile west-northwest of the subject property
- 321 Harbor Avenue, 0 to 1/8 mile east-southeast of the subject property.
- K. M. Properties, located at 444 N Dixie, 0 to 1/8 mile west-northwest of the subject property.
- Monroe Paper Co., located at 1205 E Elm, 1/8 to ¼ mile south-southwest of the subject property.
- Former Jefferson Smurfit Property, located at 1205 East Elm Street, 1/8 to ¼ mile south-southwest of the subject property.
- Vacant Parcel, located at 1407 E Elm, ¼ to ½ mile south of the subject property.

Pollution Emergency Alerting System (PEAS)

- No properties listed.

Engineering and Institutional Controls (AUL)

- No properties listed.

Dry-cleaning Establishments (DRYCLEANERS)

- No properties listed.

Clandestine Drug Lab Listing (CDL)

- No properties listed.

List of Active NPDES Permits (NPDES)

- No properties listed.

Permit and Emissions Inventory Data (AIRS)

- No properties listed.

4.4 Tribal Records

Indian Reservations (INDIAN RESERV)

- No properties listed.

Leaking Underground Storage Tanks on Indian Land (INDIAN LUST)

- No properties listed.

Underground Storage Tanks on Indian Land (INDIAN UST)

- No properties listed.

4.5 EDR Proprietary Records

EDR Proprietary Manufactured Gas Plants (Manufactured Gas Plants)

- No properties listed.

EDR Proprietary Historical Landfill

- No properties listed.

Groundwater flow in the vicinity of the subject property has been reported to be to the south-southwest (refer to Section 5.2). Therefore, listings with addresses of 1205 or 1200 East Elm Avenue, which also pertain to the former paper mill, should not adversely affect the subject property. It is AECOM's opinion that, due to the distance from the subject property or the previous usage of the listed properties, the sites listed above are not expected to constitute an environmental impact to the subject property.

In addition to the information listed above, it is AECOM's understanding that if contamination should migrate onto the subject property from an off-site source(s), MDOT would be entitled to a defense (pursuant to Section 20126(4)(c) of Michigan's NREPA.

In addition to the sites listed above, twenty three (23) orphan sites were also identified in the EDR report. Investigation of these sites indicates that they are not adjoining or adjacent to the subject property. Therefore, the sites that are orphan sites are not considered a REC with respect to the subject property. Additional information regarding these orphan sites is included in the EDR report located in Appendix B.

4.6 Physical setting

The subject property is located west of Detroit Street, north of East Elm Street, and east of the Conrail Railroad in Monroe, Michigan. The United States Geologic Survey (USGS) 7.5-Minute Series Topographic Maps (Stony Point, Michigan, Quadrangle dated 1967, photo revised 1978, and Monroe, Michigan Quadrangle dated 1967, photo revised 1979) shows that the subject property and vicinity land is relatively flat to gently rolling.

Groundwater flow in the area of the subject property was not reported by EDR. Based on our review of this topographic map, the groundwater flow direction in the vicinity of the subject property is likely to the south-southeast, toward the River Raisin. Previous environmental investigations have reported groundwater flow in the vicinity of the subject property to be to the south-southwest (See Section 5.2).

The closest surface water feature in the general vicinity of the subject property is the Mason Run located on and along the extreme southern end of the subject property.

According to the "Hydrogeologic Atlas of Michigan" published by Western Michigan University in 1981, local bedrock consists of the Silurian aged Bass Islands Formation. The bedrock is overlain by approximately 0 to 50 feet of surficial deposits consisting of ground moraines (till plains).

4.7 Subject Property Historical Use Information

The subject property is comprised of a single parcel that is undeveloped. Historical aerial photographs, historical business directories, and historical topographic map search results were obtained by AECOM to better understand the prior use of the subject parcel and its surroundings. A summary of this information is included below.

4.7.1 Sanborn Fire Insurance Maps

AECOM attempted to obtain historic fire insurance maps from EDR for the subject property as part of this Phase I ESA. The subject property is not located in an area of Sanborn Map coverage. A copy of the Sanborn Fire Insurance No Coverage Report is included in Appendix C.

4.7.2 Historical Aerial Photographs

Historical aerial photographs were obtained for the area for the following years: 1937, 1940, 1949, 1955, 1964, 1973, 1980, 1985, 1992, 2000, and 2006. Although the scale of these aerial photographs is small, individual houses, trees, roadways, and other buildings can be generally identified.

Aerial Photograph Review for Subject Area

Year	Scale	Subject Property Features
1937	1" = 500'	The subject property is visible and appears to be partially occupied with one building located at the southeast corner of the property, a portion of a second building that extends onto the property to the south, and a concrete pad near the southwest corner of the property. These buildings match the recent configuration of the former paper mill and are considered to be part of that operation in 1937. What appear to be storage containers are located along the eastern property boundary. The surrounding area is mostly agricultural with development located to the south of Elm Avenue, along the River Raisin.
1940	1" = 500'	No significant changes have occurred since the 1937 aerial photograph.
1949	1" = 500'	There are storage containers located on the southern portion of the property and there appears to be more activity in that area than in previous photographs. There are less storage containers located along the eastern property boundary than there were in the 1940 photograph. The area to the east of the property has been developed.

Year	Scale	Subject Property Features
1955	1” = 500’	There are no longer storage containers located along the eastern property boundary. The southern portion of the property appears to be further utilized for storage. There appear to be two clarifiers on the subject property. The clarifiers are located just north of the main building that is located on the adjacent property to the south. A railroad spur appears to run northwest/southeast across the property.
1964	1” = 500’	No significant change from the 1955 photograph.
1973	1” = 600’	There are fewer storage containers located on the southern portion of the property. The building at the southeast corner appears to have been removed. There are now trees present on the northern portion of the site.
1980	1” = 500’	There are more storage containers than were seen in the 1973 photograph.
1985	1” = 500’	No significant change from the 1980 photograph.
1992	unknown	No significant change from the 1985 photograph.
2000	1” = 500’	There are no longer storage containers located north of the concrete pad. Trees and/or vegetation now cover the northern portion of the property.
2006	1” = 604’	There is no longer vegetation present on the property. The property surface is covered with gray ground cover. The concrete pad and clarifiers at the southern end of the property are still visible.

Copies of aerial photographs are available in Appendix D.

4.7.3 Historical Topographic Maps

Historical topographic maps were obtained for the area for the following years: 1942, 1967, 1973, and 1978.

Historic Topographic Map Review for Subject Property

Year	Scale	Property Features
1942	1:24,000	The subject property appears as developed with a building at the south end of the property.
1967	1:24,000	No significant change from the 1942 map.

Year	Scale	Property Features
1973	1:24,000	No significant change from the 1967 map.
1978	1:24,000	No significant change from the 1978 map.

Copies of topographic maps are available in Appendix E.

4.7.4 Historical Directories

A historical city directory, provided by EDR, was reviewed as part of this Phase I investigation. This directory includes Polk's City Directory at approximately four-year intervals from 1950 through 2010. The subject property, located at 1220 E. Elm Avenue, was first listed in the directories beginning in 1983. Additional information is listed in the table below.

Year	Uses (Listed as)	Source
1983	Union Camp Corps. Unbleached Div. (paper mfrs.)	Polk's City Directory
1988	Monroe Paper Co. Unbleached Div. (whse.)	Polk's City Directory
1994	Jefferson Smurfit (east mill)	Polk's City Directory

A copy of the historical directory is located in Appendix F.

4.8 Adjoining Property Historical Use Information

AECOM's review of reasonably ascertainable historical information indicates that the areas surrounding the subject property have been used for agricultural and industrial/commercial purposes, since as early as 1937, and likely before.

AECOM does not anticipate any of the nearby sites to be an REC with respect to the subject property; however, it is AECOM's understanding that if contamination should migrate onto the subject property from an off-site source, the current or future owner of the subject property would be entitled to a defense (pursuant to Section 20126(4)(c) of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, or "NREPA").

5.0 Interviews

5.1 Interview with Property Owner

AECOM conducted an interview with Mr. Roger Homrich, the current owner of the subject property. Mr. Homrich informed AECOM that he purchased the subject property along with the parcel located to the south in 1997. According to Mr. Homrich, after his purchase of the property, the Mason Run was opened up and used as a physical boundary to separate the southern parcel from the subject property. He demolished the buildings on the southern parcel and donated it to the National Park Service as part of the River Raisin Battlefield. He indicated that cleanup activities had been completed on the southern parcel but no cleanup had taken place on the subject property. Mr. Homrich indicated that, as far as he knew, the subject property had not been used by the paper mill for activities other than material (paper) storage and that no environmental impacts were expected. According to Mr. Homrich, the subject property was used by the paper mill for storage of paper. He stated that the concrete pad located on the subject property has always been a concrete pad (and not part of a roofed structure or other building) that was used for storing and loading paper onto trucks.

Mr. Homrich indicated that a couple of railroad spurs were previously located on the subject property and that they were removed by the railroad shortly after his purchase of the property. Mr. Homrich covered the subject property with a gray slag aggregate. He purchased the slag aggregate from Tube City IMS in Monroe. Toxicity characteristic leaching procedure (TCLP) testing that was performed on the slag aggregate is attached as Appendix G. This data indicates that the slag aggregate has no hazardous characteristics. According to Mr. Homrich, the slag aggregate is commonly used in the Monroe area for gravel parking lots.

Mr. Homrich leased the property to a company known as Vascor. Vascor, under contract with the Chrysler Corporation, utilized the central and northern portions of the subject property as a parking lot for newly manufactured Chrysler vehicles. According to Mr. Homrich, the subject property was used as a parking lot from mid-2007 through the end of 2008. Chrysler is no longer using the subject property as a parking area.

Mr. Homrich also stated that he removed the clarifiers formerly located on the subject property in approximately 2007.

Mr. Homrich does not know where utilities are located on the subject property. He indicated that he has been informed of a high voltage electric line that is supposed to run across the property but he was not sure of the location of the line. He stated that there are fiber optic lines located on the western side of the railroad tracks. There are also two hydrants located on the property, and he indicated that he believed any lines connected to those hydrants should be old and not in use.

5.2 Previous Environmental Reports

AECOM submitted a Freedom of Information Act (FOIA) request to the MDNRE to review their files that pertain to the subject property and former paper mill. The following reports were reviewed by AECOM:

- Baseline Environmental Assessment, 1205 East Elm Avenue, Monroe, Michigan, AKT Peerless Environmental Services, dated August 7, 2006.

- Environmental Conditions Report, Former Jefferson Smurfitt Corporation East Mill Historic Parcel, Monroe, Michigan, Soil and Materials Engineers, Inc. (SME), dated June 15, 2005.
- Hydrogeological Assessment, Former Jefferson Smurfitt East Mill, 1205 E. Elm Street, Monroe Michigan, SME, dated May 16, 2005.
- Report on Bedrock Hydrogeologic Investigation, Former Jefferson Smurfitt Corporation East Mill Property – North Parcel, Haley & Aldrich of Michigan, Inc., dated February 2003.
- Phase I Environmental Site Assessment Report, Former Jefferson Smurfitt Property River Raisin Battlefield Site, Monroe, Michigan, AKT Peerless Environmental Services, dated July 30, 2001.
- Category A Baseline Environmental Assessment, Former Jefferson Smurfitt Property, 1205 East Elm Avenue, Monroe, Michigan, Techna Corporation, dated January 27, 1998.
- Hydrogeologic Investigation East Mill, Monroe, Michigan, Quality Environmental Professionals, Inc., dated June 14, 1996.
- Environmental Site Assessment (Physical Walk-Through) of Monroe Paper Company, 1220 East Elm Avenue, Monroe, Michigan 48161, Gary J. Davis, dated July 10, 1991.

Because the subject property is a portion of the larger, former paper mill, the reports were reviewed to ascertain if environmental investigations were conducted on the subject property or only on the main paper mill parcel south of Mason Run.

The following is a summary of information that was obtained from the previous environmental reports reviewed.

Site History

The subject property was historically part of a much larger parcel known as the East Mill site. Land near and including the former East Mill site has been continuously occupied since the late 18th century. The settlement, known as Frenchtown, continued to grow as Frenchmen from Detroit moved southward. By 1812, as the United States moved toward war with Britain, Frenchtown became a strategic outpost. The first and second battles of the River Raisin occurred on January 18 and 22, 1813 in the area of the subject property. Frenchtown, which had been abandoned during the War of 1812, began to be resettled in 1816 further west along the river. The new settlement grew into the City of Monroe. The area of the East Mill became agricultural land after the War of 1812. Between 1850 and 1915, the land near the River Raisin, east and west of present day Dixie Highway, was the site of the Michigan Nursery Company.

In the early 20th Century, a portion of the Michigan Nursery Company's land was conveyed to the River Raisin Paper Company. The River Raisin Paper Company built the first paper mill (West Mill) on the northwest corner of Dixie Highway and Elm Street in 1915. Between 1918 and 1920, the East Mill was constructed. Additional expansion of the East Mill occurred as the company grew, and acquired the Monroe Corrugated Box Company in 1920.

Union Camp Corporation purchased the River Raisin Paper Company in 1960. The paper mill complex was operated by Union Camp until the mid-1980's, when it sold the facilities and adjoining land to the Monroe Paper Company, a partnership of Jefferson Smurfitt Corporation and an individual, Bob Mitchell. Jefferson Smurfitt acquired full ownership of the property in 1991.

The East Mill (including the subject property) was operated until 1995, when operations were ceased. The vacant East Mill and adjoining properties were sold to Homrich, Inc., in 1997. The mill buildings were generally unused after 1995. Some of the buildings deteriorated significantly and were demolished

by Homrich in 2002. A fire destroyed most of the remaining East Mill structures in April 2004. After the fire, Homrich demolished the damaged structures to grade in 2004.

The majority of the buildings that comprised the East Mill existed on the property that is located south of the Mason Run and are not a part of the subject property. The northern portion of one building (known as Mill 5) did extend onto the subject property. The subject property was primarily used for the storage of recycled paper that was used to manufacture corrugated box board. The paper was delivered to the subject property and was stored in large stacks of bales. Coal was also stored on the subject property. Coal was transported to the property by rail and was stored in piles along the western boundary of the subject property. The coal was used in on-site boilers for the paper mill. The boilers were converted to natural gas in July 1992. The boilers were located on the property south of the Mason Run, and were not located on the subject property.

In the 1950s two clarifiers were constructed on the south end of the subject property, east of the concrete pad and north of Mason Run. Wastewater from the papermaking process was routed to the two 200,000 gallon clarifiers then recycled back to the process. Wastewater discharges from this system were directed to the City of Monroe sanitary sewer system. Homrich demolished and removed the clarifiers in approximately 2007.

Most recently, Homrich leased the subject property to a company known as Vascor. Vascor, under contract with the Chrysler Corporation, utilized the central and northern portions of the subject property as a parking lot for newly manufactured Chrysler vehicles. According to a Homrich representative, the subject property was used as a parking lot from mid-2007 through the end of 2008.

Site Geology

Following is a summary of site geology based on the findings of previous environmental investigations conducted on the East Mill site.

The subsurface stratigraphy of the East Mill site includes a surface layer of approximately 1 to 5 feet of sandy fill with concrete, bricks, cinders and gravel. The fill is underlain by silty clay. The clay layer is generally found to extend to the limestone bedrock that is encountered at depths ranging from 10 to 16 feet below ground surface (bgs). The limestone bedrock has been found to extend to at least 26 feet bgs.

Discontinuous shallow groundwater has been reported in the overburden only in isolated sand seams at depths ranging from 3 to 11 feet bgs. A confined aquifer is present in the underlying bedrock formation. Bedrock groundwater has generally been encountered at depths of 1 to 5 feet below the top of bedrock. Groundwater elevations measured in bedrock wells indicate a positive groundwater head or upward gradient. Groundwater flow has been determined to be to the south-southwest.

In the area of the East Mill site, soils appear to have been reworked and/or obscured by urban and industrial development. Fill appears to have been imported during the nineteenth and twentieth centuries to raise the land surface elevation above the original river plain from the south side of East Elm Avenue northward under the subject property.

The surface drainage at the East Mill site flows to the River Raisin drainage system, which is located south of the site and flows east to Lake Erie. The site is drained by Mason Run, which flows eastward across the southern boundary of the subject property. Mason Run previously flowed through a box

culvert as it transversed under the northern portion of the former mill complex. Mason Run is now open along the entire southern boundary of the subject property.

Environmental Conditions

Several environmental investigations have been conducted on the East Mill site. Identified contaminants include volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), metals, sulfates, and ammonia. Contaminants have been detected in several areas at concentrations exceeding Michigan's Default Generic Residential Cleanup Criteria (GRCC). Areas of impacts identified in the previous investigations include the following:

- 3 former fuel oil USTs including one 8,000 gallon UST and two 30,000 gallon USTs;
- A former 1,000 gallon kerosene AST;
- Disposal trenches historically located east of the south end of building #3 of the former paper mill; and,
- Industrial fill placed over the entire site.

Sulfate and ammonia impacts were detected in upgradient and downgradient bedrock wells that were installed as part of the pervious investigations.

The majority of past environmental investigations that have been conducted on the East Mill site have focused on the portion of the site located south of the Mason Run. The actual property, subject to this report, is located north of the Mason Run. However, SME installed two bedrock monitoring wells (BR-8 and BR-9) on the subject property as a part of their 2004 hydrogeological assessment of the East Mill site. Samples from both wells were collected and analyzed for VOCs, metals, sulfate and ammonia. Ammonia and sulfate were detected in both wells. VOCs and metals were not detected in either well. Ammonia was detected in both wells at concentrations exceeding MDNRE Generic Groundwater Surface Water Interface (GSI) criteria. Sulfate was detected in both wells at concentrations below applicable criteria.

An area of stockpiled soil on the concrete slab located on the subject property was identified in Techna Corporation's 1998 BEA. According to the BEA, the soil in the stockpile (approximately 3,500 cubic yards) was removed from off-site sump and UST excavations on the adjacent southern parcel and deposited on the subject property. Discrete soil samples were collected from the stockpile which indicated the presence of VOCs and PAHs at concentrations below applicable MDNRE criteria.

5.3 Interviews with Local Government Officials

AECOM accessed the City of Monroe online property database to obtain information regarding the site. Information obtained from this database includes the subject property Parcel Number of 58-55-59-01904-000. There are no violations recorded by the City of Monroe against the subject property. The online property database also allows a search of available Building Department records. A demolition permit was listed under the subject property's parcel number. The demolition permit was issued in December 2000 for demolition of the east structure. A permit for a temporary construction sign was also listed. It is indicated in the electronic file that the sign identifies development and preservation, War of 1812 River Raisin Battlefield. The permit was applied for in November 2006. 12 code enforcements were also listed but little detail was given for any of them. No other information was contained in the electronic files.

AECOM contacted Ms. Kimberly Tyson of the Michigan Department of Natural Resources and Environment (MDNRE), Waste and Hazardous Material Division (WHMD); and Mr. Ray Spaulding of the MDNRE Jackson District, Remediation and Redevelopment Division. Both Ms. Katko and Mr. Spaulding were familiar with the East Mill site and confirmed progress made by Homrich Inc. to implement a plan for closure of a nearby landfill that is unrelated to the subject property, but had been part of the Paper Mill operation. Ms. Katko stated that the Paper Mill had been a regulated storage facility and had its hazardous waste containers closed out in 1989. Neither Ms. Katko nor Mr. Spaulding were aware of environmental issues with the subject property and stated that investigations primarily involved the landfill and the main Paper Mill site south of the subject site and Mason Run. As a result of the information obtained from the MDNRE, AECOM conducted the review of documents in MDNRE files, summarized in Section 5.2.

6.0 Information from Site Reconnaissance

6.1 Methodology and Limiting Conditions

AECOM observed the subject property to identify historical RECs and current RECs. During the site reconnaissance, photographs were taken for documentation purposes. Photographs of the site visit are included in Appendix H.

6.2 General Site Setting

The site reconnaissance of the site was conducted by Ms. Bridget Walsh, AECOM Assistant Project Engineer, and Mr. Craig Simon, Project Scientist, on July 12, 2010. AECOM was accompanied by Mr. Roger Homrich during the site reconnaissance.

AECOM observed the subject property for features associated with environmental impairment, which include, but are not limited to, electrical transformers, USTs, ASTs, chemical/waste storage and/or generation, management practices, and pesticide/herbicide application practices.

6.3 Site Conditions

The subject property is currently vacant and unoccupied.

AECOM observed no wells present on the site. No indications of current or historical USTs or ASTs were observed.

6.3.1 Building and Property Exterior

With exception of a large (approximately 300 x 250') concrete slab and a truck scale and trailer allocated in the southern quarter of the subject property, there are currently no structures present on the subject property. The concrete slab is elevated approximately four to six feet above the remainder of the subject property.

AECOM observed the subject property for obvious changes in site topography that might reveal evidence of dumping, land filling activities, placement of fill material or former pits, ponds and lagoons. AECOM observed the topography of the subject property to be gently sloping to the south and consistent with the adjoining properties and that of the USGS Stony Point and Monroe, MI Topographical Map.

With the exception of the southwestern corner of the site, the majority of the subject property was covered in gray slag aggregate material. Evidence of illicit dumping, primarily in the form of scrap metal, bricks, blocks, and some cinder, was observed on the west side of the concrete slab. In addition, similar evidence of dumping was also observed in the central and northeastern portions of the subject property. The areas of discarded material appeared to be localized and were generally not widespread.

The Mason Run is located on the extreme southern end of the subject property. It was observed to be contained in a very steeply graded ditch and the water level was approximately 10 feet below the surrounding surface grade.

Sparse areas of vegetation were observed throughout the slag-covered area, and thicker, more mature areas of vegetation were observed immediately adjacent to the concrete slab as well as an area located in the northern half of the subject property, along the eastern property boundary.

AECOM did not observe any irrigation wells, injection wells, monitoring wells or dry wells on the property. The site inspection revealed no evidence of stained soil or stressed vegetation. In addition, AECOM observed no evidence of pits, ponds, or lagoons.

AECOM did not observe noxious odors, pools of liquid or standing water at the subject property.

During the site reconnaissance, AECOM also observed the adjacent properties. No concerns were identified on adjacent properties based on observations made from the subject site.

6.4 Hazardous Substances In Connection With Identified Uses

AECOM observed the subject property for chemicals and hazardous substances. AECOM identified no use or storage of hazardous substances on the site.

6.5 Storage Tanks

AECOM inspected the subject property for the presence of USTs and ASTs. AECOM did not observe any manways, fill or vent pipes suggesting the presence or historic presence of USTs on the subject property.

6.6 Indications of Polychlorinated Biphenyls

AECOM observed the subject property for the presence of equipment suspected of containing polychlorinated biphenyls (PCBs). PCBs are often found in insulating or dielectric fluids in electrical and hydraulic equipment. Pole-mounted transformers were seen along the power lines located on the eastern border of the subject property. No labels were visible and no staining was evident. When present, most existing pole-mounted transformers belong to the local utility company who are responsible for maintaining them, and are not the responsibility of the property owner.

6.7 Indications of Solid Waste Disposal

AECOM observed the subject property for solid waste management issues, including generation and disposal methods. AECOM did not observe evidence of illegal solid waste disposal.

7.0 Findings and Opinions

The subject property consists of an approximate 32.56 acre lot in an area consisting of mixed commercial/industrial, residential, and agricultural properties at 1220 E Elm Street, in Monroe, Michigan. The subject property is presently unoccupied and undeveloped. The property has historically been used for storage of recycled paper and coal for a paper mill that operated primarily on the adjacent parcel to the south. In addition, the property was the site of a battle during the War of 1812.

The review of several environmental reports pertaining to the East Mill site have documented environmental impacts south of Mason Run on the parcel with the primary paper mill operations. As a result, little historical information has been obtained by AECOM documenting activities by the former paper mill that would suggest significant environmental impacts. Never the less, the historical placement of industrial fill on the site, the rail delivery and storage of coal, the use of clarifiers, and the activities by the paper mill including material storage, are considered RECs. The specific RECs are listed by AECOM in Section 8.0.

The following data gaps identified during performance of this Phase I ESA, as well as the significance of each data gap, are discussed below:

- A chain-of-title search was not conducted as part of this Phase I ESA.

It is the opinion of AECOM that these data gaps are not significant and do not result in RECs and/or historic RECs with respect to the subject property.

8.0 Conclusions

AECOM has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-05 of the subject property. Any exceptions to, or deletions from, this practice are described in Section 1.4 of this report.

Based on the site reconnaissance conducted by AECOM, interviews with Mr. Roger Homrich (current owner of the subject property), a review of the environmental databases and other materials supplied by Environmental Data Resources, and other pertinent historical records, AECOM identified the following RECs on the subject property:

- Historical use of the subject property as part of a paper mill for material storage including some potentially impacted soil; use of clarifiers in the paper mill operations; and for the storage of coal, used to fire the boilers in the mill.

- Historical placement of fill on site, consisting of cinders, slag, coal, and some construction debris.

It is AECOM's opinion that further investigation, by means of a Limited Phase II ESA, is warranted to ascertain the absence/presence of hazardous materials that may have affected the subject property throughout its history.

9.0 Environmental Professional Statement

As required by Section 12.13 of ASTM E1527-05, AECOM provides the following declarations:

I declare that, to the best of my professional knowledge and belief, I meet the definition of environmental professionals responsible for conducting the Phase I Environmental Site Assessment and preparation of the report.

I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Respectfully,

Bridget A. Walsh, P.E. Assistant Project Engineer	Scott G. Park C.P.G. Senior Project Geologist

10.0 General Qualifications

AECOM was retained by MDOT to perform an ASTM 1527-E 05 Phase I Environmental Site Assessment on the property located at 1220 E Elm Street in Monroe, Michigan.

The information presented in this report, and the conclusions and recommendations contained herein, are based upon information obtained by AECOM.

Factual information regarding recent past operations and site conditions, were obtained, in part, from Mr. Roger Homrich (current owner of the subject property), outside agents, and third parties and have been assumed by AECOM to be correct and complete. Because the facts stated in this report are subject to professional interpretation, they could result in differing conclusions by other professionals. In addition, the findings and conclusions contained in this report are based on various quantitative factors as they existed on or near the date of the site reconnaissance.

AECOM assumes no responsibility for the discovery and elimination of hazards that could possibly cause accidents, injuries, or damage. Compliance with the recommendations and/or suggestions contained in this report in no way assures elimination of hazards or the fulfillment of a property owner's obligation under any local, state, or federal laws or any modifications or changes thereto. It is the responsibility of the subject property owner to notify authorities of any conditions that are in violation of current legal standards.

Environmental conditions and regulations are subject to constant change and reinterpretation. It should not be assumed that current conditions and/or regulatory positions will remain constant. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other professionals.

Contaminants may be hidden in the subsurface materials, having been placed there due to the actions of man, or covered by foliage, water, snow, concrete, asphalt or other materials. This contamination may not be present in predictable locations. The most that AECOM can do is formulate a logical assessment program to reduce the client's risk of later discovering unknown contamination. The greater the extent of exploration of a property, the greater the probability of finding contamination, if present. Even with very extensive exploration, it is not possible to say with total certainty that contaminants are not present at a particular site.

Many environmental assessments are undertaken to satisfy the "due diligence" requirement in CERCLA. The level of investigation work required to demonstrate "due diligence" has not been legislatively defined by Congress, the U.S. EPA or the State of Michigan. Although AECOM strives to investigate each site sufficiently to discover all possible sources of contamination, no warranty, either expressed or implied with regard to the site conditions, or Peckham Inc.'s ability to assert any defense under CERCLA or any comparable state law for residual environmental impairment, is contained herein.

11.0 References

American Society for Testing and Materials (ASTM), Standard Practice for Environmental Assessments: Phase I Environmental Site Assessment Process, E1527-05, ASTM, 100 Barr Harbor Drive, Conshohocken, Pennsylvania 19428, 2006.

United States Geological Survey, 1978. 7.5-Minute Topographic Quadrangle of Stony Point and Monroe, Michigan. Scale: 1'' = 2,000'.

Western Michigan University, 1981. Hydrogeologic Atlas of Michigan.

Environmental Data Resources, Inc., Milford, Connecticut, June 14, 2010. Radius Map with GeoCheck.

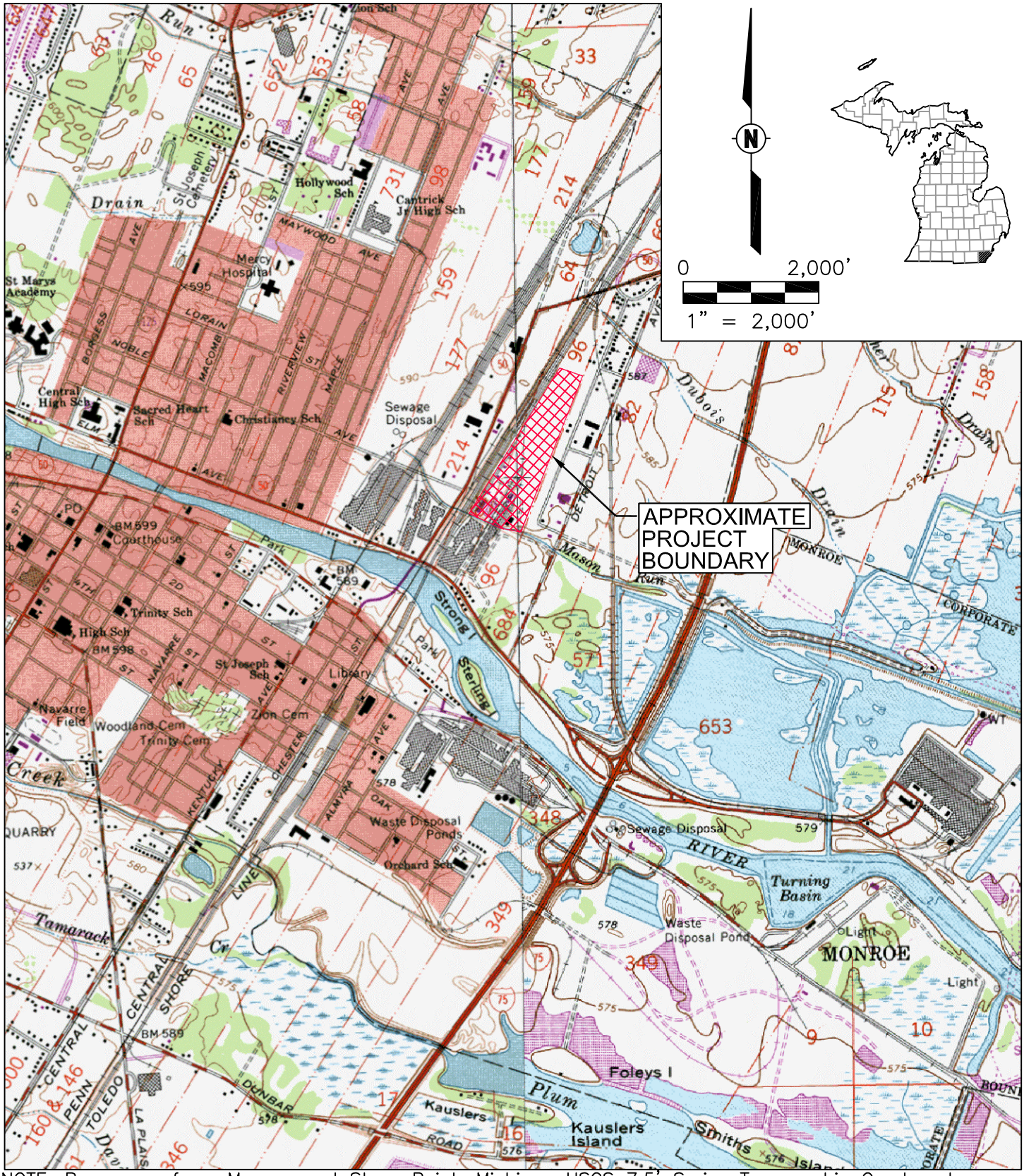
Environmental Data Resources, Inc., Milford, Connecticut, June 17, 2010. The EDR Aerial Photo Decade Package.

Environmental Data Resources, Inc., Milford, Connecticut, June 15, 2010. Certified Sanborn Map Report.

Environmental Data Resources, Inc., Milford, Connecticut, June 15, 2010. The EDR Historical Topographic Map Report.

Mr. Roger Homrich, current property owner, telephone/personal interview, multiple dates.

Figures



NOTE: Base map from Monroe and Stony Point, Michigan USGS 7.5' Series Topographic Quadrangles dated 1967 and photorevised 1979 and 1973 respectively. Contour interval equals 5 feet.

AECOM

APPROXIMATE PROJECT SITE LOCATION
PHASE I ENVIRONMENTAL SITE ASSESSMENT
MICHIGAN DEPARTMENT OF TRANSPORTATION
RIVER RAISIN BATTLEFIELD
MONROE, MICHIGAN

Drawn :	CJD	09/29/2010
Checked:	SGP	09/29/2010
Approved:	JSM	09/30/2010
PROJECT NUMBER	60157928	
FIGURE NUMBER	1	

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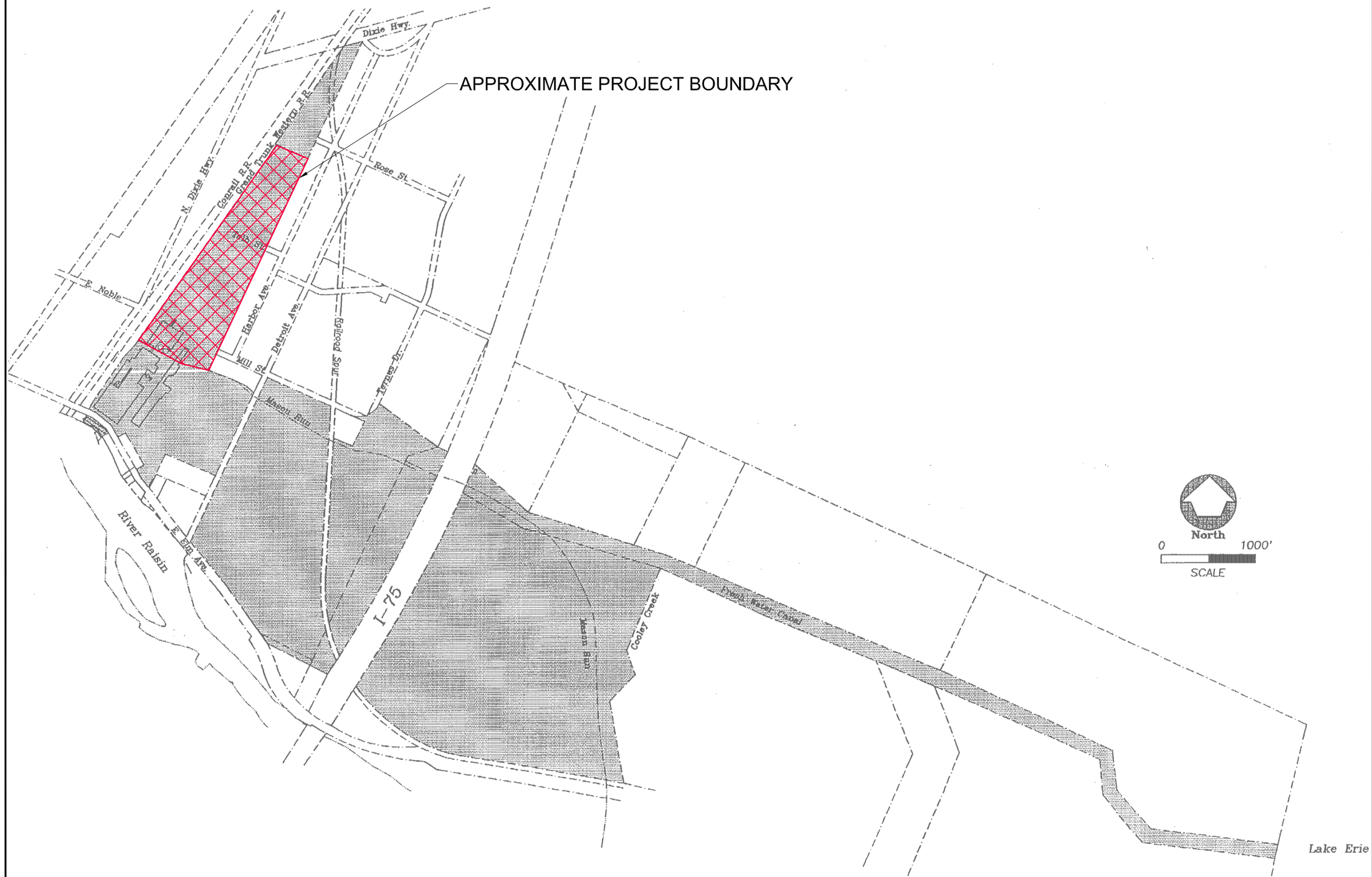

NOTE: Base map from Techna Corporation drawing dated 1998. Areas shown in gray shading depict East Mill Property purchased by Homrich, Incorporated.

AECOM

PROJECT SITE PLAN
PHASE I ENVIRONMENTAL SITE ASSESSMENT
MICHIGAN DEPARTMENT OF TRANSPORTATION
RIVER RAISIN BATTLEFIELD
MONROE, MICHIGAN

Drawn :	CJD	08/30/2010
Checked:	SGP	08/30/2010
Approved:	JSM	08/30/2010

PROJECT NUMBER 60157928

FIGURE NUMBER 2

X:\PROJECTS\60157928\PHASE-1_ESA-FIGURES\G60157928-002_PHASE-1_ESA_FIGURES-2-3-4.dwg; 10/1/2010 2:34:53 PM; DOYLE, CONAN; STS.stb

Appendix A

Qualifications of Environmental Professionals

Scott G. Park, CPG
Senior Project Geologist

Professional History

Education

MS, Geology, Western Michigan University
BA, Geology, Albion College

Registrations

Professional Geologist

Years of Experience

With AECOM 21
With other firms 0

Technical Specialties

Transaction Due Diligence
Brownfield Development
Remediation Feasibility Studies
Groundwater & Soil Subsurface Investigation
Vapor Intrusion

Professional Affiliations

National Groundwater Association
Institute of Brownfield Professionals
ASFE Fundamentals of Professional Practice #16 Magna cum Laude
Western Michigan University and Lansing Comm. College Faculty Member
Lansing/Dewitt Sunrise Rotary

Mr. Park serves as Senior Project Geologist in the Lansing, Michigan office; responsibilities include project supervision and management, client contact, evaluation and assessment of contaminated sites, coordination of field efforts, preparation of reports and assisting with oversight of staff. His areas of specialization include site investigations and closures – Part 201 of Michigan's Public Act 451; Phase I/II Environmental Site Assessments and Baseline Environmental Assessments – Part 201 of Michigan's Public Act 451; groundwater contamination and remediation; soil contamination and remediation; RCRA facility investigation; and Underground Storage Tank (UST) regulations – Michigan's Part 213 of Public Act 451.

Experience

Municipal and Private Clients. Project Manager and Supervisor of more than 700 Phase I environmental site assessments in Michigan, Ohio and Illinois, including extensive multiple city block assessments in urban and commercial districts in Michigan.

Municipal and Private Clients. Project Manager for field exploration and report preparation relating to the completion of Category N, D & S Baseline Environmental Assessments (BEAs) in accordance with Part 201 of Act 451. BEA completion included both submittals for disclosure purposes or with application for adequacy determination.

Demmer Corporation, Motor Wheel RCRA Brownfield, Lansing MI. Project Manager and Principal Investigator for industrial redevelopment of one of Michigan's first RCRA Brownfield sites in Lansing Michigan. The project entailed initial Due Diligence Investigations, including Phase I, Phase II Studies, Category S Baseline Environmental Assessments, preparation and state approval of Act 381 work plan, and subsequent RCRA Facility Investigation and proposed RCRA Corrective Measure. Project involved exposure pathway evaluations and fate and transport of Volatile Organics in groundwater and potential risks to third parties and municipal water supply systems.

Training and Certifications

Hazwoper 40 Hour with annual updates

Honors and Awards

WMU University Graduate Research & Creative Scholar, 1987

City of Kalamazoo, Arcadia Creek Project. Project Manager and Principal Investigator of an extensive Phase II assessment for business redevelopment of nine square blocks in Kalamazoo, Michigan. This project included the identification and definition of six groundwater contaminant plumes and multiple areas of soil contamination through the installation of 58 monitor wells and the drilling of numerous soil borings.

Owosso Township, Brownfield Redevelopment, Owosso MI. Project Manager and Principal Investigator of a 60 acre abandoned industrial Brownfield property in Owosso Township, Michigan. Project included preparation of Brownfield Revitalization Loan on behalf of the Township, soil and groundwater investigation, geophysical investigation, free product identification and evaluation and completion of a Category S Baseline Environmental Assessment on behalf of proposed new property owners. The BEA, involving the use of designed engineered controls was approved for adequacy by the MDEQ.

Thermos Inc., TCE Bedrock Groundwater Investigation, Norwich Ct. On-site Geologist/Coordinator for a multiple source evaluation of soil and groundwater impacted with chlorinated solvents at adjacent industrial sites in Norwich, Connecticut. The project included on site coordination and interpretation of contaminant migration through a fractured bedrock aquifer using double casing drilling techniques with rock coring and vertical groundwater profiling.

Waste Management, Peoples Landfill, Birch Run, MI. Project Manager and Principal Investigator of a Hydrogeological Investigation at a Michigan solid waste landfill. The project involved the evaluation of potential leachate migration from the landfill and the potential effects of both drinking water and GSI exposure pathways. Corrective measures include the design and installation of a bentonite slurry wall to eliminate leachate migration. Process included the completion and DEQ approval of a comprehensive Remedial Action Plan (RAP) and presentation to the DEQ Remedial Advisory Team.

JBS Packerland Packing, Risk Assessment Monitoring, Plainwell MI. Project Manager and Principal Investigator of a Hydrogeological Investigation and interim remediation action at a beef packaging facility in Western Michigan. Project involves statistical monitoring of natural attenuation of nitrates in shallow residential drinking water aquifers.

MDNRE, Millies Market, Gregory MI. Project Manager for a groundwater investigation in bedrock, Livingston County, Michigan. The investigation included bedrock coring and classification, vertical aquifer sampling, and permanent monitor well installation to evaluate presence and potential migration of gasoline related VOCs emanating from a former gasoline station.

MDNRE, Lakeland Montessori, Lakeland MI. Project Manager for the design and soil remediation of heavily impacted gasoline contaminated soil at a Daycare, Montessori School in Livingston County, Michigan. Project included the permitting and design of steel sheet piling to support a state highway and an adjacent building, sheet piling installation, excavation dewatering, soil excavation and site restoration. Project has continued with feasibility study to evaluate the use of chemical oxidation for groundwater remediation.

Bridget A. Walsh, PE
Assistant Project Engineer

Professional History

Education

MS, Environmental Engineering (Surface Water Quality), Michigan Technological University

BS, Environmental Engineering, Michigan Technological University

Registrations

Professional Engineer, MI

Years of Experience

With AECOM 2
With other firms 3

Training and Certifications

HAZWOPER 40-Hour with annual updates

First Aid/CPR/BBP Training

Ms. Walsh is an engineer with more than 5 years of experience in the environmental consulting industry and serves as an Assistant Project Engineer for the environmental group in the Lansing, Michigan office. Ms. Walsh has conducted numerous environmental investigations; provided contractor oversight for remedial activities and free product activities; conducted soil and groundwater sample collection for environmental assessments; and is experienced in conducting Phase I and Phase II Environmental Site Assessments.

Experience

MDNRE, Lakeland Montessori School, Chemical Oxidation Injection, Lakeland, Michigan. Completed a focused feasibility study at a former UST site. Developed specifications for remediation of contaminated groundwater by in-situ chemical oxidation utilizing sodium persulfate and calcium peroxide. Prepared semi-annual groundwater sampling reports.

MDNRE, Rockford Market, Rockford, Michigan. Performed semi-annual groundwater sampling events. Completed a focused feasibility study for remediation of free product and petroleum contaminated soil and groundwater. Developed recommendation for use of ozone sparging to remediate submerged free product.

MDNRE, Millie's Market, Gregory, Michigan. Performed semi-annual groundwater sampling events. Completed a focused feasibility study recommending ozone sparging for the remediation of petroleum contaminated groundwater.

MDNRE, Hoskins Manufacturing, Groundwater Monitoring, Mio, Michigan. Performed groundwater sampling at monitoring wells ranging in depth from 14 to 436 feet. Prepared groundwater monitoring reports. Performed QAQC on sample data collected from monitoring wells, vertical aquifer sampling, and soil borings.

Waste Management, People's Landfill, Birch Run, Michigan. Interpreted groundwater data trends to evaluate the effectiveness of a slurry wall installed at the landfill as part of the Remedial Action Plan. Prepared quarterly monitoring reports.

MDNRE, Action Auto #23, Building Demolition and Soil Excavation, Lansing, Michigan. Provided construction oversight of trade contractor for building demolition and debris removal; and, excavation and disposal of contaminated soil. Prepared construction summary report and semi-annual groundwater monitoring reports.

MDNRE, M-13 Ramps Project, Free Product Recovery, Saginaw, Michigan. Provided contractor oversight for the recovery of hazardous waste (PCB containing oil) from the groundwater.

JBS Packerland, Plainwell, Michigan. Prepared annual report for soil and groundwater interim remedial action plan.

Confidential Manufacturer, Various sites in Michigan, Indiana and Illinois. Coordinated and conducted quarterly groundwater sampling. Prepared quarterly groundwater sampling reports and data management. Conducted Phase I and II environmental site assessments and BEAs for multiple sites. Performed regular sampling and O&M on various pump and treat groundwater remediation systems.

Confidential Manufacturer, Dundee, Michigan. Provided contractor oversight for the excavation and over-packing of approximately 700 drums containing unknown substances. Conduced air monitoring during the excavation of the drums and advised contractor of when respirators should be used. Provided oversight for the sampling of the drums to determine contents.

Appendix B

EDR Radius Map Report

River Raisin Battlefield
1220 East Elm Street
Monroe, MI 48162

Inquiry Number: 2793200.2s
June 14, 2010

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

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GEOCHECK ADDENDUM

Physical Setting Source Addendum	**A-1**
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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1220 EAST ELM STREET
MONROE, MI 48162

COORDINATES

Latitude (North):	41.917400 - 41˚ 55' 2.6''
Longitude (West):	83.374500 - 83˚ 22' 28.2''
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	303083.9
UTM Y (Meters):	4643118.5
Elevation:	589 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	41083-H4 MONROE, MI
Most Recent Revision:	1979
East Map:	41083-H3 STONY POINT, MI
Most Recent Revision:	1978

AERIAL PHOTOGRAPHY IN THIS REPORT

Photo Year:	2006
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL---------- National Priority List

EXECUTIVE SUMMARY

Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators

Federal institutional controls / engineering controls registries

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Facilities Database

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

INDIAN UST..... Underground Storage Tanks on Indian Land
FEMA UST..... Underground Storage Tank Listing

State and tribal institutional control / engineering control registries

AUL..... Engineering and Institutional Controls

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

EXECUTIVE SUMMARY

Local Lists of Landfill / Solid Waste Disposal Sites

ODI	Open Dump Inventory
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
HIST LF	Inactive Solid Waste Facilities
INDIAN ODI	Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL	Clandestine Drug Labs
CDL	Clandestine Drug Lab Listing
US HIST CDL	National Clandestine Laboratory Register

Local Land Records

LIENS 2	CERCLA Lien Information
LUCIS	Land Use Control Information System
LIENS	Lien List

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
SPILLS	Pollution Emergency Alerting System

Other Ascertainable Records

DOT OPS	Incident and Accident Data
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
FINDS	Facility Index System/Facility Registry System
RAATS	RCRA Administrative Action Tracking System
UIC	Underground Injection Wells Database
DRYCLEANERS	Drycleaning Establishments
NPDES	List of Active NPDES Permits
AIRS	Permit and Emissions Inventory Data
INDIAN RESERV	Indian Reservations
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
COAL ASH	Coal Ash Disposal Sites

EXECUTIVE SUMMARY

COAL ASH DOE..... Sleam-Electric Plan Operation Data
FINANCIAL ASSURANCE.... Financial Assurance Information Listing

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants..... EDR Proprietary Manufactured Gas Plants

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal CERCLIS list

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 01/29/2010 has revealed that there is 1 CERCLIS site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CONSOLIDATED PACKAGING CORP	***1521 E. FIRST STREET***	***W 1/4 - 1/2 (0.356 mi.)***	***32***	***47***

Federal RCRA CORRACTS facilities list

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 03/25/2010 has revealed that there are 2

CORRACTS sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
UNION CAMP CORP	***1109 EAST ELM AVENUE***	***SSW 1/8 - 1/4 (0.181 mi.)***	***E21***	***31***
SALCO INDUSTRIAL SERVICE	***704 CONANT***	***SSW 1/2 - 1 (0.991 mi.)***	***41***	***58***

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-TSDF list, as provided by EDR, and dated 02/17/2010 has revealed that there is 1 RCRA-TSDF site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
UNION CAMP CORP	***1109 EAST ELM AVENUE***	***SSW 1/8 - 1/4 (0.181 mi.)***	***E21***	***31***

Federal RCRA generators list

RCRA-CESQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-CESQG list, as provided by EDR, and dated 02/17/2010 has revealed that there are 4 RCRA-CESQG sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RAY TOOL MANUFACTURING	***455 DETROIT AVE***	***ESE 0 - 1/8 (0.114 mi.)***	***13***	***20***
ACTUATOR SPECIALTIES INC	1620 ROSE ST	E 1/8 - 1/4 (0.146 mi.)	D14	22
ADVANCED HEAT TREAT CORP	***1625 ROSE ST***	***E 1/8 - 1/4 (0.153 mi.)***	***D16***	***25***
HOWARD TERNES PACKAGING CO	910 DETROIT AVE	ENE 1/8 - 1/4 (0.172 mi.)	18	28

State- and tribal - equivalent CERCLIS

SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Environmental Quality's' Contaminated Sites List on Diskette With Address.

A review of the SHWS list, as provided by EDR, and dated 05/03/2010 has revealed that there are 4

SHWS sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
FORMER K&H TRANSPORT Facility Status: See Leaking Underground Storage Tank Site Database	515 HARBOR AVE.	ESE 0 - 1/8 (0.036 mi.)	A1	7
321 HARBOR AVE Facility Status: Evaluation conducted	319-325 HARBOR AVE.	ESE 0 - 1/8 (0.044 mi.)	B4	8
CPC-NORTHSIDE Facility Status: Interim Response in progress	921 E. ELM STREET	WSW 1/4 - 1/2 (0.300 mi.)	31	46
CONSOLIDATED PACKAGING CORP Facility Status: Interim Response in progress	1521 E. FRONT ST.	SSW 1/2 - 1 (0.534 mi.)	39	57

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Quality's Leaking Underground Storage Tank (LUST) Database.

A review of the LUST list, as provided by EDR, and dated 05/21/2010 has revealed that there are 6 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PILOT TRAVEL CENTERS #024 Facility Status: Open	***1100 N DIXIE HWY***	***NE 1/4 - 1/2 (0.366 mi.)***	***33***	***50***

Lower Elevation	Address	Direction / Distance	Map ID	Page
FORMER K & H TRANSPORT Facility Status: Closed	515 HARBOR AVE	ESE 0 - 1/8 (0.036 mi.)	A2	7
JEFFERSON SMURFIT CORP Facility Status: Open Facility Status: Open	1205 EAST ELM AVENUE	SSW 1/8 - 1/4 (0.181 mi.)	E22	37
B & A STANDARD SERVICE Facility Status: Closed Facility Status: Closed	***1031 E ELM AVE***	***WSW 1/8 - 1/4 (0.246 mi.)***	***30***	***45***
KADIUM SAIED Facility Status: Open	1101 E FRONT ST	SW 1/4 - 1/2 (0.430 mi.)	G35	54
GENE GERMAN I Facility Status: Open	***72 WINCHESTER ST***	***SW 1/4 - 1/2 (0.483 mi.)***	***38***	***55***

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Quality's Michigan UST database.

A review of the UST list, as provided by EDR, and dated 03/29/2010 has revealed that there are 7 UST

sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FLORAL CITY TREE SERVICE INC	805 N DIXIE HWY	N 1/8 - 1/4 (0.166 mi.)	17	27
ZIEBART	891 N DIXIE HWY	NNE 1/8 - 1/4 (0.208 mi.)	F27	42

Lower Elevation	Address	Direction / Distance	Map ID	Page
FLEISCHMANNS VINEGAR	465 HARBOR AVE	ESE 0 - 1/8 (0.040 mi.)	3	8
D-X TRUCKING, INC	1107 E NOBLE AVE	WNW 1/8 - 1/4 (0.147 mi.)	15	24
UNION CAMP CORP	***1109 EAST ELM AVENUE***	***SSW 1/8 - 1/4 (0.181 mi.)***	***E21***	***31***
MONROE PAPER CO	1109 E ELM AVE	SW 1/8 - 1/4 (0.191 mi.)	E26	41
B & A STANDARD SERVICE	***1031 E ELM AVE***	***WSW 1/8 - 1/4 (0.246 mi.)***	***30***	***45***

AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the Department of Natural Resources' Michigan AST database.

A review of the AST list, as provided by EDR, and dated 02/05/2010 has revealed that there are 3 AST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BAKERS GAS & WELDING	905 N DIXIE HWY	NNE 1/8 - 1/4 (0.226 mi.)	F28	43
BAKERS GAS & WELDING	905-B NORTH DIXIE HWY	NNE 1/8 - 1/4 (0.226 mi.)	F29	44

Lower Elevation	Address	Direction / Distance	Map ID	Page
JEFFERSON SMURFIT CORP	***1220 E ELM AVE***	***SW 1/8 - 1/4 (0.183 mi.)***	***E24***	***38***

State and tribal Brownfields sites

BROWNFIELDS: Brownfields and USTfield Site Database.

A review of the BROWNFIELDS list, as provided by EDR, and dated 06/01/2010 has revealed that there are 2 BROWNFIELDS sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
JEFFERSON SMURFIT CORP.	1205 E. ELM AVE.	SSW 1/8 - 1/4 (0.181 mi.)	E23	38
KADIM SAIED	***1101 E. FRONT***	***SW 1/4 - 1/2 (0.430 mi.)***	***G36***	***54***

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

DEL SHWS: Sites that have been delisted or deleted from the List of Contaminated Sites.The available documentation for the site does support it's listing or the site no longer meets criteria specified in rules.

A review of the DEL SHWS list, as provided by EDR, and dated 05/10/2010 has revealed that there are 4

DEL SHWS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FORMER MONROE HOSPITAL	188-120 MAPLE BLVD.	WNW 1/4 - 1/2 (0.447 mi.)	37	55

Lower Elevation	Address	Direction / Distance	Map ID	Page
MONROE PAPER COMPANY	1200 E. ELM AVENUE	SW 1/8 - 1/4 (0.187 mi.)	E25	41
KADIM SAIED	***1101 E. FRONT***	***SW 1/4 - 1/2 (0.430 mi.)***	***G36***	***54***
CPC GREEN SPACE	1530 E FRONT ST	S 1/2 - 1 (0.618 mi.)	40	58

Other Ascertainable Records

RCRA-NonGen: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA-NonGen list, as provided by EDR, and dated 02/17/2010 has revealed that there are 7 RCRA-NonGen sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MONROE ELECTRIC MOTOR CO	***317 HARBOR AVE***	***ESE 0 - 1/8 (0.044 mi.)***	***B6***	***9***
MONROE AMT INC	***615 HARBOR AVE***	***ENE 0 - 1/8 (0.053 mi.)***	***8***	***11***
NORTH DIXIE COLLISION	***512 N DIXIE HWY***	***WNW 0 - 1/8 (0.060 mi.)***	***C9***	***13***
PREMIER INDUSTRIES CORPORATION	513 N DIXIE HWY	WNW 0 - 1/8 (0.062 mi.)	C10	15
P & A INDUSTRIES INC	***523 DETROIT AVE***	***ESE 0 - 1/8 (0.111 mi.)***	***12***	***18***
UNION CAMP CORP	***1109 EAST ELM AVENUE***	***SSW 1/8 - 1/4 (0.181 mi.)***	***E21***	***31***
JEFFERSON SMURFIT CORP	***1220 E ELM AVE***	***SW 1/8 - 1/4 (0.183 mi.)***	***E24***	***38***

BEA: Baseline Environmental Assessment.

A review of the BEA list, as provided by EDR, and dated 05/27/2010 has revealed that there are 6 BEA sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	601 NORTH DIXIE	WNW 0 - 1/8 (0.087 mi.)	11	17

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	321 HARBOR AVE	ESE 0 - 1/8 (0.044 mi.)	B5	9
K. M. PROPERTIES	444 N. DIXIE	WNW 0 - 1/8 (0.045 mi.)	7	11
MONROE PAPER CO	1205 E ELM	SSW 1/8 - 1/4 (0.181 mi.)	E19	30
FORMER JEFFERSON SMURFIT PROPE	1205 EAST ELM STREET	SSW 1/8 - 1/4 (0.181 mi.)	E20	30
VACANT PARCEL	1407 E ELM	S 1/4 - 1/2 (0.428 mi.)	34	53

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
PORT OF MONROE LF	SHWS, BROWNFIELDS
GOULD NATIONAL BATTERY INC	SHWS
1250 E FIRST ST	SHWS
MONROE LF CITY OF	SHWS
DETROIT EDISON MONROE POWER PLANT	SHWS
RAISIN R CITY OF MONROE TO MOUTH	SHWS
CLARK STATION LOTS ADJ TO	SHWS
DAMICO/RIVERBEND PROJECT SITE #8	SHWS
1204 E THIRD ST.	SHWS
DIXIE HWY	CERC-NFRAP
ELM AVE	CERC-NFRAP
HOMRICH INC	SWF/LF, FINANCIAL ASSURANCE
CITY OF MONROE SLF	HIST LF
NORFOLK SOUTHERN	RCRA-NonGen
PORT OF MONROE	RCRA-CESQG
ELM AVENUE BRIDGE OVER MASON R	RCRA-CESQG, FINDS
319 HARBOR	RCRA-CESQG
803 E NOBLE	RCRA-CESQG
MASON RUN DEVELOPMENT	US BROWNFIELDS
MONROE SPORTS CENTER #1	US BROWNFIELDS
MONROE SPORTS CENTER #2	US BROWNFIELDS
311TH & 317 HARBOR AVE	BEA
319325 HARBOR AVE	BEA

OVERVIEW MAP - 2793200.2s

Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

Power transmission lines

Oil & Gas pipelines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: River Raisin Battlefield	CLIENT: AECOM
ADDRESS: 1220 East Elm Street Monroe MI 48162	CONTACT: Bridget Walsh INQUIRY #: 2793200.2s
LAT/LONG: 41.9174 / 83.3745	DATE: June 14, 2010 4:43 pm

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DETAIL MAP - 2793200.2s

0 1/8 1/4 1/2 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: River Raisin Battlefield	CLIENT: AECOM
ADDRESS: 1220 East Elm Street Monroe MI 48162	CONTACT: Bridget Walsh INQUIRY #: 2793200.2s
LAT/LONG: 41.9174 / 83.3745	DATE: June 14, 2010 4:44 pm

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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
NPL LIENS		TP	NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL		1.000	0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS		0.500	0	0	1	NR	NR	1
FEDERAL FACILITY		1.000	0	0	0	0	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP		0.500	0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS		1.000	0	1	0	1	NR	2
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF		0.500	0	1	0	NR	NR	1
Federal RCRA generators list								
RCRA-LQG		0.250	0	0	NR	NR	NR	0
RCRA-SQG		0.250	0	0	NR	NR	NR	0
RCRA-CESQG		0.250	1	3	NR	NR	NR	4
Federal institutional controls / engineering controls registries								
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
Federal ERNS list								
ERNS		TP	NR	NR	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
SHWS		1.000	2	0	1	1	NR	4
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF		0.500	0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST		0.500	1	2	3	NR	NR	6
INDIAN LUST		0.500	0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST		0.250	1	6	NR	NR	NR	7

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
AST		0.250	0	3	NR	NR	NR	3
INDIAN UST		0.250	0	0	NR	NR	NR	0
FEMA UST		0.250	0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
AUL		0.500	0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP		0.500	0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS		0.500	0	1	1	NR	NR	2
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
ODI		0.500	0	0	0	NR	NR	0
DEBRIS REGION 9		0.500	0	0	0	NR	NR	0
HIST LF		0.500	0	0	0	NR	NR	0
INDIAN ODI		0.500	0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL		TP	NR	NR	NR	NR	NR	0
DEL SHWS		1.000	0	1	2	1	NR	4
CDL		TP	NR	NR	NR	NR	NR	0
US HIST CDL		TP	NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2		TP	NR	NR	NR	NR	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
LIENS		TP	NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS		TP	NR	NR	NR	NR	NR	0
SPILLS		TP	NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA-NonGen		0.250	5	2	NR	NR	NR	7
DOT OPS		TP	NR	NR	NR	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
MINES		0.250	0	0	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
UIC		TP	NR	NR	NR	NR	NR	0
DRYCLEANERS		0.250	0	0	NR	NR	NR	0
NPDES		TP	NR	NR	NR	NR	NR	0
AIRS		TP	NR	NR	NR	NR	NR	0
BEA		0.500	3	2	1	NR	NR	6
INDIAN RESERV		1.000	0	0	0	0	NR	0
SCRD DRYCLEANERS		0.500	0	0	0	NR	NR	0
COAL ASH EPA		0.500	0	0	0	NR	NR	0
PCB TRANSFORMER		TP	NR	NR	NR	NR	NR	0
COAL ASH		0.500	0	0	0	NR	NR	0
COAL ASH DOE		TP	NR	NR	NR	NR	NR	0
FINANCIAL ASSURANCE		TP	NR	NR	NR	NR	NR	0
EDR PROPRIETARY RECORDS								
EDR Proprietary Records								
Manufactured Gas Plants		1.000	0	0	0	0	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1
ESE
< 1/8
0.036 mi.
192 ft.

FORMER K&H TRANSPORT
515 HARBOR AVE.
MONROE, MI 48162

SHWS **S109029714**
N/A

Site 1 of 2 in cluster A

Relative:
Lower

Actual:
587 ft.

SHWS:

Facility ID:	58000222
Facility Status:	**See Leaking Underground Storage Tank Site Database**
Source:	Not reported
SAM Score:	20
SAM Score Date:	11/6/2006
Township:	07S
Range:	09E
Section:	8
Quarter:	Not reported
Quarter/Quarter:	Not reported
Pollutants:	Not reported

A2
ESE
< 1/8
0.036 mi.
192 ft.

FORMER K & H TRANSPORT
515 HARBOR AVE
MONROE, MI 48162

LUST **U003878221**
N/A

Site 2 of 2 in cluster A

Relative:
Lower

Actual:
587 ft.

LUST:

Facility ID:	00041308
Source:	STATE OF MICHIGAN
Owner Name:	V. K. Vemulapalli
Owner Address:	120 E Firsrt St Suite #1900
Owner City,St,Zip:	Flint, MI 48502
Owner Contact:	Not reported
Owner Phone:	810-701-1651
Country:	USA
District:	Jackson District Office
Site Name:	Former K & H Transport
Latitude:	41.9169430000
Longitude:	-83.3729730000
Date of Collection:	01-11-2001
Method of Collection:	Address Matching-House Number
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-0701-02
Release Date:	Dec 23 2002
Substance Released:	Used Oil
Release Status:	Closed
Release Closed Date:	Aug 17 2005

3 ESE < 1/8 0.040 mi. 209 ft. | **FLEISCHMANNS VINEGAR**
465 HARBOR AVE
MONROE, MI 48162 | **UST** | **U003833509**
N/A

Relative: Lower

Actual: 586 ft.

UST:

Facility ID:	00015752
Facility Type:	CLOSED
Latitude:	41.9164660000
Longitude:	-83.3732380000
Owner Name:	Burns-Philp Food Ingregients
Owner Address:	222 SUTTER ST
Owner City,St,Zip:	SAN FRANSISCO, CA 94120-7004
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	( ) -
Contact:	HC BUTCH DOUGHERTY
Contact Phone:	(734) 242-2111
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number
Tank ID:	1
Tank Status:	**Removed from Ground**
Capacity:	8000
Install Date:	Mar 20 1977
Product:	Hazardous Substance
Remove Date:	Jul 17 1997
Tank Release Detection:	Inventory Control
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Suction: Valve at Tank
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

B4 ESE < 1/8 0.044 mi. 231 ft. | **321 HARBOR AVE**
319-325 HARBOR AVE.
MONROE, MI 48161
Site 1 of 3 in cluster B | **SHWS** | **S110126738**
N/A

Relative: Lower

Actual: 586 ft.

SHWS:

Facility ID:	58000217
Facility Status:	**Evaluation conducted**
Source:	Not reported
SAM Score:	30
SAM Score Date:	6/22/2005
Township:	07S
Range:	09E
Section:	8
Quarter:	Not reported
Quarter/Quarter:	Not reported
Pollutants:	Not reported

B5
ESE
< 1/8
0.044 mi.
231 ft.

321 HARBOR AVE
MONROE CITY, MI 48161

Site 2 of 3 in cluster B

BEA **S106521695**
N/A

Relative:
Lower

Actual:
586 ft.

BEA:

Secondary Address:	(formerly 319 - 325 Harbor Ave)
BEA Number:	557
District:	Jackson
Date Received:	6/21/2004 12:59:00 AM
Submitter Name:	Joseph & Jean M Laroy
Petition Determination:	No Request
Petition Disclosure:	0
Category:	No Hazardous Substance(s)
Determination 20107A:	No Request
Reviewer:	massonp
Division Assigned:	Environmental Response Division

B6
ESE
< 1/8
0.044 mi.
232 ft.

MONROE ELECTRIC MOTOR CO
317 HARBOR AVE
MONROE, MI 48162

Site 3 of 3 in cluster B

RCRA-NonGen **1000988206**
FINDS **MIR000000091**

Relative:
Lower

Actual:
586 ft.

RCRA-NonGen:

Date form received by agency:	12/31/2001
Facility name:	MONROE ELECTRIC MOTOR CO
Facility address:	317 HARBOR AVE MONROE, MI 48162
EPA ID:	MIR000000091
Contact:	J MACKLIN
Contact address:	317 HARBOR AVE MONROE, MI 48162
Contact country:	Not reported
Contact telephone:	(313) 241-5811
Contact email:	Not reported
EPA Region:	05
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/2002
Owner/Op end date:	Not reported

Owner/operator name:	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator

MONROE ELECTRIC MOTOR CO (Continued) **1000988206**

Owner/Op start date: 01/01/2002
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:
Date form received by agency: 02/15/1995
Facility name: MONROE ELECTRIC MOTOR CO
Classification: Small Quantity Generator

Violation Status: No violations found

MONROE ELECTRIC MOTOR CO (Continued) **1000988206**

FINDS:

Registry ID: 110003686903

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

7
WNW
< 1/8
0.045 mi.
237 ft.

K. M. PROPERTIES
444 N. DIXIE
MONROE TOWNSHIP, MI

BEA **S104910609**
N/A

Relative:
Lower

Actual:
588 ft.

BEA:

Secondary Address:	Not reported
BEA Number:	233
District:	Southeast MI
Date Received:	12/9/1996
Submitter Name:	K.M PROPERTIES, L.L.C.
Petition Determination:	Affirmed
Petition Disclosure:	1
Category:	No Hazardous Substance(s)
Determination 20107A:	Affirmed
Reviewer:	temppm
Division Assigned:	Environmental Response Division

8
ENE
< 1/8
0.053 mi.
281 ft.

MONROE AMT INC
615 HARBOR AVE
MONROE, MI 48162

RCRA-NonGen **1000366802**
FINDS **MID985580455**

Relative:
Lower

Actual:
588 ft.

RCRA-NonGen:

Date form received by agency:	12/31/2001
Facility name:	MONROE AMT INC
Facility address:	615 HARBOR AVE MONROE, MI 48162
EPA ID:	MID985580455
Mailing address:	PO 390 MONROE, MI 48161
Contact:	RICKY FLEMING
Contact address:	615 HARBOR AVE MONROE, MI 48162
Contact country:	Not reported
Contact telephone:	(817) 921-5100
Contact email:	Not reported
EPA Region:	05
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

MONROE AMT INC (Continued) **1000366802**

Owner/Operator Summary:

Owner/operator name:	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/2003
Owner/Op end date:	Not reported

Owner/operator name:	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/2003
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No
Off-site waste receiver:	Commercial status unknown

Universal Waste Summary:

Waste type:	Batteries
Accumulated waste on-site:	No
Generated waste on-site:	No

Waste type:	Lamps
Accumulated waste on-site:	No
Generated waste on-site:	No

Waste type:	Pesticides
Accumulated waste on-site:	No
Generated waste on-site:	No

Waste type:	Thermostats
Accumulated waste on-site:	No
Generated waste on-site:	No

MONROE AMT INC (Continued) **1000366802**

Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:
Date form received by agency: 06/04/1990
Facility name: MONROE AMT INC
Classification: Small Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110003640980

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

C9
WNW
< 1/8
0.060 mi.
319 ft.

Relative:
Lower

Actual:
588 ft.

NORTH DIXIE COLLISION **RCRA-NonGen** **1000405706**
512 N DIXIE HWY **FINDS** **MID982650905**
MONROE, MI 48162

Site 1 of 2 in cluster C

RCRA-NonGen:
Date form received by agency: 12/31/2001
Facility name: NORTH DIXIE COLLISION
Facility address: 512 N DIXIE HWY
MONROE, MI 48162
EPA ID: MID982650905
Contact: LEE WEISS
Contact address: 512 N DIXIE HWY
MONROE, MI 48162
Contact country: Not reported
Contact telephone: (313) 242-4940
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported

NORTH DIXIE COLLISION (Continued) **1000405706**

	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/2002
Owner/Op end date:	Not reported

Owner/operator name:	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/2002
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No
Off-site waste receiver:	Commercial status unknown

Universal Waste Summary:

Waste type:	Batteries
Accumulated waste on-site:	No
Generated waste on-site:	No

Waste type:	Lamps
Accumulated waste on-site:	No
Generated waste on-site:	No

Waste type:	Pesticides
Accumulated waste on-site:	No
Generated waste on-site:	No

Waste type:	Thermostats
Accumulated waste on-site:	No
Generated waste on-site:	No

Waste type:	DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site:	No
Generated waste on-site:	No

NORTH DIXIE COLLISION (Continued) **1000405706**

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:
Date form received by agency: 03/28/1988
Facility name: NORTH DIXIE COLLISION
Classification: Small Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110003634005

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

C10 WNW < 1/8 0.062 mi. 327 ft. | **PREMIER INDUSTRIES CORPORATION** | **RCRA-NonGen** | **1007098395**
513 N DIXIE HWY | **MIK513454777**
MONROE, MI 48162

Site 2 of 2 in cluster C

Relative: Lower

Actual: 588 ft.

RCRA-NonGen:
Date form received by agency: 04/24/2009
Facility name: PREMIER INDUSTRIES CORPORATION
Facility address: 513 N DIXIE HWY
MONROE, MI 48162
EPA ID: MIK513454777
Contact: LARRY STEFFY
Contact address: 513 N DIXIE HWY
MONROE, MI 48162
Contact country: Not reported
Contact telephone: (734) 241-8474
Contact email: Not reported
EPA Region: 05
Land type: Private
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: THOMAS SNAREY
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported

PREMIER INDUSTRIES CORPORATION (Continued) **1007098395**

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 10/01/1988
Owner/Op end date: Not reported

Owner/operator name: PREMIER INDUSTRIES CORP
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 09/28/2001
Owner/Op end date: Not reported

Owner/operator name: THOMAS SNAREY
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 10/01/1988
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Historical Generators:
Date form received by agency: 02/14/2009
Facility name: PREMIER INDUSTRIES CORPORATION
Classification: Not a generator, verified

Date form received by agency: 08/11/2002
Facility name: PREMIER INDUSTRIES CORPORATION
Classification: Small Quantity Generator

Date form received by agency: 12/09/1991
Facility name: PREMIER INDUSTRIES CORPORATION
Classification: Conditionally Exempt Small Quantity Generator

PREMIER INDUSTRIES CORPORATION (Continued) **1007098395**

Date form received by agency: 01/01/1980
Facility name: PREMIER INDUSTRIES CORPORATION
Classification: Small Quantity Generator

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 09/13/2001
Date achieved compliance: 01/15/2002
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/13/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 11/25/1991
Date achieved compliance: 01/02/1992
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 11/25/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 09/11/2001
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: State Statute or Regulation
Date achieved compliance: 01/15/2002
Evaluation lead agency: State

Evaluation date: 11/08/1991
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: State Statute or Regulation
Date achieved compliance: 01/02/1992
Evaluation lead agency: State

11
WNW
< 1/8
0.087 mi.
458 ft.

601 NORTH DIXIE
MONROE TOWNSHIP, MI

BEA **S105767841**
N/A

Relative:
Higher

Actual:
590 ft.

BEA:
Secondary Address: Not reported
BEA Number: 222
District: Jackson
Date Received: 2/18/2000
Submitter Name: Frank Messina

(Continued) **S105767841**

Petition Determination: Affirmed
Petition Disclosure: 1
Category: No Hazardous Substance(s)
Determination 20107A: Pending
Reviewer: temppm
Division Assigned: Environmental Response Division

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12 ESE < 1/8 0.111 mi. 588 ft. | **P & A INDUSTRIES INC**
523 DETROIT AVE
MONROE, MI 48162 | **RCRA-NonGen FINDS** | **1000435727 MID005049820**

Relative: Lower

Actual: 585 ft.

RCRA-NonGen:
Date form received by agency: 12/31/1999
Facility name: P & A INDUSTRIES INC
Facility address: 523 DETROIT AVE
MONROE, MI 48162
EPA ID: MID005049820
Mailing address: PO BOX 737
MONROE, MI 48161
Contact: JOHN LAING
Contact address: 523 DETROIT AVE
MONROE, MI 48162
Contact country: Not reported
Contact telephone: (734) 241-7242
Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/2000
Owner/Op end date: Not reported

Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/2000
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No

P & A INDUSTRIES INC (Continued) **1000435727**

Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:

Date form received by agency: 09/29/1986
Facility name: P & A INDUSTRIES INC
Classification: Small Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110003578361

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport,

P & A INDUSTRIES INC (Continued) **1000435727**

and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

13
ESE
< 1/8
0.114 mi.
600 ft.

RAY TOOL MANUFACTURING
455 DETROIT AVE
MONROE, MI 48161

RCRA-CESQG **1004724577**
FINDS **MIR000007450**

Relative:
Lower

Actual:
585 ft.

RCRA-CESQG:

Date form received by agency:	08/30/1995
Facility name:	RAY TOOL MANUFACTURING
Facility address:	455 DETROIT AVE MONROE, MI 48161
EPA ID:	MIR000007450
Contact:	LON KEAST
Contact address:	455 DETROIT AVE MONROE, MI 48161
Contact country:	Not reported
Contact telephone:	(810) 901-2118
Contact email:	Not reported
EPA Region:	05
Classification:	Conditionally Exempt Small Quantity Generator
Description:	Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name:	FIRST OF AMERICA BANK
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1970
Owner/Op end date:	Not reported

Owner/operator name:	FIRST OF AMERICA BANK
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private

RAY TOOL MANUFACTURING (Continued) **1004724577**

Owner/Operator Type: Owner
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Violation Status: No violations found

FINDS:

Registry ID: 110009394128

RAY TOOL MANUFACTURING (Continued) **1004724577**

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

D14 **ACTUATOR SPECIALTIES INC** **RCRA-CESQG** **1007990050**
East **1620 ROSE ST** **MIK578357873**
1/8-1/4 **MONROE, MI 48162**
0.146 mi.
771 ft. **Site 1 of 2 in cluster D**

Relative:
Lower

Actual:
586 ft.

RCRA-CESQG:

Date form received by agency:	01/24/2005
Facility name:	ACTUATOR SPECIALTIES INC
Facility address:	1620 ROSE ST MONROE, MI 48162
EPA ID:	MIK578357873
Contact:	RANDY WRIGHT
Contact address:	1620 ROSE ST MONROE, MI 48162
Contact country:	Not reported
Contact telephone:	(734) 269-2944
Contact email:	Not reported
EPA Region:	05
Classification:	Conditionally Exempt Small Quantity Generator
Description:	Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name:	ACUATOR SPECIALTIES INC
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/2005
Owner/Op end date:	Not reported

Owner/operator name:	ACUATOR SPECIALTIES INC
Owner/operator address:	Not reported

ACTUATOR SPECIALTIES INC (Continued) **1007990050**

	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/2005
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No
Off-site waste receiver:	Commercial status unknown

Universal Waste Summary:

Waste type:	Batteries
Accumulated waste on-site:	No
Generated waste on-site:	No
Waste type:	Lamps
Accumulated waste on-site:	No
Generated waste on-site:	No
Waste type:	Pesticides
Accumulated waste on-site:	No
Generated waste on-site:	No
Waste type:	Thermostats
Accumulated waste on-site:	No
Generated waste on-site:	No
Waste type:	DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site:	No
Generated waste on-site:	No
Waste type:	MERCURY THERMOMETERS
Accumulated waste on-site:	No
Generated waste on-site:	No
Waste type:	MERCURY SWITCHES
Accumulated waste on-site:	No
Generated waste on-site:	No
Violation Status:	No violations found

15 WNW 1/8-1/4 0.147 mi. 774 ft. | **D-X TRUCKING, INC**
1107 E NOBLE AVE
MONROE, MI 48162 | **UST** | **U003866286**
N/A

Relative: Lower

Actual: 585 ft.

UST:

Facility ID:	00001536
Facility Type:	CLOSED
Latitude:	41.9169680000
Longitude:	-83.3800730000
Owner Name:	James E And Jack K Rau
Owner Address:	1107 E Noble Ave
Owner City,St,Zip:	Monroe, MI 48162-2581
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(734) 241-8906
Contact:	JAMES E. RAU
Contact Phone:	(734) 241-8906
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number

Tank ID:	1
Tank Status:	**Removed from Ground**
Capacity:	250
Install Date:	Mar 25 1966
Product:	Used Oil
Remove Date:	Jan 1 1986
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Unknown
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	2
Tank Status:	**Removed from Ground**
Capacity:	12000
Install Date:	Mar 26 1975
Product:	Diesel
Remove Date:	Jan 1 1986
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Galvanized Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	3
Tank Status:	**Removed from Ground**
Capacity:	2000

D-X TRUCKING, INC (Continued) **U003866286**

Install Date:	Mar 25 1978
Product:	Gasoline
Remove Date:	Jan 1 1986
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Galvanized Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

D16 **ADVANCED HEAT TREAT CORP** **RCRA-CESQG** **1004724851**
East **1625 ROSE ST** **FINDS** **MIR000016212**
1/8-1/4 **MONROE, MI 48162**
0.153 mi.
809 ft. **Site 2 of 2 in cluster D**

Relative:
Lower

Actual:
586 ft.

RCRA-CESQG:

Date form received by agency:	06/28/1996
Facility name:	ADVANCED HEAT TREAT CORP
Facility address:	1625 ROSE ST MONROE, MI 48162
EPA ID:	MIR000016212
Contact:	JEFF MACHEINSKI
Contact address:	1625 ROSE ST MONROE, MI 48162
Contact country:	Not reported
Contact telephone:	(313) 243-0063
Contact email:	Not reported
EPA Region:	05
Classification:	Conditionally Exempt Small Quantity Generator
Description:	Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name:	ADVANCED HEAT TREAT CORP-GARY SHARP
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/1970
Owner/Op end date:	Not reported

Owner/operator name:	ADVANCED HEAT TREAT CORP-GARY SHARP

ADVANCED HEAT TREAT CORP (Continued) **1004724851**

Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

ADVANCED HEAT TREAT CORP (Continued) **1004724851**

Violation Status: No violations found

FINDS:

Registry ID: 110000405972

Environmental Interest/Information System

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

17
North
1/8-1/4
0.166 mi.
877 ft.

FLORAL CITY TREE SERVICE INC **UST** **U001147770**
805 N DIXIE HWY **N/A**
MONROE, MI 48162

Relative:
Higher

Actual:
589 ft.

UST:

Facility ID:	00036318
Facility Type:	CLOSED
Latitude:	41.9224010000
Longitude:	-83.3745000000
Owner Name:	Floral City Tree Serv Inc
Owner Address:	805 N Dixie Hwy
Owner City,St,Zip:	Monroe, MI 48162-2541
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(734) 241-7510
Contact:	STEVE MCCOLLUM
Contact Phone:	(734) 241-7510
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET

FLORAL CITY TREE SERVICE INC (Continued) **U001147770**

Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number
Tank ID:	1
Tank Status:	**Removed from Ground**
Capacity:	1000
Install Date:	Jan 18 1985
Product:	Gasoline
Remove Date:	Feb 7 1994
Tank Release Detection:	Inventory Control,Manual Tank Gauging
Pipe Realease Detection:	Not reported
Piping Material:	Galvanized Steel
Piping Type:	Suction: No Valve At Tank
Constr Material:	Cathodically Protected Steel,Epoxy Coated Steel
Impressed Device:	No

18
ENE
1/8-1/4
0.172 mi.
909 ft.

HOWARD TERNES PACKAGING CO **RCRA-CESQG** **1011489271**
910 DETROIT AVE **MIK433553245**
MONROE, MI 48162

Relative:
Lower

Actual:
584 ft.

RCRA-CESQG:

Date form received by agency:	05/27/2008
Facility name:	HOWARD TERNES PACKAGING CO
Facility address:	910 DETROIT AVE MONROE, MI 48162
EPA ID:	MIK433553245
Contact:	TERRY MCMAHON
Contact address:	910 DETROIT AVE MONROE, MI 48162
Contact country:	Not reported
Contact telephone:	(734) 242-8100
Contact email:	Not reported
EPA Region:	05
Classification:	Conditionally Exempt Small Quantity Generator
Description:	Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name:	HOWARD TERNES PACKAGING CO
Owner/operator address:	Not reported

HOWARD TERNES PACKAGING CO (Continued) **1011489271**

	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/02/1970
Owner/Op end date:	Not reported

Owner/operator name:	HOWARD TERNES PACKAGING CO
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/02/1970
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No
Off-site waste receiver:	Commercial status unknown

Universal Waste Summary:

Waste type:	Batteries
Accumulated waste on-site:	Yes
Generated waste on-site:	Yes

Waste type:	Lamps
Accumulated waste on-site:	Yes
Generated waste on-site:	Yes

Waste type:	Pesticides
Accumulated waste on-site:	No
Generated waste on-site:	No

Waste type:	Thermostats
Accumulated waste on-site:	No
Generated waste on-site:	No

Waste type:	DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site:	No
Generated waste on-site:	No

HOWARD TERNES PACKAGING CO (Continued) **1011489271**

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Violation Status: No violations found

E19
SSW
1/8-1/4
0.181 mi.
955 ft.

MONROE PAPER CO **BEA** **S108236786**
1205 E ELM **N/A**
MONROE CITY, MI

Site 1 of 8 in cluster E

Relative:
Lower

Actual:
584 ft.

BEA:
Secondary Address: Not reported
BEA Number: 768
District: Jackson
Date Received: 9/26/2006 12:59:00 AM
Submitter Name: Port of Monroe
Petition Determination: No Request
Petition Disclosure: 0
Category: No Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: spauldie
Division Assigned: Environmental Response Division

E20
SSW
1/8-1/4
0.181 mi.
955 ft.

FORMER JEFFERSON SMURFIT PROPERTY **BEA** **S105541942**
1205 EAST ELM STREET **N/A**
MONROE TOWNSHIP, MI

Site 2 of 8 in cluster E

Relative:
Lower

Actual:
584 ft.

BEA:
Secondary Address: Not reported
BEA Number: 124
District: Jackson
Date Received: 1/30/1998
Submitter Name: Homrich Incorporated
Petition Determination: Affirmed
Petition Disclosure: 1
Category: No Hazardous Substance(s)
Determination 20107A: Pending
Reviewer: temppm
Division Assigned: Environmental Response Division

E21	**UNION CAMP CORP**	**RCRA-TSDF**	**1000366794**
SSW	**1109 EAST ELM AVENUE**	**CORRACTS**	**MID005039490**
1/8-1/4	**MONROE, MI 48161**	**RCRA-NonGen**	
0.181 mi.		**FINDS**	
955 ft.	**Site 3 of 8 in cluster E**	**UST**	

Relative:
Lower

Actual:
584 ft.

RCRA-TSDF:

Date form received by agency:	09/10/2002
Facility name:	UNION CAMP CORP
Facility address:	1109 E ELM AVE MONROE, MI 48161
EPA ID:	MID005039490
Mailing address:	1220 E ELM AVE MONROE, MI 48162
Contact:	ELDON MCCUE
Contact address:	1109 E ELM AVE MONROE, MI 48161
Contact country:	Not reported
Contact telephone:	(313) 241-7700
Contact email:	Not reported
EPA Region:	05
Land type:	Private
Classification:	TSDF
Description:	Handler is engaged in the treatment, storage or disposal of hazardous waste
TSD commencement date:	Not reported
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	UNION CAMP CORP
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1970
Owner/Op end date:	Not reported

Owner/operator name:	UNION CAMP CORP (MID005039490)
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/1970
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No

UNION CAMP CORP (Continued) **1000366794**

Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:
Date form received by agency: 12/31/2001
Facility name: UNION CAMP CORP
Classification: Not a generator, verified

Date form received by agency: 07/28/1995
Facility name: UNION CAMP CORP
Classification: Small Quantity Generator

Date form received by agency: 11/15/1980
Facility name: UNION CAMP CORP
Classification: Not a generator, verified

Date form received by agency: 08/14/1980
Facility name: UNION CAMP CORP
Classification: Small Quantity Generator

UNION CAMP CORP (Continued) **1000366794**

Corrective Action Summary:

Event date:	09/29/1992
Event:	CA Prioritization, Facility or area was assigned a medium corrective action priority.
Event date:	01/09/2006
Event:	RFI Workplan Received
Event date:	02/24/2006
Event:	RFI Workplan Modification Requested By Agency
Event date:	03/22/2006
Event:	RFI Supplemental Information Received
Event date:	03/23/2006
Event:	RFI Supplemental Information Deemed Satisfactory

Facility Has Received Notices of Violations:

Regulation violated:	Not reported
Area of violation:	State Statute or Regulation
Date violation determined:	12/18/2001
Date achieved compliance:	Not reported
Violation lead agency:	State
Enforcement action:	WRITTEN INFORMAL
Enforcement action date:	12/18/2001
Enf. disposition status:	Not reported
Enf. disp. status date:	Not reported
Enforcement lead agency:	State
Proposed penalty amount:	Not reported
Final penalty amount:	Not reported
Paid penalty amount:	Not reported
Regulation violated:	Not reported
Area of violation:	TSD - Financial Requirements
Date violation determined:	12/01/1988
Date achieved compliance:	09/13/1989
Violation lead agency:	State
Enforcement action:	WRITTEN INFORMAL
Enforcement action date:	12/09/1988
Enf. disposition status:	Not reported
Enf. disp. status date:	Not reported
Enforcement lead agency:	State
Proposed penalty amount:	Not reported
Final penalty amount:	Not reported
Paid penalty amount:	Not reported

Evaluation Action Summary:

Evaluation date:	09/15/2006
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State
Evaluation date:	02/24/2006
Evaluation:	NON-FINANCIAL RECORD REVIEW
Area of violation:	Not reported

UNION CAMP CORP (Continued) **1000366794**

Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/15/2004
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/18/2001
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: State Statute or Regulation
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/01/1988
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/01/1988
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 09/13/1989
Evaluation lead agency: State

Evaluation date: 12/01/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/02/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

CORRACTS:

EPA ID: MID005039490
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 01/09/2006
Action: CA110 - RFI Workplan Received
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005039490
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 02/24/2006
Action: CA120 - RFI Workplan Modification Requested By Agency
NAICS Code(s): 56291

UNION CAMP CORP (Continued) **1000366794**

Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005039490
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 03/22/2006
Action: CA160 - RFI Supplemental Information Received
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005039490
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 03/23/2006
Action: CA170 - RFI Supplemental Information Deemed Satisfactory
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID005039490
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 09/29/1992
Action: CA075ME - CA Prioritization, Facility or area was assigned a medium corrective action priority
NAICS Code(s): 56291
Remediation Services
Original schedule date: Not reported
Schedule end date: Not reported

FINDS:

Registry ID: 110032987766

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

UST:
Facility ID: 00008419
Facility Type: CLOSED
Latitude: 41.9134670000
Longitude: -83.3802910000
Owner Name: Port of Monroe
Owner Address: 2929 E Front St Po Box 585
Owner City,St,Zip: Monroe, MI 48161

UNION CAMP CORP (Continued) **1000366794**

Owner Country:	Monroe
Owner Contact:	Not reported
Owner Phone:	(734) 241-6480
Contact:	Thomas A Kryston
Contact Phone:	(734) 241-6480
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number

Tank ID:	2
Tank Status:	**Removed from Ground**
Capacity:	30000
Install Date:	Mar 25 1971
Product:	Fuel-Oil
Remove Date:	Feb 25 2008
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Suction: No Valve At Tank
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	3
Tank Status:	**Removed from Ground**
Capacity:	30000
Install Date:	Mar 25 1971
Product:	FUEL/OIL
Remove Date:	Feb 25 2008
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Suction: No Valve At Tank
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	5
Tank Status:	**Closed in Ground**
Capacity:	1000
Install Date:	Mar 24 1956
Product:	Kerosene
Remove Date:	Mar 10 1999
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Suction: No Valve At Tank
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID: 6

UNION CAMP CORP (Continued) **1000366794**

Tank Status:	**Removed from Ground**
Capacity:	8000
Install Date:	Mar 25 1971
Product:	LACQUER
Remove Date:	Mar 10 2000
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	7
Tank Status:	**Removed from Ground**
Capacity:	8000
Install Date:	Mar 24 1956
Product:	#2/FUEL/OIL
Remove Date:	Mar 10 2000
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	8
Tank Status:	**Removed from Ground**
Capacity:	1000
Install Date:	Not reported
Product:	Fuel Oil
Remove Date:	Dec 10 2007
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

E22 **JEFFERSON SMURFIT CORP** **LUST** **1001711715**
SSW **1205 EAST ELM AVENUE** **N/A**
1/8-1/4 **MONROE, MI 48162**
0.181 mi.
955 ft. **Site 4 of 8 in cluster E**

Relative:
Lower

Actual:
584 ft.

LUST:

Facility ID:	00008419
Source:	STATE OF MICHIGAN
Owner Name:	Port of Monroe
Owner Address:	2929 E Front St Po Box 585
Owner City,St,Zip:	Monroe, MI 48161
Owner Contact:	Not reported
Owner Phone:	(734) 241-6480
Country:	Monroe
District:	Jackson District Office
Site Name:	Monroe Paper Co
Latitude:	41.9134670000

JEFFERSON SMURFIT CORP (Continued) **1001711715**

Longitude:	-83.3802910000
Date of Collection:	01-11-2001
Method of Collection:	Address Matching-House Number
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)

Leak Number:	C-1115-89
Release Date:	Dec 12 1989
Substance Released:	Not reported
Release Status:	Open
Release Closed Date:	Not reported

Leak Number:	C-1930-91
Release Date:	Sep 18 1991
Substance Released:	Not reported
Release Status:	Open
Release Closed Date:	Not reported

E23
SSW
1/8-1/4
0.181 mi.
955 ft.

JEFFERSON SMURFIT CORP. **BROWNFIELDS** **S107135721**
1205 E. ELM AVE. **N/A**
MONROE, MI

Site 5 of 8 in cluster E

Relative:
Lower

Actual:
584 ft.

BROWNFIELD:

Facility ID:	00008419
Region:	1
Status:	Cancelled
Properry Use:	Not reported
BEA:	NR
Ernie Id Number:	58000048
Redevelop Status:	Not reported
Before Redevelopment:	Not reported
After Redevelopment:	Not reported

E24
SW
1/8-1/4
0.183 mi.
966 ft.

JEFFERSON SMURFIT CORP **RCRA-NonGen** **1000888185**
1220 E ELM AVE **FINDS** **MI0000254128**
MONROE, MI 48161 **AST**

Site 6 of 8 in cluster E

Relative:
Lower

Actual:
583 ft.

RCRA-NonGen:

Date form received by agency:	03/09/2006
Facility name:	HOMRICH INC
Facility address:	NE CORNER OF THE INTESECTION O MONROE, MI 48162
EPA ID:	MI0000254128
Mailing address:	200 MATLIN RD CARLETON, MI 48117
Contact:	ROGER HOMRICH
Contact address:	NE CORNER OF THE INTESECTION O MONROE, MI 48162
Contact country:	Not reported
Contact telephone:	(734) 654-9800

JEFFERSON SMURFIT CORP (Continued) **1000888185**

Contact email: Not reported
EPA Region: 05
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 08/02/2006
Owner/Op end date: Not reported

Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 08/02/2006
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

JEFFERSON SMURFIT CORP (Continued) **1000888185**

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:
Date form received by agency: 05/19/2003
Facility name: HOMRICH INC
Classification: Small Quantity Generator

Date form received by agency: 02/11/1998
Facility name: HOMRICH INC
Site name: JEFFERSON SMURFIT
Classification: Large Quantity Generator

Date form received by agency: 03/21/1994
Facility name: HOMRICH INC
Classification: Not a generator, verified

Violation Status: No violations found

FINDS:

Registry ID: 110003564018

Environmental Interest/Information System

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

JEFFERSON SMURFIT CORP (Continued) **1000888185**

AST:

Type:	CLOSED
Owner Name:	Amerigas Propane
Owner Address:	4000 Leah Ln
Owner City,St,Zip:	Flat Rock, MI 48134-6029
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(734) 789-9043
Facility ID:	92058106
District:	Jackson District Office
Contact:	WAYNE MANOR
Facility Phone:	(734) 241-5377
Tank ID:	1
Tank Status:	Removed from Premises
Capacity:	1000
Install Date:	Mar 22 1995
Close Date:	Jan 1 1996
Content:	Liquid Propane Gas
Latitude:	41.9131230000
Longitude:	-83.3801710000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

E25 **MONROE PAPER COMPANY** **DEL SHWS** **S105966012**
SW **1200 E. ELM AVENUE** **N/A**
1/8-1/4 **MONROE, MI 48161**
0.187 mi.
988 ft. **Site 7 of 8 in cluster E**

Relative:
Lower

Actual:
580 ft.

DELETED HWS:

Facility ID:	58000048
Status:	Delisted - no longer meets criteria specified in rules

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E26 **MONROE PAPER CO** **UST** **U000715407**
SW **1109 E ELM AVE** **N/A**
1/8-1/4 **MONROE, MI 48162**
0.191 mi.
1007 ft. **Site 8 of 8 in cluster E**

Relative:
Lower

Actual:
576 ft.

UST:

Facility ID:	00035792
Facility Type:	CLOSED
Latitude:	41.9138700000
Longitude:	-83.3816430000
Owner Name:	Monroe Paper Co
Owner Address:	1205 E Elm Ave
Owner City,St,Zip:	Monroe, MI 48162-2522
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(734) 241-7700

MONROE PAPER CO (Continued) **U000715407**

Contact:	ALLAN LOUX
Contact Phone:	(734) 241-7700
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number
Tank ID:	8
Tank Status:	**Removed from Ground**
Capacity:	500
Install Date:	Not reported
Product:	HYDRAULIC OIL
Remove Date:	Jul 17 1992
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel
Piping Type:	Pressure
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

F27 **ZIEBART** **UST** **U000715094**
NNE **891 N DIXIE HWY** **N/A**
1/8-1/4 **MONROE, MI 48162**
0.208 mi.
1097 ft. **Site 1 of 3 in cluster F**

Relative:
Higher

Actual:
589 ft.

UST:

Facility ID:	00035405
Facility Type:	CLOSED
Latitude:	41.9235660000
Longitude:	-83.3734300000
Owner Name:	Allen Bishop
Owner Address:	5415 Schultz Dr
Owner City,St,Zip:	Sylvania, OH 43560-2379
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(419) 882-8161
Contact:	ALLEN BISHOP
Contact Phone:	(419) 882-8161
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number
Tank ID:	1
Tank Status:	**Removed from Ground**
Capacity:	1000
Install Date:	Jan 1 1984
Product:	Gasoline
Remove Date:	Sep 1 1991

ZIEBART (Continued) **U000715094**

Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Suction: Valve at Tank
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

F28 **BAKERS GAS & WELDING** **AST** **A100002502**
NNE **905 N DIXIE HWY** **N/A**
1/8-1/4 **MONROE, MI 48162**
0.226 mi.
1191 ft. **Site 2 of 3 in cluster F**

Relative:
Higher

Actual:
589 ft.

AST:

Type:	ACTIVE
Owner Name:	Bakers Gas & Welding
Owner Address:	1300 Howard St
Owner City,St,Zip:	Lincoln Park, MI 48146-1614
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(313) 383-1393
Facility ID:	92058068
District:	Jackson District Office
Contact:	Gary Klemz
Facility Phone:	(734) 241-8959
Tank ID:	1
Tank Status:	Currently In Use
Capacity:	1000
Install Date:	Jan 18 1983
Close Date:	Not reported
Content:	Liquid Propane Gas
Latitude:	41.9236090000
Longitude:	-83.3732420000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

Type:	ACTIVE
Owner Name:	Bakers Gas & Welding
Owner Address:	1300 Howard St
Owner City,St,Zip:	Lincoln Park, MI 48146-1614
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(313) 383-1393
Facility ID:	92058068
District:	Jackson District Office
Contact:	Gary Klemz
Facility Phone:	(734) 241-8959
Tank ID:	2
Tank Status:	Currently In Use
Capacity:	30000
Install Date:	Aug 5 2008
Close Date:	Not reported

BAKERS GAS & WELDING (Continued) **A100002502**

Content:	Liquid Propane Gas
Latitude:	41.9236090000
Longitude:	-83.3732420000
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Description of Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Nu

F29
NNE
1/8-1/4
0.226 mi.
1191 ft.

BAKERS GAS & WELDING
905-B NORTH DIXIE HWY
MONROE, MI 48146

AST **A100297075**
N/A

Site 3 of 3 in cluster F

Relative:
Higher

Actual:
589 ft.

AST:

Type:	CLOSED
Owner Name:	Bakers Gas & Welding
Owner Address:	1300 Howard St
Owner City,St,Zip:	Lincoln Park, MI 48146-1614
Owner County:	USA
Owner Contact:	Not reported
Owner Telephone:	(313) 383-1393
Facility ID:	92084972
District:	Jackson District Office
Contact:	Not reported
Facility Phone:	Not reported
Tank ID:	1
Tank Status:	Removed from Premises
Capacity:	30000
Install Date:	Oct 31 1990
Close Date:	Aug 5 2008
Content:	Liquid Propane Gas
Latitude:	Not reported
Longitude:	Not reported
Date of Collection:	Not reported
Accuracy:	Not reported
Accuracy Value Unit:	Not reported
Horizontal Datum:	Not reported
Source:	Not reported
Point Line Area:	Not reported
Description of Category:	Not reported
Method of Collection:	Not reported

30 WSW 1/8-1/4 0.246 mi. 1298 ft. | **B & A STANDARD SERVICE**
1031 E ELM AVE
MONROE, MI 48162 | **LUST** | **U003082611**
UST | **N/A**

Relative: Lower

Actual: 583 ft.

LUST:

Facility ID:	00019292
Source:	STATE OF MICHIGAN
Owner Name:	B & A Standard Serv
Owner Address:	1031 E Elm Ave
Owner City,St,Zip:	Monroe, MI 48162-2520
Owner Contact:	Not reported
Owner Phone:	(734) 241-1818
Country:	USA
District:	Jackson District Office
Site Name:	B & A Standard Service
Latitude:	41.9141440000
Longitude:	-83.3825760000
Date of Collection:	01-11-2001
Method of Collection:	Address Matching-House Number
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-0105-99
Release Date:	Feb 4 1999
Substance Released:	Unknown
Release Status:	Closed
Release Closed Date:	May 27 1999
Leak Number:	C-0222-99
Release Date:	Mar 4 1999
Substance Released:	Unknown
Release Status:	Closed
Release Closed Date:	Oct 9 2000

UST:

Facility ID:	00019292
Facility Type:	CLOSED
Latitude:	41.9141440000
Longitude:	-83.3825760000
Owner Name:	B & A Standard Serv
Owner Address:	1031 E Elm Ave
Owner City,St,Zip:	Monroe, MI 48162-2520
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(734) 241-1818
Contact:	HAROLD SCHREIBER
Contact Phone:	(734) 241-1818
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	Address Matching-House Number

B & A STANDARD SERVICE (Continued) **U003082611**

Tank ID:	1
Tank Status:	**Removed from Ground**
Capacity:	250
Install Date:	Apr 29 1976
Product:	Used Oil
Remove Date:	Mar 4 1999
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Galvanized Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

Tank ID:	2
Tank Status:	**Removed from Ground**
Capacity:	1000
Install Date:	Not reported
Product:	UNKNOWN
Remove Date:	Mar 4 1999
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Unknown
Piping Type:	Not reported
Constr Material:	Unknown
Impressed Device:	No

Tank ID:	Phantom
Tank Status:	**Non-Registered Tank**
Capacity:	Not reported
Install Date:	Not reported
Product:	Unknown
Remove Date:	Not reported
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Not reported
Piping Type:	Not reported
Constr Material:	Not reported
Impressed Device:	No

31
WSW
1/4-1/2
0.300 mi.
1585 ft.

CPC-NORTHSIDE **SHWS** **S105144466**
921 E. ELM STREET **N/A**
MONROE, MI

Relative:
Lower

Actual:
588 ft.

SHWS:

Facility ID:	58000170
Facility Status:	**Interim Response in progress**
Source:	Paper and Allied Products
SAM Score:	16
SAM Score Date:	7/13/2004
Township:	Not reported
Range:	Not reported
Section:	Not reported
Quarter:	Not reported
Quarter/Quarter:	Not reported

CPC-NORTHSIDE (Continued) **S105144466**

Pollutants: 1,4-Dioxane; PCB's; Petroleum

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32 West 1/4-1/2 0.356 mi. 1881 ft.

CONSOLIDATED PACKAGING CORP
1521 E. FIRST STREET
MONROE, MI 48161

CERCLIS **1000383846**
RCRA-CESQG **MID980999882**
PADS
FINDS

Relative: Lower

Actual: 587 ft.

CERCLIS:
Site ID: 0503277
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: HRS Start Needed

Site Description: Not reported

CERCLIS Assessment History:
Action: DISCOVERY
Date Started: Not reported
Date Completed: 10/28/85
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: Not reported
Date Completed: 12/10/85
Priority Level: Higher priority for further assessment

Action: SITE INSPECTION
Date Started: Not reported
Date Completed: 04/01/87
Priority Level: Higher priority for further assessment

RCRA-CESQG:
Date form received by agency: 03/01/2002
Facility name: FORMER NORTHSIDE CONSOLIDATED PLT
Facility address: 921 E ELM AVE
MONROE, MI 48162
EPA ID: MID980999882
Mailing address: 120 EAST FIRST ST
MONROE, MI 48162
Contact: DONALD LINK
Contact address: Not reported
Not reported
Contact country: Not reported
Contact telephone: (734) 243-0700
Contact email: Not reported
EPA Region: 05
Classification: Conditionally Exempt Small Quantity Generator
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely

CONSOLIDATED PACKAGING CORP (Continued) **1000383846**

hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name:	MONROE CITY OF
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Municipal
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1987
Owner/Op end date:	Not reported

Owner/operator name:	MONROE CITY OF
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Municipal
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/1987
Owner/Op end date:	Not reported

Owner/operator name:	NAME NOT REPORTED
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Municipal
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1970
Owner/Op end date:	Not reported

Owner/operator name:	MONROE CITY OF
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Municipal
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/1987
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No

CONSOLIDATED PACKAGING CORP (Continued) **1000383846**

Used oil fuel burner: Unknown
Used oil processor: Unknown
User oil refiner: Unknown
Used oil fuel marketer to burner: Unknown
Used oil Specification marketer: Unknown
Used oil transfer facility: Unknown
Used oil transporter: Unknown
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: Unknown
Generated waste on-site: Unknown

Waste type: Lamps
Accumulated waste on-site: Unknown
Generated waste on-site: Unknown

Waste type: Pesticides
Accumulated waste on-site: Unknown
Generated waste on-site: Unknown

Waste type: Thermostats
Accumulated waste on-site: Unknown
Generated waste on-site: Unknown

Historical Generators:
Date form received by agency: 12/31/2001

CONSOLIDATED PACKAGING CORP (Continued) **1000383846**

Facility name: FORMER NORTHSIDE CONSOLIDATED PLT
Site name: NORTHSIDE CONSOLIDATED PLT
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 12/30/2001
Facility name: FORMER NORTHSIDE CONSOLIDATED PLT
Site name: NORTHSIDE CONSOLIDATED PLT
Classification: Large Quantity Generator

Date form received by agency: 11/16/1987
Facility name: FORMER NORTHSIDE CONSOLIDATED PLT
Site name: NORTHSIDE CONSOLIDATED PLT
Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110003618265

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

33
NE
1/4-1/2
0.366 mi.
1934 ft.

PILOT TRAVEL CENTERS #024 **LUST** **U003834520**
1100 N DIXIE HWY **UST** **N/A**
MONROE, MI 48162

Relative:
Higher

Actual:
589 ft.

LUST:
Facility ID: 00036833
Source: STATE OF MICHIGAN
Owner Name: Pilot Travel Centers LLC
Owner Address: 5508 Lonas Dr
Owner City,St,Zip: Knoxville, TN 37909-3221
Owner Contact: Jason McCain
Owner Phone: 865-588-7488

PILOT TRAVEL CENTERS #024 (Continued) **U003834520**

Country:	USA
District:	Jackson District Office
Site Name:	Pilot Travel Centers #024
Latitude:	41.9245580000
Longitude:	-83.3664090000
Date of Collection:	25-04-2002
Method of Collection:	GPS Code Meas. Standard Positioning Service SA Off
Accuracy:	10
Accuracy Value Unit:	METERS
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-0064-07
Release Date:	May 1 2007
Substance Released:	Gasoline,Gasoline
Release Status:	Open
Release Closed Date:	Not reported

UST:

Facility ID:	00036833
Facility Type:	ACTIVE
Latitude:	41.9245580000
Longitude:	-83.3664090000
Owner Name:	Pilot Travel Centers LLC
Owner Address:	5508 Lonas Dr
Owner City,St,Zip:	Knoxville, TN 37909-3221
Owner Country:	USA
Owner Contact:	Jason McCain
Owner Phone:	865-588-7488
Contact:	Jason A McCain
Contact Phone:	(865) 588-7488
Date of Collection:	25-04-2002
Accuracy:	10
Accuracy Value Unit:	METERS
Horizontal Datum:	NAD83
Source:	STATE OF MICHIGAN
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Method of Collection:	GPS Code Meas. Standard Positioning Service SA Off
Tank ID:	C
Tank Status:	**Currently In Use**
Capacity:	12000
Install Date:	Sep 1 1987
Product:	Gasoline
Remove Date:	Not reported
Tank Release Detection:	SIR, Automatic Tank Gauging
Pipe Realease Detection:	SIR, Automatic Line Leak Detectors, Line Tightness Testing
Piping Material:	Fiberglass Reinforced Plastic
Piping Type:	Pressure
Constr Material:	Fiberglass Reinforced Plastic
Impressed Device:	No
Tank ID:	D
Tank Status:	**Currently In Use**
Capacity:	12000

PILOT TRAVEL CENTERS #024 (Continued) **U003834520**

Install Date: Sep 1 1987
Product: Diesel
Remove Date: Not reported
Tank Release Detection: Automatic Tank Gauging
Pipe Realease Detection: SIR, Automatic Line Leak Detectors, Line Tightness Testing
Piping Material: Fiberglass Reinforced Plastic
Piping Type: Pressure
Constr Material: Fiberglass Reinforced Plastic
Impressed Device: No

Tank ID: A
Tank Status: Currently In Use
Capacity: 12000
Install Date: Sep 1 1987
Product: Gasoline
Remove Date: Not reported
Tank Release Detection: Automatic Tank Gauging
Pipe Realease Detection: SIR, Automatic Line Leak Detectors, Line Tightness Testing
Piping Material: Fiberglass Reinforced Plastic
Piping Type: Pressure
Constr Material: Fiberglass Reinforced Plastic
Impressed Device: No

Tank ID: E
Tank Status: Currently In Use
Capacity: 12000
Install Date: Sep 1 1987
Product: Diesel
Remove Date: Not reported
Tank Release Detection: SIR, Automatic Tank Gauging
Pipe Realease Detection: SIR, Automatic Line Leak Detectors, Line Tightness Testing
Piping Material: Fiberglass Reinforced Plastic
Piping Type: Pressure
Constr Material: Fiberglass Reinforced Plastic
Impressed Device: No

Tank ID: F
Tank Status: Currently In Use
Capacity: 12000
Install Date: Sep 1 1987
Product: Diesel
Remove Date: Not reported
Tank Release Detection: Automatic Tank Gauging
Pipe Realease Detection: SIR, Automatic Line Leak Detectors, Line Tightness Testing
Piping Material: Fiberglass Reinforced Plastic
Piping Type: Pressure
Constr Material: Fiberglass Reinforced Plastic
Impressed Device: No

Tank ID: Phantom
Tank Status: Non-Registered Tank
Capacity: Not reported
Install Date: Not reported

PILOT TRAVEL CENTERS #024 (Continued) **U003834520**

Product:	Unknown
Remove Date:	Not reported
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Not reported
Piping Type:	Not reported
Constr Material:	Not reported
Impressed Device:	No

Tank ID:	B
Tank Status:	**Currently In Use**
Capacity:	12000
Install Date:	Sep 1 1987
Product:	Gasoline
Remove Date:	Not reported
Tank Release Detection:	SIR, Inventory Control
Pipe Realease Detection:	SIR, Automatic Line Leak Detectors, Line Tightness Testing
Piping Material:	Fiberglass Reinforced Plastic
Piping Type:	Pressure
Constr Material:	Fiberglass Reinforced Plastic
Impressed Device:	No

Tank ID:	G
Tank Status:	**Currently In Use**
Capacity:	20000
Install Date:	Apr 1 2007
Product:	Diesel
Remove Date:	Not reported
Tank Release Detection:	Automatic Tank Gauging
Pipe Realease Detection:	SIR, Automatic Line Leak Detectors, Line Tightness Testing
Piping Material:	Fiberglass Reinforced Plastic
Piping Type:	Pressure
Constr Material:	Fiberglass Reinforced Plastic
Impressed Device:	No

34
South
1/4-1/2
0.428 mi.
2261 ft.

VACANT PARCEL **BEA** **S110300941**
1407 E ELM **N/A**
MONROE CITY, MI 48162

Relative:
Lower

Actual:
574 ft.

BEA:

Secondary Address:	Not reported
BEA Number:	1037
District:	Jackson
Date Received:	5/10/2010 12:59:00 AM
Submitter Name:	Port of Monroe
Petition Determination:	No Request
Petition Disclosure:	0
Category:	No Hazardous Substance(s)
Determination 20107A:	No Request
Reviewer:	spauldie
Division Assigned:	RRD

G35 SW 1/4-1/2 0.430 mi. 2269 ft. | **KADIUM SAIED 1101 E FRONT ST MONROE, MI 48161** | **LUST** | **S100071568 N/A**

Site 1 of 2 in cluster G

Relative: Lower

Actual: 581 ft.

LUST:

Facility ID:	50000158
Source:	STATE OF MICHIGAN
Owner Name:	Nrt Owner
Owner Address:	Unknown
Owner City,St,Zip:	Unknown, MI 99999
Owner Contact:	Not reported
Owner Phone:	Not reported
Country:	USA
District:	Jackson District Office
Site Name:	Kadium Saied
Latitude:	41.9111610000
Longitude:	-83.3836000000
Date of Collection:	01-11-2001
Method of Collection:	Address Matching-House Number
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-0328-89
Release Date:	Jul 14 1989
Substance Released:	Not reported
Release Status:	Open
Release Closed Date:	Not reported

G36 SW 1/4-1/2 0.430 mi. 2269 ft. | **KADIM SAIED 1101 E. FRONT MONROE, MI** | **DEL SHWS BROWNFIELDS** | **S105965671 N/A**

Site 2 of 2 in cluster G

Relative: Lower

Actual: 581 ft.

DELETED HWS:

Facility ID:	58000050
Status:	Deleted - available documentation does not support listing

BROWNFIELD:

Facility ID:	50000158
Region:	1
Status:	PLP
Properry Use:	Not reported
BEA:	No
Ernie Id Number:	Not reported
Redevelop Status:	Not reported
Before Redevelopment:	Photo
After Redevelopment:	Not reported

37 WNW 1/4-1/2 0.447 mi. 2362 ft. | **FORMER MONROE HOSPITAL**
188-120 MAPLE BLVD.
MONROE, MI | **DEL SHWS** | **S105966016**
N/A

Relative: Higher

Actual: 589 ft.

DELETED HWS:

Facility ID:	58000182
Status:	Delisted - no longer meets criteria specified in rules

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38 SW 1/4-1/2 0.483 mi. 2551 ft. | **GENE GERMAN I**
72 WINCHESTER ST
MONROE, MI 48161 | **LUST**
UST | **U000260832**
N/A

Relative: Lower

Actual: 583 ft.

LUST:

Facility ID:	00020037
Source:	STATE OF MICHIGAN
Owner Name:	Gene Germant
Owner Address:	1002 Harrison St
Owner City,St,Zip:	Monroe, MI 48161-4018
Owner Contact:	Not reported
Owner Phone:	(734) 241-7939
Country:	USA
District:	Jackson District Office
Site Name:	Jeff's Garage
Latitude:	41.9105530000
Longitude:	-83.3846060000
Date of Collection:	01-11-2001
Method of Collection:	Address Matching-House Number
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-0954-93
Release Date:	Aug 3 1993
Substance Released:	Gasoline
Release Status:	Open
Release Closed Date:	Not reported

UST:

Facility ID:	00020037
Facility Type:	CLOSED
Latitude:	41.9105530000
Longitude:	-83.3846060000
Owner Name:	Gene Germant
Owner Address:	1002 Harrison St
Owner City,St,Zip:	Monroe, MI 48161-4018
Owner Country:	USA
Owner Contact:	Not reported
Owner Phone:	(734) 241-7939
Contact:	GENE GERMANT
Contact Phone:	(734) 241-7939
Date of Collection:	01-11-2001
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Datum:	NAD83

GENE GERMAN I (Continued) **U000260832**

Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 5000
Install Date: Jun 24 1979
Product: Gasoline
Remove Date: Jun 21 1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 2
Tank Status: Removed from Ground
Capacity: 5000
Install Date: Jun 24 1979
Product: Gasoline
Remove Date: Jun 21 1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 3
Tank Status: Removed from Ground
Capacity: 5000
Install Date: Jun 24 1979
Product: Gasoline
Remove Date: Jun 21 1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 4
Tank Status: Removed from Ground
Capacity: 6000
Install Date: Not reported
Product: Gasoline,Diesel
Remove Date: Jun 21 1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Suction: No Valve At Tank

GENE GERMAN I (Continued) **U000260832**

Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 5
Tank Status: Removed from Ground
Capacity: 2500
Install Date: Not reported
Product: Kerosene
Remove Date: Jun 21 1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Suction: No Valve At Tank
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 6
Tank Status: Removed from Ground
Capacity: 500
Install Date: Not reported
Product: Used Oil
Remove Date: Jun 21 1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Suction: No Valve At Tank
Constr Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: Phantom
Tank Status: Non-Registered Tank
Capacity: Not reported
Install Date: Not reported
Product: Unknown
Remove Date: Not reported
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Not reported
Piping Type: Not reported
Constr Material: Not reported
Impressed Device: No

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39 SSW 1/2-1 0.534 mi. 2817 ft. | **CONSOLIDATED PACKAGING CORP**
1521 E. FRONT ST.
MONROE, MI 48161 | **SHWS** | **S106131741**
N/A

Relative: Lower

Actual: 577 ft.

SHWS:
Facility ID: 58000002
Facility Status: Interim Response in progress
Source: Paper and Allied Products
SAM Score: 33
SAM Score Date: 7/13/2004
Township: 07S

CONSOLIDATED PACKAGING CORP (Continued) **S106131741**

Range: 09E
Section: 34
Quarter: Not reported
Quarter/Quarter: Not reported
Pollutants: Pb; PCB's; Zn; Dioxins

40
South
1/2-1
0.618 mi.
3265 ft.

CPC GREEN SPACE
1530 E FRONT ST
MONROE, MI 48161

DEL SHWS **S109952308**
N/A

Relative:
Lower

Actual:
580 ft.

DELETED HWS:
Facility ID: 58000220
Status: Deleted - available documentation does not support listing

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41
SSW
1/2-1
0.991 mi.
5231 ft.

SALCO INDUSTRIAL SERVICE
704 CONANT
MONROE, MI 48161

CERC-NFRAP **1000175466**
CORRACTS **MID000722728**
RCRA-NonGen
FINDS

Relative:
Lower

Actual:
582 ft.

CERC-NFRAP:
Site ID: 0502197
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: NFRAP

CERCLIS-NFRAP Site Contact Name(s):
Contact Title: OSC
Contact Name: ROSE ELLISON
Contact Tel: (313) 692-7689

Contact Title: EPA ORC
Contact Name: NOLA HICKS
Contact Tel: (312) 886-7949

Contact Title: RESPONSIBLE PARTY INVESTIGATOR
Contact Name: JANET PFUNDHELLER
Contact Tel: (312) 353-5821

Contact Title: Investigator
Contact Name: LANCE VLCEK
Contact Tel: (312) 886-4783

CERCLIS-NFRAP Site Alias Name(s):
Alias Name: SALCO CORP DBA CIS
Alias Address: Not reported
MI

Alias Name: SALCO INC
Alias Address: 704 CONANT
MONROE, MI 48161

Alias Name: SALCO INCORPORATION

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Alias Address: 704 CONANT
MONROE, MI 48161

Program Priority:
Description: Great Lakes

CERCLIS-NFRAP Assessment History:

Action: DISCOVERY
Date Started: Not reported
Date Completed: 10/28/1985
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: Not reported
Date Completed: 12/10/1985
Priority Level: Higher priority for further assessment

Action: PRELIMINARY ASSESSMENT
Date Started: Not reported
Date Completed: 02/07/1990
Priority Level: NFRAP: No further Remedial Action planned

Action: ARCHIVE SITE
Date Started: Not reported
Date Completed: 02/07/1990
Priority Level: Not reported

Action: LI
Date Started: Not reported
Date Completed: 01/16/1995
Priority Level: Not reported

Action: 4G
Date Started: Not reported
Date Completed: 01/16/1995
Priority Level: Not reported

Action: ISSUE REQ LTTRS (104e)
Date Started: Not reported
Date Completed: 02/16/1995
Priority Level: Not reported

Action: Notice Letters Issued
Date Started: Not reported
Date Completed: 03/10/1995
Priority Level: Not reported

Action: ADMINISTRATIVE RECORDS
Date Started: 03/22/1995
Date Completed: Not reported
Priority Level: Admin Record Compiled for a Removal Event

Action: Notice Letters Issued
Date Started: Not reported
Date Completed: 03/27/1995
Priority Level: Not reported

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Action: ISSUE REQ LTTRS (104e)
Date Started: Not reported
Date Completed: 03/27/1995
Priority Level: Not reported

Action: AM
Date Started: Not reported
Date Completed: 04/18/1995
Priority Level: Not reported

Action: Notice Letters Issued
Date Started: Not reported
Date Completed: 05/18/1995
Priority Level: Not reported

Action: Notice Letters Issued
Date Started: Not reported
Date Completed: 05/18/1995
Priority Level: Not reported

Action: ISSUE REQ LTTRS (104e)
Date Started: Not reported
Date Completed: 05/18/1995
Priority Level: Not reported

Action: ADMIN ORDER ON CONSENT
Date Started: Not reported
Date Completed: 11/28/1995
Priority Level: Not reported

Action: Notice Letters Issued
Date Started: Not reported
Date Completed: 11/30/1995
Priority Level: Not reported

Action: REMOVAL
Date Started: 04/19/1995
Date Completed: 02/25/1996
Priority Level: Stabilized

Action: Notice Letters Issued
Date Started: Not reported
Date Completed: 03/07/1996
Priority Level: Not reported

Action: Notice Letters Issued
Date Started: Not reported
Date Completed: 03/07/1996
Priority Level: Not reported

Action: Notice Letters Issued
Date Started: Not reported
Date Completed: 04/10/1996
Priority Level: Not reported

Action: NON-NPL PRP SEARCH
Date Started: 10/01/1995

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Date Completed: 06/05/1996
Priority Level: Search Complete, Viable PRPs

Action: ISSUE REQ LTTRS (104e)
Date Started: Not reported
Date Completed: 06/12/1996
Priority Level: Not reported

Action: ADMIN ORDER ON CONSENT
Date Started: Not reported
Date Completed: 12/10/1996
Priority Level: Not reported

Action: PRP REMOVAL
Date Started: 02/26/1996
Date Completed: 01/26/1997
Priority Level: Cleaned up

Action: PRP REMOVAL
Date Started: 01/28/1997
Date Completed: 11/13/1997
Priority Level: Cleaned up

Action: IO
Date Started: Not reported
Date Completed: 04/30/1998
Priority Level: Not reported

Action: IO
Date Started: Not reported
Date Completed: 04/30/1998
Priority Level: Not reported

Action: DD
Date Started: Not reported
Date Completed: 03/22/2000
Priority Level: Not reported

CORRACTS:

EPA ID: MID000722728
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 03/31/1994
Action: CA075LO - CA Prioritization, Facility or area was assigned a low corrective action priority
NAICS Code(s): 33122
Rolling and Drawing of Purchased Steel
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID000722728
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 05/01/2009
Action: CA070NO - RFA Determination Of Need For An RFI, RFI is Not Necessary

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

NAICS Code(s): 33122
Rolling and Drawing of Purchased Steel
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID000722728
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 05/14/1990
Action: CA050 - RFA Completed
NAICS Code(s): 33122
Rolling and Drawing of Purchased Steel
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID000722728
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 05/14/1990
Action: CA070YE - RFA Determination Of Need For An RFI, RFI is Necessary
NAICS Code(s): 33122
Rolling and Drawing of Purchased Steel
Original schedule date: Not reported
Schedule end date: Not reported

EPA ID: MID000722728
EPA Region: 05
Area Name: ENTIRE FACILITY
Actual Date: 09/27/1991
Action: CA075LO - CA Prioritization, Facility or area was assigned a low corrective action priority
NAICS Code(s): 33122
Rolling and Drawing of Purchased Steel
Original schedule date: Not reported
Schedule end date: Not reported

RCRA-NonGen:
Date form received by agency: 03/01/2002
Facility name: SALCO INC
Facility address: 704 CONANT ST
MONROE, MI 48161
EPA ID: MID000722728
Contact: KENNETH TARTER
Contact address: Not reported
Not reported
Contact country: Not reported
Contact telephone: (313) 243-2820
Contact email: Not reported
EPA Region: 05
Land type: Private
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: SALCO INC
Owner/operator address: Not reported

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/1970
Owner/Op end date:	Not reported

Owner/operator name:	SALCO (AFFILIATE OF COUSINS WASTE)
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1970
Owner/Op end date:	Not reported

Owner/operator name:	SALCO (AFFILIATE OF COUSINS WASTE)
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1970
Owner/Op end date:	Not reported

Owner/operator name:	SALCO INC
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/1970
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	Unknown
Used oil processor:	Unknown
User oil refiner:	Unknown
Used oil fuel marketer to burner:	Unknown
Used oil Specification marketer:	Unknown
Used oil transfer facility:	Unknown
Used oil transporter:	Unknown
Off-site waste receiver:	Commercial status unknown

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Universal Waste Summary:

Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Batteries
Accumulated waste on-site: Unknown
Generated waste on-site: Unknown

Waste type: Lamps
Accumulated waste on-site: Unknown
Generated waste on-site: Unknown

Waste type: Pesticides
Accumulated waste on-site: Unknown
Generated waste on-site: Unknown

Waste type: Thermostats
Accumulated waste on-site: Unknown
Generated waste on-site: Unknown

Historical Generators:

Date form received by agency: 12/31/2001
Facility name: SALCO INC
Classification: Not a generator, verified

Date form received by agency: 04/05/2001
Facility name: SALCO INC
Classification: Small Quantity Generator

Date form received by agency: 07/28/1995
Facility name: SALCO INC

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Classification: Small Quantity Generator

Date form received by agency: 11/19/1980
Facility name: SALCO INC
Classification: Not a generator, verified

Date form received by agency: 08/18/1980
Facility name: SALCO INC
Classification: Small Quantity Generator

Corrective Action Summary:
Event date: 05/14/1990
Event: RFA Completed

Event date: 05/14/1990
Event: RFA Determination Of Need For An RFI, RFI is Necessary;

Event date: 09/27/1991
Event: CA Prioritization, Facility or area was assigned a low corrective action priority.

Event date: 03/31/1994
Event: CA Prioritization, Facility or area was assigned a low corrective action priority.

Event date: 05/01/2009
Event: RFA Determination Of Need For An RFI, RFI is Not Necessary;

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 12/18/2001
Date achieved compliance: Not reported
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/18/2001
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 01/13/1992
Date achieved compliance: 03/25/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/13/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 01/13/1992
Date achieved compliance: 03/25/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/13/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 01/13/1992
Date achieved compliance: 03/25/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/13/1992
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 09/16/1991
Date achieved compliance: 03/25/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/16/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 12/18/1990
Date achieved compliance: 03/25/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/11/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Area of violation: TSD - Closure/Post-Closure
Date violation determined: 12/18/1990
Date achieved compliance: 03/25/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/11/1991
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 06/28/1990
Date achieved compliance: 03/25/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/26/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Transporters - General
Date violation determined: 03/29/1990
Date achieved compliance: 10/09/1990
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/18/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 01/31/1990
Date achieved compliance: 03/25/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/31/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Closure/Post-Closure

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Date violation determined: 01/23/1990
Date achieved compliance: 03/25/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/31/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 03/17/1989
Date achieved compliance: 03/25/1993
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/17/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - General
Date violation determined: 03/03/1989
Date achieved compliance: 01/23/1990
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/17/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Closure/Post-Closure
Date violation determined: 03/03/1989
Date achieved compliance: 01/23/1990
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/17/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Transporters - General
Date violation determined: 03/04/1987

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Date achieved compliance: 03/03/1989
Violation lead agency: State
Enforcement action: STATE TO EPA ADMINISTRATIVE REFERRAL
Enforcement action date: 03/10/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 09/05/1985
Date achieved compliance: 08/11/1986
Violation lead agency: EPA
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 02/28/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: 7500
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 09/05/1985
Date achieved compliance: 08/11/1986
Violation lead agency: EPA
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 07/08/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: 4600
Final penalty amount: 4600
Paid penalty amount: 4600

Regulation violated: Not reported
Area of violation: Transporters - General
Date violation determined: 05/16/1985
Date achieved compliance: 10/21/1986
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/22/1985
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Transporters - General
Date violation determined: 05/16/1985
Date achieved compliance: 10/21/1986

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/28/1985
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 02/28/1985
Date achieved compliance: 08/11/1986
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/18/1985
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 07/16/1984
Date achieved compliance: 11/01/1984
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 06/16/1984
Date achieved compliance: 08/28/1984
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/16/1984
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 06/16/1984
Date achieved compliance: 08/28/1984
Violation lead agency: EPA

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Enforcement action: RCRA TO CERCLA ADMINISTRATIVE REFERRAL
Enforcement action date: 10/06/1994
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 06/16/1984
Date achieved compliance: 08/28/1984
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/10/1984
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 06/16/1984
Date achieved compliance: 08/28/1984
Violation lead agency: EPA
Enforcement action: INITIAL 3008(A) COMPLIANCE
Enforcement action date: 05/29/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: 9500
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 06/16/1984
Date achieved compliance: 08/28/1984
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/28/1984
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: TSD - Financial Requirements
Date violation determined: 06/16/1984
Date achieved compliance: 08/28/1984
Violation lead agency: EPA
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Enforcement action date: 09/17/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: 7500
Final penalty amount: 7500
Paid penalty amount: 7500

Regulation violated: Not reported
Area of violation: TSD IS-Ground-Water Monitoring
Date violation determined: 03/22/1984
Date achieved compliance: 06/28/1984
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 03/22/1984
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 12/18/2001
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: State Statute or Regulation
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/10/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 03/25/1993
Evaluation lead agency: State

Evaluation date: 01/10/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Closure/Post-Closure
Date achieved compliance: 03/25/1993
Evaluation lead agency: State

Evaluation date: 01/10/1992
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 03/25/1993
Evaluation lead agency: State

Evaluation date: 09/16/1991
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 03/25/1993
Evaluation lead agency: State

Evaluation date: 12/18/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Closure/Post-Closure
Date achieved compliance: 03/25/1993

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Evaluation lead agency: State

Evaluation date: 12/18/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 03/25/1993
Evaluation lead agency: State

Evaluation date: 06/28/1990
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: TSD - General
Date achieved compliance: 03/25/1993
Evaluation lead agency: State

Evaluation date: 04/24/1990
Evaluation: COMPLIANCE SCHEDULE EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/29/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - General
Date achieved compliance: 10/09/1990
Evaluation lead agency: State

Evaluation date: 01/31/1990
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 03/25/1993
Evaluation lead agency: State

Evaluation date: 01/23/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Closure/Post-Closure
Date achieved compliance: 03/25/1993
Evaluation lead agency: State

Evaluation date: 10/31/1989
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/24/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/17/1989
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 03/25/1993
Evaluation lead agency: State

Evaluation date: 03/03/1989

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 01/23/1990
Evaluation lead agency: State

Evaluation date: 03/03/1989
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - Closure/Post-Closure
Date achieved compliance: 01/23/1990
Evaluation lead agency: State

Evaluation date: 12/01/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/23/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/06/1988
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/02/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/11/1987
Evaluation: GROUNDWATER MONITORING EVALUATION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/04/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - General
Date achieved compliance: 03/03/1989
Evaluation lead agency: State

Evaluation date: 06/24/1986
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/25/1986
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Evaluation lead agency: EPA Contractor/Grantee

Evaluation date: 09/16/1985
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/05/1985
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 08/11/1986
Evaluation lead agency: EPA

Evaluation date: 07/30/1985
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/16/1985
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - General
Date achieved compliance: 10/21/1986
Evaluation lead agency: State

Evaluation date: 02/28/1985
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 08/11/1986
Evaluation lead agency: EPA

Evaluation date: 12/03/1984
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/03/1984
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: EPA

Evaluation date: 10/16/1984
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/25/1984
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/14/1984

SALCO INDUSTRIAL SERVICE (Continued) **1000175466**

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/16/1984
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 11/01/1984
Evaluation lead agency: State

Evaluation date: 06/16/1984
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 08/28/1984
Evaluation lead agency: EPA

Evaluation date: 03/22/1984
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: TSD IS-Ground-Water Monitoring
Date achieved compliance: 06/28/1984
Evaluation lead agency: State

FINDS:

Registry ID: 110003576531

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
MONROE	S109345118		311TH & 317 HARBOR AVE	48162	BEA
MONROE	S103086383	PORT OF MONROE LF	I 75 PLUMCREEKBTWN & 3101ST E	48161	SHWS, BROWNFIELDS
MONROE	S105144460	GOULD NATIONAL BATTERY INC	1655 W 7TH ST	48161	SHWS
MONROE	S109416860	HOMRICH INC	NE CORNER OF THE INTESECTION O		SWF/LF, FINANCIAL ASSURANCE
MONROE	1006932009		DIXIE HWY	48161	CERC-NFRAP
MONROE	S100069935	CITY OF MONROE SLF	ELM ST	48161	HIST LF
MONROE	1010785301	PORT OF MONROE	1205 E ELM AVE	48162	RCRA-CESQG
MONROE	1004723714		ELM AVENUE BRIDGE OVER MASON R	48161	RCRA-CESQG, FINDS
MONROE	1009310280	MASON RUN DEVELOPMENT	N ELM HWY		US BROWNFIELDS
MONROE	1012172762	MONROE SPORTS CENTER #1	N ELM HWY	48162	US BROWNFIELDS
MONROE	1012172763	MONROE SPORTS CENTER #2	N ELM HWY		US BROWNFIELDS
MONROE	1003871272		ELM AVE	48161	CERC-NFRAP
MONROE	S110126736	1250 E FIRST ST	1250 E FIRST ST.	48161	SHWS
MONROE	S103595035	MONROE LF CITY OF	FRONT ST BTWN PORT & MCMILLIAN	48161	SHWS
MONROE	S108632582	DETROIT EDISON MONROE POWER PLANT	FRONT ST	48161	SHWS
MONROE	S105767835		319325 HARBOR AVE		BEA
MONROE	1007098877		319 HARBOR	48161	RCRA-CESQG
MONROE	S103595037	RAISIN R CITY OF MONROE TO MOUTH	MONROE HBR	48161	SHWS
MONROE	1007119090		803 E NOBLE	48161	RCRA-CESQG
MONROE	1011489479	NORFOLK SOUTHERN	997 E NOBLE ST	48162	RCRA-NonGen
MONROE	S109029713	CLARK STATION LOTS ADJ TO	N OF 643	48161	SHWS
MONROE	S108632585	DAMICO/RIVERBEND PROJECT SITE #8	TELEGRTAPH RD & W FRONT ST		SHWS
MONROE	S110126735	1204 E THIRD ST.	1204 E. THIRD ST.	48161	SHWS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 03/31/2010
Date Data Arrived at EDR: 04/02/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 05/07/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/31/2010
Date Data Arrived at EDR: 04/02/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 05/07/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 05/17/2010
Next Scheduled EDR Contact: 08/30/2010
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/31/2010	Source: EPA
Date Data Arrived at EDR: 04/02/2010	Telephone: N/A
Date Made Active in Reports: 04/12/2010	Last EDR Contact: 05/07/2010
Number of Days to Update: 10	Next Scheduled EDR Contact: 07/26/2010
	Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 01/29/2010	Source: EPA
Date Data Arrived at EDR: 02/09/2010	Telephone: 703-412-9810
Date Made Active in Reports: 04/12/2010	Last EDR Contact: 06/11/2010
Number of Days to Update: 62	Next Scheduled EDR Contact: 07/12/2010
	Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of NPL and Base Realighnment & Closure sites found in the CERCLIS database where FERRO is involved in cleanup projects.

Date of Government Version: 06/23/2009	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/15/2010	Telephone: 703-603-8704
Date Made Active in Reports: 02/10/2010	Last EDR Contact: 04/30/2010
Number of Days to Update: 26	Next Scheduled EDR Contact: 07/26/2010
	Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 06/23/2009	Source: EPA
Date Data Arrived at EDR: 09/02/2009	Telephone: 703-412-9810
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 06/11/2010
Number of Days to Update: 19	Next Scheduled EDR Contact: 09/13/2010
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/25/2010	Source: EPA
Date Data Arrived at EDR: 03/31/2010	Telephone: 800-424-9346
Date Made Active in Reports: 05/27/2010	Last EDR Contact: 05/17/2010
Number of Days to Update: 57	Next Scheduled EDR Contact: 08/30/2010
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 02/17/2010
Date Data Arrived at EDR: 02/19/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 04/29/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/17/2010
Date Data Arrived at EDR: 02/19/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 04/29/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 02/17/2010
Date Data Arrived at EDR: 02/19/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 04/29/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/17/2010
Date Data Arrived at EDR: 02/19/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 04/29/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 12/20/2009
Date Data Arrived at EDR: 01/20/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/14/2010
Next Scheduled EDR Contact: 09/27/2010
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 12/20/2009
Date Data Arrived at EDR: 01/20/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/14/2010
Next Scheduled EDR Contact: 09/27/2010
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 01/22/2010
Date Made Active in Reports: 02/11/2010
Number of Days to Update: 20

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 04/07/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Annually

State- and tribal - equivalent CERCLIS

SHWS: Contaminated Sites

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 05/03/2010
Date Data Arrived at EDR: 05/04/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 36

Source: Department of Natural Resources & Environment
Telephone: 517-373-9541
Last EDR Contact: 05/04/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Semi-Annually

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Facilities Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 04/05/2010
Date Data Arrived at EDR: 05/28/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 12

Source: Department of Natural Resources & Environment
Telephone: 517-335-4035
Last EDR Contact: 04/05/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank Sites
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 05/21/2010
Date Data Arrived at EDR: 05/25/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 15

Source: Department of Natural Resources & Environment
Telephone: 517-373-9837
Last EDR Contact: 05/25/2010
Next Scheduled EDR Contact: 09/06/2010
Data Release Frequency: Annually

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/01/2010
Date Data Arrived at EDR: 03/03/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Quarterly

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 03/10/2010
Date Data Arrived at EDR: 03/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 27

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Semi-Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/04/2010
Date Data Arrived at EDR: 05/05/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 22

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/19/2009
Date Data Arrived at EDR: 02/19/2009
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 25

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/03/2010
Date Data Arrived at EDR: 05/05/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 22

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/24/2009
Date Data Arrived at EDR: 05/20/2009
Date Made Active in Reports: 06/17/2009
Number of Days to Update: 28

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 05/04/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 02/25/2010
Date Data Arrived at EDR: 02/25/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 46

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Quarterly

State and tribal registered storage tank lists

UST: Underground Storage Tank Facility List
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 03/29/2010
Date Data Arrived at EDR: 04/01/2010
Date Made Active in Reports: 04/14/2010
Number of Days to Update: 13

Source: Department of Natural Resources & Environment
Telephone: 517-335-4035
Last EDR Contact: 05/25/2010
Next Scheduled EDR Contact: 09/06/2010
Data Release Frequency: Annually

AST: Aboveground Tanks
Registered Aboveground Storage Tanks.

Date of Government Version: 02/05/2010
Date Data Arrived at EDR: 03/12/2010
Date Made Active in Reports: 04/14/2010
Number of Days to Update: 33

Source: Department of Natural Resources & Environment
Telephone: 517-373-8168
Last EDR Contact: 05/24/2010
Next Scheduled EDR Contact: 09/06/2010
Data Release Frequency: No Update Planned

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 02/25/2010
Date Data Arrived at EDR: 02/25/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 46

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/01/2008
Date Data Arrived at EDR: 12/30/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 76

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 05/12/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/19/2009
Date Data Arrived at EDR: 02/19/2009
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 25

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/01/2010
Date Data Arrived at EDR: 03/03/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 40

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Quarterly

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 03/10/2010
Date Data Arrived at EDR: 03/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 27

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Semi-Annually

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 05/04/2010
Date Data Arrived at EDR: 05/05/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 22

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Quarterly

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/03/2010
Date Data Arrived at EDR: 05/05/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 22

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 02/11/2010
Date Data Arrived at EDR: 02/11/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 60

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/19/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

AUL: Engineering and Institutional Controls
A listing of sites with institutional and/or engineering controls in place.

Date of Government Version: 03/26/2010
Date Data Arrived at EDR: 03/26/2010
Date Made Active in Reports: 04/13/2010
Number of Days to Update: 18

Source: Department of Natural Resources & Environment
Telephone: 517-373-4828
Last EDR Contact: 06/07/2010
Next Scheduled EDR Contact: 09/20/2010
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 04/02/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 04/05/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields and USTfield Site Database
All state funded Part 201 and 213 sites, as well as LUST sites that have been redeveloped by private entities using the BEA process. Be aware that this is not a list of all of the potential brownfield sites in Michigan.

Date of Government Version: 06/01/2010
Date Data Arrived at EDR: 06/01/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 8

Source: Department of Natural Resources & Environment
Telephone: 517-373-4805
Last EDR Contact: 05/17/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

BROWNFIELDS 2: Brownfields Building and Land Site Locations
A listing of brownfield building and land site locations. The listing is a collaborative effort of Michigan Economic Development Corporation, Michigan Economic Developers Association, Detrot Edison, Detroit Area Commercial Board of Realtors

Date of Government Version: 04/09/2007
Date Data Arrived at EDR: 04/10/2007
Date Made Active in Reports: 05/01/2007
Number of Days to Update: 21

Source: Economic Development Corporation
Telephone: 888-522-0103
Last EDR Contact: 06/07/2010
Next Scheduled EDR Contact: 09/20/2010
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 03/02/2010
Date Data Arrived at EDR: 03/23/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 55

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/23/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-972-3336
Last EDR Contact: 06/07/2010
Next Scheduled EDR Contact: 09/20/2010
Data Release Frequency: Varies

HIST LF: Inactive Solid Waste Facilities

The database contains historical information and is no longer updated.

Date of Government Version: 03/01/1997
Date Data Arrived at EDR: 02/28/2003
Date Made Active in Reports: 03/06/2003
Number of Days to Update: 6

Source: Department of Natural Resources & Environment
Telephone: 517-335-4034
Last EDR Contact: 02/28/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 06/08/2010
Next Scheduled EDR Contact: 08/23/2010
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 08/19/2009
Date Data Arrived at EDR: 12/29/2009
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 43

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/08/2010
Next Scheduled EDR Contact: 09/20/2010
Data Release Frequency: Quarterly

DEL SHWS: Delisted List of Contaminated Sites

Sites that have been delisted or deleted from the List of Contaminated Sites. The available documentation for the site does not support it's listing or the site no longer meets criteria specified in rules.

Date of Government Version: 05/10/2010
Date Data Arrived at EDR: 05/11/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 29

Source: Department of Natural Resources & Environment
Telephone: 517-373-9541
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

CDL: Clandestine Drug Lab Listing

A listing of clandestine drug lab locations.

Date of Government Version: 10/20/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 11/21/2008
Number of Days to Update: 3

Source: Department of Community Health
Telephone: 517-373-3740
Last EDR Contact: 04/15/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/05/2010
Date Data Arrived at EDR: 02/11/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 60

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/24/2010
Next Scheduled EDR Contact: 09/06/2010
Data Release Frequency: Varies

LIENS: Lien List

An Environmental Lien is a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a property, including (but not limited to) liens imposed pursuant to CERCLA 42 USC * 9607(1) and similar state or local laws. In other words: a lien placed upon a property's title due to an environmental condition

Date of Government Version: 03/30/2010
Date Data Arrived at EDR: 04/30/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 40

Source: Department of Natural Resources & Environment
Telephone: 517-373-9837
Last EDR Contact: 04/26/2010
Next Scheduled EDR Contact: 08/09/2010
Data Release Frequency: Varies

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 04/06/2010
Date Data Arrived at EDR: 04/07/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 50

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 04/07/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Annually

PEAS: Pollution Emergency Alerting System

Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents, pipeline breaks, and release of reportable quantities of hazardous substances.

Date of Government Version: 12/08/2009
Date Data Arrived at EDR: 03/12/2010
Date Made Active in Reports: 03/23/2010
Number of Days to Update: 11

Source: Department of Natural Resources & Environment
Telephone: 517-373-8427
Last EDR Contact: 06/14/2010
Next Scheduled EDR Contact: 09/27/2010
Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 02/17/2010
Date Data Arrived at EDR: 02/19/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 04/29/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DOT OPS: Incident and Accident Data
Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/12/2010
Date Data Arrived at EDR: 02/09/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 62

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 05/12/2010
Next Scheduled EDR Contact: 08/23/2010
Data Release Frequency: Varies

DOD: Department of Defense Sites
This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 703-692-8801
Last EDR Contact: 04/21/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites
The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 09/30/2009
Date Made Active in Reports: 12/01/2009
Number of Days to Update: 62

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 03/18/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 04/11/2010
Date Data Arrived at EDR: 04/19/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 28

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/05/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Varies

ROD: Records Of Decision
Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/29/2010
Date Data Arrived at EDR: 05/07/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 20

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 05/07/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites
Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 01/05/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 05/08/2009
Number of Days to Update: 1

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 06/01/2010
Next Scheduled EDR Contact: 09/13/2010
Data Release Frequency: Varies

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/12/2010
Date Data Arrived at EDR: 03/10/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 68

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/09/2010
Next Scheduled EDR Contact: 09/20/2010
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 01/13/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 36

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 06/04/2010
Next Scheduled EDR Contact: 09/13/2010
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002
Date Data Arrived at EDR: 04/14/2006
Date Made Active in Reports: 05/30/2006
Number of Days to Update: 46

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 04/21/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 06/01/2010
Next Scheduled EDR Contact: 09/13/2010
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 06/01/2010
Next Scheduled EDR Contact: 09/13/2010
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 01/06/2010
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 04/24/2010
Date Data Arrived at EDR: 04/29/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 18

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 03/29/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 09/01/2009
Date Data Arrived at EDR: 10/21/2009
Date Made Active in Reports: 12/01/2009
Number of Days to Update: 41

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/22/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/18/2010
Date Data Arrived at EDR: 04/06/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 51

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 06/14/2010
Next Scheduled EDR Contact: 09/27/2010
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/13/2010
Date Data Arrived at EDR: 04/14/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 33

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/14/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/14/2010
Date Data Arrived at EDR: 04/16/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 41

Source: EPA
Telephone: (312) 353-2000
Last EDR Contact: 06/14/2010
Next Scheduled EDR Contact: 09/27/2010
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 02/25/2010
Date Made Active in Reports: 05/12/2010
Number of Days to Update: 76

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 05/25/2010
Next Scheduled EDR Contact: 09/06/2010
Data Release Frequency: Biennially

UIC: Underground Injection Wells Database

A listing of underground injection well locations. The UIC Program is responsible for regulating the construction, operation, permitting, and closure of injection wells that place fluids underground for storage or disposal.

Date of Government Version: 02/02/2010
Date Data Arrived at EDR: 03/03/2010
Date Made Active in Reports: 03/23/2010
Number of Days to Update: 20

Source: Department of Natural Resources & Environment
Telephone: 517-241-1515
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

DRYCLEANERS: Drycleaning Establishments

A listing of drycleaning facilities in Michigan.

Date of Government Version: 04/28/2010
Date Data Arrived at EDR: 05/17/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 23

Source: Department of Natural Resources & Environment
Telephone: 517-335-4586
Last EDR Contact: 04/23/2010
Next Scheduled EDR Contact: 08/09/2010
Data Release Frequency: Varies

NPDES: List of Active NPDES Permits

General information regarding NPDES (National Pollutant Discharge Elimination System) permits and NPDES Storm Water permits.

Date of Government Version: 04/13/2010
Date Data Arrived at EDR: 04/14/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 56

Source: Department of Natural Resources & Environment
Telephone: 517-241-1300
Last EDR Contact: 04/14/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Varies

AIRS: Permit and Emissions Inventory Data

Permit and emissions inventory data.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 10/09/2009
Date Made Active in Reports: 11/17/2009
Number of Days to Update: 39

Source: Department of Natural Resources & Environment
Telephone: 517-373-7074
Last EDR Contact: 04/02/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Varies

BEA: BASELINE ENVIRONMENTAL ASSESSMENT DATABASE

A Baseline Environmental Assessment (BEA) allows people to purchase or begin operating at a facility without being held liable for existing contamination. BEAs are used to gather enough information about the property being transferred so that existing contamination can be distinguished from any new releases that might occur after the new owner or operator takes over the property.

Date of Government Version: 05/27/2010
Date Data Arrived at EDR: 05/28/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 12

Source: Department of Natural Resources & Environment
Telephone: 517-373-9541
Last EDR Contact: 05/24/2010
Next Scheduled EDR Contact: 09/06/2010
Data Release Frequency: Semi-Annually

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/21/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 02/10/2010
Date Data Arrived at EDR: 02/11/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 60

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/10/2010
Next Scheduled EDR Contact: 08/09/2010
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/21/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: N/A

FINANCIAL ASSURANCE: Financial Assurance Information Listing

Financial assurance information.

Date of Government Version: 05/04/2010
Date Data Arrived at EDR: 05/06/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 34

Source: Department of Natural Resources & Environment
Telephone: 517-335-6610
Last EDR Contact: 04/12/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Varies

FINANCIAL ASSURANCE 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 04/05/2010
Date Data Arrived at EDR: 05/28/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 12

Source: Department of Natural Resources & Environment
Telephone: 517-335-4034
Last EDR Contact: 04/05/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 11/09/2009
Date Data Arrived at EDR: 12/18/2009
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/14/2010
Next Scheduled EDR Contact: 09/27/2010
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 01/01/2008
Date Data Arrived at EDR: 02/18/2009
Date Made Active in Reports: 05/29/2009
Number of Days to Update: 100

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/14/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 04/21/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Varies

COAL ASH: Coal Ash Disposal Sites
Coal fired power plants in Southeast Michigan that have coal ash handling on site.

Date of Government Version: 04/19/2010
Date Data Arrived at EDR: 04/19/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 51

Source: Department of Natural Resources & Environment
Telephone: 586-753-3754
Last EDR Contact: 04/12/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 08/26/2009
Date Made Active in Reports: 09/11/2009
Number of Days to Update: 16

Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 06/04/2010
Next Scheduled EDR Contact: 09/06/2010
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 01/20/2010
Date Made Active in Reports: 02/05/2010
Number of Days to Update: 16

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/23/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/04/2010
Date Data Arrived at EDR: 02/11/2010
Date Made Active in Reports: 03/17/2010
Number of Days to Update: 34

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/13/2010
Next Scheduled EDR Contact: 08/23/2010
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 12/01/2009
Date Made Active in Reports: 12/14/2009
Number of Days to Update: 13

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 05/24/2010
Next Scheduled EDR Contact: 09/06/2010
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 11/03/2009
Date Data Arrived at EDR: 02/12/2010
Date Made Active in Reports: 02/22/2010
Number of Days to Update: 10

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 06/01/2010
Next Scheduled EDR Contact: 09/13/2010
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 07/17/2009
Date Made Active in Reports: 08/10/2009
Number of Days to Update: 24

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/22/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: Rextag Strategies Corp.
Telephone: (281) 769-2247
U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Day Care Centers, Group & Family Homes
Source: Bureau of REgulatory Services
Telephone: 517-373-8300

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2009 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Department of Natural Resources
Telephone: 517-241-2254

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

RIVER RAISIN BATTLEFIELD
1220 EAST ELM STREET
MONROE, MI 48162

TARGET PROPERTY COORDINATES

Latitude (North):	41.91740 - 41˚ 55’ 2.6’’
Longitude (West):	83.3745 - 83˚ 22’ 28.2’’
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	303083.9
UTM Y (Meters):	4643118.5
Elevation:	589 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	41083-H4 MONROE, MI
Most Recent Revision:	1979
East Map:	41083-H3 STONY POINT, MI
Most Recent Revision:	1978

EDR’s GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

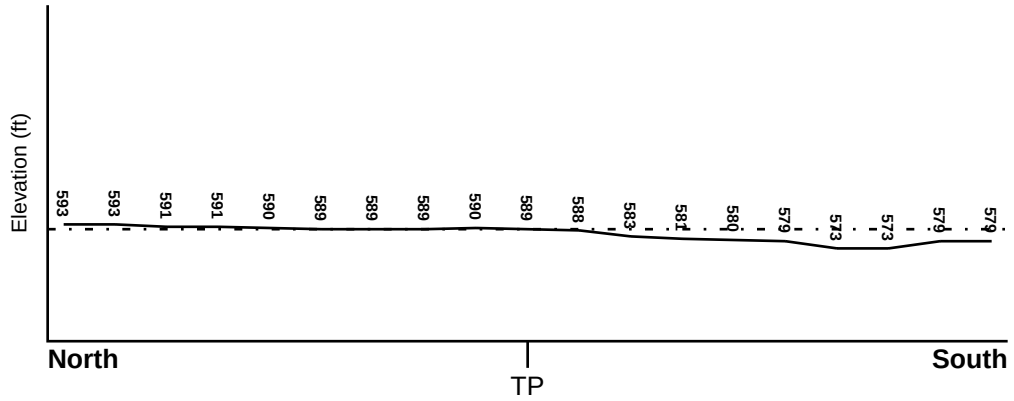
TOPOGRAPHIC INFORMATION

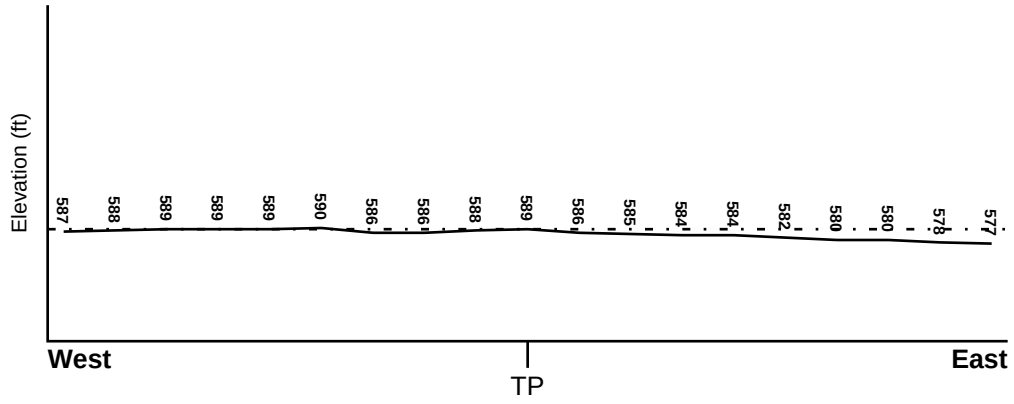
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

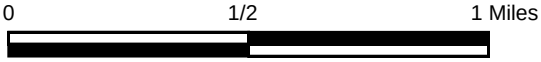
General Topographic Gradient: General SSE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: 589 ft.



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
MONROE, MI	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property:	2601530010A - FEMA Q3 Flood data
Additional Panels in search area:	2601460003A - FEMA Q3 Flood data
	2601530006A - FEMA Q3 Flood data
	2601530007A - FEMA Q3 Flood data
	2601530011A - FEMA Q3 Flood data
	2601530014A - FEMA Q3 Flood data
	2601530015A - FEMA Q3 Flood data
	2601530018A - FEMA Q3 Flood data
	2601530019A - FEMA Q3 Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
STONY POINT	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

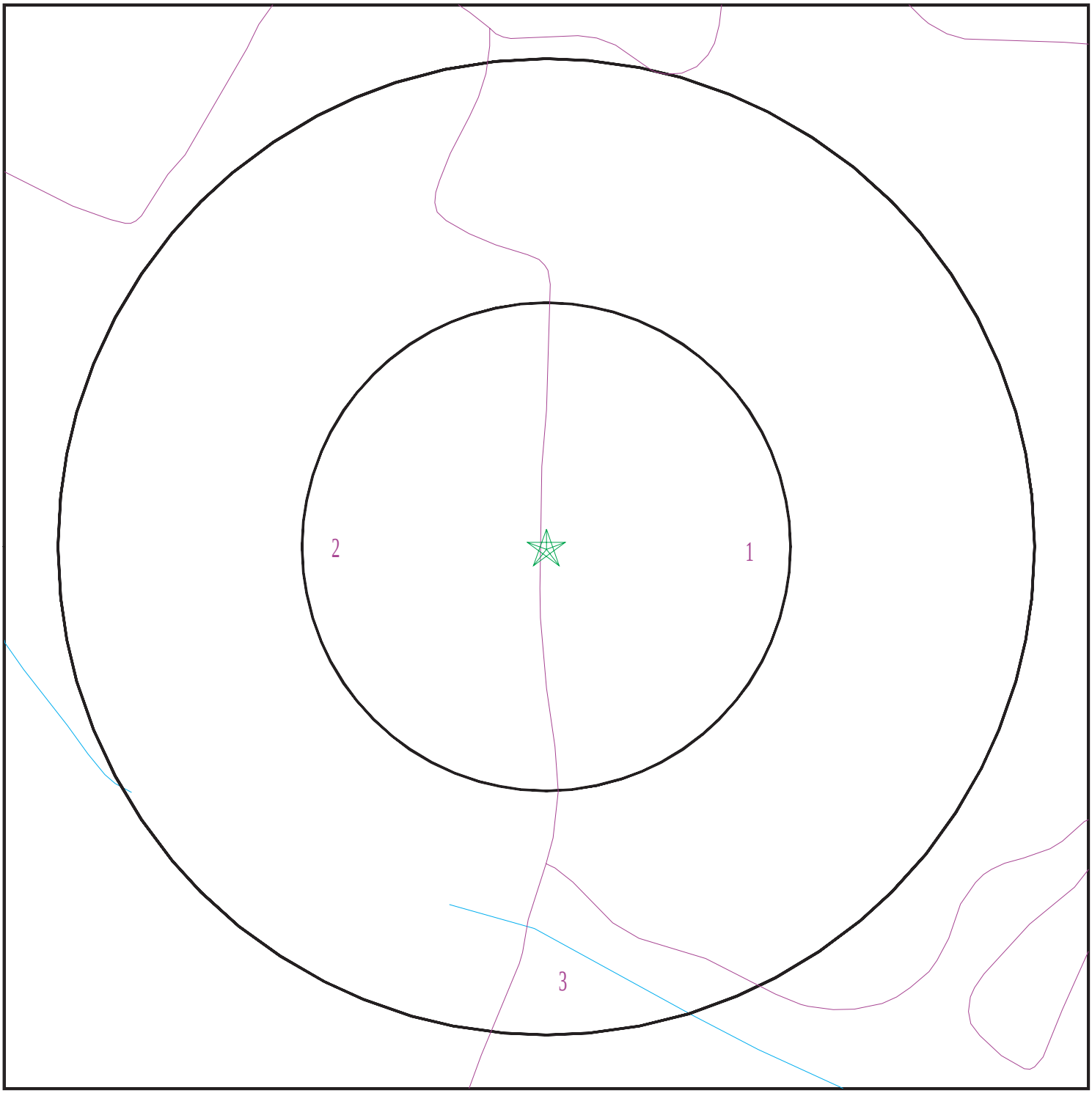
Era:	Paleozoic
System:	Silurian
Series:	Upper Silurian (Cayugan)
Code:	S3 *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 2793200.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME: River Raisin Battlefield ADDRESS: 1220 East Elm Street Monroe MI 48162 LAT/LONG: 41.9174 / 83.3745	CLIENT: AECOM CONTACT: Bridget Walsh INQUIRY #: 2793200.2s DATE: June 14, 2010 4:44 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Fulton

Soil Surface Texture: silty clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 53 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.1
2	7 inches	24 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.1
3	24 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 1.4 Min: 0.42	Max: 7.8 Min: 6.1

Soil Map ID: 2

Soil Component Name: Urban land

Soil Surface Texture: silty clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 3

Soil Component Name: Lenawee

Soil Surface Texture: silty clay loam

Hydrologic Group: Class B/D - Drained/undrained hydrology class of soils that can be drained and are classified.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	9 inches	33 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4
3	33 inches	59 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	MI20219305	0 - 1/8 Mile ENE
A2	MI20219303	0 - 1/8 Mile ENE
A3	MI20219306	0 - 1/8 Mile East
A4	MI20219304	0 - 1/8 Mile ENE
A5	MI20219302	0 - 1/8 Mile ENE
6	MI20217944	1/4 - 1/2 Mile North
B7	MI20217942	1/2 - 1 Mile WNW
B8	MI20217941	1/2 - 1 Mile WNW
9	MI20217943	1/2 - 1 Mile NW
10	MI20219307	1/2 - 1 Mile SW

PHYSICAL SETTING SOURCE MAP - 2793200.2s

0 1/4 1/2 1 Miles

County Boundary
Major Roads
Contour Lines
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

Groundwater Flow Direction
GI Indeterminate Groundwater Flow at Location
GV Groundwater Flow Varies at Location
HD Closest Hydrogeological Data
Oil, gas or related wells

SITE NAME: River Raisin Battlefield	CLIENT: AECOM
ADDRESS: 1220 East Elm Street	CONTACT: Bridget Walsh
Monroe MI 48162	INQUIRY #: 2793200.2s
LAT/LONG: 41.9174 / 83.3745	DATE: June 14, 2010 4:44 pm

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Map ID Direction Distance Elevation		Database	EDR ID Number
A1 **ENE** **0 - 1/8 Mile** **Lower**		**MI WELLS**	**MI20219305**

Wellid:	58000004263	Import id:	58777904005
County:	Monroe	Township:	Frenchtown
Town range:	07S 09E	Section:	4
Owner name:	Not Reported		
Well addr:	465 HARBOR		
Well depth:	138		
Well type:	Type III public		
Wssn:	0		
Well num:	Not Reported	Driller id:	3
Const date:	1989-10-13 00:00:00.000	Case type:	PVC Plastic
Case dia:	6		
Case depth:	25		
Screen frm:	0		
Screen to:	0		
Swl:	20		
Test depth:	80		
Test hours:	3		
Test rate:	150	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	41.9176466745		
Longitude:	-83.3731346305		
Methd coll:	Interpolation-Map		
Elevation:	586		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	587	Elev dif:	1
Elev miv:	586	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	2
Pct aq d:	0	Pct aq r:	2
Pct maq:	93	Pct maq d:	0
Pct maq r:	98	Pct cm:	5
Pct cm d:	100	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	7
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

A2
ENE **MI WELLS** **MI20219303**
0 - 1/8 Mile
Lower

Wellid:	58000004261	Import id:	58777904003
County:	Monroe	Township:	Frenchtown
Town range:	07S 09E	Section:	4
Owner name:	Not Reported		
Well addr:	465 HARBOR		
Well depth:	127		
Well type:	Other		
Wssn:	0		
Well num:	Not Reported	Driller id:	5
Const date:	1983-02-17 00:00:00.000	Case type:	Unknown
Case dia:	5		

Case depth:	25		
Screen frm:	0		
Screen to:	0		
Swl:	7		
Test depth:	45		
Test hours:	1		
Test rate:	100	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	41.9180224501		
Longitude:	-83.3730819752		
Methd coll:	Interpolation-Map		
Elevation:	586		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	587	Elev dif:	1
Elev miv:	586	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	1
Pct aq d:	13	Pct aq r:	0
Pct maq:	94	Pct maq d:	0
Pct maq r:	100	Pct cm:	6
Pct cm d:	88	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	8
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

A3
East **MI WELLS** **MI20219306**
0 - 1/8 Mile
Lower

Wellid:	58000004264	Import id:	58777904006
County:	Monroe	Township:	Frenchtown
Town range:	07S 09E	Section:	4
Owner name:	Not Reported		
Well addr:	465 HARBOR		
Well depth:	148		
Well type:	Type III public		
Wssn:	0		
Well num:	Not Reported	Driller id:	3
Const date:	1992-09-25 00:00:00.000	Case type:	PVC Plastic
Case dia:	6		
Case depth:	25		
Screen frm:	0		
Screen to:	0		
Swl:	20		
Test depth:	84		
Test hours:	2		
Test rate:	185	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	41.9174737996		
Longitude:	-83.3728455924		
Methd coll:	Interpolation-Map		
Elevation:	586		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	584	Elev dif:	2
Elev miv:	586	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	1
Pct aq d:	0	Pct aq r:	1
Pct maq:	94	Pct maq d:	0
Pct maq r:	99	Pct cm:	5

Pct cm d:	100	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	8
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

Map ID Direction Distance Elevation		Database	EDR ID Number
A4 **ENE** **0 - 1/8 Mile** **Lower**		**MI WELLS**	**MI20219304**

Wellid:	58000004262	Import id:	58777904004
County:	Monroe	Township:	Frenchtown
Town range:	07S 09E	Section:	4
Owner name:	Not Reported		
Well addr:	465 HARBOR		
Well depth:	148		
Well type:	Type III public		
Wssn:	0		
Well num:	Not Reported	Driller id:	3
Const date:	1989-10-13 00:00:00.000	Case type:	PVC Plastic
Case dia:	6		
Case depth:	25		
Screen frm:	0		
Screen to:	0		
Swl:	20		
Test depth:	85		
Test hours:	3.5		
Test rate:	200	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	41.9178229953		
Longitude:	-83.3727620389		
Methd coll:	Interpolation-Map		
Elevation:	586		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	584	Elev dif:	2
Elev miv:	586	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	1
Pct aq d:	0	Pct aq r:	1
Pct maq:	94	Pct maq d:	0
Pct maq r:	99	Pct cm:	5
Pct cm d:	100	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	8
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

A5
ENE **MI WELLS** **MI20219302**
0 - 1/8 Mile
Lower

Wellid:	58000004260	Import id:	58777904002
County:	Monroe	Township:	Frenchtown
Town range:	07S 09E	Section:	4
Owner name:	Not Reported		
Well addr:	465 HARBOR		
Well depth:	146		
Well type:	Other		
Wssn:	0		
Well num:	Not Reported	Driller id:	3
Const date:	1956-04-21 00:00:00.000	Case type:	Steel-black
Case dia:	6		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	25		
Screen frm:	0		
Screen to:	0		
Swl:	8		
Test depth:	38		
Test hours:	6		
Test rate:	80	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	41.9180058681		
Longitude:	-83.3725368937		
Methd coll:	Interpolation-Map		
Elevation:	586		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	584	Elev dif:	2
Elev miv:	586	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	0
Pct aq d:	0	Pct aq r:	0
Pct maq:	94	Pct maq d:	0
Pct maq r:	100	Pct cm:	6
Pct cm d:	100	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	9
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

6
North **MI WELLS** **MI20217944**
1/4 - 1/2 Mile
Higher

Wellid:	58000002806	Import id:	58767933001
County:	Monroe	Township:	Frenchtown
Town range:	06S 09E	Section:	33
Owner name:	Not Reported		
Well addr:	891 N. DIXIE		
Well depth:	79		
Well type:	Other		
Wssn:	0		
Well num:	Not Reported	Driller id:	553
Const date:	1974-10-18 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	27		
Screen frm:	0		
Screen to:	0		
Swl:	8		
Test depth:	25		
Test hours:	1		
Test rate:	25	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	41.9229644792		
Longitude:	-83.3745184789		
Methd coll:	Interpolation-Map		
Elevation:	590		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	587	Elev dif:	3
Elev miv:	590	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	0
Pct aq d:	0	Pct aq r:	0
Pct maq:	94	Pct maq d:	0
Pct maq r:	100	Pct cm:	6

Pct cm d:	100	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	5
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

Map ID Direction Distance Elevation		Database	EDR ID Number
B7 **WNW** **1/2 - 1 Mile** **Higher**		**MI WELLS**	**MI20217942**

Wellid:	58000002804	Import id:	58767932002
County:	Monroe	Township:	Frenchtown
Town range:	06S 09E	Section:	32
Owner name:	Not Reported		
Well addr:	530 HOLLYWOOD		
Well depth:	75		
Well type:	Heat pump		
Wssn:	0		
Well num:	Not Reported	Driller id:	553
Const date:	1981-09-21 00:00:00.000	Case type:	Unknown
Case dia:	5		
Case depth:	27		
Screen frm:	0		
Screen to:	0		
Swl:	14		
Test depth:	19		
Test hours:	24		
Test rate:	25	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	41.9219507168		
Longitude:	-83.3873100626		
Methd coll:	Interpolation-Map		
Elevation:	590		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	594	Elev dif:	4
Elev miv:	590	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	3
Pct aq d:	0	Pct aq r:	3
Pct maq:	83	Pct maq d:	0
Pct maq r:	97	Pct cm:	11
Pct cm d:	73	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	4
Pct na d:	27	Pct na r:	0
Pct flag:	Not Reported	Rock top:	11
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

B8
WNW **MI WELLS** **MI20217941**
1/2 - 1 Mile
Higher

Wellid:	58000002803	Import id:	58767932001
County:	Monroe	Township:	Frenchtown
Town range:	06S 09E	Section:	32
Owner name:	Not Reported		
Well addr:	530 HOLLYWOOD		
Well depth:	83		
Well type:	Heat pump		
Wssn:	0		
Well num:	Not Reported	Driller id:	53
Const date:	1981-09-26 00:00:00.000	Case type:	Unknown
Case dia:	5		

Case depth:	29		
Screen frm:	0		
Screen to:	0		
Swl:	14		
Test depth:	19		
Test hours:	24		
Test rate:	25	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	41.922163475		
Longitude:	-83.3871895426		
Methd coll:	Interpolation-Map		
Elevation:	590		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	594	Elev dif:	4
Elev miv:	590	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	2
Pct aq d:	0	Pct aq r:	3
Pct maq:	84	Pct maq d:	0
Pct maq r:	97	Pct cm:	12
Pct cm d:	91	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	1
Pct na d:	9	Pct na r:	0
Pct flag:	Not Reported	Rock top:	11
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

9
NW **MI WELLS** **MI20217943**
1/2 - 1 Mile
Higher

Wellid:	58000002805	Import id:	58767932003
County:	Monroe	Township:	Frenchtown
Town range:	06S 09E	Section:	32
Owner name:	Not Reported		
Well addr:	718 N. MACOMB		
Well depth:	137		
Well type:	Irrigation		
Wssn:	0		
Well num:	Not Reported	Driller id:	3
Const date:	1983-06-30 00:00:00.000	Case type:	Unknown
Case dia:	5		
Case depth:	26		
Screen frm:	0		
Screen to:	0		
Swl:	21		
Test depth:	55		
Test hours:	1		
Test rate:	38	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	41.9244696572		
Longitude:	-83.3877153308		
Methd coll:	Interpolation-Map		
Elevation:	593		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	590	Elev dif:	3
Elev miv:	593	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	0
Pct aq d:	0	Pct aq r:	0
Pct maq:	87	Pct maq d:	0
Pct maq r:	100	Pct cm:	12

Pct cm d:	94	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	1
Pct na d:	6	Pct na r:	0
Pct flag:	Not Reported	Rock top:	18
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

Map ID Direction Distance Elevation		Database	EDR ID Number
10 **SW** **1/2 - 1 Mile** **Lower**		**MI WELLS**	**MI20219307**

Wellid:	58000004265	Import id:	58777905001
County:	Monroe	Township:	Frenchtown
Town range:	07S 09E	Section:	5
Owner name:	Not Reported		
Well addr:	E THIRD		
Well depth:	51		
Well type:	Other		
Wssn:	0		
Well num:	Not Reported	Driller id:	0
Const date:	1965-10-22 00:00:00.000	Case type:	Unknown
Case dia:	0		
Case depth:	16		
Screen frm:	0		
Screen to:	0		
Swl:	10		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	41.9063893548		
Longitude:	-83.38531012		
Methd coll:	Interpolation-Map		
Elevation:	580		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	584	Elev dif:	4
Elev miv:	580	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	0
Pct aq d:	0	Pct aq r:	0
Pct maq:	88	Pct maq d:	0
Pct maq r:	100	Pct cm:	12
Pct cm d:	100	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	6
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for MONROE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for MONROE COUNTY, MI

Number of sites tested: 14

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.260 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	2.115 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2009 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Department of Natural Resources
Telephone: 517-241-2254

HYDROGEOLOGIC INFORMATION

AQUIFLOW[R] Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Data
Source: Department of Environmental Quality
Telephone: 517-335-9218

OTHER STATE DATABASE INFORMATION

Michigan Oil and Gas Wells
Source: Department of Natural Resources and Environment
Locations of oil and gas wells are compiled from permit records on file at the Geological Survey Division (GSD), Michigan Department of Natural Resources.

RADON

State Database: MI Radon
Source: Department of Environmental Quality
Telephone: 517-335-9551
Radon Test Results

Michigan Radon Test Results
Source: Department of Environmental Quality
Telephone: 517-335-8037
These results are from test kits distributed by the local health departments and used by Michigan residents. There is no way of knowing whether the devices were used properly, whether there are duplicates (or repeat verification) test (i.e., more than one sample per home), etc.

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

STREET AND ADDRESS INFORMATION

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Appendix C

EDR Sanborn Insurance Map Report

River Raisin Battlefield
1220 East Elm Street
Monroe, MI 48162

Inquiry Number: 2793200.3
June 15, 2010

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

6/15/10

Site Name:
River Raisin Battlefield
1220 East Elm Street
Monroe, MI 48162

EDR Inquiry # 2793200.3

Client Name:
AECOM
401 South Washington Square
Lansing, MI 48933

Contact: Bridget Walsh

EDR® Environmental Data Resources Inc

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by AECOM were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: River Raisin Battlefield
Address: 1220 East Elm Street
City, State, Zip: Monroe, MI 48162
Cross Street:
P.O. # 60157928
Project: MDOT River Rais
Certification # 8105-40CC-A866

Sanborn® Library search results
Certification # 8105-40CC-A866

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Appendix D

EDR Aerial Photographs

River Raisin Battlefield
1220 East Elm Street
Monroe, MI 48162

Inquiry Number: 2793200.5
June 17, 2010

The EDR Aerial Photo Decade Package

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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Date EDR Searched Historical Sources:

Aerial Photography June 17, 2010

Target Property:

1220 East Elm Street

Monroe, MI 48162

Year	***Scale***	***Details***	***Source***
1937	Aerial Photograph. Scale: 1"=500'	Flight Year: 1937 Best Copy Available from original source	AAA
1940	Aerial Photograph. Scale: 1"=500'	Flight Year: 1940	AAA
1949	Aerial Photograph. Scale: 1"=500'	Flight Year: 1949	Detroit Edison
1955	Aerial Photograph. Scale: 1"=500'	Flight Year: 1955	CSS
1964	Aerial Photograph. Scale: 1"=500'	Flight Year: 1964	ASCS
1973	Aerial Photograph. Scale: 1"=600'	Flight Year: 1973	ASCS
1980	Aerial Photograph. Scale: 1"=500'	Flight Year: 1980	SEMCOG
1985	Aerial Photograph. Scale: 1"=500'	Flight Year: 1985	SEMCOG
1992	Aerial Photograph. Scale: unknown	Flight Year: 1992 Best Copy Available from original source	FSA
2000	Aerial Photograph. Scale: 1"=500'	Flight Year: 2000	SEMCOG
2006	Aerial Photograph. Scale: 1"=604'	Flight Year: 2006	EDR

INQUIRY #: 2793200.5

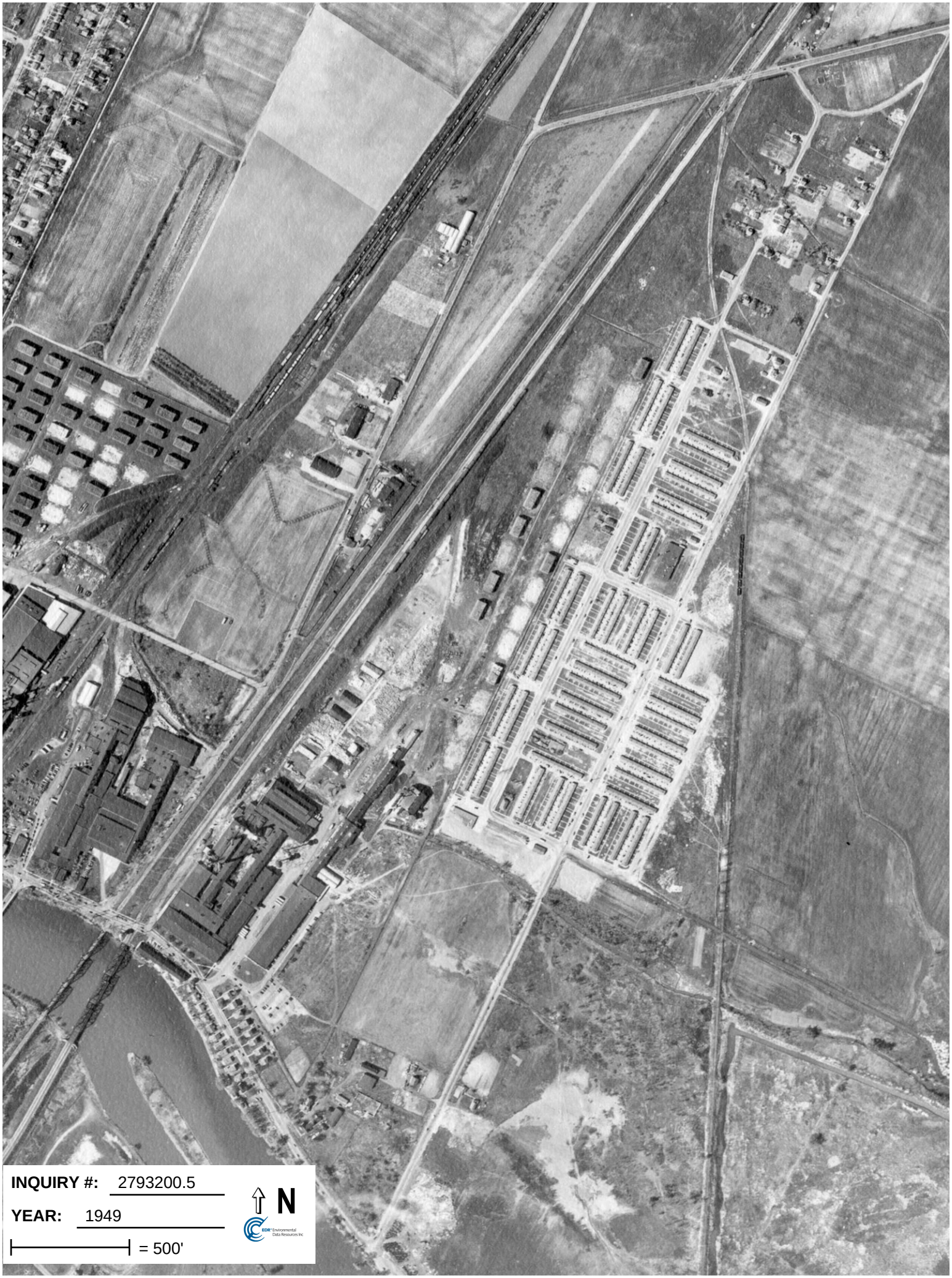
YEAR: 1937

= 500'

N

EDR Environmental Data Resources Inc

INQUIRY #: 2793200.5
YEAR: 1940
= 500'
N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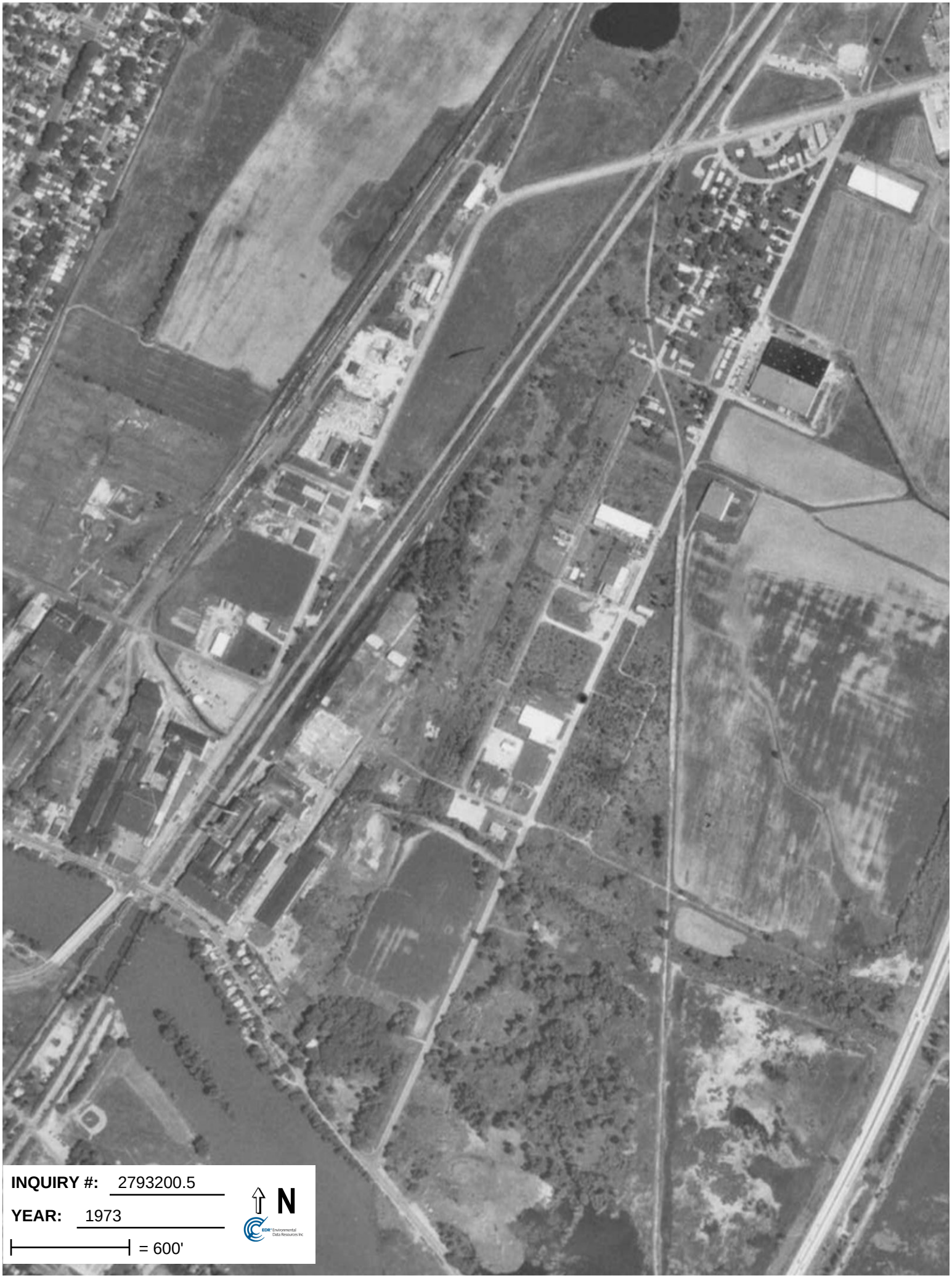
YEAR: 1949
= 500'
N
EDR Environmental Data Resources Inc

INQUIRY #: 2793200.5
YEAR: 1955
= 500'
N
EDR Environmental Data Resources Inc

INQUIRY #: 2793200.5
YEAR: 1964
= 500'
N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YEAR: 1973
= 600'
N
EDR Environmental Data Resources Inc

INQUIRY #: 2793200.5
YEAR: 1980
= 500'
N

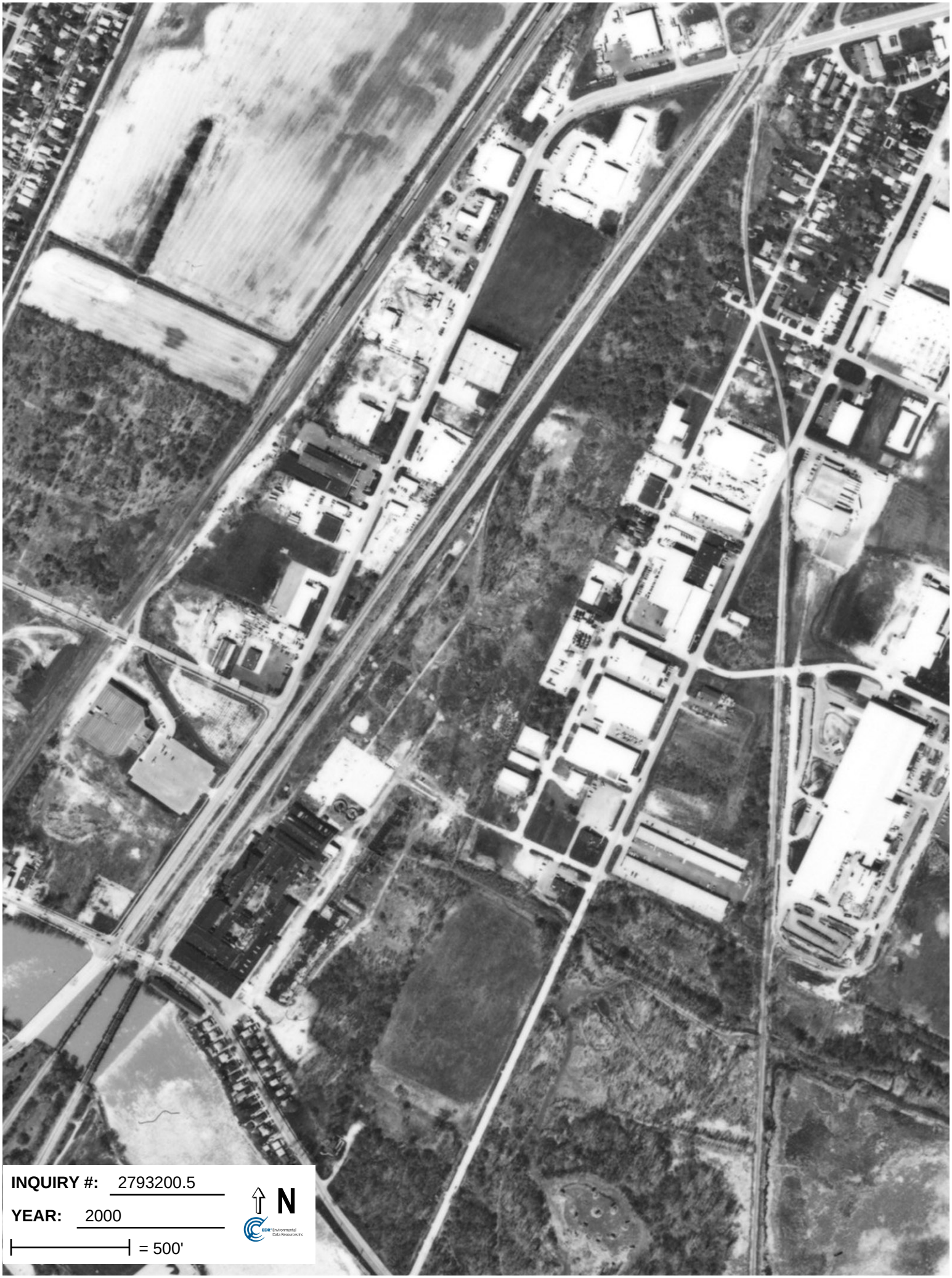
INQUIRY #: 2793200.5
YEAR: 1985
= 500'
N

INQUIRY #: 2793200.5

YEAR: 1992

= unknown

N


INQUIRY #: 2793200.5
YEAR: 2000
= 500'
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INQUIRY #: 2793200.5
YEAR: 2006
= 604'
N

Appendix E

EDR Topographic Maps

River Raisin Battlefield
1220 East Elm Street
Monroe, MI 48162

Inquiry Number: 2793200.4
June 15, 2010

EDR Historical Topographic Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

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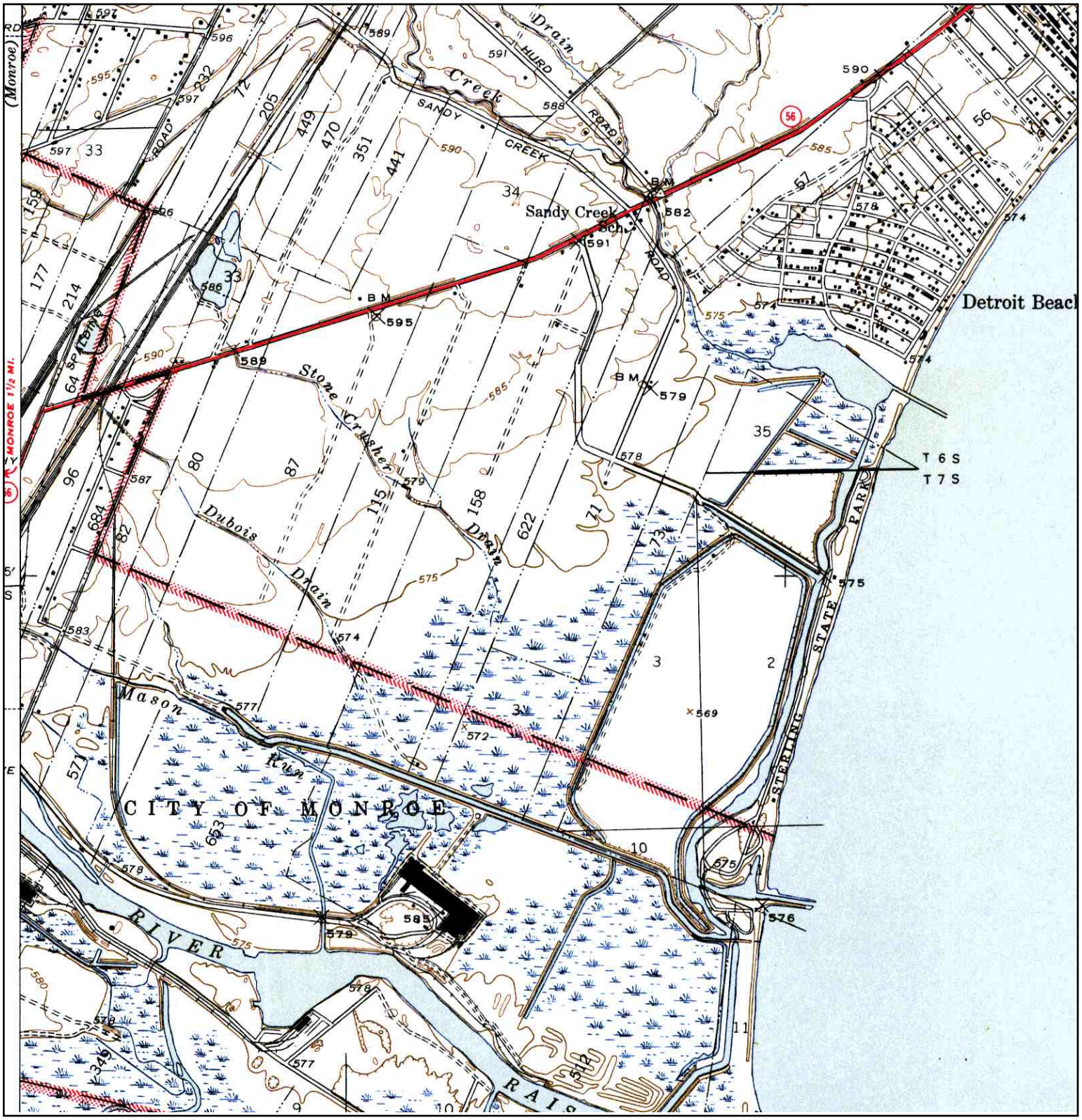
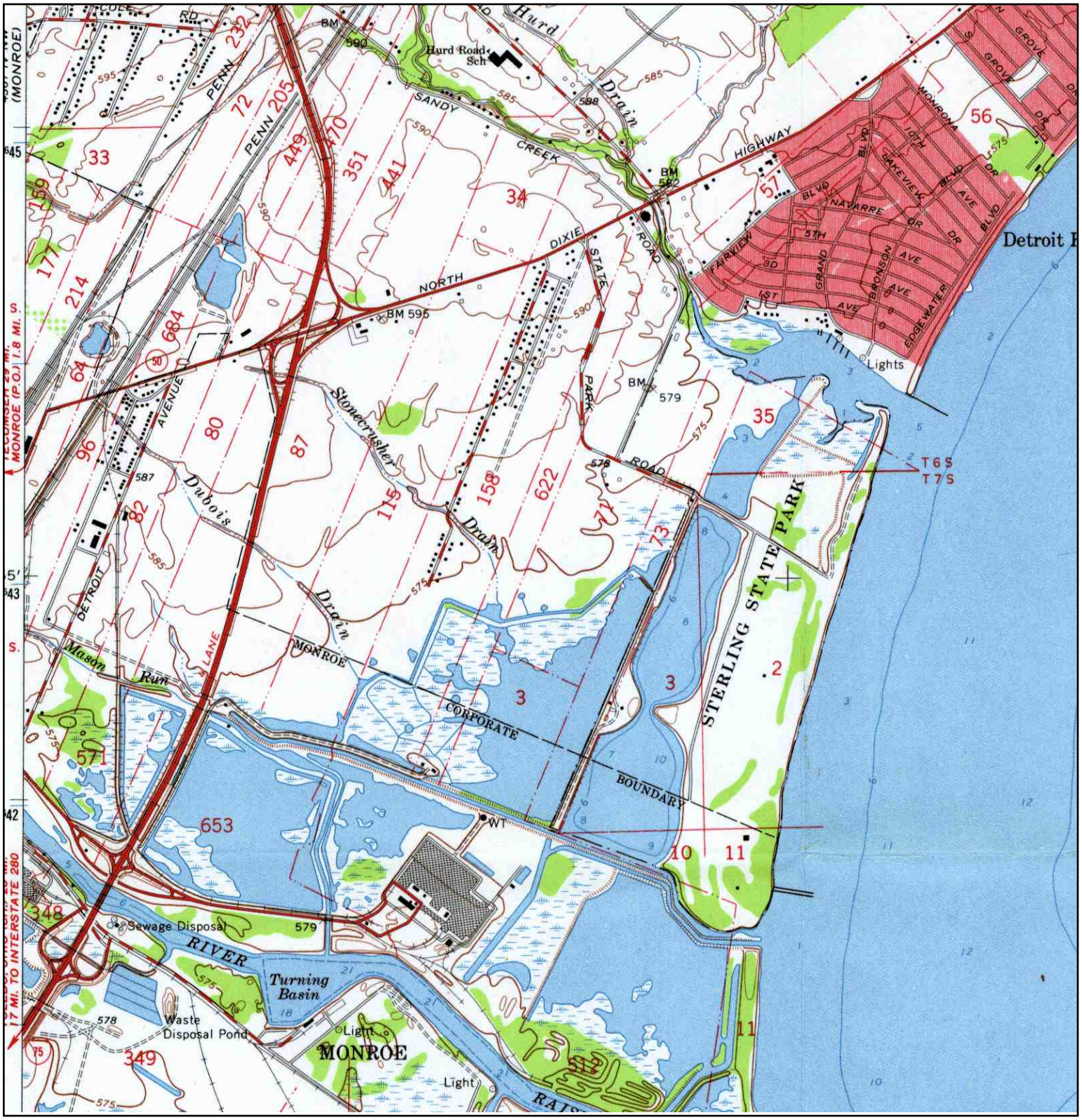
Historical Topographic Map



N	TARGET QUAD NAME: STONY POINT MAP YEAR: 1942 SERIES: 7.5 SCALE: 1:24000	SITE NAME: River Raisin Battlefield ADDRESS: 1220 East Elm Street Monroe, MI 48162 LAT/LONG: 41.9174 / -83.3745	CLIENT: AECOM CONTACT: Bridget Walsh INQUIRY#: 2793200.4 RESEARCH DATE: 06/15/2010

Historical Topographic Map

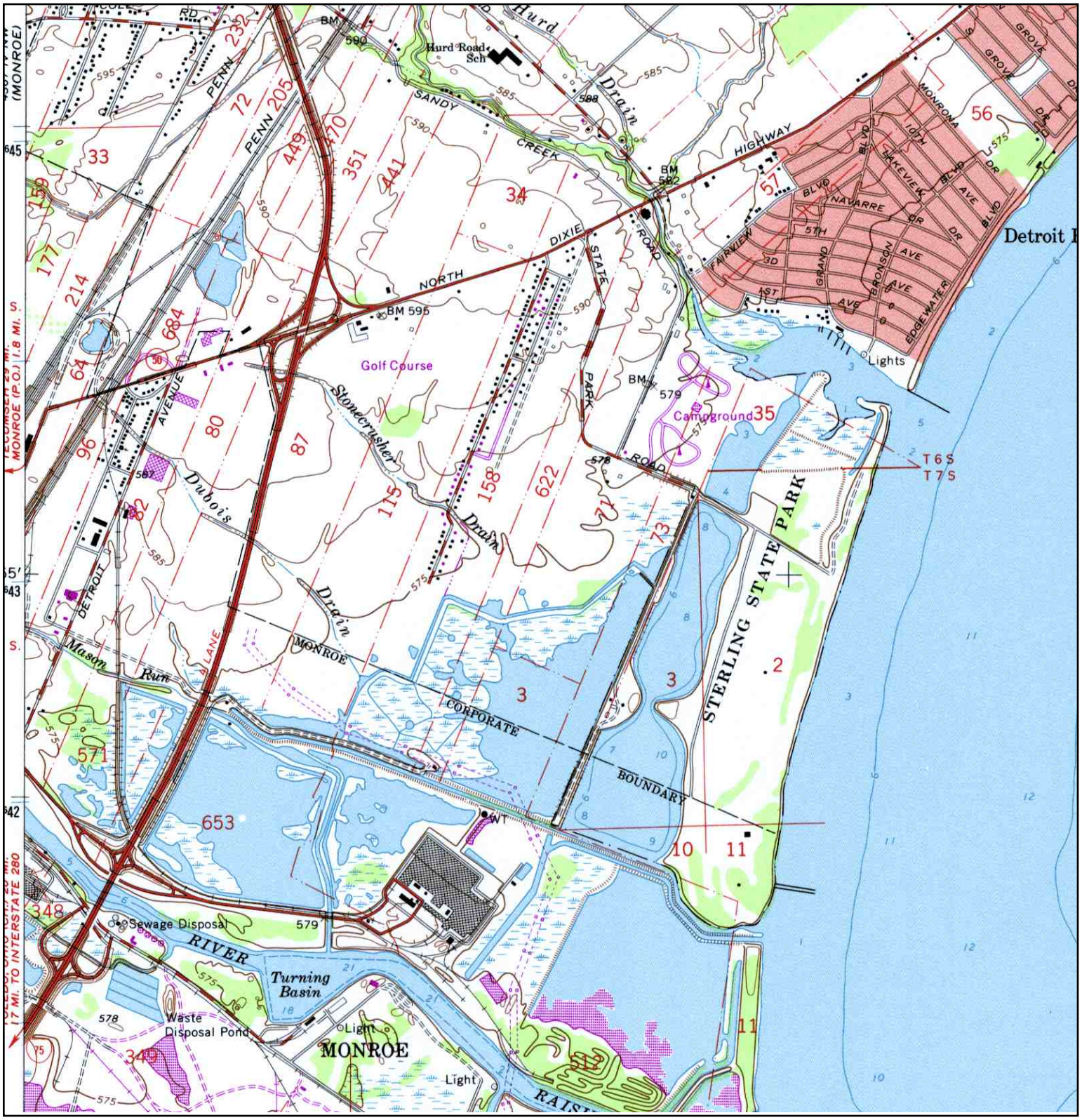


N	TARGET QUAD NAME: STONY POINT MAP YEAR: 1967 SERIES: 7.5 SCALE: 1:24000	SITE NAME: River Raisin Battlefield ADDRESS: 1220 East Elm Street Monroe, MI 48162 LAT/LONG: 41.9174 / -83.3745	CLIENT: AECOM CONTACT: Bridget Walsh INQUIRY#: 2793200.4 RESEARCH DATE: 06/15/2010

Historical Topographic Map

N	TARGET QUAD NAME: STONY POINT MAP YEAR: 1973 PHOTOREVISED:1967 SERIES: 7.5 SCALE: 1:24000	SITE NAME: River Raisin Battlefield ADDRESS: 1220 East Elm Street Monroe, MI 48162 LAT/LONG: 41.9174 / -83.3745	CLIENT: AECOM CONTACT: Bridget Walsh INQUIRY#: 2793200.4 RESEARCH DATE: 06/15/2010

Historical Topographic Map



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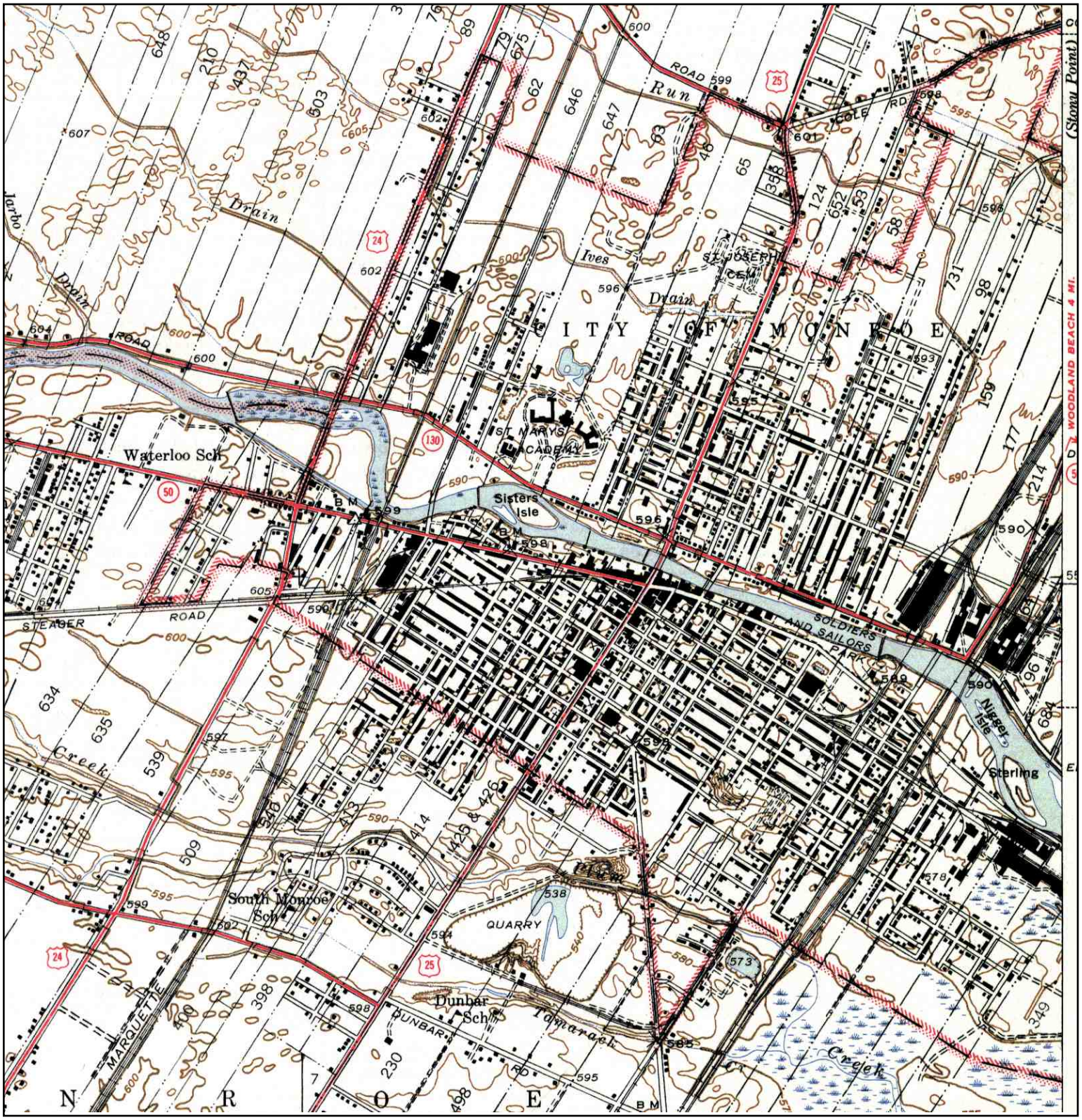
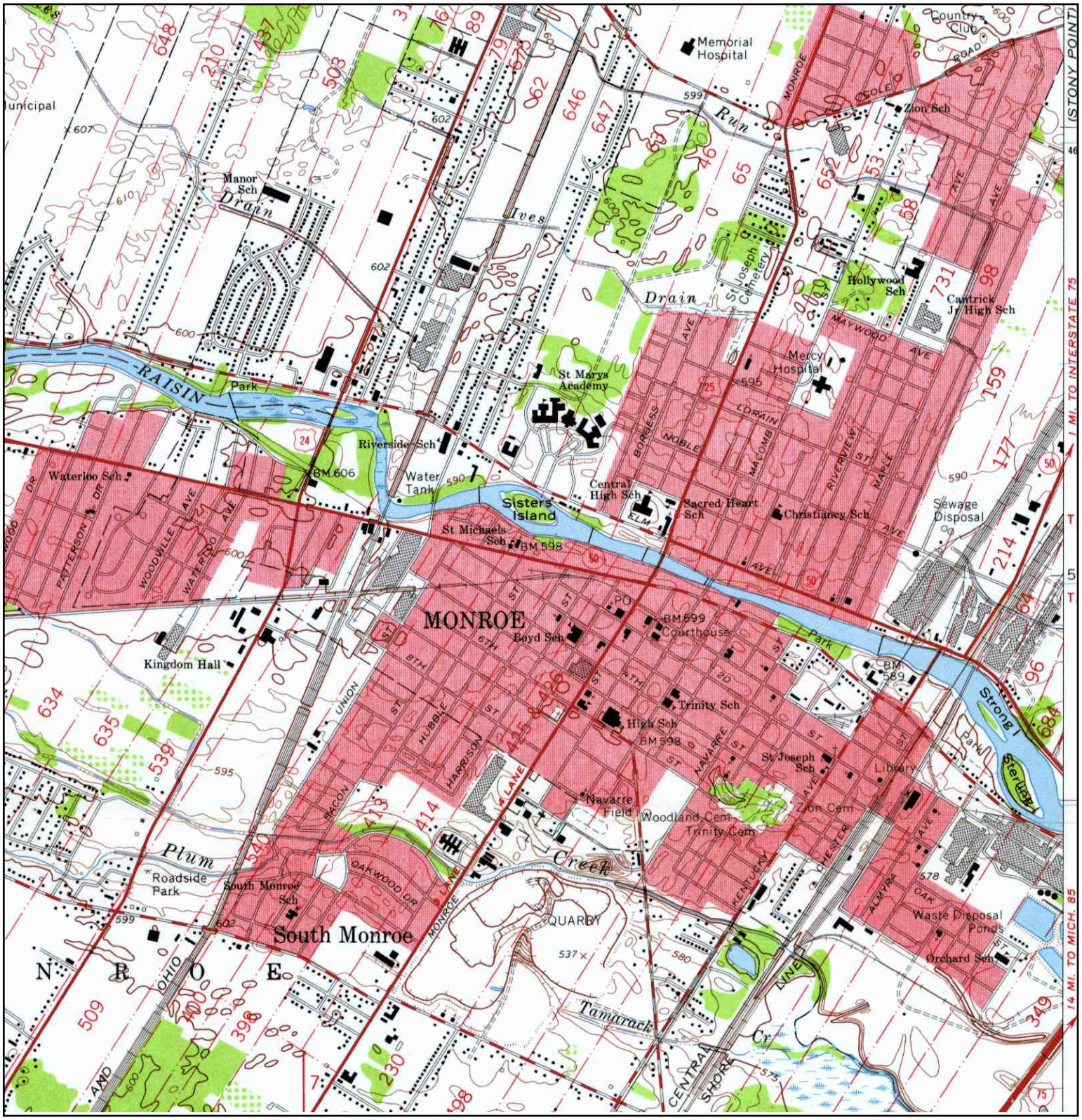
Historical Topographic Map



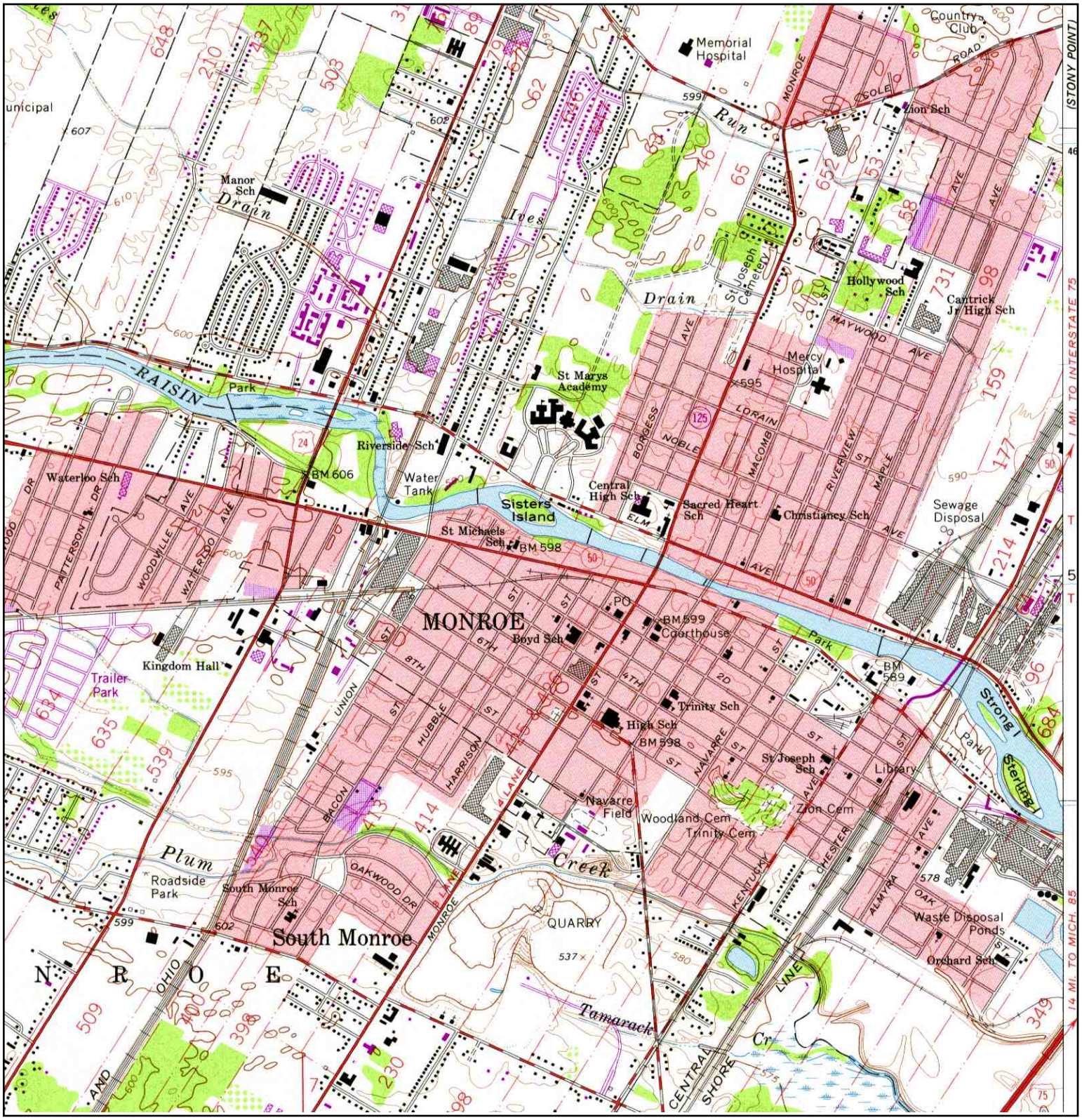
N	ADJOINING QUAD NAME: MONROE MAP YEAR: 1942 SERIES: 7.5 SCALE: 1:24000	SITE NAME: River Raisin Battlefield ADDRESS: 1220 East Elm Street Monroe, MI 48162 LAT/LONG: 41.9174 / -83.3745	CLIENT: AECOM CONTACT: Bridget Walsh INQUIRY#: 2793200.4 RESEARCH DATE: 06/15/2010

Historical Topographic Map



N	ADJOINING QUAD NAME: MONROE MAP YEAR: 1967 SERIES: 7.5 SCALE: 1:24000	SITE NAME: River Raisin Battlefield ADDRESS: 1220 East Elm Street Monroe, MI 48162 LAT/LONG: 41.9174 / -83.3745	CLIENT: AECOM CONTACT: Bridget Walsh INQUIRY#: 2793200.4 RESEARCH DATE: 06/15/2010

Historical Topographic Map



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Appendix F

EDR City Directory

River Raisin Battlefield
1220 East Elm Street
Monroe, MI 48162

Inquiry Number: 2793200.6
June 18, 2010

The EDR-City Directory Abstract

Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

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SECTION

Executive Summary

Findings

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2009 Enhancements to EDR City Directory Abstract

New for 2009, the EDR City Directory Abstract has been enhanced with additional information and features. These enhancements will make your city directory research process more efficient, flexible, and insightful than ever before. The enhancements will improve the options for selecting adjoining properties, and will speed up your review of the report.

City Directory Report. Three important enhancements have been made to the EDR City Directory Abstract:

1. *Executive Summary.* The report begins with an Executive Summary that lists the sources consulted in the preparation of the report. Where available, a parcel map is also provided within the report, showing the locations of properties researched.

2. *Page Images.* Where available, the actual page source images will be included in the Appendix, so that you can review them for information that may provide additional insight. EDR has copyright permission to include these images.

3. *Findings Listed by Location.* Another useful enhancement is that findings are now grouped by address. This will significantly reduce the time you need to review your abstracts. Findings are provided under each property address, listed in reverse chronological order and referencing the source for each entry.

Options for Selecting Adjoining Properties. Ensuring that the right adjoining property addresses are searched is one of the biggest challenges that environmental professionals face when conducting city directory historical research. EDR's new enhancements make it easier for you to meet this challenge. Now, when you place an order for the EDR City Directory Abstract, you have the following choices for determining which addresses should be researched.

1. *You Select Addresses and EDR Selects Addresses.* Use the "Add Another Address" feature to specify the addresses you want researched. Your selections will be supplemented by addresses selected by EDR researchers using our established research methods. Where available, a digital map will be shown, indicating property lines overlaid on a color aerial photo and their corresponding addresses. Simply use the address list below the map to check off which properties shown on the map you want to include. You may also select other addresses using the "Add Another Address" feature at the bottom of the list.

2. *EDR Selects Addresses.* Choose this method if you want EDR's researchers to select the addresses to be researched for you, using our established research methods.

3. *You Select Addresses.* Use this method for research based solely on the addresses you select or enter into the system.

4. *Hold City Directory Research Option.* If you choose to select your own adjoining addresses, you may pause production of your EDR City Directory Abstract report until you have had a chance to look at your other EDR reports and sources. Sources for property addresses include: your Certified Sanborn Map Report may show you the location of property addresses; the new EDR Property Tax Map Report may show the location of property addresses; and your field research can supplement these sources with additional address information. To use this capability, simply click "Hold City Directory research" box under "Other Options" at the bottom of the page. Once you have determined what addresses you want researched, go to your EDR Order Status page, select the EDR City Directory Abstract, and enter the addresses and submit for production.

Questions? Contact your EDR representative at 800-352-0050. For more information about all of EDR's 2009 report and service enhancements, visit www.edrnet.com/2009enhancements

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2010	Polk's City Directory	-	X	X	-
2006	Polk's City Directory	-	X	X	-
2002	Polk's City Directory	-	X	X	-
1998	Polk's City Directory	-	X	X	-
1994	Polk's City Directory	X	X	X	-
1988	Polk's City Directory	X	X	X	-
1983	Polk's City Directory	X	X	X	-
1978	Polk's City Directory	-	X	X	-
1973	Polk's City Directory	-	X	X	-
1968	Polk's City Directory	-	X	X	-
1963	Polk's City Directory	-	X	X	-
1958	Polk's City Directory	-	X	X	-
1954	Polk's City Directory	-	X	X	-
1950	Polk's City Directory	-	X	X	-

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

1220 East Elm Street
Monroe, MI 48162

FINDINGS DETAIL

Target Property research detail.

Year	Uses	Source
1994	Jefferson Smurfit (east mill)	Polk's City Directory
1988	Monroe Paper Co. Unbleached Div. (whse.)	Polk's City Directory
1983	Union Camp Corp. Unbleached Div. (paper mfrs.)	Polk's City Directory

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

East Elm Street

East Elm Street

Year	Uses	Source
2010	-No Addresses Listed Between N. Dixie Hwy. & Railroad Crossing	Polk's City Directory
2006	-No Addresses Listed Between N. Dixie Hwy. & Railroad Crossing	Polk's City Directory
2002	-No Addresses Listed Between N. Dixie Hwy. & Railroad Crossing	Polk's City Directory
1998	-No Addresses Listed Between N. Dixie Hwy. & Railroad Crossing	Polk's City Directory
1994	-No Addresses Listed Between N. Dixie Hwy. & Railroad Crossing	Polk's City Directory
1988	-No Addresses Listed Between N. Dixie Hwy. & Railroad Crossing	Polk's City Directory
1983	-No Addresses Listed Between N. Dixie Hwy. & Railroad Crossing	Polk's City Directory
1978	-No Addresses Listed Between N. Dixie Hwy. & Railroad Crossing	Polk's City Directory
1973	-No Addresses Listed Between N. Dixie Hwy. & Railroad Crossing	Polk's City Directory
1968	-No Addresses Listed Between N. Dixie Hwy. & Railroad Crossing	Polk's City Directory
1963	-No Addresses Listed Between N. Dixie Hwy. & Railroad Crossing	Polk's City Directory
1958	-No Addresses Listed Between N. Dixie Hwy. & Railroad Crossing	Polk's City Directory
1954	-No Addresses Listed Between N. Dixie Hwy. & Railroad Crossing	Polk's City Directory
1950	-No Addresses Listed Between N. Dixie Hwy. & Railroad Crossing	Polk's City Directory

1205 East Elm Street

Year	Uses	Source
1994	Jefferson Smurfit Corp. East Mill (mfrs.)	Polk's City Directory
1988	Monroe Paper Co. (paper mfrs.)	Polk's City Directory

1225 East Elm Street

Year	Uses	Source
1994	Vacant	Polk's City Directory

FINDINGS

1232 East Elm Street

Year	Uses	Source
2010	Residential	Polk's City Directory
2006	Residential	Polk's City Directory
2002	Residential	Polk's City Directory
1998	Residential	Polk's City Directory
1994	No Return	Polk's City Directory
1988	Residential	Polk's City Directory
1983	Residential	Polk's City Directory
1978	Residential	Polk's City Directory
1973	Residential	Polk's City Directory
1968	Residential	Polk's City Directory
1963	Residential	Polk's City Directory
1958	Residential	Polk's City Directory
1954	Residential	Polk's City Directory
1950	Residential	Polk's City Directory

1236 East Elm Street

Year	Uses	Source
2010	Residential	Polk's City Directory
2006	Residential	Polk's City Directory
2002	Residential	Polk's City Directory
1998	Residential	Polk's City Directory
1994	Residential	Polk's City Directory
1988	Residential	Polk's City Directory
1983	Residential	Polk's City Directory
1978	Residential	Polk's City Directory
1973	Residential	Polk's City Directory
1968	Residential	Polk's City Directory
1963	Residential	Polk's City Directory
1958	Residential	Polk's City Directory
1954	Residential	Polk's City Directory
1950	Residential	Polk's City Directory

1237 East Elm Street

Year	Uses	Source
1968	Great Lakes Trucking, Inc. (ofc.)	Polk's City Directory

FINDINGS

1240 East Elm Street

Year	***Uses***	***Source***
2010	Residential	Polk's City Directory
2006	Residential	Polk's City Directory
2002	Residential	Polk's City Directory
1998	No Return	Polk's City Directory
1994	Residential	Polk's City Directory
1988	Residential	Polk's City Directory
1983	Residential	Polk's City Directory
1978	Residential	Polk's City Directory
1973	Residential	Polk's City Directory
1968	Residential	Polk's City Directory
1963	Residential	Polk's City Directory
1958	Residential	Polk's City Directory
1954	Residential	Polk's City Directory
1950	Residential	Polk's City Directory

FINDINGS

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
1220 East Elm Street	2010, 2006, 2002, 1998, 1978, 1973, 1968, 1963, 1958, 1954, 1950

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
East Elm Street	No Years Found
1205 East Elm Street	1983, 1978, 1973, 1968, 1963, 1958, 1954, 1950
1225 East Elm Street	1988, 1983, 1978, 1973, 1968, 1963, 1958, 1954, 1950
1232 East Elm Street	No Years Found
1236 East Elm Street	No Years Found
1237 East Elm Street	1963, 1958, 1954, 1950
1240 East Elm Street	No Years Found

Appendix G

Gray Slag Aggregate Analytical Data

FAX COVER SHEET

TO	Roger Homrich
COMPANY	Homrich
FAX NUMBER	17344572969
FROM	Aaron Holdread
DATE	2010-09-24 21:13:13 GMT
RE	TCLP Data

COVER MESSAGE

Roger,

As requested here is a copy of the TCLP testing performed on the steel slag aggregate that was produced at our facility located at Gerdau-MacSteel-Monroe, in Monroe, MI. If you have any further questions please feel free to contact me at any time.

Regards,

Aaron Holdread
Director of Aggregate Sales
Tube City IMS

IMS Quality Services Laboratory
October 22, 2008

Laboratory Number: INO100955
PO Number: 79232

TCLP Extractions

Method of Tests : TCLP Leaching Procedure SW846-1311
Metals 6010B Mercury 7471A Selenium 7740
Arsenic 7060A Antimony 7041 Thallium 7841
Lead 7421

Element	Sample ID **P-08-057** Results, mg/L TCLP	Detection Limit, mg/L	Maximum Allowable (40CFR261), mg/L (TCLP Only)
Silver (Ag)	<0.003	0.003	5.0
Arsenic (As)	<0.004	0.004	5.0
Barium (Ba)	0.338	0.001	100.0
Cadmium (Cd)	<0.002	0.002	1.0
Chromium Total (Cr)	0.011	0.001	5.0
Mercury (Hg)	<0.001	0.001	0.2
Lead (Pb)	<0.003	0.003	5.0
Selenium (Se)	<0.004	0.004	1.0
Beryllium (Be)	<0.001	0.001	Not Listed
Chrome +6 (Hexavalent)	<0.04	0.04	Not Listed
Nickel (Ni)	<0.01	0.01	Not Listed
Thallium (Tl)	<0.001	0.001	Not Listed
Vanadium (V)	<0.01	0.01	Not Listed
Zinc (Zn)	<0.001	0.001	Not Listed
Antimony (Sb)	<0.003	0.003	Not Listed
Copper (Cu)	<0.002	0.002	Not Listed

Respectfully Submitted,
MODERN INDUSTRIES, INC.

James R. Yarris
Chemistry Department Manager

1-Client
JRY/dla

Appendix H

Photographs

PHOTOGRAPH LOG – July 12, 2010
PHASE I ENVIRONMENTAL SITE ASSESSMENT

Southeast corner of concrete slab located near southern boundary of property. Facing west.

Looking northwest across the concrete slab from the southeast corner.

PHOTOGRAPH LOG – July 12, 2010
PHASE I ENVIRONMENTAL SITE ASSESSMENT

Looking northeast across the concrete slab.

Looking southeast across the concrete slab.

PHOTOGRAPH LOG – July 12, 2010
PHASE I ENVIRONMENTAL SITE ASSESSMENT

Looking northeast across the subject property from north of the concrete slab. Note presence of gray aggregate cover and vegetation.

Western boundary of the subject property, looking north.

PHOTOGRAPH LOG – July 12, 2010
PHASE I ENVIRONMENTAL SITE ASSESSMENT

Looking southeast from the western property boundary.

Area of vegetation located along the eastern property boundary. Facing south.

PHOTOGRAPH LOG – July 12, 2010
PHASE I ENVIRONMENTAL SITE ASSESSMENT

Looking south across the subject property from the north end of the property.

North end of the subject property, looking east.

PHOTOGRAPH LOG – July 12, 2010
PHASE I ENVIRONMENTAL SITE ASSESSMENT

North end of the subject property looking west toward the railroad.

Looking west across the subject property from the eastern boundary.

PHOTOGRAPH LOG – July 12, 2010
PHASE I ENVIRONMENTAL SITE ASSESSMENT

Looking north from the eastern side of the southern end of the subject property.

County drain (Mason Run) located along the southern property boundary. Facing west.

PHOTOGRAPH LOG – July 12, 2010
PHASE I ENVIRONMENTAL SITE ASSESSMENT

Adjacent property to the south where the East Mill was previously located.

Adjacent property to the south (east side).

PHOTOGRAPH LOG – July 12, 2010
PHASE I ENVIRONMENTAL SITE ASSESSMENT

Adjacent property to the east.

Adjacent property to the east.

PHOTOGRAPH LOG – July 12, 2010
PHASE I ENVIRONMENTAL SITE ASSESSMENT

Adjacent property to the east.

Adjacent property to the west.

Environment

Submitted to:
Michigan Department of Transportation
Lansing, MI

Submitted by:
AECOM
Lansing, MI
60157928
October 2010

Category N Baseline Environmental Assessment

Parcel Identification No. 58-55-59-01904-000
1220 East Elm Street
Monroe, Michigan

Environment

Submitted to:
Michigan Department of Transportation
Lansing, MI

Submitted by:
AECOM
Lansing, MI
60157928
October 2010

Category N Baseline Environmental Assessment

Parcel Identification No. 58-55-59-01904-000
1220 East Elm Street
Monroe, Michigan

Prepared By Craig J. Simon

Reviewed By Scott G. Park, CPG

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Appendix B Legal Description and Parcel Map

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Appendix E Laboratory Analytical Data

Executive Summary

AECOM was retained by the Michigan Department of Transportation (MDOT) to complete a Category N Baseline Environmental Assessment (BEA) for the property located at 1220 East Elm Avenue, City of Monroe, Monroe County, Michigan, the subject property. MDOT intends to purchase the subject property from Homrich, Inc. (Homrich). For purposes of this BEA, the subject property is generally described as follows:

COMM AT NE CORNER OF ELM AVE; TH N 21D 24M 00S E 84.34 FT; TH N 31D 54M 38S E 567.33; TH CURVE TO THE RT, CENTRAL ANGLE 10D 43M 01S, RADIUS 572.96 FT AN ARC LENGTH OF 107.17 FT AND A CHORD BEARING 37D 16M 09S E 107.01 FT; TH ON A CURVE TO THE LT, CENTRAL ANGLE OF 7D 33M 00S A RADIUS DISTANCE OF 572.96 FT, AN ARC LENGTH OF 75.50 FT AND A CHORD BEARING A DISTANCE OF N 38D 51M 09S E 75.45 FT, CONTINUING ON SD CURVE TO THE LEFT A CENTRAL ANGLE OF 03D 09M 58S A RADIUS DISTANCE OF 572.96 FT, AN ARC LENGTH OF 31.66 FT AND A CHORD BEARING N 33D 29M 38S E 31.66 FT, TH N 31D 54M 38S E 67.75 FT TO THE POB: TH N 31D 54M 38S E 2482.37 FT; TH S 68D 17M 54S E 358.63 FT; TH S 21D 42M 06S W 2399.16 FT; TH N 78D 44M 50S W 438.81 FT; TH N 62D 44M 50S W 368.79 FT TO THE POB. 32.561 ACRES MORE OF LESS.

Property Tax Identification Number(s): 58-55-59-01904-000

A Phase I Environmental Site Assessment (ESA) was completed by AECOM for the subject property in July 2010. Results of the Phase I ESA identified several recognized environmental conditions (RECs) associated with the property. AECOM conducted a Phase II investigation to address the RECs identified in the Phase I ESA. Various metals were identified in soil that are related to shallow industrial fill that was placed over the site during the 19th and 20th centuries. Gasoline related volatile organic compounds (VOCs) were identified as an apparent result of contaminated soil that was formerly stored in a stockpile on a concrete pad located on the subject property. Because concentrations of metals and VOCs are present in shallow fill soil at concentrations exceeding Michigan's Generic Residential Cleanup Criteria, the subject property meets the definition of a "facility" according to Section 20101(1)(l) of the NREPA. The purpose of this BEA is to satisfy MDOT's liability exemption under section 20126 (1)(c)(i) of the Natural Resources and Environmental Protection Act (NREPA) for contamination associated with the subject property.

AECOM understands that MDOT does not intend to develop or occupy the subject property during the time period of its ownership. MDOT does not plan to store or use significant quantities of hazardous substances of any kind on the subject property. Since no significant quantities of hazardous substances will be generated or stored on the subject property by MDOT, AECOM prepared this BEA in accordance with the minimum Technical Standards for Category N BEAs, as described in the Michigan Department of Environmental Quality (MDEQ) document Instructions for *Preparing and Disclosing Baseline Environmental Assessments and Section 7a Compliance Analyses to the Michigan Department of Environmental Quality and for Requesting Optional Determinations, dated March 11, 1999.*

1.0 Author Identification

The BEA was “conducted” on September 28, 2010, and completed on October 1, 2010. The following AECOM personnel authored this Baseline Environmental Assessment Report:

- Craig J. Simon, Project Scientist

This Baseline Environmental Assessment Report was reviewed by the following AECOM personnel:

- Scott Park, C.P.G., Senior Project Geologist

1.1 Contacts

Should there be any questions or concerns regarding this information, the following persons may be contacted:

Mr. Craig Simon
Project Scientist
AECOM
401 S. Washington Square, Suite 103
Lansing, Michigan 48933
Phone: (517) 913-5812
Fax: (517) 319-5401

or

Mr. Scott Park, C.P.G.
Senior Project Geologist
AECOM
401 S. Washington Square, Suite 103
Lansing, Michigan 48933
Phone: (517) 913-5813
Fax: (517) 319-5401

2.0 Introduction

The Michigan Department of Transportation (MDOT) retained AECOM to prepare a Baseline Environmental Assessment (BEA) for a property located at 1220 East Elm Street, City of Monroe, Monroe County, Michigan, the subject property. MDOT intends to purchase the subject property from Homrich, Inc. (Homrich).

A Phase I Environmental Site Assessment (ESA) was completed by AECOM in July 2010. Based on AECOM's findings, the subject property was historically part of a much larger parcel, known as the East Mill site, which included the subject property as well as a large parcel located adjacent to and south of the subject property. The East Mill site was historically operated as a paper mill under various names. A county drain, known as the Mason Run, bisects the former East Mill site and the subject property is located north of the Mason Run, and the remainder of the former East Mill site is located to the south of the Mason Run.

Although the site was historically part of the large paper mill, operations were primarily conducted to the south and therefore past environmental investigations of the paper mill have been concentrated on this area. However, an environmental consulting firm installed two bedrock monitoring wells (BR-8 and BR-9) on the subject property as a part of a 2004 hydrogeological assessment of the East Mill site. Samples from both wells were collected and analyzed for VOCs, metals, sulfate, and ammonia. Ammonia and sulfate were detected in both wells. VOCs and metals were not detected in either well. Ammonia was detected in both wells at concentrations exceeding MDNRE Generic Groundwater Surface Water Interface (GSI) criteria.

As a result of the Phase I ESA, AECOM identified the following recognized environmental conditions (RECs) in connection with the subject property:

- Historical use of the subject property as part of a paper mill for material storage including some potentially impacted soil; use of clarifiers in the paper mill operations; and for the storage of coal, used to fire the boilers in the mill..
- Historical placement of fill on site, consisting of cinders, slag, coal, and some construction debris.

In July, August, and September 2010, AECOM conducted various phases of site investigations to address the RECs identified in the Phase I ESA. The Phase II investigation is discussed in Section 4.3.2. Analytical results indicate that certain VOCs and metals are present at concentrations exceeding applicable MDNRE Part 201 Residential and Commercial I Cleanup Criteria. A summary of analytical results are included in Tables 1 through 7. Based on the results of the laboratory analysis, the site meets the definition of a "facility" as defined in Part 201 of the Natural Resources and Environmental Protection Act, Act 451 of 1995.

2.1 BEA Category

MDOT does not intend to develop or occupy the subject property. MDOT does not plan to use, store or generate significant hazardous substances of any kind on the subject property. Since future use of the property by MDOT will not involve significant use of hazardous substances of any kind, AECOM prepared this BEA in accordance with the minimum Technical Standards for Category N BEAs, as described in the MDEQ document *Instructions for Preparing and Disclosing Baseline Environmental Assessments and Section 7a Compliance Analyses, dated March 11, 1999.*

3.0 Property Description and Intended Hazardous Substance Use

The subject property is located at 1220 East Elm Street, City of Monroe, Monroe County, Michigan. The subject property is currently undeveloped and is vacant and is largely covered with gray slag aggregate cover. The property has a land area of approximately 32.56 acres. The site is not currently improved with any structures, but has a large concrete slab (approximately 300 x 250') located on its south end. A site location map is included as Figure 1. A project site plan is included as Figure 2.

The subject property is located in an area of Monroe consisting of mixed commercial/industrial, residential, and agricultural properties. The property is bordered by a county drain (Mason Run) followed by a vacant parcel (formerly occupied by the paper mill) to the south; a vacant wooded lot to the north; an industrial park to the east; and railroad right-of-way followed by an industrial park to the west.

Photographs of the subject and adjoining properties are included in Appendix A.

3.1 Legal Description

The subject property is located west of Detroit Street, north of East Elm Street, and east of the Conrail Railroad in Monroe, Michigan. According to the City of Monroe Assessor, the deed holder and taxpayer of the subject property is listed as Homrich Inc. The property has a parcel ID number of 58-55-59-01904-000. The legal description of the property is as follows:

COMM AT NE CORNER OF ELM AVE; TH N 21D 24M 00S E 84.34 FT; TH N 31D 54M 38S E 567.33; TH CURVE TO THE RT, CENTRAL ANGLE 10D 43M 01S, RADIUS 572.96 FT AN ARC LENGTH OF 107.17 FT AND A CHORD BEARING 37D 16M 09S E 107.01 FT; TH ON A CURVE TO THE LT, CENTRAL ANGLE OF 7D 33M 00S A RADIUS DISTANCE OF 572.96 FT, AN ARC LENGTH OF 75.50 FT AND A CHORD BEARING A DISTANCE OF N 38D 51M 09S E 75.45 FT, CONTINUING ON SD CURVE TO THE LEFT A CENTRAL ANGLE OF 03D 09M 58S A RADIUS DISTANCE OF 572.96 FT, AN ARC LENGTH OF 31.66 FT AND A CHORD BEARING N 33D 29M 38S E 31.66 FT, TH N 31D 54M 38S E 67.75 FT TO THE POB: TH N 31D 54M 38S E 2482.37 FT; TH S 68D 17M 54S E 358.63 FT; TH S 21D 42M 06S W 2399.16 FT; TH N 78D 44M 50S W 438.81 FT; TH N 62D 44M 50S W 368.79 FT TO THE POB. 32.561 ACRES MORE OF LESS.

Property Tax Identification Number(s): 58-55-59-01904-000

Appendix B contains a parcel map and other general property information.

3.2 Intended Hazardous Substance Use

MDOT does not plan to develop or occupy the subject property. MDOT does not intend to use, store or generate significant quantities of hazardous substances of any kind on the subject property.

4.0 Known Contamination

AECOM submitted a Freedom of Information Act (FOIA) request to the MDNRE to review any files that pertain to the subject property. The following reports were reviewed by AECOM:

- Baseline Environmental Assessment, 1205 East Elm Avenue, Monroe, Michigan, AKTPeerless Environmental Services, dated August 7, 2006.
- Environmental Conditions Report, Former Jefferson Smurfitt Corporation East Mill Historic Parcel, Monroe, Michigan, Soil and Materials Engineers, Inc. (SME), dated June 15, 2005.
- Hydrogeological Assessment, Former Jefferson Smurfitt East Mill, 1205 E. Elm Street, Monroe Michigan, SME, dated May 16, 2005.
- Report on Bedrock Hydrogeologic Investigation, Former Jefferson Smurfitt Corporation East Mill Property – North Parcel, Haley & Aldrich of Michigan, Inc., dated February 2003.
- Phase I Environmental Site Assessment Report, Former Jefferson Smurfitt Property River Raisin Battlefield Site, Monroe, Michigan, AKTPeerless Environmental Services, dated July 30, 2001.
- Category A Baseline Environmental Assessment, Former Jefferson Smurfitt Property, 1205 East Elm Avenue, Monroe, Michigan, Techna Corporation, dated January 27, 1998.
- Hydrogeologic Investigation East Mill, Monroe, Michigan, Quality Environmental Professionals, Inc., dated June 14, 1996.
- Environmental Site Assessment (Physical Walk-Through) of Monroe Paper Company, 1220 East Elm Avenue, Monroe, Michigan 48161, Gary J. Davis, dated July 10, 1991.

The following is a summary of information that was obtained from the previous environmental reports reviewed.

4.1 Site History

The subject property was historically part of a much larger parcel known as the East Mill site. Land near and including the former East Mill site has been continuously inhabited since the late 18th century. The settlement, known as Frenchtown, continued to grow as Frenchmen from Detroit moved southward. By 1812, as the United States moved toward war with Britain, Frenchtown became a strategic outpost. The first and second battles of the River Raisin occurred on January 18 and 22, 1813 in the area of the subject property. Frenchtown, which had been abandoned during the War of 1812, began to be resettled in 1816 further west along the river. The new settlement grew into the City of Monroe. The area of the East Mill became agricultural land after the War of 1812. Between 1850 and 1915, the land near the River Raisin, east and west of present day Dixie Highway, was the site of the Michigan Nursery Company.

In the early 20th Century, a portion of the Michigan Nursery Company's land was conveyed to the River Raisin Paper Company. The River Raisin Paper Company built the first paper mill (West Mill) on the northwest corner of Dixie Highway and Elm Street in 1915. Between 1918 and 1920, the East Mill was constructed. Additional expansion of the East Mill occurred as the company grew, and acquired the Monroe Corrugated Box Company in 1920.

Union Camp Corporation purchased the River Raisin Paper Company in 1960. The paper mill complex was operated by Union Camp until the mid-1980's, when it sold the facilities and adjoining land to the Monroe Paper Company, a partnership of Jefferson Smurfitt Corporation and an individual, Bob Mitchell. Jefferson Smurfitt acquired full ownership of the property in 1991.

The East Mill (including the subject property) was operated until 1995, when operations were ceased. The vacant East Mill and adjoining properties were sold to Homrich, Inc., in 1997. The mill buildings were generally unused after 1995. Some of the buildings deteriorated significantly and were demolished by Homrich in 2002. A fire destroyed most of the remaining East Mill structures in April 2004. After the fire, Homrich demolished the damaged structures to grade in 2004.

The majority of the buildings that comprised the East Mill existed on the property that is located south of the Mason Run and is not a part of the subject property. The northern portion of one building (known as Mill 5) did extend onto the subject property. The subject property was primarily used for the storage of recycled paper that was used to manufacture corrugated box board. The paper was delivered to the subject property and was stored in large stacks of bales. Coal was also stored on the subject property. Coal was transported to the property by rail and was stored in piles along the western boundary of the subject property. The coal was used in on-site boilers for the paper mill. The boilers were converted to natural gas in July 1992. The boilers were located on the property south of the Mason Run, and were not located on the subject property.

In the 1950s two clarifiers were constructed on the south end of the subject property. Wastewater from the papermaking process was routed to the two 200,000 gallon clarifiers then recycled back to the process. Wastewater discharges from this system were directed to the City of Monroe sanitary sewer system. Homrich demolished and removed the clarifiers in approximately 2007.

Most recently, Homrich leased the subject property to a company known as Vascor. Vascor, under contract with the Chrysler Corporation, utilized the central and northern portions of the subject property as a parking lot for newly manufactured Chrysler vehicles. According to a Homrich representative, the subject property was used as parking lot from mid-2007 through the end of 2008.

4.2 Environmental Conditions – Previous Investigations

Several environmental investigations have been conducted on the East Mill site. Identified contaminants include volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), metals, sulfates, and ammonia. Contaminants have been detected in several areas at concentrations exceeding Michigan's Default Generic Residential Cleanup Criteria (GRCC). Areas of impacts identified in the previous investigations include the following:

- 3 former fuel oil USTs including one 8,000 gallon UST and two 30,000 gallon USTs;
- A former 1,000 gallon kerosene AST;
- Disposal trenches historically located east of the south end of building #3 of the former paper mill; and,
- Industrial fill placed over the entire site.

Sulfate and ammonia impacts were detected in upgradient and downgradient bedrock wells that were installed as part of the pervious investigations.

The majority of past environmental investigations that have been conducted on the East Mill site have focused on the portion of the site located south of the Mason Run. The subject property is located north of the Mason Run. SME installed two bedrock monitoring wells (BR-8 and BR-9) on the subject property as a part of a 2004 hydrogeological assessment of the East Mill site. Samples from both wells were collected and analyzed for VOCs, metals, sulfate and ammonia. Ammonia and sulfate were detected in both wells. VOCs and metals were not detected in either well. Ammonia was detected in both wells at concentrations exceeding MDNRE Generic Groundwater Surface Water Interface (GSI) criteria.

An area of stockpiled soil on the concrete slab located on the subject property was identified in Techna Corporation's 1998 BEA. According to the BEA, the soil in the stockpile (approximately 3,500 cubic yards) was removed from off-site sump and UST excavations and deposited on the subject property. Discrete soil samples were collected from the stockpile which indicated the presence of VOCs and PAHs at concentrations below applicable MDNRE criteria.

4.3 Environmental Conditions – AECOM, 2010

AECOM conducted a Phase I ESA and a Phase II investigation to assess environmental conditions at the site. The investigations are summarized below.

4.3.1 Phase I Environmental Site Assessment

A Phase I ESA was completed by AECOM in July 2010. Based on information obtained during the Phase I ESA, the subject property was the site of the battles of the River Raisin during the War of 1812. The property has historically been used as a storage area for a paper mill that was located on the adjacent property to the south. The paper mill was built around 1918 by the River Raisin Paper Company. Union Camp Corporation purchased the River Raisin Paper Company in 1960. The paper mill complex was operated by Union Camp until the mid-1980's, when it sold the facilities and adjoining land to the Monroe Paper Company, a partnership of Jefferson Smurfitt Corporation and an individual, Bob Mitchell. Jefferson Smurfitt acquired full ownership of the property in 1991. The paper mill was operated by Jefferson Smurfitt until 1995. The property was purchased by the current owner, Mr. Roger Homrich, in 1997. After its purchase, Mr. Homrich covered the property with a gray slag aggregate. He purchased the slag aggregate from Tube City IMS in Monroe. Toxicity characteristic leaching procedure (TCLP) testing that was performed on the slag aggregate is attached as Appendix C. This data indicates that the slag aggregate has no hazardous characteristics.

Mr. Homrich leased the property to a company known as Vascor. Vascor, under contract with the Chrysler Corporation, utilized the central and northern portions of the subject property as a parking lot for newly manufactured Chrysler vehicles. According to Mr. Homrich, the subject property was used as a parking lot from mid-2007 through the end of 2008. Chrysler is no longer using the subject property as a parking area. Mr. Homrich has used the property for no other purpose during his ownership. This has included no generation, storage, or disposal of any hazardous substances.

Although the site is primarily covered with the gray slag aggregate, during AECOM's site reconnaissance on July 12, 2010, AECOM observed evidence of cinders, slag, coal, and some construction debris in shallow fill at various locations on the site. Based on the site reconnaissance conducted by AECOM, interviews with Mr. Roger Homrich (current owner of the subject property), a review of the environmental databases and other materials supplied by Environmental Data Resources, and other pertinent historical records, AECOM identified the following RECs on the subject property:

- Historical use of the subject property as part of a paper mill for material storage including some potentially impacted soil; use of clarifiers in the paper mill operations; and for the storage of coal, used to fire the boilers in the mill..
- Historical placement of fill on site, consisting of cinders, slag, coal, and some construction debris.

Photographs taken during AECOM's Phase I ESA are included in Appendix A.

AECOM determined that further investigation, by means of a Limited Phase II ESA, was warranted to ascertain the absence/presence of hazardous materials that may have affected the subject property throughout its history.

4.3.2 Phase II Investigation

In addition to the previously described investigation, AECOM conducted various phases of a subsurface investigation at the subject property in July, August, and September 2010. The purpose of the investigations was to evaluate the subsurface conditions in order to satisfy MDOT's liability exemption under section 20126 (1)(c)(i) of the Natural Resources and Environmental Protection Act (NREPA) for contamination associated with the subject property.

Areas of the site that were investigated as part of the Phase II include:

- The concrete slab where potentially contaminated soil was reportedly stockpiled;
- Areas of visible industrial fill;
- The area where the former clarifiers were located;
- Areas where coal was reported to be delivered and stored; and,
- Areas along the eastern property line where storage bins were identified in historical aerial photographs.

<u>Test Pit Investigation</u>

As part of the subsurface investigations, AECOM conducted four separate sampling events. The first sampling event involved the excavation and sampling of 20 test pits placed at various locations across the site to initially evaluate site conditions. The test pit investigation was completed on July 21 and 22, 2010. Test Pits were excavated by K&D Industries, Inc. Each excavation was photographed and logged by an AECOM scientist. Soil samples were collected from each test pit by AECOM and one from each test pit was submitted to Fibertec Environmental Services Laboratory (Fibertec) in Holt, Michigan for laboratory analysis. Test pit logs are included as Appendix D and test pit locations are shown on Figure 3. Photographs of some test pits depicting the shallow stratigraphy across the site are included in Appendix A.

The subsurface geology of the subject property includes a surface layer of approximately 6 – 10 inches of screened aggregate (slag) material followed by 1 to 8 feet of sandy fill with concrete, bricks, coal, cinders, and gravel. The coal and cinders were primarily seen in the fill near the railroad right-of-way along the western property boundary and immediately adjacent to the concrete slab located in the southwestern portion of the subject property. The fill is underlain by brown silty clay. The silty clay layer is generally found to extend to the limestone bedrock that is located at depths ranging from 4 (northern portion of property) to 14 (southern portion of property) feet below ground surface (bgs).

AECOM found discontinuous shallow groundwater to be present at the subject property in the overburden primarily in isolated sand seams at depths ranging from approximately 2 to 12 feet bgs. Previous environmental investigations conducted in the area have confirmed that a confined aquifer is present in the underlying bedrock formation, generally at depths of 1 to 5 feet below the top of bedrock. Groundwater elevations measured in bedrock wells indicate a positive groundwater head or upward gradient. Groundwater flow has been determined to be to the south-southwest toward the River Raisin.

In the area of the subject property, soils appear to have been reworked and/or obscured by urban and industrial development. Fill is reported to have been imported during the nineteenth and twentieth centuries to raise the land surface elevation above the original river plain from the south side of East Elm Avenue northward under the subject property.

The site is drained by Mason Run, which flows eastward across the southern boundary of the subject property. Mason Run previously flowed through a box culvert as it crossed under the northern portion of the former mill complex. Mason Run is now open along the entire southern boundary of the subject property. Mason Run flows into the River Raisin, which is located approximately ¼ mile south of the subject property, and flows east into Lake Erie.

Soil samples were collected from 16 of the 20 test pits and submitted to Fibertec for laboratory analysis of VOCs by method 8260, PNAs by method 8270, PCBs by method 8082, and metals by method 6020. Soil samples were collected from various depths within the test pits to evaluate both the fill and the natural brown silty clay. Soil analytical results are summarized on Tables 1 through 4. Laboratory analytical data is included in Appendix E.

Benzene, ethylbenzene, naphthalene, 1,2,4-trimethylbenzene (1,2,4-TMB), and xylene were detected in soil from TP-6 at concentrations exceeding GRCC. Benzene, ethylbenzene, naphthalene, and 1,2,4-TMB were detected at concentrations exceeding Residential Drinking Water Protection Criteria (RDWP) and xylene was detected at a concentration exceeding Groundwater Surface Water Interface Protection Criteria (GSIP).

Metals were detected in several test pit samples at concentrations exceeding GRCC. Arsenic was detected at concentrations exceeding RDWP and Residential Direct Contact Criteria (RDCC) at TP-4, TP-5, TP-6, TP-10, TP-11, TP-16, and TP-17. Arsenic was detected at concentrations exceeding RDWP at TP-9, TP-13, and TP-18. Lead was detected at concentrations exceeding RDWP and RDC at TP-4. Barium, copper, mercury, selenium, sliver, and zinc were detected at various locations at concentrations exceeding GSIP.

All samples for which impacts were identified were collected from within the fill material. Impacts were detected with no apparent pattern to site use. Therefore, these impacts appear to be related to the industrial fill that was placed prior to operation of the paper mill. Analytical results for samples that were collected from within the natural brown clay did not include any exceedances of GRCC. This suggests that impacts are related to the fill and that, since impacts have not been identified in the clay, contaminants have not leached into the underlying clay.

Temporary Monitoring Well Installation

After completion of the test pit excavations, AECOM installed 10 temporary monitoring wells to assess the condition of the shallow groundwater at the site. The location of the temporary wells is shown on Figure 4. Temporary monitoring wells were installed by Alluvial Earth Inc., using a small truck mounted

hydraulic probe. The field work was overseen by an AECOM Field Scientist. AECOM found discontinuous shallow groundwater to be present at the subject property in the overburden primarily in isolated sand seams at depths ranging from approximately 2 to 12 feet bgs. Groundwater samples were collected from temporary 1-inch PVC monitor wells installed in each borehole. Groundwater samples were collected from 9 of the 10 temporary wells. A sample was not collected from TMW-6 because the well did not produce enough water to collect an appropriate sample.

Groundwater samples were submitted Fibertec for laboratory analysis of VOCs, PNAs, ammonia, and the Michigan 10 metals. Groundwater analytical results are summarized on Tables 5 through 7. Of the constituents detected in the groundwater samples, none were detected at concentrations exceeding GRCC.

Soil Boring Investigation

AECOM returned to the site in August 2010 to advance 14 soil borings in an attempt to delineate contaminants that were identified in soil as part of the test pit investigation. Soil borings were placed near test pits where contaminants were identified at concentrations exceeding GRCC. Specifically, these included test pits exceeding RDCC for arsenic or lead, or RDWP for gasoline related VOCs in the vicinity of the concrete pad. Soil boring locations are shown on Figure 4. The table below lists the soil borings and which test pits they were placed near in an attempt to delineate the contaminants identified in the samples collected from the test pits.

Soil Boring ID	**Test Pits Near Soil Boring Location**
GP-1	TP-4, TP-5
GP-2	TP-4
GP-3	TP-4, TP-5, TP-6
GP-4	TP-6
GP-5	TP-5, TP-6
GP-6	TP-5, TP-8
GP-7	TP-11
GP-8	TP-11
GP-9	TP-10
GP-10	TP-10
GP-11	TP-11

Soil Boring ID	Test Pits Near Soil Boring Location
GP-12	TP-15, TP-16
GP-13	TP-16, TP-17
GP-14	TP-17

AECOM collected 15 soil samples from the 14 soil borings. Because environmental impacts had only been identified in the shallow fill material on site, soil samples were collected from the fill material located above the clay layer and below the surficial aggregate slag cover, where present. All samples were submitted for laboratory analysis of arsenic and lead. Because of gasoline related VOC detections at TP-6, seven samples, collected in the vicinity of the concrete slab, at GP-1through GP-6 were also submitted for laboratory analysis of VOCs. Soil analytical results are summarized on Tables 1 through 4. Laboratory analytical data is included as Appendix E.

Benzene was detected at GP-5 at concentrations exceeding RDWP and xylene was detected at GP-4 and GP-5 at concentrations exceeding GSIP. Arsenic was detected at concentrations exceeding RDWP in all samples collected for analysis, with the exception of the sample collected from GP-14. Arsenic was detected at concentrations exceeding RDC in all samples, with the exception of the samples collected from GP-3, GP-6, GP-9, and GP-14. Lead was detected at a concentration exceeding RDWP and RDC at GP-12.

AECOM submitted samples from TP-4 (1,300,000 μg/kg) and GP-12 (4,400,000 μg/kg) for toxicity characteristic leaching procedure (TCLP) analysis of lead because of the elevated lead concentrations that were detected in those two samples. The TCLP result for TP-4 was non-detect and the TCLP result for GP-12 was 55,000 μg/L. The TCLP result for GP-12 exceeds the regulatory limit for lead for hazardous characteristic of 5 mg/L. TCLP results are summarized in Table 3.

Lead Delineation: GP-12

As a result of the high TCLP result from GP-12, AECOM returned to the site on September 21, 2010, in an attempt to delineate the extent of the lead contamination identified at GP-12. AECOM advanced an additional 12 hydraulic probe soil borings (GP-12a through GP-12l) near the location of GP-12 and collected a soil sample from the fill material at approximately one foot bgs from 11 of the 12 borings. Soil boring GP-12g was installed at the same location as GP-12 in an attempt to duplicate the results of GP-12. No sample was collected at GP-12h because there was no fill present at that location. Soil samples were submitted to Fibertec for the analysis of only lead. Soil boring locations are shown on Figure 5. Analytical results are summarized on Tables 1 through 4. Laboratory analytical data is included as Appendix E.

Of the 11 soil samples analyzed for lead, two had detections exceeding RDWP and RDC, GP-12a and GP-12i. Both of these samples were also submitted for TCLP analysis of lead. The TCLP results were non-detect for both samples. Because the TCLP results were non-detect, and no other samples from

the area of GP-12 exceeded criteria, the elevated lead concentration detected at GP-12 appears to be isolated and could not be replicated.

4.3.3 Hazardous Substances Present on the Subject Property

The following table lists the hazardous substances identified by AECOM that are present on the subject property in the soil at concentrations exceeding applicable MDNRE Part 201 Residential and Commercial I Cleanup Criteria. Respective CAS Numbers for each hazardous substance are also provided.

Name of Hazardous Substance	CAS Number	Part 201 Soil Criteria Exceeded
Benzene	71432	RDWP, GSIP
Ethylbenzene	100414	GSIP
Naphthalene	91203	GSIP
1,2,4-Trimethylbenzene	95636	GSIP
Xylenes	1330207	GSIP
Arsenic	7784421	RDWP, IDWP, RDC
Lead	7439921	RDWP, IDWP, RDC, IDC
Barium	7440393	GSIP
Copper	7440508	GSIP
Mercury	7439976	GSIP
Selenium	7782492	GSIP
Silver	7440224	GSIP
Zinc	9029974	GSIP

Note:
RDWP = Residential Drinking Water Protection Criteria
IDWP = Industrial Drinking Water Protection Criteria
GSIP = Groundwater Surface Water Interface Protection Criteria
RDC = Residential Direct Contact Criteria
IDC = Industrial Direct Contact Criteria

Laboratory analytical results of soil samples indicate that constituent concentrations are above the Residential and Commercial I Generic Cleanup Criteria, established pursuant to Section 20120a(1)(a) of

Part 201 of the Natural Resources and Environmental Protection Act (NREPA), Act 451 of 1994, as amended. As a result, the subject property is defined as a Facility according to Section 20101(1)(l) of the NREPA.

Laboratory analytical results indicate that no groundwater samples collected as part of this investigation contained contaminant concentrations exceeding Generic Residential and Commercial I Cleanup Criteria.

Soil impacts do not exceed soil volatilization to indoor air inhalation criteria. Most of the exceedances in soil were concentrations that exceeded either RDWP or GSIP. Arsenic and lead were detected at concentrations exceeding RDC while lead also exceeds IDC at several locations.

There has been no evidence of free product at the subject property.

4.4 Discarded and Abandoned Containers

No known discarded or abandoned containers were identified at the subject property.

5.0 Likelihood of Other Contamination

AECOM has reviewed various environmental reports conducted on the subject and adjacent properties. These records were reviewed in order to identify past uses of the subject property that may have led to sources of contamination other than the contamination identified in this BEA. Several environmental investigations have been conducted on the East Mill site, located adjacent to the south of the subject property. Identified contaminants on the East Mill site include VOCs, SVOCs, metals, sulfates and ammonia. In addition, AECOM conducted a subsurface investigation at the subject property described in this report. Analytical data from AECOM's subsurface investigation is summarized on Tables 1 through 7.

Based on the information obtained from this investigation, the subject property is impacted with benzene, xylenes, and various metals above Part 201 Generic Cleanup Criteria. Since the proposed future use of the subject property will not involve the use, storage, or generation of significant quantities of hazardous substances, any future detections of these constituents can be attributed to historic property use. It is possible that additional hazardous substances associated with historical property use may be present in relatively local configuration not included in sampling efforts conducted to date, or in greater concentrations than those already identified.

6.0 Alternate Approaches

This BEA is based upon Category N Technical Standards where no significant quantities of hazardous substance use will be used, stored or generated on the property. No alternative approaches will be used to develop a reliable basis for distinguishing a new release from existing contamination on the subject property.

7.0 Conclusions

In connection with MDOT's acquisition of the property at 1220 East Elm Street, AECOM has conducted this Category N Baseline Environmental Assessment (BEA) on the subject property to comply with the release from liability requirements established by Section 20126(c) of NREPA. This Category N BEA provides baseline information regarding existing soil and groundwater conditions at the subject property. Data from this BEA can be used to differentiate potential future releases from existing impacts.

The property subject to this BEA is comprised of Property Tax Identification Number 58-55-59-01904-00. The subject property is currently undeveloped and vacant. The property has historically been used as part of a paper mill for the storage of recycled paper that was used to manufacture corrugated box board. The paper mill was located on the adjacent property to the south. The paper was delivered to the subject property and was stored in large stacks of bales. Coal was also stored on the subject property. Coal was transported to the property by rail and was stored in piles along the western boundary of the subject property. The coal was used in on-site boilers for the paper mill.

A Phase I ESA was completed by AECOM for the subject property in July 2010. Results of the Phase I ESA indicated RECs associated with the subject property. AECOM conducted a Phase II investigation to address the RECs identified in the Phase I ESA. Metals impacts were identified that are related to shallow industrial fill that was placed over the site during the 19th and 20th centuries. Volatile organic compound (VOC) impacts were identified as an apparent result of contaminated soil that was formerly stored in a stockpile on a concrete pad located on the subject property. Based on the results of the Phase II investigation, the subject property meets the definition of a "facility" according to Section 20101(1)(l) of the NREPA because certain VOCs and various metals are present in the soil at concentrations that exceed Michigan's Generic Residential Cleanup Criteria.

MDOT does not intend to develop or occupy the subject property during the time period of their ownership. MDOT does not plan to use, store or generate significant hazardous substances of any kind on the subject property. Since future use of the property by MDOT will not involve significant use of hazardous substances of any kind, AECOM prepared this BEA in accordance with the minimum Technical Standards for Category N BEAs, as described in the MDEQ document *Instructions for Preparing and Disclosing Baseline Environmental Assessments and Section 7a Compliance Analyses, dated March 11, 1999.*

8.0 References

The following references were consulted during this Baseline Environmental Assessment:

Natural Resources and Environmental Protection Act, Michigan Public Act 451 of 1994, as amended, and the rules promulgated there under.

Instructions for Preparing and Disclosing Baseline Environmental Assessments and Section 7a Compliance Analyses to the Michigan Department of Environmental Quality and for Requesting Optional Determinations, Michigan Department of Environmental Quality, March 11, 1999.

United States Geological Survey, 1978. 7.5-Minute Topographic Quadrangle of Stony Point and Monroe, Michigan. Scale: 1'' = 2,000'.

Western Michigan University, 1981. Hydrogeologic Atlas of Michigan.

Environmental Data Resources, Inc., Milford, Connecticut, June 14, 2010. Radius Map with GeoCheck.

Environmental Data Resources, Inc., Milford, Connecticut, June 17, 2010. The EDR Aerial Photo Decade Package.

Environmental Data Resources, Inc., Milford, Connecticut, June 15, 2010. Certified Sanborn Map Report.

Environmental Data Resources, Inc., Milford, Connecticut, June 15, 2010. The EDR Historical Topographic Map Report.

Mr. Roger Homrich, current property owner, telephone/personal interview, multiple dates.

Tables

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS - FULL SCAN VOCs
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

																								Part 201 Generic Residential Cleanup Criteria*		
Sample ID	TP-3	TP-4	TP-5	TP-6	TP-9	TP-10	TP-11	TP-13	TP-14	TP-15	TP-16	TP-17	TP-18	TP-19	TP-19	TP-20	GP-1	GP-2	GP-3	GP-3	GP-4	GP-5	GP-6	Drinking	Groundwater	Direct
Depth (feet)	6	4	3	1	8	1.5	3	2.5	3	1	1	1.5	1.5	0.5	2	1.5	4	4	1	4	1	1	3	Water	Surface Water	Contact
Date Collected	7/21/10	7/21/10	7/21/10	7/21/10	7/21/10	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	8/18/10	8/18/10	8/18/10	8/18/10	8/18/10	8/18/10	8/18/10	Protection	Interface	Criteria
Volatiles by 8260 (µg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**			
Acetone	<1,000	<1,000	<1,000	<1,000	NA	<1,000	<1,000	<1,000	NA	<1,000	<1,000	<1,000	<1,000	NA	<1,000	NA	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	15,000	34,000	23,000,000
Acrylonitrile	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	52	100 (M,X); 98	16,000
Benzene	<50	<50	<57	**240**	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	**65**	**150**	<50	100	4,000 (X)	180,000
Bromobenzene	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	550	NA	540,000
Bromochloromethane	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	No Criteria Available		
Bromodichloromethane	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	2,000	ID	110,000
Bromoform	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	2,000	ID	820,000
Bromomethane	<200	<200	<200	<200	NA	<200	<200	<200	NA	<200	<200	<200	<200	NA	<200	NA	<200	<200	<200	<200	<200	<200	<200	200	ID	320,000
2-Butanone	<750	<750	<750	<750	NA	<750	<750	<750	NA	<750	<750	<750	<750	NA	<750	NA	<750	<750	<750	<750	<750	<750	<750	260,000	44,000	27,000,000
n-Butylbenzene	<50	<50	<57	**100**	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	1,600	ID	2,500,000
sec-Butylbenzene	<50	<50	<57	**66**	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	1,600	ID	2,500,000
tert-Butylbenzene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	1,600	NA	2,500,000
Carbon Disulfide	<250	<250	<250	<250	NA	<250	<250	<250	NA	<250	<250	<250	<250	NA	<250	NA	<250	<250	<250	<250	<250	<250	<250	16,000	ID	280,000
Carbon Tetrachloride	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	100	900 (X)	96,000
Chlorobenzene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	2,000	NA	260,000
Chloroethane	<250	<250	<250	<250	NA	<250	<250	<250	NA	<250	<250	<250	<250	NA	<250	NA	<250	<250	<250	<250	<250	<250	<250	8,600	ID	950,000
Chloroform	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	2,000	3,400 (X)	1,200,000
Chloromethane	<250	<250	<250	<250	NA	<250	<250	<250	NA	<250	<250	<250	<250	NA	<250	NA	<250	<250	<250	<250	<250	<250	<250	5,200	ID	1,100,000
2-Chlorotoluene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	3,300	NA	500,000
Dibromochloromethane	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	2,000	ID	110,000
1,2-Dibromo-3-chloropropane	<63	<64	<110	<57	NA	<63	<94	<64	NA	<55	<80	<67	<67	NA	<65	NA	<33	<31	<30	<32	<30	<31	<28	4	NA	1,200
Dibromomethane	<250	<250	<250	<250	NA	<250	<250	<250	NA	<250	<250	<250	<250	NA	<250	NA	<250	<250	<250	<250	<250	<250	<250	1,600	NA	2,000,000
1,2-Dichlorobenzene	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	14,000	360	210,000
1,3-Dichlorobenzene	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	170	1,100	170,000
1,4-Dichlorobenzene	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	1,700	290	400,000
Dichlorodifluoromethane	<250	<250	<250	<250	NA	<250	<250	<250	NA	<250	<250	<250	<250	NA	<250	NA	<250	<250	<250	<250	<250	<250	<250	95,000	ID	1,000,000
1,1-Dichloroethane	<50	<50	<57	<57	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	18,000	15,000	890,000
1,2-Dichloroethane	<63	<64	<110	<50	NA	<63	<94	<64	NA	<55	<80	<67	<67	NA	<65	NA	<65	<63	<61	<64	<60	<62	<57	100	7,200 (X)	91,000
1,1-Dichloroethene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	140	1,300 (X)	200,000
cis-1,2-Dichloroethene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	1,400	12,000	640,000
trans-1,2-Dichloroethene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	2,000	30,000	1,400,000
1,2-Dichloropropane	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	100	5,800 (X)	140,000
cis-1,3-Dichloropropene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	170	ID	10,000
trans-1,3-Dichloropropene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	170	ID	10,000
Ethylbenzene	<50	<50	<57	**440**	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	**87**	**130**	<50	1,500	360	140,000
Ethylene Dibromide	<63	<64	<110	<57	NA	<63	<94	<64	NA	<55	<80	<67	<67	NA	<65	NA	<26	<25	<24	<26	<24	<25	<23	250	20 (M); 4.0	250
2-Hexanone	<2,500	<2,500	<2,500	<2,500	NA	<2,500	<2,500	<2,500	NA	<2,500	<2,500	<2,500	<2,500	NA	<2,500	NA	<2,500	<2,500	<2,500	<2,500	<2,500	<2,500	<2,500	20,000	NA	2,500,000
Isopropylbenzene	<250	<250	<250	<250	NA	<250	<250	<250	NA	<250	<250	<250	<250	NA	<250	NA	<250	<250	<250	<250	<250	<250	<250	91,000	ID	390,000
2-Methylnaphthalene	<330	<330	<330	**1,400**	NA	<330	<330	<330	NA	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<390	**540**	<570	57,000	ID	8.10E+06
4-Methyl-2-Pentanone	<2,500	<2,500	<2,500	<2,500	NA	<2,500	<2,500	<2,500	NA	<2,500	<2,500	<2,500	<2,500	NA	<2,500	NA	<2,500	<2,500	<2,500	<2,500	<2,500	<2,500	<2,500	36,000	ID	2,700,000
Methylene Chloride	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	100	19,000 (X)	1,300,000
MTBE	<250	<250	<250	<250	NA	<250	<250	<250	NA	<250	<250	<250	<250	NA	<250	NA	<250	<250	<250	<250	<250	<250	<250	800	15,000 (X)	1,500,000
Naphthalene	<330	<330	<570	**1,300**	NA	<330	<330	<330	NA	<330	<330	<330	<330	NA	<330	NA	<330	<330	<330	<330	**480**	**550**	<330	35,000	870	16,000,000
n-Propylbenzene	<100	<100	<100	**220**	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	1,600	NA	2,500,000
Styrene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	2,700	2,200	400,000
1,1,1,2-Tetrachloroethane	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	1,500	ID (X)	440,000
1,1,2,2-Tetrachloroethane	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	170	1,600 (X)	53,000
Tetrachloroethene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	100	900 (X)	88,000
Toluene	<50	<50	<57	**1,300**	NA	**96**	<50	**220**	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	**510**	**770**	<50	16,000	2,800	250,000
1,2,4-Trichlorobenzene	<330	<330	<330	<330	NA	<330	<330	<330	NA	<330	<330	<330	<330	NA	<330	NA	<330	<330	<330	<330	<330	<330	<330	4,200	1,800	990,000
1,1,1-Trichloroethane	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	4,000	4,000	460,000
1,1,2-Trichloroethane	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	100	6,600 (X)	180,000
Trichloroethene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	100	4,000 (X)	500,000
Trichlorofluoromethane	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	52,000	NA	560,000
1,2,3-Trichloropropane	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	840	NA	830,000
1,2,3-Trimethylbenzene	<100	<100	<100	**370**	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	**180**	**170**	<100	No Criteria Available		
1,2,4-Trimethylbenzene	<100	<100	<100	**850**	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	**290**	**300**	<100	2,100	570	110,000
1,3,5-Trimethylbenzene	<100	<100	<100	**170**	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	1,800	1,100	94,000
Vinyl Chloride	<40	<40	<57	<40	NA	<40	<40	<40	NA	<40	<40	<40	<40	NA	<40	NA	<40	<40	<40	<40	<40	<40	<40	40	300	3,800
Total Xylenes	<150	<150	<150	**2,900**	NA	<150	<150	<150	NA	<150	<150	<150	<150	NA	<150	NA	<150	<150	<150	<150	**1,000**	**1,200**	<150	5,600	700	150,000

* Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels, MDEQ Administrative Rules, January 2006
NA = Not Analyzed
Shaded cell indicates concentration exceeds one or more applicable criteria.
Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 2
SOIL SAMPLE ANALYTICAL RESULTS - PNAs
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

							Part 201 Generic Residential Cleanup Criteria*		
Sample ID	TP-3	TP-4	TP-5	TP-6	TP-9	TP-10	Drinking	Groundwater	Direct
Depth (feet)	6	4	3	1	8	1.5	Water	Surface Water	Contact
Date Collected	7/21/10	7/21/10	7/21/10	7/21/10	7/21/10	7/22/10	Protection	Interface	Criteria
PNAs by 8270 (µg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**			
Acenaphthene	<330	<330	<330	<330	NA	<330	300,000	4,400	41,000,000
Acenaphthylene	<330	<330	<330	<330	NA	<330	5,900	ID	1,600,000
Anthracene	<330	<330	<330	<330	NA	<330	41,000	ID	230,000,000
Benzo(a)anthracene	<330	**540**	<330	**360**	NA	<330	NLL	NLL	20,000
Benzo(a)pyrene	<330	**420**	<330	**580**	NA	<330	NLL	NLL	2,000
Benzo(b)fluoranthene	<330	**630**	<330	**980**	NA	<330	NLL	NLL	20,000
Benzo(ghi)perylene	<330	**400**	<330	<330	NA	<330	NLL	NLL	2,500,000
Benzo(k)fluoranthene	<330	<330	<330	<330	NA	<330	NLL	NLL	200,000
Chrysene	<330	**430**	<330	**510**	NA	<330	NLL	NLL	2,000,000
Dibenzo(a,h)anthracene	<330	<340	<330	<330	NA	<330	NLL	NLL	2,000
Fluoranthene	<330	**710**	<330	<330	NA	<330	730,000	5,500	46,000,000
Fluorene	<330	<330	<330	<330	NA	<330	390,000	5,300	27,000,000
Indeno(1,2,3-cd)pyrene	<330	**370**	<330	<330	NA	<330	NLL	NLL	20,000
2-Methylnaphthalene	<330	<330	<330	**1,400**	NA	<330	57,000	ID	8,100,000
Phenanthrene	<330	**360**	<330	**660**	NA	<330	56,000	5,300	1,600,000
Pyrene	<330	**640**	<330	**410**	NA	<330	480,000	ID	29,000,000

* Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels, MDEQ Administrative Rules, January 2006

NLL = Not Likely to Leach

Shaded cell indicates concentration exceeds one or more applicable criteria.

Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 2
SOIL SAMPLE ANALYTICAL RESULTS - PNAs
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

						Part 201 Generic Residential Cleanup Criteria*		
Sample ID	TP-11	TP-13	TP-14	TP-15	TP-16	Drinking	Groundwater	Direct
Depth (feet)	3	2.5	3	1	1	Water	Surface Water	Contact
Date Collected	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	Protection	Interface	Criteria
PNAs by 8270 (µg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**			
Acenaphthene	<330	<330	NA	<330	<330	300,000	4,400	41,000,000
Acenaphthylene	<330	<330	NA	<330	<330	5,900	ID	1,600,000
Anthracene	<330	<330	NA	<330	<330	41,000	ID	230,000,000
Benzo(a)anthracene	<330	<330	NA	<330	<330	NLL	NLL	20,000
Benzo(a)pyrene	<330	<330	NA	<330	<330	NLL	NLL	2,000
Benzo(b)fluoranthene	<330	<330	NA	<330	<330	NLL	NLL	20,000
Benzo(ghi)perylene	<330	<330	NA	<330	<330	NLL	NLL	2,500,000
Benzo(k)fluoranthene	<330	<330	NA	<330	<330	NLL	NLL	200,000
Chrysene	<330	<330	NA	<330	<330	NLL	NLL	2,000,000
Dibenzo(a,h)anthracene	<330	<330	NA	<330	<330	NLL	NLL	2,000
Fluoranthene	<330	<330	NA	<330	<330	730,000	5,500	46,000,000
Fluorene	<330	<330	NA	<330	<330	390,000	5,300	27,000,000
Indeno(1,2,3-cd)pyrene	<330	<330	NA	<330	<330	NLL	NLL	20,000
2-Methylnaphthalene	<330	<330	NA	<330	<330	57,000	ID	8,100,000
Phenanthrene	<330	<330	NA	<330	<330	56,000	5,300	1,600,000
Pyrene	<330	<330	NA	<330	<330	480,000	ID	29,000,000

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NLL = Not Likely to Leach

Shaded cell indicates concentration exceeds one or more applicable criteria.

Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 2
SOIL SAMPLE ANALYTICAL RESULTS - PNAs
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

						Part 201 Generic Residential Cleanup Criteria*		
Sample ID	TP-17	TP-18	TP-19	TP-19	TP-20	Drinking	Groundwater	Direct
Depth (feet)	1.5	1.5	0.5	2	1.5	Water	Surface Water	Contact
Date Collected	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	Protection	Interface	Criteria
PNAs by 8270 (µg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**			
Acenaphthene	<330	<330	<330	<330	<330	300,000	4,400	41,000,000
Acenaphthylene	<330	<330	<330	<330	<330	5,900	ID	1,600,000
Anthracene	<330	<330	<330	<330	<330	41,000	ID	230,000,000
Benzo(a)anthracene	<330	<330	<330	<330	<330	NLL	NLL	20,000
Benzo(a)pyrene	<330	<330	<330	<330	<330	NLL	NLL	2,000
Benzo(b)fluoranthene	<330	<330	<330	<330	<330	NLL	NLL	20,000
Benzo(ghi)perylene	<330	<330	<330	<330	<330	NLL	NLL	2,500,000
Benzo(k)fluoranthene	<330	<330	<330	<330	<330	NLL	NLL	200,000
Chrysene	<330	<330	<330	<330	<330	NLL	NLL	2,000,000
Dibenzo(a,h)anthracene	<330	<330	<330	<330	<330	NLL	NLL	2,000
Fluoranthene	<330	<330	<330	<330	<330	730,000	5,500	46,000,000
Fluorene	<330	<330	<330	<330	<330	390,000	5,300	27,000,000
Indeno(1,2,3-cd)pyrene	<330	<330	<330	<330	<330	NLL	NLL	20,000
2-Methylnaphthalene	<330	<330	<330	<330	<330	57,000	ID	8,100,000
Phenanthrene	<330	<330	<330	<330	<330	56,000	5,300	1,600,000
Pyrene	<330	<330	<330	<330	<330	480,000	ID	29,000,000

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NLL = Not Likely to Leach

Shaded cell indicates concentration exceeds one or more applicable criteria.

Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 3
SOIL SAMPLE ANALYTICAL RESULTS - Metals
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

							Part 201 Generic Cleanup Criteria*			
Sample ID	TP-3	TP-4	TP-5	TP-6	TP-9	TP-10	Residential	Residential	Groundwater	Statewide
Depth (feet)	6	4	3	1	8	1.5	Drinking Water	Direct Contact	Surface Water	Default
Date Collected	7/21/10	7/21/10	7/21/10	7/21/10	7/21/10	7/22/10	Protection	Criteria	Interface	Background
Total Metals (μg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**				
Arsenic	**1,400**	**16,000**	**9,300**	**44,000**	**6,400**	**13,000**	4,600	7,600	70,000 (X)	5,800
Barium	**100,000**	**170,000**	**120,000**	**95,000**	**74,000**	**300,000**	1,300,000	37,000,000	290,000	75,000
Cadmium	**120**	**1,000**	**1,600**	**390**	<50	**730**	6,000	550,000	2,600	1,200
Chromium	**14,000**	**13,000**	**6,900**	**12,000**	**18,000**	**260,000**	1,000,000,000	790,000,000	2,100,000,000	18,000
Copper	**11,000**	**720,000**	**26,000**	**25,000**	**14,000**	**53,000**	5,800,000	20,000,000	52,000	32,000
Lead	**13,000**	**1,300,000**	**19,000**	**40,000**	**13,000**	**69,000**	700,000	400,000	1,800,000	21,000
Mercury	<50	**790**	**420**	**94**	<50	**130**	1,700	160,000	50 (M); 1.2	130
Selenium	**320**	**1,400**	**1,200**	**1,700**	**380**	**1,200**	4,000	2,600,000	400	410
Silver	<100	**390**	<100	**180**	<100	**170**	4,500	2,500,000	100 (M); 27	1,000
Zinc	**44,000**	**740,000**	**720,000**	**120,000**	**40,000**	**240,000**	2,400,000	170,000,000	120,000	47,000
TCLP Lead (μg/L)	NA	<1,000	NA	NA	NA	NA	NA	NA	NA	NA

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NA = Not Analyzed

Shaded cell indicates concentration exceeds one or more applicable criteria.

Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 3
SOIL SAMPLE ANALYTICAL RESULTS - Metals
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

							Part 201 Generic Cleanup Criteria*			
Sample ID	TP-11	TP-13	TP-14	TP-15	TP-16	TP-17	Residential	Residential	Groundwater	Statewide
Depth (feet)	3	2.5	3	1	1	1.5	Drinking Water	Direct Contact	Surface Water	Default
Date Collected	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	Protection	Criteria	Interface	Background
Total Metals (μg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**				
Arsenic	**15,000**	**5,900**	**3,800**	**4,900**	**19,000**	**9,700**	4,600	7,600	70,000 (X)	5,800
Barium	**140,000**	**130,000**	**100,000**	**280,000**	**120,000**	**130,000**	1,300,000	37,000,000	290,000	75,000
Cadmium	**74**	**360**	**210**	**370**	**140**	**410**	6,000	550,000	2,600	1,200
Chromium	**6,800**	**18,000**	**16,000**	**20,000**	**88,000**	**20,000**	1,000,000,000	790,000,000	2,100,000,000	18,000
Copper	**28,000**	**31,000**	**21,000**	**9,800**	**26,000**	**34,000**	5,800,000	20,000,000	52,000	32,000
Lead	**6,800**	**25,000**	**8,900**	**67,000**	**20,000**	**39,000**	700,000	400,000	1,800,000	21,000
Mercury	**140**	**52**	<50	**200**	**61**	**73**	1,700	160,000	50 (M); 1.2	130
Selenium	**970**	**770**	**300**	**330**	**570**	**1,100**	4,000	2,600,000	400	410
Silver	<100	<100	<100	<100	<100	<100	4,500	2,500,000	100 (M); 27	1,000
Zinc	**38,000**	**64,000**	**47,000**	**170,000**	**39,000**	**75,000**	2,400,000	170,000,000	120,000	47,000
TCLP Lead (μg/L)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

* Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels, MDEQ Administrative Rules, January 2006
NA = Not Analyzed
Shaded cell indicates concentration exceeds one or more applicable criteria.
Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 3
SOIL SAMPLE ANALYTICAL RESULTS - Metals
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

							Part 201 Generic Cleanup Criteria*			
Sample ID	TP-18	TP-19	TP-19	TP-20	GP-1	GP-2	Residential	Residential	Groundwater	Statewide
Depth (feet)	1.5	0.5	2	1.5	4	4	Drinking Water	Direct Contact	Surface Water	Default
Date Collected	7/22/10	7/22/10	7/22/10	7/22/10	8/18/10	8/18/10	Protection	Criteria	Interface	Background
Total Metals (μg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**				
Arsenic	**6,400**	**3,200**	**5,200**	**3,100**	**95,000**	**12,000**	4,600	7,600	70,000 (X)	5,800
Barium	**130,000**	**15,000**	**95,000**	**14,000**	NA	NA	1,300,000	37,000,000	290,000	75,000
Cadmium	**690**	<50	**110**	**57**	NA	NA	6,000	550,000	2,600	1,200
Chromium	**18,000**	**3,800**	**21,000**	**4,500**	NA	NA	1,000,000,000	790,000,000	2,100,000,000	18,000
Copper	**29,000**	**3,700**	**35,000**	**3,000**	NA	NA	5,800,000	20,000,000	52,000	32,000
Lead	**20,000**	**5,500**	**20,000**	**3,000**	**24,000**	**23,000**	700,000	400,000	1,800,000	21,000
Mercury	**62**	<50	<50	<50	NA	NA	1,700	160,000	50 (M); 1.2	130
Selenium	**1,200**	**1,000**	**1,100**	**390**	NA	NA	4,000	2,600,000	400	410
Silver	<100	<100	<100	<100	NA	NA	4,500	2,500,000	100 (M); 27	1,000
Zinc	**120,000**	**33,000**	**100,000**	**15,000**	NA	NA	2,400,000	170,000,000	120,000	47,000
TCLP Lead (μg/L)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

* Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels, MDEQ Administrative Rules, January 2006

NA = Not Analyzed

Shaded cell indicates concentration exceeds one or more applicable criteria.

Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 3
SOIL SAMPLE ANALYTICAL RESULTS - Metals
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

							Part 201 Generic Cleanup Criteria*			
Sample ID	GP-3	GP-3	GP-4	GP-5	GP-6	GP-7	Residential	Residential	Groundwater	Statewide
Depth (feet)	1	4	1	1	3	3	Drinking Water	Direct Contact	Surface Water	Default
Date Collected	8/18/10	8/18/10	8/18/10	8/18/10	8/18/10	8/18/10	Protection	Criteria	Interface	Background
Total Metals (μg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**				
Arsenic	**6,800**	**7,100**	**29,000**	**62,000**	**7,400**	**25,000**	4,600	7,600	70,000 (X)	5,800
Barium	NA	NA	NA	NA	NA	NA	1,300,000	37,000,000	290,000	75,000
Cadmium	NA	NA	NA	NA	NA	NA	6,000	550,000	2,600	1,200
Chromium	NA	NA	NA	NA	NA	NA	1,000,000,000	790,000,000	2,100,000,000	18,000
Copper	NA	NA	NA	NA	NA	NA	5,800,000	20,000,000	52,000	32,000
Lead	**3,900**	**8,500**	**26,000**	**44,000**	**130,000**	**7,900**	700,000	400,000	1,800,000	21,000
Mercury	NA	NA	NA	NA	NA	NA	1,700	160,000	50 (M); 1.2	130
Selenium	NA	NA	NA	NA	NA	NA	4,000	2,600,000	400	410
Silver	NA	NA	NA	NA	NA	NA	4,500	2,500,000	100 (M); 27	1,000
Zinc	NA	NA	NA	NA	NA	NA	2,400,000	170,000,000	120,000	47,000
TCLP Lead (μg/L)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

* Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels, MDEQ Administrative Rules, January 2006

NA = Not Analyzed

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TABLE 3
SOIL SAMPLE ANALYTICAL RESULTS - Metals
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

								Part 201 Generic Cleanup Criteria*			
Sample ID	GP-8	GP-9	GP-10	GP-11	GP-12	GP-13	GP-14	Residential	Residential	Groundwater	Statewide
Depth (feet)	3	1.5	1.5	2	1	1	1	Drinking Water	Direct Contact	Surface Water	Default
Date Collected	8/18/10	8/18/10	8/18/10	8/18/10	8/18/10	8/18/10	8/18/10	Protection	Criteria	Interface	Background
Total Metals (μg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**				
Arsenic	**69,000**	**7,500**	**13,000**	**16,000**	**19,000**	**9,100**	**5,000**	4,600	7,600	70,000 (X)	5,800
Barium	NA	NA	NA	NA	NA	NA	NA	1,300,000	37,000,000	290,000	75,000
Cadmium	NA	NA	NA	NA	NA	NA	NA	6,000	550,000	2,600	1,200
Chromium	NA	NA	NA	NA	NA	NA	NA	1,000,000,000	790,000,000	2,100,000,000	18,000
Copper	NA	NA	NA	NA	NA	NA	NA	5,800,000	20,000,000	52,000	32,000
Lead	**54,000**	**13,000**	**25,000**	**65,000**	**4,400,000**	**32,000**	**15,000**	700,000	400,000	1,800,000	21,000
Mercury	NA	NA	NA	NA	NA	NA	NA	1,700	160,000	50 (M); 1.2	130
Selenium	NA	NA	NA	NA	NA	NA	NA	4,000	2,600,000	400	410
Silver	NA	NA	NA	NA	NA	NA	NA	4,500	2,500,000	100 (M); 27	1,000
Zinc	NA	NA	NA	NA	NA	NA	NA	2,400,000	170,000,000	120,000	47,000
TCLP Lead (μg/L)	NA	NA	NA	NA	55,000	NA	NA	NA	NA	NA	NA

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NA = Not Analyzed

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TABLE 3
SOIL SAMPLE ANALYTICAL RESULTS - Metals
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

								Part 201 Generic Cleanup Criteria*			
Sample ID	GP-12a	GP-12b	GP-12c	GP-12d	GP-12e	GP-12f	GP-12g	Residential	Residential	Groundwater	Statewide
Depth (feet)	1	1	1.5	1	1	1	1	Drinking Water	Direct Contact	Surface Water	Default
Date Collected	9/21/10	9/21/10	9/21/10	9/21/10	9/21/10	9/21/10	9/21/10	Protection	Criteria	Interface	Background
Total Metals (μg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**				
Arsenic	NA	NA	NA	NA	NA	NA	NA	4,600	7,600	70,000 (X)	5,800
Barium	NA	NA	NA	NA	NA	NA	NA	1,300,000	37,000,000	290,000	75,000
Cadmium	NA	NA	NA	NA	NA	NA	NA	6,000	550,000	2,600	1,200
Chromium	NA	NA	NA	NA	NA	NA	NA	1,000,000,000	790,000,000	2,100,000,000	18,000
Copper	NA	NA	NA	NA	NA	NA	NA	5,800,000	20,000,000	52,000	32,000
Lead	**1,000,000**	**26,000**	**29,000**	**10,000**	**28,000**	**130,000**	**12,000**	700,000	400,000	1,800,000	21,000
Mercury	NA	NA	NA	NA	NA	NA	NA	1,700	160,000	50 (M); 1.2	130
Selenium	NA	NA	NA	NA	NA	NA	NA	4,000	2,600,000	400	410
Silver	NA	NA	NA	NA	NA	NA	NA	4,500	2,500,000	100 (M); 27	1,000
Zinc	NA	NA	NA	NA	NA	NA	NA	2,400,000	170,000,000	120,000	47,000
TCLP Lead (μg/L)	<1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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NA = Not Analyzed

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TABLE 3
SOIL SAMPLE ANALYTICAL RESULTS - Metals
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

					Part 201 Generic Cleanup Criteria*			
Sample ID	GP-12i	GP-12j	GP-12k	GP-12l	Residential	Residential	Groundwater	Statewide
Depth (feet)	1.5	1.5	1	1	Drinking Water	Direct Contact	Surface Water	Default
Date Collected	9/21/10	9/21/10	9/21/10	9/21/10	Protection	Criteria	Interface	Background
Total Metals (μg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**				
Arsenic	NA	NA	NA	NA	4,600	7,600	70,000 (X)	5,800
Barium	NA	NA	NA	NA	1,300,000	37,000,000	290,000	75,000
Cadmium	NA	NA	NA	NA	6,000	550,000	2,600	1,200
Chromium	NA	NA	NA	NA	1,000,000,000	790,000,000	2,100,000,000	18,000
Copper	NA	NA	NA	NA	5,800,000	20,000,000	52,000	32,000
Lead	**1,200,000**	**290,000**	**15,000**	**8,300**	700,000	400,000	1,800,000	21,000
Mercury	NA	NA	NA	NA	1,700	160,000	50 (M); 1.2	130
Selenium	NA	NA	NA	NA	4,000	2,600,000	400	410
Silver	NA	NA	NA	NA	4,500	2,500,000	100 (M); 27	1,000
Zinc	NA	NA	NA	NA	2,400,000	170,000,000	120,000	47,000
TCLP Lead (μg/L)	<1,000	NA	NA	NA	NA	NA	NA	NA

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TABLE 4
SOIL SAMPLE ANALYTICAL RESULTS - PCBs
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

							Part 201 Generic Residential Cleanup Criteria*	
Sample ID	TP-3	TP-4	TP-5	TP-6	TP-9	TP-10	Drinking	Direct
Depth (feet)	6	4	3	1	8	1.5	Water	Contact
Date Collected	7/21/10	7/21/10	7/21/10	7/21/10	7/21/10	7/22/10	Protection	Criteria
PCBs by 8082 (μg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**		
Aroclor-1016	<420	<420	<750	<380	NA	<420	NLL	4,000
Aroclor-1221	<420	<420	<750	<380	NA	<420	NLL	4,000
Aroclor-1232	<420	<420	<750	<380	NA	<420	NLL	4,000
Aroclor-1242	<420	<420	<750	<380	NA	<420	NLL	4,000
Aroclor-1248	<420	<420	<750	<380	NA	<420	NLL	4,000
Aroclor-1254	<420	<420	<750	**420**	NA	<420	NLL	4,000
Aroclor-1260	<420	<420	<750	<380	NA	<420	NLL	4,000
Aroclor-1262	<420	<420	<750	<380	NA	<420	NLL	4,000
Aroclor-1268	<420	<420	<750	<380	NA	<420	NLL	4,000

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NA = Not Analyzed

Shaded cell indicates concentration exceeds one or more applicable criteria.

Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 4
SOIL SAMPLE ANALYTICAL RESULTS - PCBs
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

							Part 201 Generic Residential Cleanup Criteria*	
Sample ID	TP-11	TP-13	TP-14	TP-15	TP-16	TP-17	Drinking	Direct
Depth (feet)	3	2.5	3	1	1	1.5	Water	Contact
Date Collected	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	Protection	Criteria
PCBs by 8082 (µg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**		
Aroclor-1016	<620	<420	NA	<360	<530	<440	NLL	4,000
Aroclor-1221	<620	<420	NA	<360	<530	<440	NLL	4,000
Aroclor-1232	<620	<420	NA	<360	<530	<440	NLL	4,000
Aroclor-1242	<620	<420	NA	<360	<530	<440	NLL	4,000
Aroclor-1248	<620	<420	NA	<360	<530	<440	NLL	4,000
Aroclor-1254	<620	<420	NA	<360	<530	<440	NLL	4,000
Aroclor-1260	<620	<420	NA	<360	<530	<440	NLL	4,000
Aroclor-1262	<620	<420	NA	<360	<530	<440	NLL	4,000
Aroclor-1268	<620	<420	NA	<360	<530	<440	NLL	4,000

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NA = Not Analyzed

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TABLE 4
SOIL SAMPLE ANALYTICAL RESULTS - PCBs
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

					Part 201 Generic Residential Cleanup Criteria*	
Sample ID	TP-18	TP-19	TP-19	TP-20	Drinking	Direct
Depth (feet)	1.5	0.5	2	1.5	Water	Contact
Date Collected	7/22/10	7/22/10	7/22/10	7/22/10	Protection	Criteria
PCBs by 8082 (µg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**		
Aroclor-1016	<440	<380	<430	<380	NLL	4,000
Aroclor-1221	<440	<380	<430	<380	NLL	4,000
Aroclor-1232	<440	<380	<430	<380	NLL	4,000
Aroclor-1242	<440	<380	<430	<380	NLL	4,000
Aroclor-1248	<440	<380	<430	<380	NLL	4,000
Aroclor-1254	<440	<380	<430	<380	NLL	4,000
Aroclor-1260	<440	<380	<430	<380	NLL	4,000
Aroclor-1262	<440	<380	<430	<380	NLL	4,000
Aroclor-1268	<440	<380	<430	<380	NLL	4,000

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TABLE 5
GROUNDWATER SAMPLE ANALYTICAL RESULTS-FULL SCAN VOCs
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

										Part 201 Generic Cleanup Criteria*
Sample ID	TW-1	TW-2	TW-3	TW-4	TW-5	TW-7	TW-8	TW-9	TW-10	Residential
Date Collected	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	Drinking Water
Volatiles by 8260 (µg/L)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	
Acetone	<50	<50	<50	<50	<50	<50	<50	<50	<50	730
Acrylonitrile	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.6
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5
Bromobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	18
Bromochloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	No Criteria Available
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	80
Bromoform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	80
Bromomethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	10
2-Butanone	<25	<25	<25	<25	<25	<25	<25	<25	<25	13,000
n-Butylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	80
sec-Butylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	80
tert-Butylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	80
Carbon Disulfide	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	800
Carbon Tetrachloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	100
Chloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	430
Chloroform	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	80
Chloromethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	260
2-Chlorotoluene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	150
Dibromochloromethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	80
1,2-Dibromo-3-chloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	No Criteria Available
Dibromomethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	80
1,2-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	600
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.6
1,4-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	75
Dichlorodifluoromethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1,700
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	880
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5
1,1-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7
cis-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	70
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	100
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.5
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.5
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	74
Ethylene Dibromide	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.05
2-Hexanone	<50	<50	<50	<50	<50	<50	<50	<50	<50	1,000
Methyl Iodide	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	No Criteria Available
Isopropylbenzene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	800
4-Methyl-2-Pentanone	<50	<50	<50	<50	<50	<50	<50	<50	<50	1,800
Methylene Chloride	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5
MTBE	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	40
Naphthalene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	520
n-Propylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	80
Styrene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	100
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	77
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.5
Tetrachloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5
Toluene	**2.2**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.7**	790
1,2,4-Trichlorobenzene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	70
1,1,1-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	200
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2,600
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	42
1,2,3-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	No Criteria Available
1,2,4-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	63
1,3,5-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	72
Vinyl Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2
Total Xylenes	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	280

* Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels,
MDEQ Administrative Rules, January 2006
Shaded cell indicates concentration exceeds one or more applicable criteria.
Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 6
GROUNDWATER SAMPLE ANALYTICAL RESULTS - PNAs
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

										Part 201 Generic Residential Cleanup Criteria*
Sample ID	TW-1	TW-2	TW-3	TW-4	TW-5	TW-7	TW-8	TW-9	TW-10	Drinking
Date Collected	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	Water
PNAs by 8270 (µg/L)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	
Acenaphthene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1,300
Acenaphthylene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	52
Anthracene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	43
Benzo(a)anthracene	<1.2	<1.0	<1.4	<1.4	<1.3	<1.0	<1.1	<1.3	<1.1	2.1
Benzo(a)pyrene	<1.2	<1.0	<1.4	<1.4	<1.3	<1.0	<1.1	<1.3	<1.1	5.0
Benzo(b)fluoranthene	<1.2	<1.0	<1.4	<1.4	<1.3	<1.0	<1.1	<1.3	<1.1	1.5
Benzo(ghi)perylene	<1.2	<1.0	<1.4	<1.4	<1.3	<1.0	<1.1	<1.3	<1.1	1.0
Benzo(k)fluoranthene	<1.2	<1.0	<1.4	<1.4	<1.3	<1.0	<1.1	<1.3	<1.1	1.0
Chrysene	<1.2	<1.0	<1.4	<1.4	<1.3	<1.0	<1.1	<1.3	<1.1	1.6
Dibenzo(a,h)anthracene	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.2	<2.5	<2.2	2.0
Fluoranthene	<1.2	<1.0	<1.4	<1.4	<1.3	<1.0	<1.1	<1.3	<1.1	210
Fluorene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	880
Indeno(1,2,3-cd)pyrene	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.2	<2.5	<2.2	2.0
2-Methylnaphthalene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	260
Phenanthrene	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	52
Pyrene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	140

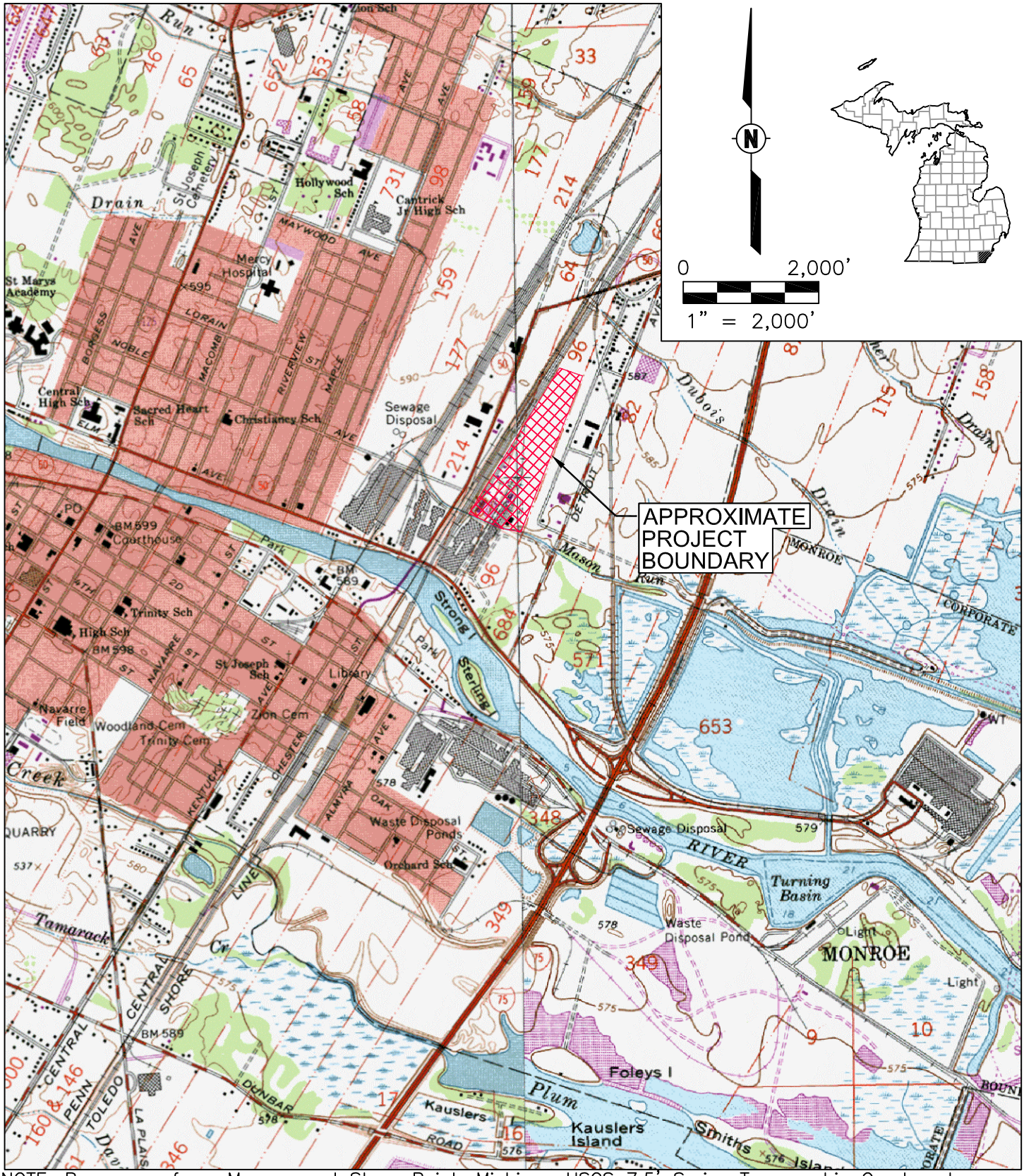
* Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels, MDEQ Administrative Rules, January 2006
Shaded cell indicates concentration exceeds one or more applicable criteria.
Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 7
GROUNDWATER SAMPLE ANALYTICAL RESULTS - Metals
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

									Part 201 Generic Cleanup Criteria*	
Sample ID	TW-2	TW-3	TW-4	TW-5	TW-7	TW-8	TW-9	TW-10	Drinking	Groundwater/Surface
Date Collected	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	Water	Water Interface
Total Metals (μg/L)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**		
Arsenic	<5.0	<5.0	<5.0	**5.7**	<5.0	<5.0	<5.0	<5.0	10	150
Barium	<100	<100	<100	<100	<100	<100	<100	<100	2,000	4.4 E+2
Cadmium	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5	2
Chromium	<10	<10	<10	<10	<10	<10	<10	<10	100	74
Copper	<4.0	<4.0	**4.1**	<4.0	<4.0	<4.0	<4.0	<4.0	1,000	9
Lead	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	4	10
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	2	0.0013
Selenium	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	50	5.0
Silver	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	34	0.2 (M); 0.06
Zinc	**56**	<50	**71**	<50	<50	<50	<50	<50	2,400	120
Ammonia (μg/L)										
Ammonia	**5.76**	**7.92**	NA	**15.12**	NA	NA	NA	NA	10,000	53

[1] Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels,
2 Ammonia in Groundwater - Values represent laboratory result multiplied by 7.2% for warm wter streams. Refer to footmote CC of MDEQ Generic Cleanup Tables dated 12/10/2004
MDEQ Administrative Rules, January 2006
Shaded cell indicates concentration exceeds one or more applicable criteria.
Bold cells indicates concentrations in excess of the laboratory reporting limit.

Figures



NOTE: Base map from Monroe and Stony Point, Michigan USGS 7.5' Series Topographic Quadrangles dated 1967 and photorevised 1979 and 1973 respectively. Contour interval equals 5 feet.

AECOM

APPROXIMATE PROJECT SITE LOCATION
CATEGORY "N" BEA
MICHIGAN DEPARTMENT OF TRANSPORTATION
RIVER RAISIN BATTLEFIELD
MONROE, MICHIGAN

Drawn :	CJD	09/29/2010
Checked:	SGP	09/29/2010
Approved:	JSM	09/30/2010
PROJECT NUMBER	60157928	
FIGURE NUMBER	1	

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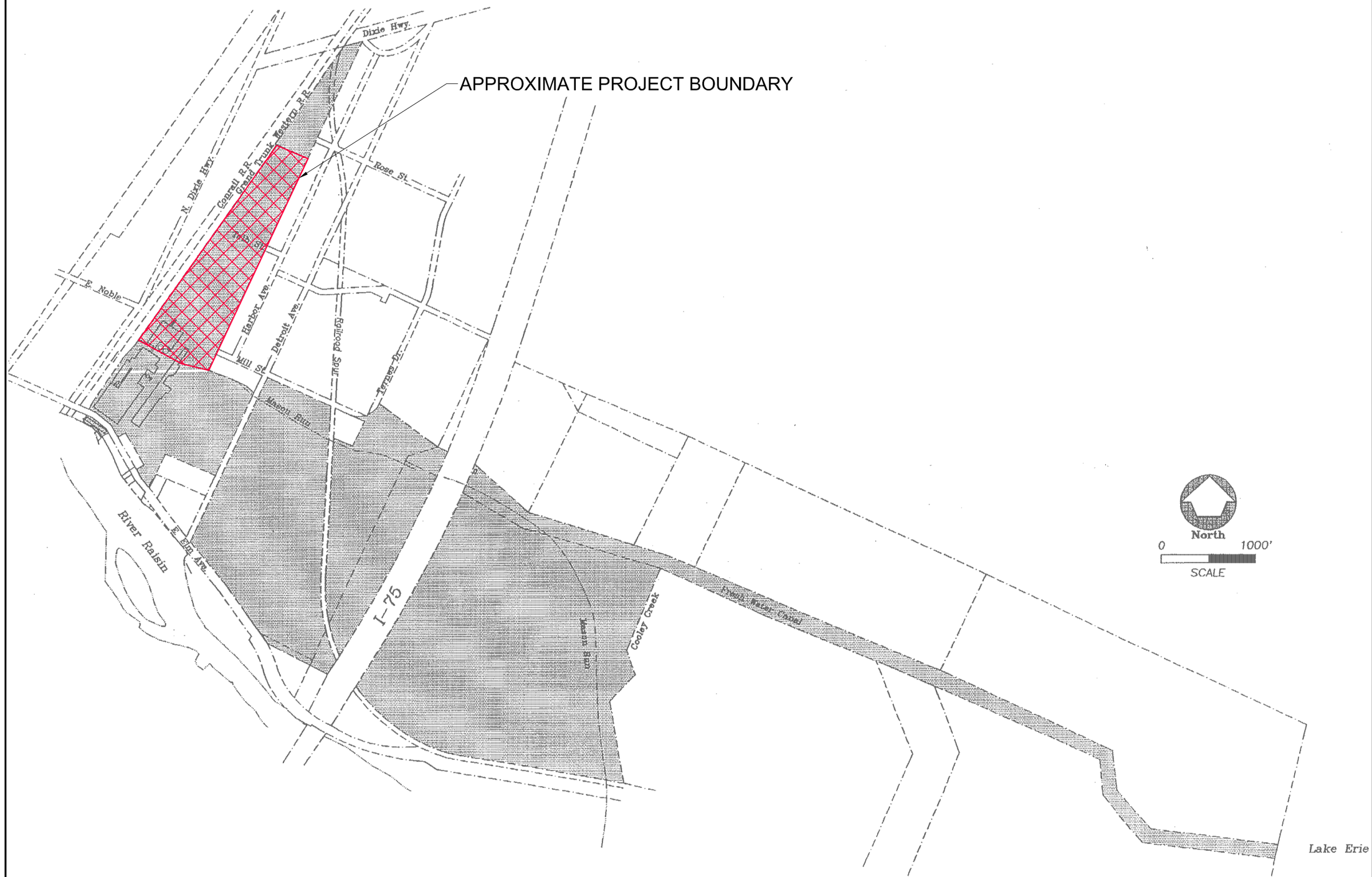

NOTE: Base map from Techna Corporation drawing dated 1998. Areas shown in gray shading depict East Mill Property purchased by Homrich, Incorporated.

AECOM

PROJECT SITE PLAN
CATEGORY "N" BEA
MICHIGAN DEPARTMENT OF TRANSPORTATION
RIVER RAISIN BATTLEFIELD
MONROE, MICHIGAN

Drawn :	CJD	09/30/2010
Checked:	SGP	09/30/2010
Approved:	JSM	09/30/2010

PROJECT NUMBER 60157928

FIGURE NUMBER 2

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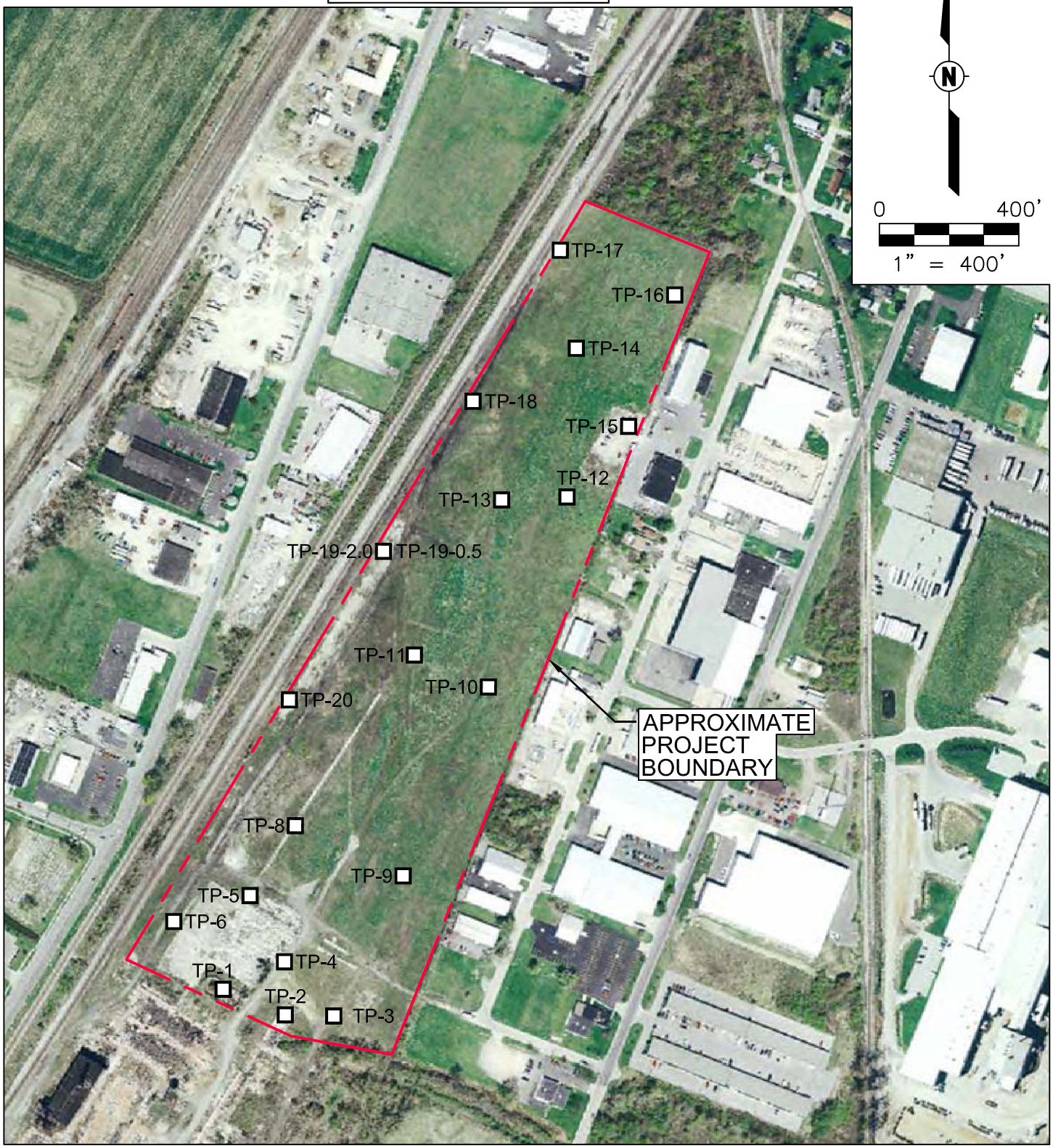

NOTE: Aerial photographic base map from SMCOG Southeast Michigan Orthoimagery Project dated spring 2005.

AECOM

TEST PIT LOCATIONS
CATEGORY "N" BEA
MICHIGAN DEPARTMENT OF TRANSPORTATION
RIVER RAISIN BATTLEFIELD
MONROE, MICHIGAN

Drawn :	CJD	09/29/2010
Checked:	SGP	09/29/2010
Approved:	JSM	09/30/2010
PROJECT NUMBER	60157928	
FIGURE NUMBER	3	

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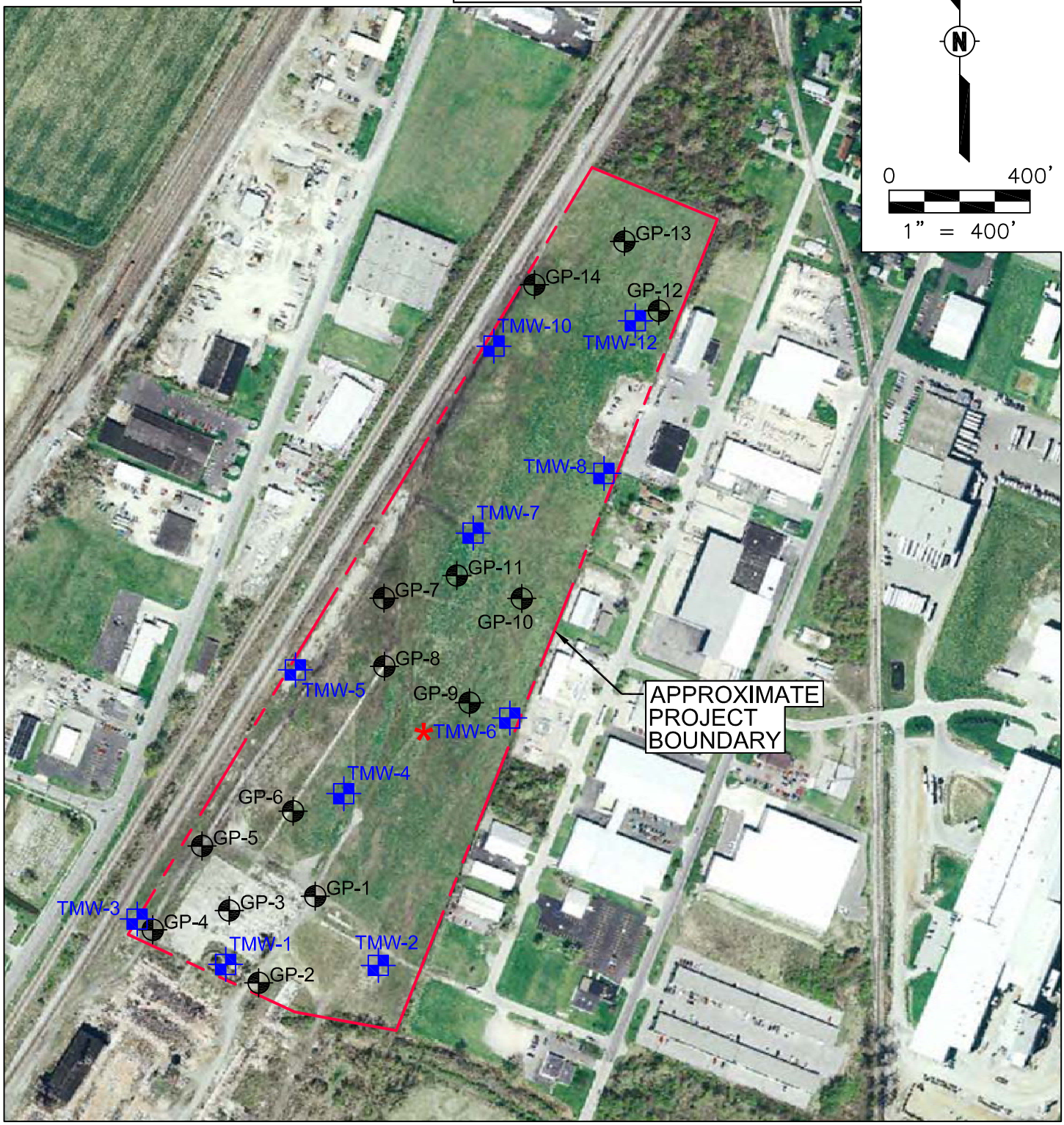
* NOTE: TMW-6 was dry. No groundwater sample collected.

LEGEND

GP GEOPROBE LOCATION

TMW TEMPORARY WELL LOCATION



NOTE: Aerial photographic base map from SMCOG Southeast Michigan Orthoimagery Project dated spring 2005.

AECOM

GEOPROBE AND TEMPORARY WELL LOCATIONS
CATEGORY "N" BEA
MICHIGAN DEPARTMENT OF TRANSPORTATION
RIVER RAISIN BATTLEFIELD
MONROE, MICHIGAN

Drawn :	CJD	09/29/2010
Checked:	SGP	09/29/2010
Approved:	JSM	09/30/2010
PROJECT NUMBER	60157928	
FIGURE NUMBER	4	

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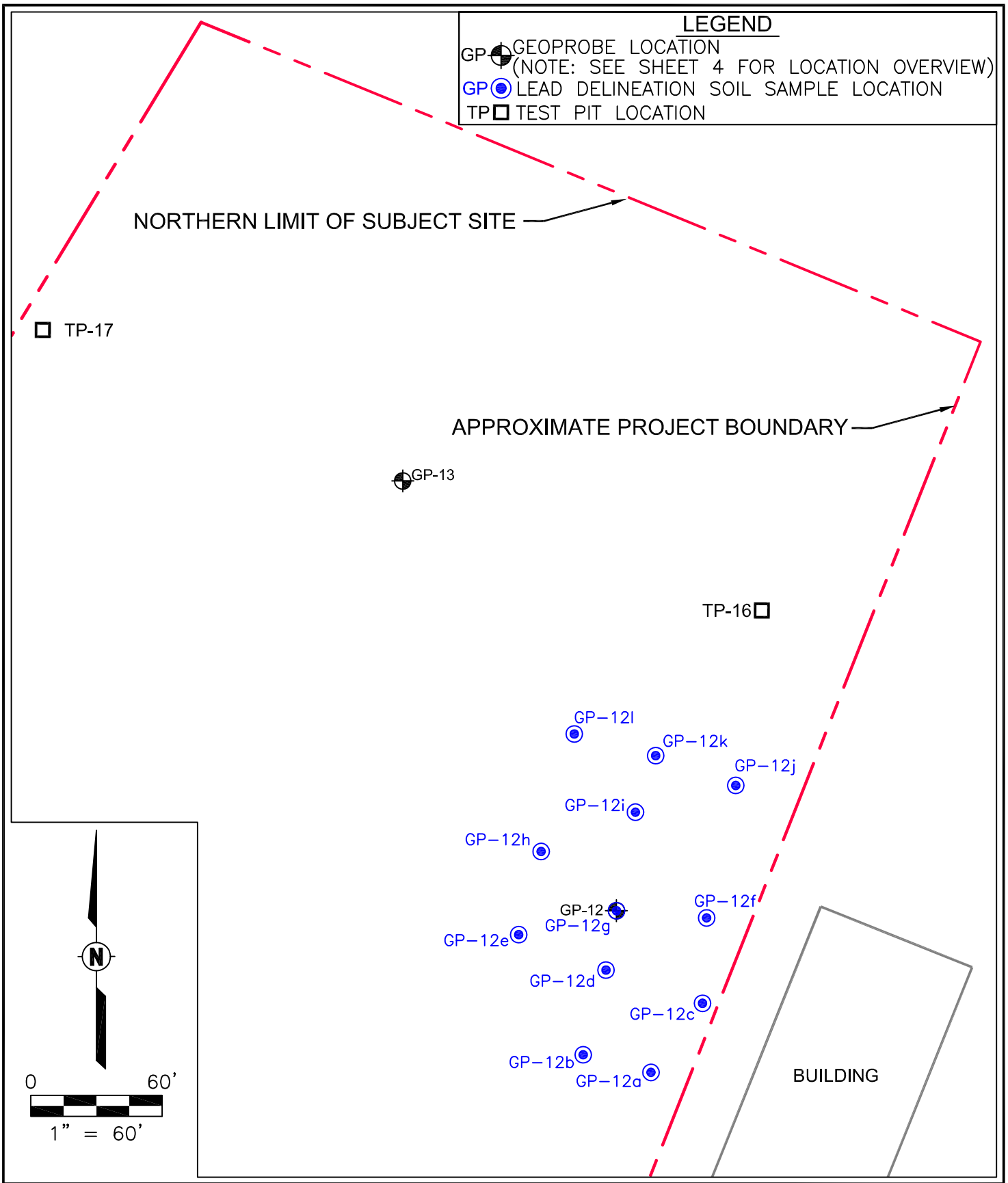

AECOM

GP-12 LEAD DELINEATION SOIL SAMPLE LOCATIONS
CATEGORY "N" BEA
MICHIGAN DEPARTMENT OF TRANSPORTATION
RIVER RAISIN BATTLEFIELD
MONROE, MICHIGAN

Drawn :	CJD	09/29/2010
Checked:	SGP	09/29/2010
Approved:	JSM	09/30/2010
PROJECT NUMBER	60157928	
FIGURE NUMBER	5	

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Appendix A

Photographs

PHOTOGRAPH LOG – July 12, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

Southeast corner of concrete slab located near southern boundary of property. Facing west.

Looking northwest across the concrete slab from the southeast corner.

PHOTOGRAPH LOG – July 12, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

Looking northeast across the concrete slab.

Looking southeast across the concrete slab.

PHOTOGRAPH LOG – July 12, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

Looking northeast across the subject property from north of the concrete slab. Note the presence of gray aggregate cover and vegetation.

Western boundary of the subject property, looking north.

PHOTOGRAPH LOG – July 12, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

Looking southeast from the western property boundary.

Area of vegetation located along the eastern property boundary. Facing south.

PHOTOGRAPH LOG – July 12, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

Looking south across the subject property from the north end of the property.

North end of the subject property, looking east.

PHOTOGRAPH LOG – July 12, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

North end of the subject property looking west toward the railroad.

Looking west across the subject property from the eastern boundary.

PHOTOGRAPH LOG – July 12, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

Looking north from the eastern side of the southern end of the subject property.

County drain (Mason Run) located along the southern property boundary.

PHOTOGRAPH LOG – July 12, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

Adjacent property to the south where the East Mill was previously located.

Adjacent property to the south (east side).

PHOTOGRAPH LOG – July 12, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

Adjacent property to the east.

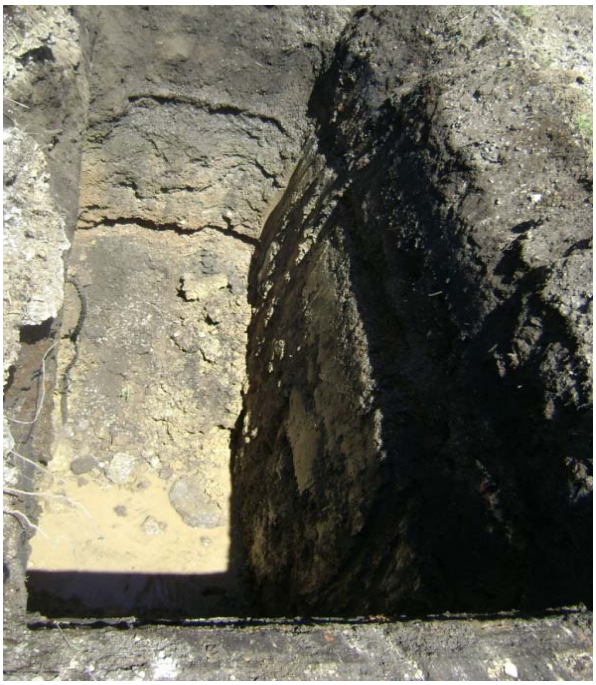
Adjacent property to the east.

PHOTOGRAPH LOG – July 21, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

Conducting test pit at location TP-2.

Concrete slab found at location TP-3.

PHOTOGRAPH LOG – July 21, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT



Test pit location TP-5. Note groundwater was encountered in the brown silty clay at approximately 6 feet below grade.

View of brown silty clay soils removed from location TP-7.

PHOTOGRAPH LOG – July 22, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

View of location TP-13. Note shallow groundwater encountered at approximately 4 feet below grade. Bedrock was encountered at approximately 5 feet below grade.

Location TP-19, note seam of coal at 2 feet below grade.

PHOTOGRAPH LOG – July 22, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

Location TP-18, coal seam present at 1 foot below grade.

Location TP-15, note bricks and plastic debris.

Appendix B

Legal Description and Parcel Map

General Property Information

[Back to Non-Printer Friendly Version] [Send To Printer]

Parcel: 59-01904-000

If you are accessing this page without having logged in with a username and password, did you know there was more information available?

Property Address [collapse]

1220 E ELM AVE V
MONROE, MI 48162

Owner Information [collapse]

HOMRICH INC
200 MATLIN RD
CARLETON, MI 48117

Unit: 55

Taxpayer Information [collapse]

HOMRICH INC
200 MATLIN RD
CARLETON, MI 48117

General Information for Tax Year 2010 [collapse]

Property Class:	301 V	**Assessed Value:**	$148,930
School District:	01 - 01 MONROE PUBLIC SCHOOLS	**Taxable Value:**	$72,100
State Equalized Value:	$148,930	**Map #**	39/47/55/56
USER NUM IDX	31	**Date of Last Name Chg:**	04/11/2007
Date Filed:			
Principal Residence Exemption (2010 May 1):	0.0000 %		
Principal Residence Exemption (2010 Final):	0.0000 %		

Previous Year Info	MBOR Assessed	Final S.E.V.	Final Taxable
2009	$159,570	$159,570	$72,320
2008	$159,570	$159,570	$69,280

Land Information [collapse]

Acreage:	32.56	**Frontage:**	0.00 Ft.
Zoning Code:	I-1	**Depth:**	0.00 Ft.
Land Value:	$297,860	**Mortgage Code:**	
Land Improvements:	$0	**Lot Dimensions/Comments:**	N/A
Renaissance Zone:	NO		

Legal Information for 59-01904-000 [collapse]

COMM AT NE CORNER OF ELM AVE; TH N 21D 24M 00S E 84.34 FT; TH N 31D 54M 38S E 567.33; TH CURVE TO THE RT, CENTRAL ANGEL 10D 43M 01S, RADIUS 572.96 FT AN ARC LENGTH OF 107.17 FT AND A CHORD BEARING 37D 16M 09S E 107.01 FT; TH ON A CURVE TO THE LT, CENTRAL ANGEL OF 7D 33M 00S A RADIUS DISTANCE OF 572.96 FT, AN ARC LENGTH OF 75.50 FT AND A CHORD BEARING A DISTANCE OF N 38D 51M 09S E 75.45 FT, CONTINUING ON SD CURVE TO THE LEFT A CENTRAL ANGEL OF 03D 09M 58S A RADIUS DISTANCE OF 572.96 FT, AN ARC LENGTH OF 31.66 FT AND A CHORD BEARING N 33D 29M 38S E 31.66 FT, TH N 31D 54M 38S E 67.75 FT TO THE POB: TH N 31D 54M 38S E 2482.37 FT; TH S 68D 17M 54S E 358.63 FT; TH S 21D 42M 06S W 2399.16 FT; TH N 78D 44M 50S W 438.81FT; TH N 62D 44M 50S W 368.79 FT TO THE POB. 32.561 ACRES MORE OR LESS.

Sales Information

1 sale record(s) found.

Sale Date	Sale Price	Instrument	Grantor	Grantee	Terms Of Sale	Liber/Page
09/25/1997	$500,000.00	WD	JEFFERSON-SMURFIT CORP	HOMRICH INC	WARRANTY DEED	1618-0899

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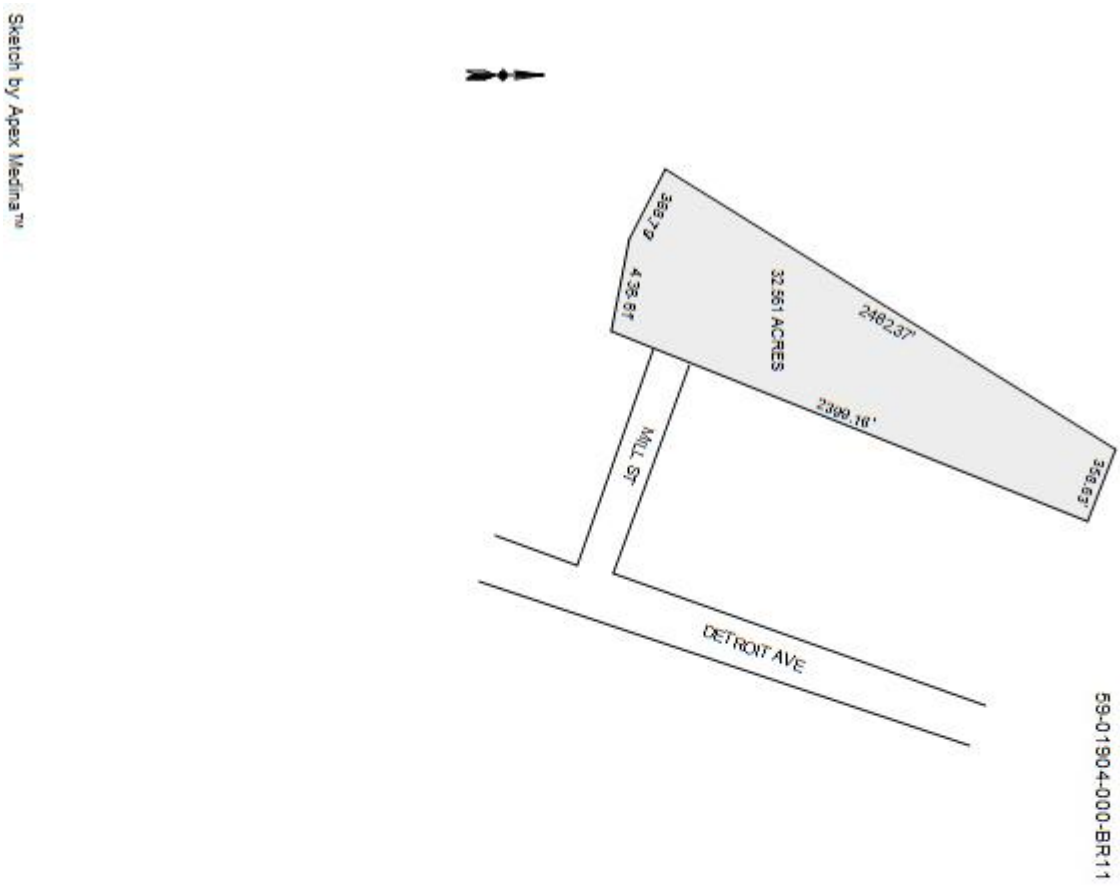
Image/Sketch for Parcel: 59-01904-000

[Back to Non-Printer Friendly Version] [Send To Printer]

Caption: Building 2



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Appendix C

Gray Slag Aggregate Analytical Data

FAX COVER SHEET

TO	Roger Homrich
COMPANY	Homrich
FAX NUMBER	17344572969
FROM	Aaron Holdread
DATE	2010-09-24 21:13:13 GMT
RE	TCLP Data

COVER MESSAGE

Roger,

As requested here is a copy of the TCLP testing performed on the steel slag aggregate that was produced at our facility located at Gerdau-MacSteel-Monroe, in Monroe, MI. If you have any further questions please feel free to contact me at any time.

Regards,

Aaron Holdread
Director of Aggregate Sales
Tube City IMS

IMS Quality Services Laboratory
October 22, 2008

Laboratory Number: INO100955
PO Number: 79232

TCLP Extractions

Method of Tests : TCLP Leaching Procedure SW846-1311
Metals 6010B Mercury 7471A Selenium 7740
Arsenic 7060A Antimony 7041 Thallium 7841
Lead 7421

Element	Sample ID **P-08-057** Results, mg/L TCLP	Detection Limit, mg/L	Maximum Allowable (40CFR261), mg/L (TCLP Only)
Silver (Ag)	<0.003	0.003	5.0
Arsenic (As)	<0.004	0.004	5.0
Barium (Ba)	0.338	0.001	100.0
Cadmium (Cd)	<0.002	0.002	1.0
Chromium Total (Cr)	0.011	0.001	5.0
Mercury (Hg)	<0.001	0.001	0.2
Lead (Pb)	<0.003	0.003	5.0
Selenium (Se)	<0.004	0.004	1.0
Beryllium (Be)	<0.001	0.001	Not Listed
Chrome +6 (Hexavalent)	<0.04	0.04	Not Listed
Nickel (Ni)	<0.01	0.01	Not Listed
Thallium (Tl)	<0.001	0.001	Not Listed
Vanadium (V)	<0.01	0.01	Not Listed
Zinc (Zn)	<0.001	0.001	Not Listed
Antimony (Sb)	<0.003	0.003	Not Listed
Copper (Cu)	<0.002	0.002	Not Listed

Respectfully Submitted,
MODERN INDUSTRIES, INC.

James R. Yarris
Chemistry Department Manager

1-Client
JRY/dla

Appendix D

Test Pit Logs

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-1
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/21/10

Weather:	Sunny 83°			Excavation Equipment			
Time Started:	1000	Completed:	1040	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--					
1.0--					
2.0--					
3.0--					
4.0--		Dark brown silty fine sand with gravel. Some brick			
5.0--		and a steel pipe @ 1' bg.			
6.0--					
7.0--					
8.0--					
9.0--					
10.0--		Brown fine-medium sand, trace paper material.			
11.0--					
12.0--					
13.0--		Dark brown sandy clay, some silt. Saturated.			
14.0--					
15.0--		Bedrock.			
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2) | Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-2
Project Name:	MDOT River Raisin Battlefield	Page:	
Project Number:	60157928	Date:	7/21/10

Weather:	Sunny 83°			Excavation Equipment			
Time Started:	1050	Completed:	1115	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--					
1.0--		Brown silty sand with some clay and gravel.			
2.0--					
3.0--					
4.0--		Brown silty sand with debris (concrete, bricks, re-bar)			
5.0--					
6.0--					
7.0--		Concrete slab (former basement floor)			
8.0--		Brown fine sand. Saturated.			
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

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Test Pit Field Record

Logged by:	CJS	No:	TP-3
Project Name:	MDOT River Raisin Battlefield	Page:	
Project Number:	60157928	Date:	7/21/10

Weather:	Sunny 83°			Excavation Equipment			
Time Started:	1130	Completed:	1205	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag			
1.0--					
2.0--					
3.0--		Brown silty sand with clay and debris (asphalt,			
4.0--		concrete, and brick)			
5.0--					
6.0--					
7.0--		Concrete slab (former basement floor)			
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					
* QP = Calibrated Penetrometer (tons/ft^2)			Depth to Groundwater		

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-4
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/21/10

Weather:	Sunny 83°			Excavation Equipment			
Time Started:	1300	Completed:	1330	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--					
1.0--		Silty sand with clay, gravel and brick			
2.0--					
3.0--					
4.0--		Coal/cinder with brick, some concrete debris			
5.0--					
6.0--					
7.0--		Brown sandy clay, some brick			
8.0--					
9.0--					
10.0--		Brown/gray silty clay. Upper portion of clay saturated.			
11.0--					
12.0--		Bedrock.			
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

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Test Pit Field Record

Logged by:	CJS	No:	TP-5
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/21/10

Weather:	Sunny 90°			Excavation Equipment			
Time Started:	1420	Completed:	1445	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--					
1.0--		Silty sand with clay and gravel.			
2.0--					
3.0--					
4.0--		Coal/cinder with fine black sand, some brick and concrete debris			
5.0--					
6.0--					
7.0--					
8.0--					
9.0--					
10.0--		Brown silty clay with some gravel. Upper portion of clay saturated.			
11.0--					
12.0--					
13.0--		Bedrock.			
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-6
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/21/10

Weather:	Sunny 90°			Excavation Equipment			
Time Started:	1445	Completed:	1505	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--					
1.0--		Coal/cinder with fine black sand, some brick debris			
2.0--					
3.0--					
4.0--					
5.0--					
6.0--					
7.0--		Tan/gray silty clay.			
8.0--					
9.0--					
10.0--					
11.0--					
12.0--		Bedrock.			
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-7
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/21/10

Weather:	Sunny 90°			Excavation Equipment			
Time Started:	1530	Completed:	1555	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag.			
1.0--					
2.0--		Dark brown silty sand with gravel, trace brick.			
3.0--					
4.0--					
5.0--					
6.0--		Tan/gray silty clay, trace sand.			
7.0--					
8.0--					
9.0--					
10.0--		Bedrock.			
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-8
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/21/10

Weather:	Sunny 90°			Excavation Equipment			
Time Started:	1600	Completed:	1615	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag.			
1.0--					
2.0--		Dark brown silty sand with gravel, trace brick.			
3.0--					
4.0--		Hit an 8" clay pipe @ approximately 3' below grade. Water			
5.0--		leaking from tile immediately filled excavation.			
6.0--		Excavation discontinued.			
7.0--					
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-9
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/21/10

Weather:	Sunny 90°			Excavation Equipment			
Time Started:	1620	Completed:	1640	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag.			
1.0--					
2.0--		Brown silty sand with gravel, trace glass and brick.			
3.0--		Unscreened slag material.			
4.0--					
5.0--					
6.0--					
7.0--		Brown silty clay, trace sand.			
8.0--					
9.0--					
10.0--					
11.0--		Bedrock.			
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-10
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 76°			Excavation Equipment			
Time Started:	830	Completed:	850	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag.			
1.0--					
2.0--		Black silty sand with gravel, some unscreened slag.			
3.0--					
4.0--					
5.0--					
6.0--					
7.0--		Brown silty clay, trace sand and gravel.			
8.0--					
9.0--		Bedrock.			
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-11
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 76°			Excavation Equipment			
Time Started:	915	Completed:	935	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag.			
1.0--					
2.0--		Black sand with silt, trace concrete and brick.			
3.0--					
4.0--					
5.0--					
6.0--					
7.0--		Brown silty clay, trace sand and gravel.			
8.0--					
9.0--					
10.0--		Bedrock.			
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-12
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 76°			Excavation Equipment			
Time Started:	945	Completed:	1005	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag.			
1.0--		Black silty sand, some wood debris.			
2.0--					
3.0--		Brown silty clay, trace gravel			
4.0--					
5.0--		Bedrock.			
6.0--					
7.0--					
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-13
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 76°			Excavation Equipment			
Time Started:	1040	Completed:	1100	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag.			
1.0--					
2.0--		Black silty sand with tree roots, some gravel.			
3.0--		Brown silty clay, trace sand and gravel			
4.0--					
5.0--		Bedrock.			
6.0--					
7.0--					
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					
* QP = Calibrated Penetrometer (tons/ft^2)			Depth to Groundwater		

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-14
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 82°			Excavation Equipment			
Time Started:	1040	Completed:	1100	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag.			
1.0--		Black silty sand with clay.			
2.0--					
3.0--		Brown silty clay, trace sand and gravel			
4.0--		Bedrock.			
5.0--					
6.0--					
7.0--					
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

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Test Pit Field Record

Logged by:	CJS	No:	TP-15
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 82°			Excavation Equipment			
Time Started:	1110	Completed:	1125	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Brown fine sand and brick and plastic.			
1.0--					
2.0--					
3.0--		Brown silty clay, trace sand and gravel.			
4.0--					
5.0--		Bedrock.			
6.0--					
7.0--					
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					
* QP = Calibrated Penetrometer (tons/ft^2)			Depth to Groundwater		

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

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Test Pit Field Record

Logged by:	CJS	No:	TP-16
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 82°			Excavation Equipment			
Time Started:	1135	Completed:	1150	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag and black sand.			
1.0--					
2.0--					
3.0--		Brown silty clay, trace gravel.			
4.0--					
5.0--		Bedrock.			
6.0--					
7.0--					
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					
* QP = Calibrated Penetrometer (tons/ft^2)			Depth to Groundwater		

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

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Test Pit Field Record

Logged by:	CJS	No:	TP-17
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 90°			Excavation Equipment			
Time Started:	1320	Completed:	1335	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag			
1.0--		Black silty sand, some silt and gravel.			
2.0--					
3.0--		Brown silty clay, trace gravel.			
4.0--					
5.0--					
6.0--		Bedrock.			
7.0--					
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-18
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 90°			Excavation Equipment			
Time Started:	1350	Completed:	1405	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag			
1.0--		Black sand with coal, some some wood debris.			
2.0--					
3.0--		Brown clay, trace silt and gravel.			
4.0--					
5.0--					
6.0--		Bedrock.			
7.0--					
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-19
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 90°			Excavation Equipment			
Time Started:	1415	Completed:	1430	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Asphalt			
1.0--		Tan sand with brick and gravel.			
2.0--		Coal			
3.0--					
4.0--		Brown/gray silty clay, trace gravel.			
5.0--					
6.0--		Bedrock.			
7.0--					
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-20
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 90°			Excavation Equipment			
Time Started:	1450	Completed:	1510	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag			
1.0--		Brown fine-medium sand.			
2.0--		Coal			
3.0--		Gray clay with silt and some vegetation			
4.0--					
5.0--		Brown/gray silty clay, trace gravel.			
6.0--					
7.0--					
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

Appendix E

Laboratory Analytical Data

Fibertec
environmental
services

Friday, July 30, 2010

Fibertec Project Number:	40185
Project Identification:	River Raisin Battlefield /60157928
Submittal Date:	07/23/2010

Mr. Craig Simon
AECOM - Lansing
401 S. Washington Square
Suite 103
Lansing, MI 48933

Dear Mr. Simon,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-3 6'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**1**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-001A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**21**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-001A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**1400**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**100000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**120**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**14000**		µg/kg	500	10	07/27/10	PT10G27C	07/28/10	T210G28A
5. Copper	**11000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**13000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**320**		µg/kg	200	10	07/27/10	PT10G27C	07/28/10	T210G28A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**44000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-001A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-001A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-001** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-3 6'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**1**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-001** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	63	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	63	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	63	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-3 6'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**1**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-001** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-001A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
9. Chrysene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
15. Phenanthrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
16. Pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-4 4'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**2**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-002A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**22**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-002A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**16000**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**170000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**1000**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**13000**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**720000**		µg/kg	1000	200	07/27/10	PT10G27C	07/28/10	T210G28A
6. Lead	**1300000**		µg/kg	1000	200	07/27/10	PT10G27C	07/28/10	T210G28A
7. Selenium	**1400**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	**390**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**740000**		µg/kg	10000	200	07/27/10	PT10G27C	07/28/10	T210G28A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-002A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	**790**		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-002A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-002** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-4 4'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**2**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-002** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	64	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	64	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	64	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-4 4'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**2**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-002** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-002A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
2. Acenaphthylene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
3. Anthracene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
4. Benzo(a)anthracene (SIM)	**540**		µg/kg	340	40	07/27/10	PS10G27E	07/28/10	S510G27B
5. Benzo(a)pyrene (SIM)	**420**		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
6. Benzo(b)fluoranthene (SIM)	**630**		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
7. Benzo(ghi)perylene (SIM)	**400**		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
9. Chrysene (SIM)	**430**		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	340	40	07/27/10	PS10G27E	07/28/10	S510G27B
11. Fluoranthene (SIM)	**710**		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
12. Fluorene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
13. Indeno(1,2,3-cd)pyrene (SIM)	**370**		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
15. Phenanthrene (SIM)	**360**		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
16. Pyrene (SIM)	**640**		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-5 3'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**3**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:20**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-003A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**56**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-003A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**9300**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**120000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**1600**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**6900**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**26000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**19000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**1200**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**720000**		µg/kg	10000	200	07/27/10	PT10G27C	07/28/10	T210G28A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-003A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	**420**		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-003A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	750	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	750	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	750	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	750	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	750	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	750	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	750	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	750	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	750	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-003** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-5 3'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**3**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:20**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-003** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	110	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	230	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	110	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	110	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	110	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	570	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-5 3'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**3**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:20**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-003** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	170	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-003A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
9. Chrysene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
15. Phenanthrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
16. Pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-6 1'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**4**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**15:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-004A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**13**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-004A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**44000**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**95000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**390**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**12000**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**25000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**40000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**1700**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	**180**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**120000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-004A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	**94**		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-004A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/30/10	SB10G30A
2. Aroclor-1221	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/30/10	SB10G30A
3. Aroclor-1232	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/30/10	SB10G30A
4. Aroclor-1242	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/30/10	SB10G30A
5. Aroclor-1248	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/30/10	SB10G30A
6. Aroclor-1254	**420**		µg/kg	380	1.0	07/27/10	PS10G27E	07/30/10	SB10G30A
7. Aroclor-1260	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/30/10	SB10G30A
8. Aroclor-1262 (NN)	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/30/10	SB10G30A
9. Aroclor-1268 (NN)	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/30/10	SB10G30A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-004** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	**240**		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-6 1'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**4**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**15:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-004** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	**100**		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	**66**		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	**440**		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	**1300**		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	**220**		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-6 1'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**4**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**15:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-004** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	**1300**		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	**370**		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	**850**		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	**170**		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	**2900**		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-004A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
4. Benzo(a)anthracene	**360**		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
5. Benzo(a)pyrene	**580**		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
6. Benzo(b)fluoranthene	**980**		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
9. Chrysene	**510**		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
14. 2-Methylnaphthalene	**1400**		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
15. Phenanthrene	**660**		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
16. Pyrene	**410**		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-9 8'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**5**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-005** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**18**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-005** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**6400**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**74000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	U		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**18000**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**14000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**13000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**380**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**40000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-005** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-10 1.5'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**6**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-006A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**21**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-006A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**13000**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**300000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**730**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**260000**		µg/kg	550	200	07/27/10	PT10G27C	07/28/10	T210G28A
5. Copper	**53000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**69000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**1200**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	**170**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**240000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-006A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	**130**		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-006A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-006** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-10 1.5'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**6**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-006** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	63	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	63	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	63	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-10 1.5'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**6**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-006** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	**96**		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-006A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
2. Acenaphthylene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
3. Anthracene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
4. Benzo(a)anthracene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
9. Chrysene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
11. Fluoranthene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
12. Fluorene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
15. Phenanthrene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
16. Pyrene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-11 3'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**7**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-007A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**47**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-007A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**15000**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**140000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**74**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**6800**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**28000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**6800**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**970**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**38000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-007A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	**140**		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-007A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	620	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	620	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	620	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	620	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	620	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	620	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	620	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	620	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	620	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-007** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-11 3'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**7**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-007** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	94	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	94	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	94	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	470	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-11 3'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**7**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-007** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	47	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-007A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
9. Chrysene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
15. Phenanthrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
16. Pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-13 2.5'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**8**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-008A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**22**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-008A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**5900**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**130000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**360**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**18000**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**31000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**25000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**770**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**64000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-008A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	**52**		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-008A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-008** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-13 2.5'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**8**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-008** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	64	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	64	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	64	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-13 2.5'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**8**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-008** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	**220**		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-008A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
9. Chrysene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
15. Phenanthrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
16. Pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-14 3'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**9**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-009** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**14**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-009** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**3800**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**100000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**210**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**16000**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**21000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**8900**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**300**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**47000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-009** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-15 1'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**10**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**12:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-010A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**8.8**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-010A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**4900**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**280000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**370**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**20000**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**9800**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**67000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**330**		µg/kg	200	10	07/27/10	PT10G27C	07/28/10	T210G28A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**170000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-010A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	**200**		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-010A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	360	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	360	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	360	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	360	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	360	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	360	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	360	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	360	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	360	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-010** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-15 1'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**10**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**12:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-010** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	55	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	55	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	55	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-15 1'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**10**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**12:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-010** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-010A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
2. Acenaphthylene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
3. Anthracene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
4. Benzo(a)anthracene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
9. Chrysene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
11. Fluoranthene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
12. Fluorene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
15. Phenanthrene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
16. Pyrene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-16 1'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**11**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-011A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**38**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-011A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**19000**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**120000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**140**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**88000**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**26000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**20000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**570**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**39000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-011A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	**61**		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-011A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	530	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	530	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	530	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	530	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	530	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	530	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	530	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	530	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	530	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-011** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-16 1'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**11**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-011** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	80	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	80	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	80	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	400	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-16 1'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**11**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-011** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-011A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
9. Chrysene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
15. Phenanthrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
16. Pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-17 1.5'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**12**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-012A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**25**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-012A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**9700**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**130000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**410**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**20000**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**34000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**39000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**1100**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**75000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-012A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	**73**		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-012A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-012** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-17 1.5'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**12**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-012** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	67	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	67	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	67	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-17 1.5'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**12**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-012** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-012A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
9. Chrysene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
15. Phenanthrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
16. Pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-18 1.5'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**13**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-013A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**25**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-013A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**6400**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**130000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**690**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**18000**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**29000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**20000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**1200**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**120000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-013A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	**62**		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-013A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-013** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-18 1.5'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**13**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-013** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	67	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	67	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	67	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	340	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-18 1.5'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**13**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-013** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-013A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
9. Chrysene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
15. Phenanthrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
16. Pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-19 .5'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**14**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-014** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**14**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-014** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**3200**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**15000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	U		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**3800**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**3700**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**5500**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**1000**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**33000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-014** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-014** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-014** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-19 .5'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**14**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-014** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
9. Chrysene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
15. Naphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
16. Phenanthrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
17. Pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-19 2.0'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**15**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-015A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**23**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-015A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**5200**		µg/kg	100	20	07/28/10	PT10G28A	07/29/10	T210G29A
2. Barium	**95000**		µg/kg	1000	20	07/28/10	PT10G28A	07/29/10	T210G29A
3. Cadmium	**110**		µg/kg	50	20	07/28/10	PT10G28A	07/29/10	T210G29A
4. Chromium	**21000**		µg/kg	500	20	07/28/10	PT10G28A	07/29/10	T210G29A
5. Copper	**35000**		µg/kg	1000	20	07/28/10	PT10G28A	07/29/10	T210G29A
6. Lead	**20000**		µg/kg	1000	20	07/28/10	PT10G28A	07/29/10	T210G29A
7. Selenium	**1100**		µg/kg	200	20	07/28/10	PT10G28A	07/29/10	T210G29A
8. Silver	U		µg/kg	100	20	07/28/10	PT10G28A	07/29/10	T210G29A
9. Zinc	**100000**		µg/kg	1000	20	07/28/10	PT10G28A	07/29/10	T210G29A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-015A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	07/27/10	PM10G27A	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-015A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	430	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	430	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	430	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	430	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	430	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	430	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	430	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	430	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	430	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-015** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-19 2.0'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**15**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-015** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	65	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	65	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	65	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-19 2.0'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**15**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-015** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-015A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
9. Chrysene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
15. Phenanthrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
16. Pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-20 1.5'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**16**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**15:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-016A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**13**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-016A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**3100**		µg/kg	100	20	07/28/10	PT10G28A	07/29/10	T210G29A
2. Barium	**14000**		µg/kg	1000	20	07/28/10	PT10G28A	07/29/10	T210G29A
3. Cadmium	**57**		µg/kg	50	20	07/28/10	PT10G28A	07/29/10	T210G29A
4. Chromium	**4500**		µg/kg	500	20	07/28/10	PT10G28A	07/29/10	T210G29A
5. Copper	**3000**		µg/kg	1000	20	07/28/10	PT10G28A	07/29/10	T210G29A
6. Lead	**3000**		µg/kg	1000	20	07/28/10	PT10G28A	07/29/10	T210G29A
7. Selenium	**390**		µg/kg	200	20	07/28/10	PT10G28A	07/29/10	T210G29A
8. Silver	U		µg/kg	100	20	07/28/10	PT10G28A	07/29/10	T210G29A
9. Zinc	**15000**		µg/kg	1000	20	07/28/10	PT10G28A	07/29/10	T210G29A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-016A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	07/27/10	PM10G27A	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-016A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-016A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-20 1.5'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**16**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**15:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-016A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
9. Chrysene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
15. Naphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
16. Phenanthrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
17. Pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

L+ : Recovery in the associated laboratory sample (LCS) exceeds the upper control limit. Results may be biased high.

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number:

100312

Fibertec
environmental
services

Friday, August 06, 2010

Fibertec Project Number:	40297
Project Identification:	MDOT River Raisin /60157928
Submittal Date:	07/30/2010

Mr. Craig Simon
AECOM - Lansing
401 S. Washington Square
Suite 103
Lansing, MI 48933

Dear Mr. Simon,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

Ammonia samples were preserved at laboratory on July 30, 2010.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-1**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**1**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**10:10**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-001** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
2. Acrylonitrile	U		µg/L	2.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
3. Benzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
4. Bromobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
5. Bromochloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
6. Bromodichloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
7. Bromoform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
8. Bromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
9. 2-Butanone	U		µg/L	25	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
10. n-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
13. Carbon Disulfide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
15. Chlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
16. Chloroethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
17. Chloroform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
18. Chloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
20. Dibromochloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
21. 1,2-Dibromo-3-chloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
22. Dibromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
35. Ethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
37. 2-Hexanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
38. Isopropylbenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
39. Methyl Iodide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
40. Methylene Chloride	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-1**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**1**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**10:10**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-001** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
42. MTBE	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
43. Naphthalene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
44. n-Propylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
45. Styrene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
48. Tetrachloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
49. Toluene	**2.2**		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
53. Trichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
59. Vinyl Chloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
60. Xylenes	U		µg/L	3.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-001A** **Matrix: Ground Water** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
2. Acenaphthylene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
3. Anthracene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
4. Benzo(a)anthracene	U		µg/L	1.2	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
5. Benzo(a)pyrene	U		µg/L	1.2	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
6. Benzo(b)fluoranthene	U		µg/L	1.2	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
7. Benzo(ghi)perylene	U		µg/L	1.2	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
8. Benzo(k)fluoranthene	U		µg/L	1.2	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
9. Chrysene	U		µg/L	1.2	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
11. Fluoranthene	U		µg/L	1.2	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
12. Fluorene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
14. 2-Methylnaphthalene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
15. Phenanthrene	U		µg/L	2.0	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
16. Pyrene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S510H05A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-2**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**2**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**11:00**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A/EPA 6020) **Aliquot ID: 40297-002A** **Matrix: Ground Water** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
2. Barium	U		µg/L	100	10	08/03/10	PT10H03D	08/03/10	T210H03A
3. Cadmium	U		µg/L	1.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
4. Chromium	U		µg/L	10	10	08/03/10	PT10H03D	08/03/10	T210H03A
5. Copper	U		µg/L	4.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
6. Lead	U		µg/L	3.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
7. Selenium	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
8. Silver	U		µg/L	0.20	10	08/03/10	PT10H03D	08/03/10	T210H03A
9. Zinc	**56**		µg/L	50	10	08/03/10	PT10H03D	08/03/10	T210H03A

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 40297-002A** **Matrix: Ground Water** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	08/03/10	PM10H03A	08/03/10	M410H03A

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-002** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
2. Acrylonitrile	U		µg/L	2.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
3. Benzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
4. Bromobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
5. Bromochloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
6. Bromodichloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
7. Bromoform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
8. Bromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
9. 2-Butanone	U		µg/L	25	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
10. n-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
13. Carbon Disulfide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
15. Chlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
16. Chloroethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
17. Chloroform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
18. Chloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
20. Dibromochloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
21. 1,2-Dibromo-3-chloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
22. Dibromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-2**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**2**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**11:00**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-002** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
35. Ethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
37. 2-Hexanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
38. Isopropylbenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
39. Methyl Iodide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
40. Methylene Chloride	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
42. MTBE	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
43. Naphthalene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
44. n-Propylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
45. Styrene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
48. Tetrachloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
49. Toluene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
53. Trichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
59. Vinyl Chloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
60. Xylenes	U		µg/L	3.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-002C** **Matrix: Ground Water** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-2**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**2**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**11:00**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-002C** **Matrix: Ground Water** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
2. Acenaphthylene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
3. Anthracene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
4. Benzo(a)anthracene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
5. Benzo(a)pyrene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
6. Benzo(b)fluoranthene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
7. Benzo(ghi)perylene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
8. Benzo(k)fluoranthene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
9. Chrysene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
11. Fluoranthene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
12. Fluorene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
14. 2-Methylnaphthalene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
15. Phenanthrene	U		µg/L	2.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
16. Pyrene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A

Nitrogen, Ammonia (ISE) (SM 4500-NH3 D.) **Aliquot ID: 40297-002B** **Matrix: Ground Water** **Analyst: CML**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Ammonia-N	**80**		µg/L	50	1.0	NA	NA	08/04/10	WJ10H04A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-3**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**3**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**11:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A/EPA 6020) **Aliquot ID: 40297-003A** **Matrix: Ground Water** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
2. Barium	U		µg/L	100	10	08/03/10	PT10H03D	08/03/10	T210H03A
3. Cadmium	U		µg/L	1.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
4. Chromium	U		µg/L	10	10	08/03/10	PT10H03D	08/03/10	T210H03A
5. Copper	U		µg/L	4.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
6. Lead	U		µg/L	3.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
7. Selenium	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
8. Silver	U		µg/L	0.20	10	08/03/10	PT10H03D	08/03/10	T210H03A
9. Zinc	U		µg/L	50	10	08/03/10	PT10H03D	08/03/10	T210H03A

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 40297-003A** **Matrix: Ground Water** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	08/03/10	PM10H03A	08/03/10	M410H03A

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-003** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
2. Acrylonitrile	U		µg/L	2.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
3. Benzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
4. Bromobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
5. Bromochloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
6. Bromodichloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
7. Bromoform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
8. Bromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
9. 2-Butanone	U		µg/L	25	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
10. n-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
13. Carbon Disulfide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
15. Chlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
16. Chloroethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
17. Chloroform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
18. Chloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
20. Dibromochloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
21. 1,2-Dibromo-3-chloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
22. Dibromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-3**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**3**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**11:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-003** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
35. Ethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
37. 2-Hexanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
38. Isopropylbenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
39. Methyl Iodide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
40. Methylene Chloride	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
42. MTBE	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
43. Naphthalene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
44. n-Propylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
45. Styrene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
48. Tetrachloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
49. Toluene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
53. Trichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
59. Vinyl Chloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
60. Xylenes	U		µg/L	3.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-003C** **Matrix: Ground Water** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-3**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**3**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**11:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-003C** **Matrix: Ground Water** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
2. Acenaphthylene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
3. Anthracene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
4. Benzo(a)anthracene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
5. Benzo(a)pyrene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
6. Benzo(b)fluoranthene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
7. Benzo(ghi)perylene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
8. Benzo(k)fluoranthene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
9. Chrysene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
11. Fluoranthene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
12. Fluorene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
14. 2-Methylnaphthalene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
15. Phenanthrene	U		µg/L	2.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
16. Pyrene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A

Nitrogen, Ammonia (ISE) (SM 4500-NH3 D.) **Aliquot ID: 40297-003B** **Matrix: Ground Water** **Analyst: CML**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Ammonia-N	**110**		µg/L	50	1.0	NA	NA	08/04/10	WJ10H04A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-4**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**4**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**12:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A/EPA 6020) **Aliquot ID: 40297-004B** **Matrix: Ground Water** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
2. Barium	U		µg/L	100	10	08/03/10	PT10H03D	08/03/10	T210H03A
3. Cadmium	U		µg/L	1.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
4. Chromium	U		µg/L	10	10	08/03/10	PT10H03D	08/03/10	T210H03A
5. Copper	**4.1**		µg/L	4.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
6. Lead	U		µg/L	3.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
7. Selenium	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
8. Silver	U		µg/L	0.20	10	08/03/10	PT10H03D	08/03/10	T210H03A
9. Zinc	**71**		µg/L	50	10	08/03/10	PT10H03D	08/03/10	T210H03A

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 40297-004B** **Matrix: Ground Water** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	08/03/10	PM10H03A	08/03/10	M410H03A

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-004** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
2. Acrylonitrile	U		µg/L	2.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
3. Benzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
4. Bromobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
5. Bromochloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
6. Bromodichloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
7. Bromoform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
8. Bromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
9. 2-Butanone	U		µg/L	25	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
10. n-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
13. Carbon Disulfide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
15. Chlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
16. Chloroethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
17. Chloroform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
18. Chloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
20. Dibromochloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
21. 1,2-Dibromo-3-chloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
22. Dibromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-4**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**4**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**12:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-004** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
35. Ethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
37. 2-Hexanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
38. Isopropylbenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
39. Methyl Iodide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
40. Methylene Chloride	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
42. MTBE	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
43. Naphthalene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
44. n-Propylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
45. Styrene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
48. Tetrachloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
49. Toluene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
53. Trichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
59. Vinyl Chloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
60. Xylenes	U		µg/L	3.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-004A** **Matrix: Ground Water** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-4**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**4**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**12:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-004A** **Matrix: Ground Water** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
2. Acenaphthylene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
3. Anthracene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
4. Benzo(a)anthracene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
5. Benzo(a)pyrene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
6. Benzo(b)fluoranthene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
7. Benzo(ghi)perylene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
8. Benzo(k)fluoranthene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
9. Chrysene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
11. Fluoranthene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
12. Fluorene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
14. 2-Methylnaphthalene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
15. Phenanthrene	U		µg/L	2.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
16. Pyrene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-5**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**5**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**13:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A/EPA 6020) **Aliquot ID: 40297-005A** **Matrix: Ground Water** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**5.7**		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
2. Barium	U		µg/L	100	10	08/03/10	PT10H03D	08/03/10	T210H03A
3. Cadmium	U		µg/L	1.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
4. Chromium	U		µg/L	10	10	08/03/10	PT10H03D	08/03/10	T210H03A
5. Copper	U		µg/L	4.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
6. Lead	U		µg/L	3.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
7. Selenium	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
8. Silver	U		µg/L	0.20	10	08/03/10	PT10H03D	08/03/10	T210H03A
9. Zinc	U		µg/L	50	10	08/03/10	PT10H03D	08/03/10	T210H03A

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 40297-005A** **Matrix: Ground Water** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	08/03/10	PM10H03A	08/03/10	M410H03A

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-005** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
2. Acrylonitrile	U		µg/L	2.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
3. Benzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
4. Bromobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
5. Bromochloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
6. Bromodichloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
7. Bromoform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
8. Bromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
9. 2-Butanone	U		µg/L	25	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
10. n-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
13. Carbon Disulfide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
15. Chlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
16. Chloroethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
17. Chloroform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
18. Chloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
20. Dibromochloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
21. 1,2-Dibromo-3-chloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
22. Dibromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-5**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**5**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**13:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-005** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
35. Ethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
37. 2-Hexanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
38. Isopropylbenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
39. Methyl Iodide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
40. Methylene Chloride	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
42. MTBE	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
43. Naphthalene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
44. n-Propylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
45. Styrene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
48. Tetrachloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
49. Toluene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
53. Trichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
59. Vinyl Chloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
60. Xylenes	U		µg/L	3.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-005C** **Matrix: Ground Water** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-5**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**5**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**13:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-005C** **Matrix: Ground Water** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
2. Acenaphthylene	U		µg/L	5.0	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
3. Anthracene	U		µg/L	5.0	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
4. Benzo(a)anthracene	U		µg/L	1.3	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
5. Benzo(a)pyrene	U		µg/L	1.3	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
6. Benzo(b)fluoranthene	U		µg/L	1.3	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
7. Benzo(ghi)perylene	U		µg/L	1.3	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
8. Benzo(k)fluoranthene	U		µg/L	1.3	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
9. Chrysene	U		µg/L	1.3	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
11. Fluoranthene	U		µg/L	1.3	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
12. Fluorene	U		µg/L	5.0	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
14. 2-Methylnaphthalene	U		µg/L	5.0	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
15. Phenanthrene	U		µg/L	2.0	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
16. Pyrene	U		µg/L	5.0	1.3	08/05/10	PS10H05A	08/05/10	S510H05A

Nitrogen, Ammonia (ISE) (SM 4500-NH3 D.) **Aliquot ID: 40297-005B** **Matrix: Ground Water** **Analyst: CML**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Ammonia-N	**210**		µg/L	50	1.0	NA	NA	08/04/10	WJ10H04A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-7**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**6**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**15:10**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A/EPA 6020) **Aliquot ID: 40297-006B** **Matrix: Ground Water** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
2. Barium	U		µg/L	100	10	08/03/10	PT10H03D	08/03/10	T210H03A
3. Cadmium	U		µg/L	1.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
4. Chromium	U		µg/L	10	10	08/03/10	PT10H03D	08/03/10	T210H03A
5. Copper	U		µg/L	4.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
6. Lead	U		µg/L	3.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
7. Selenium	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
8. Silver	U		µg/L	0.20	10	08/03/10	PT10H03D	08/03/10	T210H03A
9. Zinc	U		µg/L	50	10	08/03/10	PT10H03D	08/03/10	T210H03A

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 40297-006B** **Matrix: Ground Water** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	08/03/10	PM10H03A	08/03/10	M410H03A

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-006** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
2. Acrylonitrile	U		µg/L	2.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
3. Benzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
4. Bromobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
5. Bromochloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
6. Bromodichloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
7. Bromoform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
8. Bromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
9. 2-Butanone	U		µg/L	25	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
10. n-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
13. Carbon Disulfide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
15. Chlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
16. Chloroethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
17. Chloroform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
18. Chloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
20. Dibromochloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
21. 1,2-Dibromo-3-chloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
22. Dibromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-7**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**6**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**15:10**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-006** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
35. Ethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
37. 2-Hexanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
38. Isopropylbenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
39. Methyl Iodide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
40. Methylene Chloride	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
42. MTBE	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
43. Naphthalene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
44. n-Propylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
45. Styrene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
48. Tetrachloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
49. Toluene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
53. Trichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
59. Vinyl Chloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
60. Xylenes	U		µg/L	3.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-006A** **Matrix: Ground Water** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-7**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**6**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**15:10**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-006A** **Matrix: Ground Water** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
2. Acenaphthylene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
3. Anthracene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
4. Benzo(a)anthracene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
5. Benzo(a)pyrene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
6. Benzo(b)fluoranthene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
7. Benzo(ghi)perylene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
8. Benzo(k)fluoranthene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
9. Chrysene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
11. Fluoranthene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
12. Fluorene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
14. 2-Methylnaphthalene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
15. Phenanthrene	U		µg/L	2.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
16. Pyrene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-8**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**7**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**15:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A/EPA 6020) **Aliquot ID: 40297-007B** **Matrix: Ground Water** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
2. Barium	U		µg/L	100	10	08/03/10	PT10H03D	08/03/10	T210H03A
3. Cadmium	U		µg/L	1.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
4. Chromium	U		µg/L	10	10	08/03/10	PT10H03D	08/03/10	T210H03A
5. Copper	U		µg/L	4.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
6. Lead	U		µg/L	3.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
7. Selenium	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
8. Silver	U		µg/L	0.20	10	08/03/10	PT10H03D	08/03/10	T210H03A
9. Zinc	U		µg/L	50	10	08/03/10	PT10H03D	08/03/10	T210H03A

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 40297-007B** **Matrix: Ground Water** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	08/03/10	PM10H03A	08/03/10	M410H03A

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-007** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
2. Acrylonitrile	U		µg/L	2.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
3. Benzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
4. Bromobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
5. Bromochloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
6. Bromodichloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
7. Bromoform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
8. Bromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
9. 2-Butanone	U		µg/L	25	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
10. n-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
13. Carbon Disulfide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
15. Chlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
16. Chloroethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
17. Chloroform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
18. Chloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
20. Dibromochloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
21. 1,2-Dibromo-3-chloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
22. Dibromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-8**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**7**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**15:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-007** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
35. Ethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
37. 2-Hexanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
38. Isopropylbenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
39. Methyl Iodide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
40. Methylene Chloride	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
42. MTBE	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
43. Naphthalene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
44. n-Propylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
45. Styrene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
48. Tetrachloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
49. Toluene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
53. Trichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
59. Vinyl Chloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
60. Xylenes	U		µg/L	3.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-007A** **Matrix: Ground Water** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-8**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**7**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**15:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-007A** **Matrix: Ground Water** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
2. Acenaphthylene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
3. Anthracene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
4. Benzo(a)anthracene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
5. Benzo(a)pyrene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
6. Benzo(b)fluoranthene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
7. Benzo(ghi)perylene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
8. Benzo(k)fluoranthene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
9. Chrysene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
10. Dibenzo(a,h)anthracene	U		µg/L	2.2	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
11. Fluoranthene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
12. Fluorene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.2	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
14. 2-Methylnaphthalene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
15. Phenanthrene	U		µg/L	2.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
16. Pyrene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-9**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**8**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**16:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A/EPA 6020) **Aliquot ID: 40297-008B** **Matrix: Ground Water** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
2. Barium	U		µg/L	100	10	08/03/10	PT10H03D	08/03/10	T210H03A
3. Cadmium	U		µg/L	1.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
4. Chromium	U		µg/L	10	10	08/03/10	PT10H03D	08/03/10	T210H03A
5. Copper	U		µg/L	4.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
6. Lead	U		µg/L	3.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
7. Selenium	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
8. Silver	U		µg/L	0.20	10	08/03/10	PT10H03D	08/03/10	T210H03A
9. Zinc	U		µg/L	50	10	08/03/10	PT10H03D	08/03/10	T210H03A

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 40297-008B** **Matrix: Ground Water** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	08/03/10	PM10H03A	08/03/10	M410H03A

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-008** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
2. Acrylonitrile	U		µg/L	2.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
3. Benzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
4. Bromobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
5. Bromochloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
6. Bromodichloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
7. Bromoform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
8. Bromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
9. 2-Butanone	U		µg/L	25	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
10. n-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
13. Carbon Disulfide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
15. Chlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
16. Chloroethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
17. Chloroform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
18. Chloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
20. Dibromochloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
21. 1,2-Dibromo-3-chloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
22. Dibromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-9**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**8**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**16:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-008** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
35. Ethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
37. 2-Hexanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
38. Isopropylbenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
39. Methyl Iodide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
40. Methylene Chloride	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
42. MTBE	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
43. Naphthalene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
44. n-Propylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
45. Styrene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
48. Tetrachloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
49. Toluene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
53. Trichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
59. Vinyl Chloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
60. Xylenes	U		µg/L	3.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-008A** **Matrix: Ground Water** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-9**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**8**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**16:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-008A** **Matrix: Ground Water** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
2. Acenaphthylene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
3. Anthracene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
4. Benzo(a)anthracene	U		µg/L	1.3	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
5. Benzo(a)pyrene	U		µg/L	1.3	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
6. Benzo(b)fluoranthene	U		µg/L	1.3	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
7. Benzo(ghi)perylene	U		µg/L	1.3	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
8. Benzo(k)fluoranthene	U		µg/L	1.3	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
9. Chrysene	U		µg/L	1.3	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
10. Dibenzo(a,h)anthracene	U		µg/L	2.5	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
11. Fluoranthene	U		µg/L	1.3	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
12. Fluorene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.5	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
14. 2-Methylnaphthalene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
15. Phenanthrene	U		µg/L	2.0	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
16. Pyrene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S110H05A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-10**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**9**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**17:15**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A/EPA 6020) **Aliquot ID: 40297-009B** **Matrix: Ground Water** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
2. Barium	U		µg/L	100	10	08/03/10	PT10H03D	08/03/10	T210H03A
3. Cadmium	U		µg/L	1.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
4. Chromium	U		µg/L	10	10	08/03/10	PT10H03D	08/03/10	T210H03A
5. Copper	U		µg/L	4.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
6. Lead	U		µg/L	3.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
7. Selenium	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
8. Silver	U		µg/L	0.20	10	08/03/10	PT10H03D	08/03/10	T210H03A
9. Zinc	U		µg/L	50	10	08/03/10	PT10H03D	08/03/10	T210H03A

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 40297-009B** **Matrix: Ground Water** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	08/03/10	PM10H03A	08/03/10	M410H03A

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-009** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
2. Acrylonitrile	U		µg/L	2.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
3. Benzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
4. Bromobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
5. Bromochloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
6. Bromodichloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
7. Bromoform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
8. Bromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
9. 2-Butanone	U		µg/L	25	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
10. n-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
13. Carbon Disulfide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
15. Chlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
16. Chloroethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
17. Chloroform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
18. Chloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
20. Dibromochloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
21. 1,2-Dibromo-3-chloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
22. Dibromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-10**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**9**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**17:15**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-009** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
35. Ethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
37. 2-Hexanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
38. Isopropylbenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
39. Methyl Iodide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
40. Methylene Chloride	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
42. MTBE	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
43. Naphthalene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
44. n-Propylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
45. Styrene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
48. Tetrachloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
49. Toluene	**1.7**		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
53. Trichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
59. Vinyl Chloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
60. Xylenes	U		µg/L	3.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-009A** **Matrix: Ground Water** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-10**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**9**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**17:15**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-009A** **Matrix: Ground Water** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
2. Acenaphthylene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
3. Anthracene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
4. Benzo(a)anthracene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
5. Benzo(a)pyrene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
6. Benzo(b)fluoranthene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
7. Benzo(ghi)perylene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
8. Benzo(k)fluoranthene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
9. Chrysene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
10. Dibenzo(a,h)anthracene	U		µg/L	2.2	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
11. Fluoranthene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
12. Fluorene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.2	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
14. 2-Methylnaphthalene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
15. Phenanthrene	U		µg/L	2.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
16. Pyrene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number:

100312

Fibertec
environmental
services

Wednesday, August 25, 2010

Fibertec Project Number:	40586
Project Identification:	River Raisin Battlefield /60157928
Submittal Date:	08/18/2010

Mr. Scott Park
AECOM - Lansing
401 S. Washington Square
Suite 103
Lansing, MI 48933

Dear Mr. Park,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-1-4**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**1**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-001A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**23**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-001A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**95000**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**24000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-001** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	08/20/10	V910H20C	08/21/10	V910H20C
2. Acrylonitrile	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
3. Benzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
4. Bromobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
5. Bromochloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
6. Bromodichloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
7. Bromoform	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
8. Bromomethane	U		µg/kg	200	1.0	08/20/10	V910H20C	08/21/10	V910H20C
9. 2-Butanone	U		µg/kg	750	1.0	08/20/10	V910H20C	08/21/10	V910H20C
10. n-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
13. Carbon Disulfide	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
14. Carbon Tetrachloride	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
15. Chlorobenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
16. Chloroethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
17. Chloroform	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
18. Chloromethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
20. Dibromochloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	33	1.0	08/20/10	V910H20C	08/21/10	V910H20C
22. Dibromomethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
28. 1,2-Dichloroethane	U		µg/kg	65	1.0	08/20/10	V910H20C	08/21/10	V910H20C
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-1-4**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**1**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-001** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
35. Ethylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
36. Ethylene Dibromide	U		µg/kg	26	1.0	08/20/10	V910H20C	08/21/10	V910H20C
37. 2-Hexanone	U		µg/kg	2500	1.0	08/20/10	V910H20C	08/21/10	V910H20C
38. Isopropylbenzene	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
39. Methyl Iodide	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
40. Methylene Chloride	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
41. 2-Methylnaphthalene (NN)	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
42. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/20/10	V910H20C	08/21/10	V910H20C
43. MTBE	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
44. Naphthalene	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
45. n-Propylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
46. Styrene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
47. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
48. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
49. Tetrachloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
50. Toluene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
51. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
52. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
53. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
54. Trichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
55. Trichlorofluoromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
56. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
57. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
58. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
59. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
60. Vinyl Chloride	U		µg/kg	40	1.0	08/20/10	V910H20C	08/21/10	V910H20C
61. Xylenes	U		µg/kg	150	1.0	08/20/10	V910H20C	08/21/10	V910H20C

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-2-4**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**2**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-002A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**20**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-002A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**12000**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**23000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-002** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	08/20/10	V910H20C	08/21/10	V910H20C
2. Acrylonitrile	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
3. Benzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
4. Bromobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
5. Bromochloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
6. Bromodichloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
7. Bromoform	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
8. Bromomethane	U		µg/kg	200	1.0	08/20/10	V910H20C	08/21/10	V910H20C
9. 2-Butanone	U		µg/kg	750	1.0	08/20/10	V910H20C	08/21/10	V910H20C
10. n-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
13. Carbon Disulfide	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
14. Carbon Tetrachloride	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
15. Chlorobenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
16. Chloroethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
17. Chloroform	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
18. Chloromethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
20. Dibromochloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	31	1.0	08/20/10	V910H20C	08/21/10	V910H20C
22. Dibromomethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
28. 1,2-Dichloroethane	U		µg/kg	63	1.0	08/20/10	V910H20C	08/21/10	V910H20C
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-2-4**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**2**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-002** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
35. Ethylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
36. Ethylene Dibromide	U		µg/kg	25	1.0	08/20/10	V910H20C	08/21/10	V910H20C
37. 2-Hexanone	U		µg/kg	2500	1.0	08/20/10	V910H20C	08/21/10	V910H20C
38. Isopropylbenzene	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
39. Methyl Iodide	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
40. Methylene Chloride	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
41. 2-Methylnaphthalene (NN)	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
42. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/20/10	V910H20C	08/21/10	V910H20C
43. MTBE	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
44. Naphthalene	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
45. n-Propylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
46. Styrene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
47. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
48. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
49. Tetrachloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
50. Toluene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
51. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
52. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
53. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
54. Trichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
55. Trichlorofluoromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
56. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
57. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
58. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
59. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
60. Vinyl Chloride	U		µg/kg	40	1.0	08/20/10	V910H20C	08/21/10	V910H20C
61. Xylenes	U		µg/kg	150	1.0	08/20/10	V910H20C	08/21/10	V910H20C

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-3-1**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**3**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-003A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**18**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-003A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**6800**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**3900**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-003** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	08/20/10	V910H20C	08/21/10	V910H20C
2. Acrylonitrile	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
3. Benzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
4. Bromobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
5. Bromochloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
6. Bromodichloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
7. Bromoform	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
8. Bromomethane	U		µg/kg	200	1.0	08/20/10	V910H20C	08/21/10	V910H20C
9. 2-Butanone	U		µg/kg	750	1.0	08/20/10	V910H20C	08/21/10	V910H20C
10. n-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
13. Carbon Disulfide	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
14. Carbon Tetrachloride	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
15. Chlorobenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
16. Chloroethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
17. Chloroform	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
18. Chloromethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
20. Dibromochloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	30	1.0	08/20/10	V910H20C	08/21/10	V910H20C
22. Dibromomethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
28. 1,2-Dichloroethane	U		µg/kg	61	1.0	08/20/10	V910H20C	08/21/10	V910H20C
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-3-1**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**3**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-003** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
35. Ethylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
36. Ethylene Dibromide	U		µg/kg	24	1.0	08/20/10	V910H20C	08/21/10	V910H20C
37. 2-Hexanone	U		µg/kg	2500	1.0	08/20/10	V910H20C	08/21/10	V910H20C
38. Isopropylbenzene	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
39. Methyl Iodide	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
40. Methylene Chloride	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
41. 2-Methylnaphthalene (NN)	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
42. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/20/10	V910H20C	08/21/10	V910H20C
43. MTBE	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
44. Naphthalene	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
45. n-Propylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
46. Styrene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
47. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
48. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
49. Tetrachloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
50. Toluene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
51. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
52. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
53. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
54. Trichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
55. Trichlorofluoromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
56. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
57. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
58. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
59. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
60. Vinyl Chloride	U		µg/kg	40	1.0	08/20/10	V910H20C	08/21/10	V910H20C
61. Xylenes	U		µg/kg	150	1.0	08/20/10	V910H20C	08/21/10	V910H20C

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-3-4**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**4**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:10**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-004A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**22**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-004A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**7100**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**8500**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-004** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	08/20/10	V910H20C	08/21/10	V910H20C
2. Acrylonitrile	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
3. Benzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
4. Bromobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
5. Bromochloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
6. Bromodichloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
7. Bromoform	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
8. Bromomethane	U		µg/kg	200	1.0	08/20/10	V910H20C	08/21/10	V910H20C
9. 2-Butanone	U		µg/kg	750	1.0	08/20/10	V910H20C	08/21/10	V910H20C
10. n-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
13. Carbon Disulfide	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
14. Carbon Tetrachloride	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
15. Chlorobenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
16. Chloroethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
17. Chloroform	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
18. Chloromethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
20. Dibromochloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	32	1.0	08/20/10	V910H20C	08/21/10	V910H20C
22. Dibromomethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
28. 1,2-Dichloroethane	U		µg/kg	64	1.0	08/20/10	V910H20C	08/21/10	V910H20C
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-3-4**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**4**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:10**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-004** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
35. Ethylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
36. Ethylene Dibromide	U		µg/kg	26	1.0	08/20/10	V910H20C	08/21/10	V910H20C
37. 2-Hexanone	U		µg/kg	2500	1.0	08/20/10	V910H20C	08/21/10	V910H20C
38. Isopropylbenzene	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
39. Methyl Iodide	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
40. Methylene Chloride	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
41. 2-Methylnaphthalene (NN)	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
42. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/20/10	V910H20C	08/21/10	V910H20C
43. MTBE	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
44. Naphthalene	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
45. n-Propylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
46. Styrene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
47. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
48. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
49. Tetrachloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
50. Toluene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
51. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
52. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
53. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
54. Trichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
55. Trichlorofluoromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
56. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
57. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
58. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
59. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
60. Vinyl Chloride	U		µg/kg	40	1.0	08/20/10	V910H20C	08/21/10	V910H20C
61. Xylenes	U		µg/kg	150	1.0	08/20/10	V910H20C	08/21/10	V910H20C

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-4-1**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**5**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-005A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**17**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-005A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**29000**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**26000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-005** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	08/20/10	V910H20C	08/21/10	V910H20C
2. Acrylonitrile	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
3. Benzene	**65**		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
4. Bromobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
5. Bromochloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
6. Bromodichloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
7. Bromoform	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
8. Bromomethane	U		µg/kg	200	1.0	08/20/10	V910H20C	08/21/10	V910H20C
9. 2-Butanone	U		µg/kg	750	1.0	08/20/10	V910H20C	08/21/10	V910H20C
10. n-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
13. Carbon Disulfide	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
14. Carbon Tetrachloride	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
15. Chlorobenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
16. Chloroethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
17. Chloroform	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
18. Chloromethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
20. Dibromochloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	30	1.0	08/20/10	V910H20C	08/21/10	V910H20C
22. Dibromomethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
28. 1,2-Dichloroethane	U		µg/kg	60	1.0	08/20/10	V910H20C	08/21/10	V910H20C
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-4-1**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**5**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-005** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
35. Ethylbenzene	**87**		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
36. Ethylene Dibromide	U		µg/kg	24	1.0	08/20/10	V910H20C	08/21/10	V910H20C
37. 2-Hexanone	U		µg/kg	2500	1.0	08/20/10	V910H20C	08/21/10	V910H20C
38. Isopropylbenzene	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
39. Methyl Iodide	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
40. Methylene Chloride	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
41. 2-Methylnaphthalene (NN)	U		µg/kg	390	1.0	08/20/10	V910H20C	08/21/10	V910H20C
42. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/20/10	V910H20C	08/21/10	V910H20C
43. MTBE	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
44. Naphthalene	**480**		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
45. n-Propylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
46. Styrene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
47. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
48. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
49. Tetrachloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
50. Toluene	**510**		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
51. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
52. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
53. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
54. Trichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
55. Trichlorofluoromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
56. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
57. 1,2,3-Trimethylbenzene (NN)	**180**		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
58. 1,2,4-Trimethylbenzene	**290**		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
59. 1,3,5-Trimethylbenzene	U		µg/kg	110	1.0	08/20/10	V910H20C	08/21/10	V910H20C
60. Vinyl Chloride	U		µg/kg	40	1.0	08/20/10	V910H20C	08/21/10	V910H20C
61. Xylenes	**1000**		µg/kg	150	1.0	08/20/10	V910H20C	08/21/10	V910H20C

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-5-1**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**6**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-006** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**20**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-006** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**62000**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**44000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-006A** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	08/23/10	V910H23A	08/23/10	V910H23A
2. Acrylonitrile	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
3. Benzene	**150**		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
4. Bromobenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
5. Bromochloromethane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
6. Bromodichloromethane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
7. Bromoform	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
8. Bromomethane	U		µg/kg	200	1.0	08/23/10	V910H23A	08/23/10	V910H23A
9. 2-Butanone	U		µg/kg	750	1.0	08/23/10	V910H23A	08/23/10	V910H23A
10. n-Butylbenzene	U		µg/kg	56	1.0	08/23/10	V910H23A	08/23/10	V910H23A
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
13. Carbon Disulfide	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
15. Chlorobenzene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
16. Chloroethane	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
17. Chloroform	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
18. Chloromethane	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
20. Dibromochloromethane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	31	1.0	08/23/10	V910H23A	08/23/10	V910H23A
22. Dibromomethane	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
28. 1,2-Dichloroethane	U		µg/kg	62	1.0	08/23/10	V910H23A	08/23/10	V910H23A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-5-1**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**6**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-006A** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
35. Ethylbenzene	**130**		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
36. Ethylene Dibromide	U		µg/kg	25	1.0	08/23/10	V910H23A	08/23/10	V910H23A
37. 2-Hexanone	U		µg/kg	2500	1.0	08/23/10	V910H23A	08/23/10	V910H23A
38. Isopropylbenzene	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
39. Methyl Iodide	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
40. Methylene Chloride	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
41. 2-Methylnaphthalene (NN)	**540**		µg/kg	330	1.0	08/23/10	V910H23A	08/23/10	V910H23A
42. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/23/10	V910H23A	08/23/10	V910H23A
43. MTBE	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
44. Naphthalene	**550**		µg/kg	330	1.0	08/23/10	V910H23A	08/23/10	V910H23A
45. n-Propylbenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
46. Styrene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
47. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
48. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
49. Tetrachloroethene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
50. Toluene	**770**		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
51. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/23/10	V910H23A	08/23/10	V910H23A
52. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
53. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
54. Trichloroethene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
55. Trichlorofluoromethane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
56. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
57. 1,2,3-Trimethylbenzene (NN)	**170**		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
58. 1,2,4-Trimethylbenzene	**300**		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
59. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
60. Vinyl Chloride	U		µg/kg	40	1.0	08/23/10	V910H23A	08/23/10	V910H23A
61. Xylenes	**1200**		µg/kg	150	1.0	08/23/10	V910H23A	08/23/10	V910H23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-6-3**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**7**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-007** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**12**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-007** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**7400**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**130000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-007A** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	08/23/10	V910H23A	08/23/10	V910H23A
2. Acrylonitrile	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
3. Benzene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
4. Bromobenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
5. Bromochloromethane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
6. Bromodichloromethane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
7. Bromoform	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
8. Bromomethane	U		µg/kg	200	1.0	08/23/10	V910H23A	08/23/10	V910H23A
9. 2-Butanone	U		µg/kg	750	1.0	08/23/10	V910H23A	08/23/10	V910H23A
10. n-Butylbenzene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
13. Carbon Disulfide	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
15. Chlorobenzene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
16. Chloroethane	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
17. Chloroform	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
18. Chloromethane	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
20. Dibromochloromethane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	28	1.0	08/23/10	V910H23A	08/23/10	V910H23A
22. Dibromomethane	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
28. 1,2-Dichloroethane	U		µg/kg	57	1.0	08/23/10	V910H23A	08/23/10	V910H23A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-6-3**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**7**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-007A** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
35. Ethylbenzene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
36. Ethylene Dibromide	U		µg/kg	23	1.0	08/23/10	V910H23A	08/23/10	V910H23A
37. 2-Hexanone	U		µg/kg	2500	1.0	08/23/10	V910H23A	08/23/10	V910H23A
38. Isopropylbenzene	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
39. Methyl Iodide	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
40. Methylene Chloride	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
41. 2-Methylnaphthalene (NN)	U		µg/kg	570	1.0	08/23/10	V910H23A	08/23/10	V910H23A
42. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/23/10	V910H23A	08/23/10	V910H23A
43. MTBE	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
44. Naphthalene	U		µg/kg	330	1.0	08/23/10	V910H23A	08/23/10	V910H23A
45. n-Propylbenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
46. Styrene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
47. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
48. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
49. Tetrachloroethene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
50. Toluene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
51. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/23/10	V910H23A	08/23/10	V910H23A
52. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
53. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
54. Trichloroethene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
55. Trichlorofluoromethane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
56. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
57. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
58. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
59. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
60. Vinyl Chloride	U		µg/kg	40	1.0	08/23/10	V910H23A	08/23/10	V910H23A
61. Xylenes	U		µg/kg	150	1.0	08/23/10	V910H23A	08/23/10	V910H23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-7-3**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**8**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-008** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**38**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-008** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**25000**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**7900**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-8-3**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**9**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-009** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**34**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-009** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**69000**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**54000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-9-1.5**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**10**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-010** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**22**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-010** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**7500**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**13000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-10-1.5**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**11**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:55**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-011** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**22**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-011** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**13000**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**25000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-11-2**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**12**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-012** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**32**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-012** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**16000**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**65000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12-1**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**13**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-013** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**18**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-013** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**19000**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**4400000**		µg/kg	4000	2000	08/24/10	PT10H24C	08/25/10	T210H25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-13-1**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**14**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-014** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**27**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-014** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**9100**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**32000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-14-1**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**15**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**12:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-015** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**15**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-015** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**5000**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**15000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number:

100312

Fibertec
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Wednesday, September 15, 2010

Fibertec Project Number:	40185 Supplemental
Project Identification:	River Raisin Battlefield /60157928
Submittal Date:	07/23/2010

Mr. Craig Simon
AECOM - Lansing
401 S. Washington Square
Suite 103
Lansing, MI 48933

Dear Mr. Simon,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

TCLP (1311) extraction date for metals is Setpember 14, 2010.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

Analytical Laboratory Report
Laboratory Project Number: 40185
Laboratory Sample Number: 40185-002

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-4 4'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**2**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**TCLP Extract**	Collect Time:	**13:15**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

TCLP Metals by ICP/MS (EPA 3010A/EPA 6020A) **Aliquot ID: 40185-002AB** **Matrix: TCLP Extract** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	U		mg/L	1.0	20	09/15/10	PT10I15A	09/15/10	T210I15A

1914 Holloway Drive *Holt, MI 48842* *T: (517) 699-0345* *F: (517) 699-0388*
11766 E. Grand River *Brighton, MI 48116* *T: (810) 220-3300* *F: (810) 220-3311*
8660 S. Mackinaw Trail *Cadillac, MI 49601* *T: (231) 775-8368* *F: (231) 775-8584*

lab@fibertec.us

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number:

100312

Fibertec
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services

Tuesday, September 14, 2010

Fibertec Project Number:	40586 Supplemental
Project Identification:	River Raisin Battlefield /60157928
Submittal Date:	08/18/2010

Mr. Scott Park
AECOM - Lansing
401 S. Washington Square
Suite 103
Lansing, MI 48933

Dear Mr. Park,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

TCLP (1311) extraction date is September 9, 2010.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12-1**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**13**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**TCLP Extract**	Collect Time:	**11:25**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

TCLP Metals by ICP/MS (EPA 3010A/EPA 6020) **Aliquot ID: 40586-013AA** **Matrix: TCLP Extract** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**55**		mg/L	1.0	200	09/09/10	PT10I09C	09/13/10	T210I13B

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number:

100312

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Thursday, September 23, 2010

Fibertec Project Number:	41118
Project Identification:	MDOT River Raisin /60157928
Submittal Date:	09/22/2010

Mr. Craig Simon
AECOM - Lansing
401 S. Washington Square
Suite 103
Lansing, MI 48933

Dear Mr. Simon,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 A 1'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**1**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-001** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**38**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-001** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**1000000**		µg/kg	1000	200	09/23/10	PT10I23A	09/23/10	T210I23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 B 1'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**2**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-002** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**23**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-002** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**26000**		µg/kg	1000	20	09/23/10	PT10I23A	09/23/10	T210I23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 C 1.5'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**3**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-003** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**30**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-003** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**29000**		µg/kg	1000	20	09/23/10	PT10I23A	09/23/10	T210I23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 D 1'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**4**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-004** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**7.4**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-004** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**10000**		µg/kg	1000	20	09/23/10	PT10I23A	09/23/10	T210I23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 E 1'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**5**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-005** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**28**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-005** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**28000**		µg/kg	1000	20	09/23/10	PT10I23A	09/23/10	T210I23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 F 1'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**6**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-006** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**24**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-006** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**130000**		µg/kg	1000	20	09/23/10	PT10I23A	09/23/10	T210I23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 G 1'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**7**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-007** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**6.9**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-007** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**12000**		µg/kg	1000	20	09/23/10	PT10I23A	09/23/10	T210I23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 I 1.5'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**8**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-008** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**24**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-008** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**1200000**		µg/kg	1000	200	09/23/10	PT10I23A	09/23/10	T210I23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 J 1'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**9**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-009** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**15**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-009** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**290000**		µg/kg	1000	200	09/23/10	PT10I23A	09/23/10	T210I23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 K 1'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**10**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-010** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**9.6**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-010** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**15000**		µg/kg	1000	20	09/23/10	PT10I23A	09/23/10	T210I23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 L 1'**	Chain of Custody:	**82829**
Client Project Name:	**MDOT River Raisin**	Sample No:	**11**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-011** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**11**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-011** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**8300**		µg/kg	1000	20	09/23/10	PT10I23A	09/23/10	T210I23A

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number:

100312

Fibertec
environmental
services

Monday, September 27, 2010

Fibertec Project Number:	41118 Supplemental
Project Identification:	MDOT River Raisin /60157928
Submittal Date:	09/22/2010

Mr. Craig Simon
AECOM - Lansing
401 S. Washington Square
Suite 103
Lansing, MI 48933

Dear Mr. Simon,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

TCLP (1311) extraction date is September 23, 2010.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 A 1'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**1**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**TCLP Extract**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

TCLP Metals by ICP/MS (EPA 3010A/EPA 6020A) **Aliquot ID: 41118-001A** **Matrix: TCLP Extract** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	U		mg/L	1.0	20	09/24/10	PT10I24A	09/25/10	T210I25A

Analytical Laboratory Report
Laboratory Project Number: 41118
Laboratory Sample Number: 41118-008

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 I 1.5'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**8**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**TCLP Extract**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

TCLP Metals by ICP/MS (EPA 3010A/EPA 6020A) **Aliquot ID: 41118-008A** **Matrix: TCLP Extract** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	U		mg/L	1.0	20	09/24/10	PT10I24A	09/25/10	T210I25A

1914 Holloway Drive *Holt, MI 48842* *T: (517) 699-0345* *F: (517) 699-0388*
11766 E. Grand River *Brighton, MI 48116* *T: (810) 220-3300* *F: (810) 220-3311*
8660 S. Mackinaw Trail *Cadillac, MI 49601* *T: (231) 775-8368* *F: (231) 775-8584*

lab@fibertec.us

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number:

100312

AECOM Environment

Prepared for:
Michigan Department
Of Transportation
Lansing, MI

Prepared by:
AECOM
Lansing, MI
60157928
August 26, 2010

Section 7a Compliance Analysis/ Due Care Documentation

River Raisin Battlefield
1220 E. Elm Avenue, Monroe, Michigan

AECOM Environment

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Section 7a Compliance Analysis/ Due Care Documentation

River Raisin Battlefield
1220 E. Elm Avenue, Monroe, Michigan

Prepared By Bridget A. Walsh, PE

Reviewed By Scott G. Park, CPG

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1.0 Introduction

This report presents required information to document compliance with Section 7a of Part 201 of P.A. 451 and its implementing rules, commonly referred to as “Due Care” Rules, MAC R 299.51001 et seq., for the River Raisin Battlefield, located at 1220 East Elm Street in Monroe, Michigan (Site). A Site Location Diagram and a Project Site Plan are illustrated on Figures 1 and 2, respectively. This Compliance Analysis (Due Care Plan) is completed on behalf of the Michigan Department of Transportation (MDOT). Information used in this document includes data from a Category N Baseline Environmental Assessment (BEA), completed by AECOM in October, 2010.

The site consists of approximately 32.56 acres and is currently undeveloped and is largely covered with a gray slag aggregate. The site is not currently improved with any structures, but has a large concrete slab (approximately 300 x 250’) on its south end.

The presence of hazardous substances in the shallow fill soil at the site at concentrations greater than Michigan’s Part 201 Generic Residential Cleanup Criteria (GRCC) confirm that the site property is a “facility” as defined by Part 201 of the Michigan NREPA, 1994 PA 451, as amended.

Information regarding the identification of exposure pathways that are complete or are likely to become complete is presented in Section 3.3 of this report. Information about the concentrations of hazardous substances to which persons may be exposed is presented in Section 3.0 of this report. Finally, a description of the response activity required to mitigate any unacceptable exposures in compliance with R299.51003 and R299.51013 is presented in Section 4.0 of this report.

2.0 Detailed Characteristics of Property Use

2.1 Current Use

The Site is currently owned by Homrich Inc. and is currently vacant and undeveloped. MDOT intends to purchase the property from Homrich, Inc.

The subject property is located west of Detroit Street, north of East Elm Street, and east of the Conrail Railroad in Monroe, Michigan. The property is bordered by a vacant woodlot to the north; the Mason Run county drain followed by vacant parcel (formerly occupied by Paper Mill) to the south; and industrial park to the east; and the railroad right-of-way followed by an industrial park to the west.

2.2 Past Owners and Land Use

The following chronological history of the subject property was developed by AECOM based on available published information and interviews with the current property owner:

The subject property is a portion of the East Mill site. Land near and including the former East Mill site has been continuously inhabited since the late 18th century. The settlement, known as Frenchtown, continued to grow as Frenchmen from Detroit moved southward. By 1812, as the United States moved toward war with Britain, Frenchtown became a strategic outpost. The first and second battles of the River Raisin occurred on January 18 and 22, 1813 in the area of the subject property. Frenchtown, which had been abandoned during the War of 1812, began to be resettled in 1816 further west along the river. The new settlement grew into the City of Monroe. The area of the East Mill became agricultural land after the War of 1812. Between 1850 and 1915, the land near the River Raisin, east and west of present day Dixie Highway, was the site of the Michigan Nursery Company.

In the early 20th Century, a portion of the Michigan Nursery Company's land was conveyed to the River Raisin Paper Company. The River Raisin Paper Company built the first mill (West Mill) on the northwest corner of Dixie Highway and Elm Street in 1915. Between 1918 and 1920, the East Mill was constructed. Additional expansion of the East Mill occurred as the company grew, and acquired the Monroe Corrugated Box Company in 1920.

Union Camp Corporation purchased the River Raisin Paper Company in 1960. The complex was operated by Union Camp until the mid-1980's, when it sold the facilities and adjoining land to the Monroe Paper Company, a partnership of Jefferson Smurfitt Corporation and an individual, Bob Mitchell. Jefferson Smurfitt acquired full ownership of the property in 1991.

The East Mill consisted of Mills 3, 4, and 5 of the mill complex. Mills 3 and 4 were located in the western building complex, along with the Power House and other support operations. Mill 5 was located on the eastern portion of the East Mill property. Each Mill housed a paper production line.

The East Mill was operated until 1995, when operations were ceased. The vacant East Mill and adjoining properties were sold to Homrich, Inc., in 1997. The mill buildings were generally unused after 1995. The Mill 5 buildings deteriorated significantly and were demolished by Homrich in 2002. A fire destroyed most of the remaining East Mill structures in April 2004. After the fire, Homrich demolished the damaged structures to grade in 2004.

The majority of the buildings that comprised the East Mill existed on the property that is located south of the Mason Run Drain and is not a part of the subject property. The northern portion of the Mill 5 building did extend onto the subject property. The subject property was primarily used for the storage of recycled paper that was used to manufacture corrugated box board. The paper was delivered to the subject property and was stored in large stacks of bales. Coal was also stored on the subject property. Coal was transported to the property by rail and was stored in piles along the western boundary of the subject property. The coal was used in on-site boilers for the paper mill. The boilers were converted to natural gas in July 1992.

In the 1950s two clarifiers were constructed on the south end of the subject property. Wastewater from the papermaking process was routed to the two 200,000 gallon clarifiers then recycled back to the process. Wastewater discharges from this system were directed to the City of Monroe sanitary sewer system.

Homrich, Inc. covered the subject property with a gray slag aggregate following purchase of the property in 1997. The slag aggregate was purchased from Tube City IMS in Monroe. Toxicity characteristic leaching procedure (TCLP) testing that was performed on the slag aggregate is attached as Appendix A. This data indicates that the slag aggregate has no hazardous characteristics. According to Mr. Homrich, the slag aggregate is commonly used in the Monroe area for gravel parking lots.

The property was leased to Vascor, which, under contract with the Chrysler Corporation, utilized the central and northern portions of the subject property as a parking lot for newly manufactured Chrysler vehicles. The subject property was used as a parking lot from mid-2007 through the end of 2008. The subject property is currently vacant.

3.0 Hazardous Substance Information

This section provides information concerning existing or abandoned containers that contain hazardous substances, as well as other environmental contamination that is relevant to Section 7a (Due Care). Also included are details regarding the nature and extent of contamination, exposure pathways that are complete or may be complete in light of the intended property use, an evaluation of indoor air exposure, and identification of any potential fire or explosion hazards.

3.1 Hazardous Substance Storage/Use

There are currently no hazardous substances used or stored at the Site. MDOT plans to transfer ownership of the property to the National Park Service to be turned into an historic battlefield. No hazardous substances will be stored, generated or used on the subject property.

3.2 Environmental Contamination

Characterization of the extent and magnitude of environmental impacts is derived from the results of AECOM's Site investigations that have been completed at the site. As part of these investigations, samples of soil and groundwater have been collected to assess whether contaminants of concern were present at a given sampling location. Samples were analyzed for compounds that could be associated with releases from the Site. The following is a summary of the nature and extent of impacts at the Site.

AECOM conducted various phases of a subsurface investigation at the subject property in July, August, and September 2010. The purpose of the investigation was to evaluate the subsurface conditions in order to satisfy MDOT's liability exemption under section 20126 (1)(c)(i) of the Natural Resources and Environmental Protection Act (NREPA) for contamination associated with the subject property.

Areas of the site that were investigated as part of the Phase II include:

- The concrete slab where potentially contaminated soil was reportedly stockpiled;
- Areas of visible industrial fill;
- The area where the former clarifiers were located;
- Areas where coal was reported to be delivered and stored; and,
- Areas along the eastern property line where storage bins were identified in historical aerial photographs.

<u>Test Pit Investigation</u>

As part of the subsurface investigations, AECOM conducted four separate sampling events. The first sampling event involved the excavation and sampling of 20 test pits placed at various locations across the site to initially evaluate site conditions. The test pit investigation was completed on July 21 and 22, 2010. Test Pits were excavated by K&D Industries, Inc. Each excavation was photographed and logged by an AECOM scientist. Soil samples were collected from each test pit by AECOM and one from each test pit was submitted to Fibertec Environmental Services Laboratory (Fibertec) in Holt, Michigan for laboratory analysis. Test pit logs are included as Appendix B and test pit locations are shown on Figure 3. Photographs of some test pits depicting the shallow stratigraphy across the site are included in Appendix C.

The subsurface geology of the subject property includes a surface layer of approximately 6 – 10 inches of screened aggregate (slag) material followed by 1 to 8 feet of sandy fill with concrete, bricks, coal, cinders, and gravel. The coal and cinders were primarily seen in the fill near the railroad right-of-way along the western property boundary and immediately adjacent to the concrete slab located in the southwestern portion of the subject property. The fill is underlain by brown silty clay. The silty clay layer is generally found to extend to the limestone bedrock that is located at depths ranging from 4 (northern portion of property) to 14 (southern portion of property) feet below ground surface (bgs).

AECOM identified shallow groundwater at the subject property in the overburden primarily in discontinuous, isolated sand seams at depths ranging from approximately 2 to 12 feet bgs. Previous environmental investigations conducted in the area have confirmed that a confined aquifer is present in the underlying bedrock formation, generally at depths of 1 to 5 feet below the top of bedrock. Groundwater elevations measured by others in bedrock wells indicate a positive groundwater head or upward gradient. Groundwater flow has been determined to be to the south-southwest toward the River Raisin.

In the area of the subject property, soils appear to have been reworked and/or obscured by urban and industrial development. Fill is reported to have been imported during the nineteenth and twentieth centuries to raise the land surface elevation above the original river plain from the south side of East Elm Avenue northward under the subject property.

The site is drained by Mason Run, which flows eastward across the southern boundary of the subject property. Mason Run previously flowed through a box culvert as it crossed under the northern portion of the former mill complex. Mason Run is now open along the entire southern boundary of the subject property. Mason Run flows into the River Raisin, which is located approximately ¼ mile south of the subject property, and flows east into Lake Erie.

Soil samples were collected from 16 of the 20 test pits and submitted to Fibertec for laboratory analysis of VOCs by method 8260, PNAs by method 8270, PCBs by method 8082, and metals by method 6020. Soil samples were collected from various depths within the test pits to evaluate both the fill and the natural brown silty clay. Soil analytical results are summarized on Tables 1 through 4. Laboratory analytical data is included in Appendix D.

Benzene, ethylbenzene, naphthalene, 1,2,4-trimethylbenzene (1,2,4-TMB), and xylene were detected in soil from TP-6 at concentrations exceeding GRCC. Benzene, ethylbenzene, naphthalene, and 1,2,4-TMB were detected at a concentration exceeding Residential Drinking Water Protection Criteria (RDWP) and xylene was detected at a concentration exceeding Groundwater Surface Water Interface Protection Criteria (GSIP).

Metals were detected in several test pit samples at concentrations exceeding GRCC. Arsenic was detected at concentrations exceeding RDWP and Residential Direct Contact Criteria (RDCC) at TP-4, TP-5, TP-6, TP-10, TP-11, TP-16, and TP-17. Arsenic was detected at concentrations exceeding RDWP at TP-9, TP-13, and TP-18. Lead was detected at concentrations exceeding RDWP and RDC at TP-4. Barium, copper, mercury, selenium, sliver, and zinc were detected at various locations at concentrations exceeding GSIP.

All samples for which impacts were identified were collected from within the fill material. Impacts were detected with no apparent pattern to site use. Therefore, these impacts appear to be related to the industrial fill that was placed prior to operation of the paper mill. Analytical results for samples that were collected from within the natural brown clay did not include any exceedances of GRCC. This suggests that impacts are related to the fill and that, since impacts have not been identified in the clay, contaminants have not leached into the underlying clay.

Temporary Monitoring Well Installation

After completion of the test pit excavations, AECOM installed 10 temporary monitoring wells to assess the condition of the shallow groundwater at the site. The location of the temporary wells is shown on Figure 4. Temporary monitoring wells were installed by Alluvial Earth Inc., using a small truck mounted hydraulic probe. The field work was overseen by an AECOM Field Scientist. AECOM found discontinuous shallow groundwater to be present at the subject property in the overburden primarily in isolated sand seams at depths ranging from approximately 2 to 12 feet bgs. Groundwater samples were collected from temporary 1-inch PVC monitor wells installed in each borehole. Groundwater samples were collected from 9 of the 10 temporary wells. A sample was not collected from TMW-6 because the well did not produce enough water to collect an appropriate sample.

Groundwater samples were submitted Fibertec for laboratory analysis of VOCs, PNAs, ammonia, and the Michigan 10 metals. Groundwater analytical results are summarized on Tables 5 through 7. Of the constituents detected in the groundwater samples, none were detected at concentrations exceeding GRCC.

Soil Boring Investigation

AECOM returned to the site in August 2010 to install 14 soil borings in an attempt to delineate contaminants that were identified as part of the test pit investigation. Soil borings were placed near test pits where contaminants were identified at concentrations exceeding GRCC. Soil boring locations are shown on Figure 4. The table below lists the soil borings and which test pits they were placed near in an attempt to delineate the contaminants identified in the samples collected from the test pits.

Soil Boring ID	**Test Pits Near Soil Boring Location**
GP-1	TP-4, TP-5
GP-2	TP-4
GP-3	TP-4, TP-5, TP-6
GP-4	TP-6
GP-5	TP-5, TP-6
GP-6	TP-5, TP-8
GP-7	TP-11
GP-8	TP-11
GP-9	TP-10
GP-10	TP-10
GP-11	TP-11
GP-12	TP-15, TP-16

Soil Boring ID	Test Pits Near Soil Boring Location
GP-13	TP-16, TP-17
GP-14	TP-17

AECOM collected 15 soil samples from the 14 soil borings. Because environmental impacts had only been identified in the shallow fill material on site, soil samples were collected from the fill material located above the clay layer and below the surficial aggregate slag cover, where present. All samples were submitted for laboratory analysis of arsenic and lead. Because of gasoline related VOC detections at TP-6, seven samples collected in the vicinity of the concrete slab, at GP-1 through GP-6 were also submitted for laboratory analysis of VOCs. Soil analytical results are summarized on Tables 1 through 4. Laboratory analytical data is included as Appendix D.

Benzene was detected at GP-5 at concentrations exceeding RDWP and xylene was detected at GP-4 and GP-5 at concentrations exceeding GSIP. Arsenic was detected at concentrations exceeding RDWP in all samples collected for analysis, with the exception of the sample collected from GP-14. Arsenic was detected at concentrations exceeding RDC in all samples, with the exception of the samples collected from GP-3, GP-6, GP-9, and GP-14. Lead was detected at a concentration exceeding RDWP and RDC at GP-12.

AECOM submitted samples from TP-4 (1,300,000 μg/kg) and GP-12 (4,400,000 μg/kg) for toxicity characteristic leaching procedure (TCLP) analysis of lead because of the elevated lead concentrations that were detected in those two samples. The TCLP result for TP-4 was non-detect and the TCLP result for GP-12 was 55,000 μg/L. The TCLP result for GP-12 exceeds the regulatory limit for lead and therefore would be considered hazardous waste. TCLP results are summarized in Table 3.

Existing Slag Aggregate Material

The Site is currently covered with a gray slag aggregate ground cover. The slag aggregate was purchased by Homrich, Inc. from Tube City IMS in Monroe. TCLP testing that was performed on the slag aggregate is attached as Appendix A. This data indicates that the slag aggregate has no hazardous characteristics.

Lead Delineation: GP-12

As a result of the high TCLP result from GP-12, AECOM returned to the site on September 21, 2010, in an attempt to delineate the extent of the lead contamination identified at GP-12. AECOM advanced an additional 12 hydraulic probe soil borings (GP-12a through GP-12l) near the location of GP-12 and collected a soil sample from the fill material at approximately one foot bgs from 11 of the 12 borings. Soil boring GP-12g was installed at the same location as GP-12 in an attempt to duplicate the results of GP-12. No sample was collected at GP-12h because there was no fill present at that location. Soil samples were analyzed for only lead. Soil boring locations are shown on Figure 5. Analytical results are summarized on Tables 1 through 4. Laboratory analytical data is included as Appendix D.

Of the 11 soil samples analyzed for lead, two had detections exceeding RDWP and RDC, GP-12a and GP-12i. Both of these samples were also submitted for TCLP analysis of lead. The TCLP results were non-detect for both samples. Because the TCLP results were non-detect, and no other samples from the area of

GP-12 exceeded criteria, including GP-12g, collected at the same location as GP-12, the elevated lead concentration detected at GP-12 appears to be isolated and could not be replicated.

3.2.1 Hazardous Substances Present on the Subject Property

The following table lists the hazardous substances identified by AECOM that are present on the subject property in the soil at concentrations exceeding applicable MDNRE Part 201 Residential and Commercial I Cleanup Criteria. Respective CAS Numbers for each hazardous substance are also provided.

Name of Hazardous Substance	CAS Number	Part 201 Soil Criteria Exceeded
Benzene	71432	RDWP, GSIP
Ethylbenzene	100414	GSIP
Naphthalene	91203	GSIP
1,2,4-Trimethylbenzene	95636	GSIP
Xylenes	1330207	GSIP
Arsenic	7784421	RDWP, IDWP, RDC
Lead	7439921	RDWP, IDWP, RDC, IDC
Barium	7440393	GSIP
Copper	7440508	GSIP
Mercury	7439976	GSIP
Selenium	7782492	GSIP
Silver	7440224	GSIP
Zinc	9029974	GSIP

Note:
RDWP = Residential Drinking Water Protection Criteria
IDWP = Industrial Drinking Water Protection Criteria
GSIP = Groundwater Surface Water Interface Protection Criteria
RDC = Residential Direct Contact Criteria
IDC = Industrial Direct Contact Criteria

Laboratory analytical results of soil samples indicate that constituent concentrations are above the Residential and Commercial I Generic Cleanup Criteria, established pursuant to Section 20120a(1)(a) of Part 201 of the Natural Resources and Environmental Protection Act (NREPA), Act 451 of 1994, as amended. As a result, the subject property is defined as a Facility according to Section 20101(1)(l) of the NREPA.

AECOM's analytical results indicated the presence of VOCs, and/or metals in soil at concentrations exceeding Generic Cleanup Criteria. Soil is impacted with constituent concentrations that exceed drinking water protection criteria (DWP), groundwater surface water interface protection criteria (GSIP), and/or direct contact criteria (DCC). Soil impacts do not exceed soil volatilization to indoor air inhalation criteria (SVIIC). Most of the exceedances in soil were concentrations that exceeded either DWP or GSIP. Arsenic and lead were detected at concentrations exceeding DCC.

No parameters were detected in groundwater at concentrations exceeding Generic Cleanup Criteria.

3.3 Exposure Pathways

A pathway analysis was performed to evaluate relevant exposure pathways to humans. An exposure pathway is the route that a contaminant takes from a source to a receptor and describes a unique mechanism by which the receptor may be potentially exposed to contaminant agents at or originating from the site. An evaluation of potential contaminant migration pathways to ecological habitats and surface waters was also performed.

Site data was compared to generic criteria developed by the MDNRE, specifically Part 201 Generic Cleanup Criteria and Screening Levels found in the Administrative Rules for Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. For each risk pathway required to be evaluated, this report identifies the applicable criteria relevant to the pathway and assesses the Site data against these criteria to identify compounds, locations, and media that exceed the generic criteria.

3.3.1 Soil

Relevant exposure pathways for soil at the site include direct contact with the onsite soil, ambient and indoor air inhalation exposure, soil leaching to groundwater, and soil leaching to groundwater/surface water interface. As a result, the applicable criteria evaluated include: Direct Contact Criteria, Soil Volatilization to Indoor Air Inhalation Criteria, Drinking Water Protection Criteria, and Groundwater Surface Water Interface Protection Criteria.

Concentrations of arsenic and lead in the soil at the Site exceed Residential Direct Contact Criteria. Lead is present at concentrations that also exceed Industrial Direct Contact Criteria. Due to the potential exposure to the impacted soil, this pathway is relevant and is addressed as part of this Due Care Plan.

Concentrations of contaminants in the near-surface soils are below the Residential Volatilization to Indoor Air Inhalation Criteria. Therefore, no unacceptable exposures are anticipated via this exposure pathway.

The groundwater beneath the Site is not currently used as a source of drinking water. However, concentrations of various organic compounds in soil exceed the Residential and/or Industrial Drinking Water Protection Criteria, and therefore have the potential to enter the groundwater at concentrations in excess of the drinking water criteria. The drinking water pathway is therefore relevant; however, this exposure pathway is reliably restricted because the groundwater beneath the Site will not be used as a source of drinking water. If future Site development requires a potable water supply, the exposure pathway would be reliably restricted because the Site would be serviced by municipal water.

Contaminant concentrations in excess of Soil Protective of Groundwater/Surface Water Interface (GSI) Criteria were detected in the soil beneath the site. The Mason Run is located along the southern boundary of the site and the River Raisin is located approximately ¼ mile south of the Site. The Mason Run and the River Raisin flow east to Lake Eire, which is located approximately 2 miles east of the site. If soil

contaminants were to leach to groundwater, the contamination could potentially migrate to the Mason Run and/or the River Raisin. Therefore, the GSI pathway is considered relevant to the subject site.

3.3.2 Groundwater

Relevant exposure pathways for groundwater at the site include drinking water, dermal exposures (construction workers), and groundwater contamination risk to surface water. There are currently no structures present on the property. Therefore, the volatilization to indoor air pathway is incomplete. As a result, the applicable criteria evaluated include: groundwater contact criteria, drinking water criteria, and groundwater surface water interface criteria.

No hazardous substances were identified in the shallow groundwater at concentrations above Residential/Industrial Drinking Water Criteria. The shallow groundwater beneath the Site is not used as a source of drinking water. The drinking water pathway is reliably restricted at the Site because no water supply wells are used onsite for potable or non-potable purposes. If future Site development requires a potable water supply, the exposure pathway would be reliably restricted because the Site would be serviced by municipal water. Therefore, no unacceptable exposures are anticipated via this exposure pathway.

No hazardous substances were identified in the groundwater at concentrations above groundwater contact criteria. The depth to groundwater is approximately 6 to 13 feet on the property. The potential exists for groundwater to be encountered during construction activities and utility installation. Therefore, the direct contact pathway is considered relevant to the site. However, no unacceptable exposure is anticipated via this exposure pathway.

No hazardous substances were identified in the groundwater at concentrations above the Groundwater Surface Water Interface (GSI) Criteria. The Mason Run is located along the southern boundary of the site and the River Raisin is located approximately ¼ mile south of the site. Groundwater contaminants could potentially migrate to the Mason Run and/or River Raisin. Therefore, the GSI pathway is considered relevant to the subject site. Although the GSI pathway is complete, there have been no detections of contaminants in the groundwater at the site exceeding GSI criteria.

3.4 Potential Fire or Explosion Hazards

There are no known fire or explosion hazards due to hazardous substances at the site.

4.0 Plan for Response Activities (PRA)

The following section presents the plan for response activities (PRA) for the Site. These response activities will be conducted at the Site to prevent or mitigate potential unacceptable exposure to hazardous substances and/or exacerbation of the existing identified contamination.

4.1 Existing Ground Cover

The Site is currently covered with a slag aggregate ground cover which averages between 6 and 10 inches over the majority of the Site, based on observations made by AECOM during the soil investigation. However, shallow fill is exposed at the surface at several locations. This ground cover should act as a reliable barrier to prevent direct exposure to impacted soils on the Site. The Site is fenced along the northern and eastern boundaries, is bordered to the south by the Mason Run, and is bordered on the west by the Conrail and Grand Trunk Western Railroad. Although the Site is reliably restricted to potential inadvertent third party exposure, if future development is to include public occupancy, additional efforts should take place to ensure that a minimum of 6 inches of slag aggregate or other acceptable ground cover is present over the entire property. The barrier, in combination with notices and maintenance of the barrier, will effectively and reliably eliminate direct contact with the soil on the property. All barriers will be inspected annually. Any defects or damages will be repaired or replaced. A checklist to be used to document annual visual inspection of surface cover is included in Appendix E.

4.2 Soil Management Plan

No site improvements, including subsurface work, are currently anticipated by MDOT. There are currently no plans to remove or otherwise disturb impacted soil at the subject property that would exacerbate existing soil contamination. If a situation arises, in which soil removal and offsite disposal is deemed necessary, in accordance with MCL 324.20120c, MDOT will implement written policies to prevent removal of soil without testing for the presence of hazardous substances and an evaluation for proper disposal or relocation. This will prevent the inadvertent removal and improper disposal of potentially contaminated soil. In addition, the following will apply:

- If any subsurface activity is to be performed under the direction of MDOT, representatives of MDOT will notify any third party contractors of existing conditions, and only people who have been properly trained in hazardous substance management will be hired to perform the activity. If the contractor is digging in a potentially contaminated area, it is necessary to hire a contractor that is trained under the Hazardous Waste Operations and Emergency Response guidelines in 29 CFR 1910.120. Work conducted in this area is also subject to OSHA Worker Right to Know.

- If subsurface work is being conducted under the direction of MDOT on other parts of the property not previously identified as being contaminated and discolored soil, vapors, or other indicators of contamination are noted, MDOT will assess the situation and make contact with an environmental consultant that can facilitate the process of assessing the hazard in the area and accomplishing the original task.

4.3 Fugitive Dust Control

If future development of the Site involves construction activities, fugitive dust will be monitored and controlled during construction. Work shall be conducted in a manner which prevents fugitive dust from

leaving the property. A water truck will be used to spray the site to control fugitive dust when deemed necessary. If water usage is incapable of controlling the spread of fugitive dust, construction activities will be ceased until conditions improve. A truck wash will be utilized to ensure that vehicles leaving the site will be free of accumulated dust to prevent contaminants from being carried offsite.

4.4 Soil Erosion and Sediment Control/Storm Water Control

If future development of the Site involves construction activities, a soil erosion and sediment control (SESC) permit will be acquired prior to construction. Proper control measures will be implemented to minimize erosion and prevent off site sediment migration. SESC measures will be implemented prior to beginning any earthwork at the Site. All SESC measures will be inspected weekly and after precipitation events to evaluate effectiveness. SESC measures will be maintained or replaced as needed based on Site inspections. Storm water coverage will be obtained under the SESC permit through Permit-by-Rule. Larson will comply with the requirements of Permit-by-Rule which include having a construction site storm water operator conducting inspections weekly and within 24 hours of a precipitation event that results in discharge from the Site.

4.5 Operations/Procedures

For sub-surface activities during which contact with soil and groundwater may occur, MDOT will follow protocols for both the proper management of excavated soil and site safety procedures. Furthermore, pursuant to Rule 1013(6), written notice (by a method that provides proof of delivery) of the general nature and extent of contamination and potential unacceptable exposures will be provided to the following as relevant to subsurface activities at the facility:

- easement holders of record;
- utility franchise holders of record;
- the owners or operators of all public utilities that serve the property; and,
- any person known to be conducting sub-surface activities at the property.

Furthermore, upon request of any of the entities identified above, MDOT will provide all available information about environmental conditions at the property that are relevant to the activities of that entity. This precaution should reasonably reduce the potential for utility worker or easement holders to come into contact with subsurface soils and shallow, perched groundwater.

5.0 Evaluation and Demonstration of Compliance with Section 7a Obligations

5.1 Exacerbation

No activities will be conducted at the site that may increase the severity of the impacted soil or groundwater, or lead to increased response activities or costs.

The intended future use of the site will be as an historic battlefield as part of the National Park Service. No onsite activities are planned that would foreseeably exacerbate existing environmental impacts. Any future changes to the operations or physical structures at the site will be designed to prevent exacerbation of the impacted soil and/or groundwater. Any changes that would necessitate the review for potential exacerbation would include, at a minimum, any construction activities, or modifications to stormwater drainage features.

5.2 Due Care

The potentially unacceptable exposure to hazardous substances on the property will be adequately and reliably prevented by the implementation of the response activities discussed previously. The following stipulations will be followed:

- No site activities involving potential exposure to soil will be conducted without oversight by MDOT, or their authorized representative. Notification of site conditions will be made to all prospective contractors or utility easement holders prior to onsite activities.
- Groundwater resources shall not be developed on the site except for the purpose of environmental investigation or remediation.

Based on these preventative measures, the pathways for exposure will be reasonably restricted for this site.

5.3 Reasonable Precautions

Due to the subsurface nature of contamination and the existence of a partial barrier over the site, contaminant exposure to site occupants or third parties is not expected to occur assuming the existing surface barrier is extended over the entire Site prior to use by Site occupants or third parties. The owner and operator will not allow any activities of third parties to take place on its property that would result in exposure to existing contamination at the subject site without proper management and notification being made to the third parties.

Tables

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS - FULL SCAN VOCs
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

																								Part 201 Generic Residential Cleanup Criteria*		
Sample ID	TP-3	TP-4	TP-5	TP-6	TP-9	TP-10	TP-11	TP-13	TP-14	TP-15	TP-16	TP-17	TP-18	TP-19	TP-19	TP-20	GP-1	GP-2	GP-3	GP-3	GP-4	GP-5	GP-6	Drinking	Groundwater	Direct
Depth (feet)	6	4	3	1	8	1.5	3	2.5	3	1	1	1.5	1.5	0.5	2	1.5	4	4	1	4	1	1	3	Water	Surface Water	Contact
Date Collected	7/21/10	7/21/10	7/21/10	7/21/10	7/21/10	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	8/18/10	8/18/10	8/18/10	8/18/10	8/18/10	8/18/10	8/18/10	Protection	Interface	Criteria
Volatiles by 8260 (µg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**			
Acetone	<1,000	<1,000	<1,000	<1,000	NA	<1,000	<1,000	<1,000	NA	<1,000	<1,000	<1,000	<1,000	NA	<1,000	NA	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	15,000	34,000	23,000,000
Acrylonitrile	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	52	100 (M,X); 98	16,000
Benzene	<50	<50	<57	**240**	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	**65**	**150**	<50	100	4,000 (X)	180,000
Bromobenzene	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	550	NA	540,000
Bromochloromethane	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	No Criteria Available		
Bromodichloromethane	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	2,000	ID	110,000
Bromoform	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	2,000	ID	820,000
Bromomethane	<200	<200	<200	<200	NA	<200	<200	<200	NA	<200	<200	<200	<200	NA	<200	NA	<200	<200	<200	<200	<200	<200	<200	200	ID	320,000
2-Butanone	<750	<750	<750	<750	NA	<750	<750	<750	NA	<750	<750	<750	<750	NA	<750	NA	<750	<750	<750	<750	<750	<750	<750	260,000	44,000	27,000,000
n-Butylbenzene	<50	<50	<57	**100**	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	1,600	ID	2,500,000
sec-Butylbenzene	<50	<50	<57	**66**	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	1,600	ID	2,500,000
tert-Butylbenzene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	1,600	NA	2,500,000
Carbon Disulfide	<250	<250	<250	<250	NA	<250	<250	<250	NA	<250	<250	<250	<250	NA	<250	NA	<250	<250	<250	<250	<250	<250	<250	16,000	ID	280,000
Carbon Tetrachloride	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	100	900 (X)	96,000
Chlorobenzene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	2,000	NA	260,000
Chloroethane	<250	<250	<250	<250	NA	<250	<250	<250	NA	<250	<250	<250	<250	NA	<250	NA	<250	<250	<250	<250	<250	<250	<250	8,600	ID	950,000
Chloroform	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	2,000	3,400 (X)	1,200,000
Chloromethane	<250	<250	<250	<250	NA	<250	<250	<250	NA	<250	<250	<250	<250	NA	<250	NA	<250	<250	<250	<250	<250	<250	<250	5,200	ID	1,100,000
2-Chlorotoluene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	3,300	NA	500,000
Dibromochloromethane	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	2,000	ID	110,000
1,2-Dibromo-3-chloropropane	<63	<64	<110	<57	NA	<63	<94	<64	NA	<55	<80	<67	<67	NA	<65	NA	<33	<31	<30	<32	<30	<31	<28	4	NA	1,200
Dibromomethane	<250	<250	<250	<250	NA	<250	<250	<250	NA	<250	<250	<250	<250	NA	<250	NA	<250	<250	<250	<250	<250	<250	<250	1,600	NA	2,000,000
1,2-Dichlorobenzene	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	14,000	360	210,000
1,3-Dichlorobenzene	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	170	1,100	170,000
1,4-Dichlorobenzene	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	1,700	290	400,000
Dichlorodifluoromethane	<250	<250	<250	<250	NA	<250	<250	<250	NA	<250	<250	<250	<250	NA	<250	NA	<250	<250	<250	<250	<250	<250	<250	95,000	ID	1,000,000
1,1-Dichloroethane	<50	<50	<57	<57	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	18,000	15,000	890,000
1,2-Dichloroethane	<63	<64	<110	<50	NA	<63	<94	<64	NA	<55	<80	<67	<67	NA	<65	NA	<65	<63	<61	<64	<60	<62	<57	100	7,200 (X)	91,000
1,1-Dichloroethene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	140	1,300 (X)	200,000
cis-1,2-Dichloroethene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	1,400	12,000	640,000
trans-1,2-Dichloroethene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	2,000	30,000	1,400,000
1,2-Dichloropropane	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	100	5,800 (X)	140,000
cis-1,3-Dichloropropene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	170	ID	10,000
trans-1,3-Dichloropropene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	170	ID	10,000
Ethylbenzene	<50	<50	<57	**440**	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	**87**	**130**	<50	1,500	360	140,000
Ethylene Dibromide	<63	<64	<110	<57	NA	<63	<94	<64	NA	<55	<80	<67	<67	NA	<65	NA	<26	<25	<24	<26	<24	<25	<23	250	20 (M); 4.0	250
2-Hexanone	<2,500	<2,500	<2,500	<2,500	NA	<2,500	<2,500	<2,500	NA	<2,500	<2,500	<2,500	<2,500	NA	<2,500	NA	<2,500	<2,500	<2,500	<2,500	<2,500	<2,500	<2,500	20,000	NA	2,500,000
Isopropylbenzene	<250	<250	<250	<250	NA	<250	<250	<250	NA	<250	<250	<250	<250	NA	<250	NA	<250	<250	<250	<250	<250	<250	<250	91,000	ID	390,000
2-Methylnaphthalene	<330	<330	<330	**1,400**	NA	<330	<330	<330	NA	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<390	**540**	<570	57,000	ID	8.10E+06
4-Methyl-2-Pentanone	<2,500	<2,500	<2,500	<2,500	NA	<2,500	<2,500	<2,500	NA	<2,500	<2,500	<2,500	<2,500	NA	<2,500	NA	<2,500	<2,500	<2,500	<2,500	<2,500	<2,500	<2,500	36,000	ID	2,700,000
Methylene Chloride	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	100	19,000 (X)	1,300,000
MTBE	<250	<250	<250	<250	NA	<250	<250	<250	NA	<250	<250	<250	<250	NA	<250	NA	<250	<250	<250	<250	<250	<250	<250	800	15,000 (X)	1,500,000
Naphthalene	<330	<330	<570	**1,300**	NA	<330	<330	<330	NA	<330	<330	<330	<330	NA	<330	NA	<330	<330	<330	<330	**480**	**550**	<330	35,000	870	16,000,000
n-Propylbenzene	<100	<100	<100	**220**	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	1,600	NA	2,500,000
Styrene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	2,700	2,200	400,000
1,1,1,2-Tetrachloroethane	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	1,500	ID (X)	440,000
1,1,2,2-Tetrachloroethane	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	170	1,600 (X)	53,000
Tetrachloroethene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	100	900 (X)	88,000
Toluene	<50	<50	<57	**1,300**	NA	**96**	<50	**220**	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	**510**	**770**	<50	16,000	2,800	250,000
1,2,4-Trichlorobenzene	<330	<330	<330	<330	NA	<330	<330	<330	NA	<330	<330	<330	<330	NA	<330	NA	<330	<330	<330	<330	<330	<330	<330	4,200	1,800	990,000
1,1,1-Trichloroethane	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	4,000	4,000	460,000
1,1,2-Trichloroethane	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	100	6,600 (X)	180,000
Trichloroethene	<50	<50	<57	<50	NA	<50	<50	<50	NA	<50	<50	<50	<50	NA	<50	NA	<50	<50	<50	<50	<50	<50	<50	100	4,000 (X)	500,000
Trichlorofluoromethane	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	52,000	NA	560,000
1,2,3-Trichloropropane	<100	<100	<100	<100	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	840	NA	830,000
1,2,3-Trimethylbenzene	<100	<100	<100	**370**	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	**180**	**170**	<100	No Criteria Available		
1,2,4-Trimethylbenzene	<100	<100	<100	**850**	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	**290**	**300**	<100	2,100	570	110,000
1,3,5-Trimethylbenzene	<100	<100	<100	**170**	NA	<100	<100	<100	NA	<100	<100	<100	<100	NA	<100	NA	<100	<100	<100	<100	<100	<100	<100	1,800	1,100	94,000
Vinyl Chloride	<40	<40	<57	<40	NA	<40	<40	<40	NA	<40	<40	<40	<40	NA	<40	NA	<40	<40	<40	<40	<40	<40	<40	40	300	3,800
Total Xylenes	<150	<150	<150	**2,900**	NA	<150	<150	<150	NA	<150	<150	<150	<150	NA	<150	NA	<150	<150	<150	<150	**1,000**	**1,200**	<150	5,600	700	150,000

* Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels, MDEQ Administrative Rules, January 2006
NA = Not Analyzed
Shaded cell indicates concentration exceeds one or more applicable criteria.
Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 2
SOIL SAMPLE ANALYTICAL RESULTS - PNAs
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

							Part 201 Generic Residential Cleanup Criteria*		
Sample ID	TP-3	TP-4	TP-5	TP-6	TP-9	TP-10	Drinking	Groundwater	Direct
Depth (feet)	6	4	3	1	8	1.5	Water	Surface Water	Contact
Date Collected	7/21/10	7/21/10	7/21/10	7/21/10	7/21/10	7/22/10	Protection	Interface	Criteria
PNAs by 8270 (µg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**			
Acenaphthene	<330	<330	<330	<330	NA	<330	300,000	4,400	41,000,000
Acenaphthylene	<330	<330	<330	<330	NA	<330	5,900	ID	1,600,000
Anthracene	<330	<330	<330	<330	NA	<330	41,000	ID	230,000,000
Benzo(a)anthracene	<330	**540**	<330	**360**	NA	<330	NLL	NLL	20,000
Benzo(a)pyrene	<330	**420**	<330	**580**	NA	<330	NLL	NLL	2,000
Benzo(b)fluoranthene	<330	**630**	<330	**980**	NA	<330	NLL	NLL	20,000
Benzo(ghi)perylene	<330	**400**	<330	<330	NA	<330	NLL	NLL	2,500,000
Benzo(k)fluoranthene	<330	<330	<330	<330	NA	<330	NLL	NLL	200,000
Chrysene	<330	**430**	<330	**510**	NA	<330	NLL	NLL	2,000,000
Dibenzo(a,h)anthracene	<330	<340	<330	<330	NA	<330	NLL	NLL	2,000
Fluoranthene	<330	**710**	<330	<330	NA	<330	730,000	5,500	46,000,000
Fluorene	<330	<330	<330	<330	NA	<330	390,000	5,300	27,000,000
Indeno(1,2,3-cd)pyrene	<330	**370**	<330	<330	NA	<330	NLL	NLL	20,000
2-Methylnaphthalene	<330	<330	<330	**1,400**	NA	<330	57,000	ID	8,100,000
Phenanthrene	<330	**360**	<330	**660**	NA	<330	56,000	5,300	1,600,000
Pyrene	<330	**640**	<330	**410**	NA	<330	480,000	ID	29,000,000

* Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels, MDEQ Administrative Rules, January 2006

NLL = Not Likely to Leach

Shaded cell indicates concentration exceeds one or more applicable criteria.

Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 2
SOIL SAMPLE ANALYTICAL RESULTS - PNAs
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

						Part 201 Generic Residential Cleanup Criteria*		
Sample ID	TP-11	TP-13	TP-14	TP-15	TP-16	Drinking	Groundwater	Direct
Depth (feet)	3	2.5	3	1	1	Water	Surface Water	Contact
Date Collected	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	Protection	Interface	Criteria
PNAs by 8270 (µg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**			
Acenaphthene	<330	<330	NA	<330	<330	300,000	4,400	41,000,000
Acenaphthylene	<330	<330	NA	<330	<330	5,900	ID	1,600,000
Anthracene	<330	<330	NA	<330	<330	41,000	ID	230,000,000
Benzo(a)anthracene	<330	<330	NA	<330	<330	NLL	NLL	20,000
Benzo(a)pyrene	<330	<330	NA	<330	<330	NLL	NLL	2,000
Benzo(b)fluoranthene	<330	<330	NA	<330	<330	NLL	NLL	20,000
Benzo(ghi)perylene	<330	<330	NA	<330	<330	NLL	NLL	2,500,000
Benzo(k)fluoranthene	<330	<330	NA	<330	<330	NLL	NLL	200,000
Chrysene	<330	<330	NA	<330	<330	NLL	NLL	2,000,000
Dibenzo(a,h)anthracene	<330	<330	NA	<330	<330	NLL	NLL	2,000
Fluoranthene	<330	<330	NA	<330	<330	730,000	5,500	46,000,000
Fluorene	<330	<330	NA	<330	<330	390,000	5,300	27,000,000
Indeno(1,2,3-cd)pyrene	<330	<330	NA	<330	<330	NLL	NLL	20,000
2-Methylnaphthalene	<330	<330	NA	<330	<330	57,000	ID	8,100,000
Phenanthrene	<330	<330	NA	<330	<330	56,000	5,300	1,600,000
Pyrene	<330	<330	NA	<330	<330	480,000	ID	29,000,000

* Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels, MDEQ Administrative Rules, January 2006

NLL = Not Likely to Leach

Shaded cell indicates concentration exceeds one or more applicable criteria.

Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 2
SOIL SAMPLE ANALYTICAL RESULTS - PNAs
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

						Part 201 Generic Residential Cleanup Criteria*		
Sample ID	TP-17	TP-18	TP-19	TP-19	TP-20	Drinking	Groundwater	Direct
Depth (feet)	1.5	1.5	0.5	2	1.5	Water	Surface Water	Contact
Date Collected	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	Protection	Interface	Criteria
PNAs by 8270 (µg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**			
Acenaphthene	<330	<330	<330	<330	<330	300,000	4,400	41,000,000
Acenaphthylene	<330	<330	<330	<330	<330	5,900	ID	1,600,000
Anthracene	<330	<330	<330	<330	<330	41,000	ID	230,000,000
Benzo(a)anthracene	<330	<330	<330	<330	<330	NLL	NLL	20,000
Benzo(a)pyrene	<330	<330	<330	<330	<330	NLL	NLL	2,000
Benzo(b)fluoranthene	<330	<330	<330	<330	<330	NLL	NLL	20,000
Benzo(ghi)perylene	<330	<330	<330	<330	<330	NLL	NLL	2,500,000
Benzo(k)fluoranthene	<330	<330	<330	<330	<330	NLL	NLL	200,000
Chrysene	<330	<330	<330	<330	<330	NLL	NLL	2,000,000
Dibenzo(a,h)anthracene	<330	<330	<330	<330	<330	NLL	NLL	2,000
Fluoranthene	<330	<330	<330	<330	<330	730,000	5,500	46,000,000
Fluorene	<330	<330	<330	<330	<330	390,000	5,300	27,000,000
Indeno(1,2,3-cd)pyrene	<330	<330	<330	<330	<330	NLL	NLL	20,000
2-Methylnaphthalene	<330	<330	<330	<330	<330	57,000	ID	8,100,000
Phenanthrene	<330	<330	<330	<330	<330	56,000	5,300	1,600,000
Pyrene	<330	<330	<330	<330	<330	480,000	ID	29,000,000

* Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels, MDEQ Administrative Rules, January 2006

NLL = Not Likely to Leach

Shaded cell indicates concentration exceeds one or more applicable criteria.

Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 3
SOIL SAMPLE ANALYTICAL RESULTS - Metals
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

							Part 201 Generic Cleanup Criteria*			
Sample ID	TP-3	TP-4	TP-5	TP-6	TP-9	TP-10	Residential	Residential	Groundwater	Statewide
Depth (feet)	6	4	3	1	8	1.5	Drinking Water	Direct Contact	Surface Water	Default
Date Collected	7/21/10	7/21/10	7/21/10	7/21/10	7/21/10	7/22/10	Protection	Criteria	Interface	Background
Total Metals (μg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**				
Arsenic	**1,400**	**16,000**	**9,300**	**44,000**	**6,400**	**13,000**	4,600	7,600	70,000 (X)	5,800
Barium	**100,000**	**170,000**	**120,000**	**95,000**	**74,000**	**300,000**	1,300,000	37,000,000	290,000	75,000
Cadmium	**120**	**1,000**	**1,600**	**390**	<50	**730**	6,000	550,000	2,600	1,200
Chromium	**14,000**	**13,000**	**6,900**	**12,000**	**18,000**	**260,000**	1,000,000,000	790,000,000	2,100,000,000	18,000
Copper	**11,000**	**720,000**	**26,000**	**25,000**	**14,000**	**53,000**	5,800,000	20,000,000	52,000	32,000
Lead	**13,000**	**1,300,000**	**19,000**	**40,000**	**13,000**	**69,000**	700,000	400,000	1,800,000	21,000
Mercury	<50	**790**	**420**	**94**	<50	**130**	1,700	160,000	50 (M); 1.2	130
Selenium	**320**	**1,400**	**1,200**	**1,700**	**380**	**1,200**	4,000	2,600,000	400	410
Silver	<100	**390**	<100	**180**	<100	**170**	4,500	2,500,000	100 (M); 27	1,000
Zinc	**44,000**	**740,000**	**720,000**	**120,000**	**40,000**	**240,000**	2,400,000	170,000,000	120,000	47,000
TCLP Lead (μg/L)	NA	<1,000	NA	NA	NA	NA	NA	NA	NA	NA

* Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels, MDEQ Administrative Rules, January 2006

NA = Not Analyzed

Shaded cell indicates concentration exceeds one or more applicable criteria.

Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 3
SOIL SAMPLE ANALYTICAL RESULTS - Metals
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

							Part 201 Generic Cleanup Criteria*			
Sample ID	TP-11	TP-13	TP-14	TP-15	TP-16	TP-17	Residential	Residential	Groundwater	Statewide
Depth (feet)	3	2.5	3	1	1	1.5	Drinking Water	Direct Contact	Surface Water	Default
Date Collected	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	Protection	Criteria	Interface	Background
Total Metals (μg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**				
Arsenic	**15,000**	**5,900**	**3,800**	**4,900**	**19,000**	**9,700**	4,600	7,600	70,000 (X)	5,800
Barium	**140,000**	**130,000**	**100,000**	**280,000**	**120,000**	**130,000**	1,300,000	37,000,000	290,000	75,000
Cadmium	**74**	**360**	**210**	**370**	**140**	**410**	6,000	550,000	2,600	1,200
Chromium	**6,800**	**18,000**	**16,000**	**20,000**	**88,000**	**20,000**	1,000,000,000	790,000,000	2,100,000,000	18,000
Copper	**28,000**	**31,000**	**21,000**	**9,800**	**26,000**	**34,000**	5,800,000	20,000,000	52,000	32,000
Lead	**6,800**	**25,000**	**8,900**	**67,000**	**20,000**	**39,000**	700,000	400,000	1,800,000	21,000
Mercury	**140**	**52**	<50	**200**	**61**	**73**	1,700	160,000	50 (M); 1.2	130
Selenium	**970**	**770**	**300**	**330**	**570**	**1,100**	4,000	2,600,000	400	410
Silver	<100	<100	<100	<100	<100	<100	4,500	2,500,000	100 (M); 27	1,000
Zinc	**38,000**	**64,000**	**47,000**	**170,000**	**39,000**	**75,000**	2,400,000	170,000,000	120,000	47,000
TCLP Lead (μg/L)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

* Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels, MDEQ Administrative Rules, January 2006
NA = Not Analyzed
Shaded cell indicates concentration exceeds one or more applicable criteria.
Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 3
SOIL SAMPLE ANALYTICAL RESULTS - Metals
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

							Part 201 Generic Cleanup Criteria*			
Sample ID	TP-18	TP-19	TP-19	TP-20	GP-1	GP-2	Residential	Residential	Groundwater	Statewide
Depth (feet)	1.5	0.5	2	1.5	4	4	Drinking Water	Direct Contact	Surface Water	Default
Date Collected	7/22/10	7/22/10	7/22/10	7/22/10	8/18/10	8/18/10	Protection	Criteria	Interface	Background
Total Metals (μg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**				
Arsenic	**6,400**	**3,200**	**5,200**	**3,100**	**95,000**	**12,000**	4,600	7,600	70,000 (X)	5,800
Barium	**130,000**	**15,000**	**95,000**	**14,000**	NA	NA	1,300,000	37,000,000	290,000	75,000
Cadmium	**690**	<50	**110**	**57**	NA	NA	6,000	550,000	2,600	1,200
Chromium	**18,000**	**3,800**	**21,000**	**4,500**	NA	NA	1,000,000,000	790,000,000	2,100,000,000	18,000
Copper	**29,000**	**3,700**	**35,000**	**3,000**	NA	NA	5,800,000	20,000,000	52,000	32,000
Lead	**20,000**	**5,500**	**20,000**	**3,000**	**24,000**	**23,000**	700,000	400,000	1,800,000	21,000
Mercury	**62**	<50	<50	<50	NA	NA	1,700	160,000	50 (M); 1.2	130
Selenium	**1,200**	**1,000**	**1,100**	**390**	NA	NA	4,000	2,600,000	400	410
Silver	<100	<100	<100	<100	NA	NA	4,500	2,500,000	100 (M); 27	1,000
Zinc	**120,000**	**33,000**	**100,000**	**15,000**	NA	NA	2,400,000	170,000,000	120,000	47,000
TCLP Lead (μg/L)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

* Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels, MDEQ Administrative Rules, January 2006

NA = Not Analyzed

Shaded cell indicates concentration exceeds one or more applicable criteria.

Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 3
SOIL SAMPLE ANALYTICAL RESULTS - Metals
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

							Part 201 Generic Cleanup Criteria*			
Sample ID	GP-3	GP-3	GP-4	GP-5	GP-6	GP-7	Residential	Residential	Groundwater	Statewide
Depth (feet)	1	4	1	1	3	3	Drinking Water	Direct Contact	Surface Water	Default
Date Collected	8/18/10	8/18/10	8/18/10	8/18/10	8/18/10	8/18/10	Protection	Criteria	Interface	Background
Total Metals (μg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**				
Arsenic	**6,800**	**7,100**	**29,000**	**62,000**	**7,400**	**25,000**	4,600	7,600	70,000 (X)	5,800
Barium	NA	NA	NA	NA	NA	NA	1,300,000	37,000,000	290,000	75,000
Cadmium	NA	NA	NA	NA	NA	NA	6,000	550,000	2,600	1,200
Chromium	NA	NA	NA	NA	NA	NA	1,000,000,000	790,000,000	2,100,000,000	18,000
Copper	NA	NA	NA	NA	NA	NA	5,800,000	20,000,000	52,000	32,000
Lead	**3,900**	**8,500**	**26,000**	**44,000**	**130,000**	**7,900**	700,000	400,000	1,800,000	21,000
Mercury	NA	NA	NA	NA	NA	NA	1,700	160,000	50 (M); 1.2	130
Selenium	NA	NA	NA	NA	NA	NA	4,000	2,600,000	400	410
Silver	NA	NA	NA	NA	NA	NA	4,500	2,500,000	100 (M); 27	1,000
Zinc	NA	NA	NA	NA	NA	NA	2,400,000	170,000,000	120,000	47,000
TCLP Lead (μg/L)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

* Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels, MDEQ Administrative Rules, January 2006

NA = Not Analyzed

Shaded cell indicates concentration exceeds one or more applicable criteria.

Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 3
SOIL SAMPLE ANALYTICAL RESULTS - Metals
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

								Part 201 Generic Cleanup Criteria*			
Sample ID	GP-8	GP-9	GP-10	GP-11	GP-12	GP-13	GP-14	Residential	Residential	Groundwater	Statewide
Depth (feet)	3	1.5	1.5	2	1	1	1	Drinking Water	Direct Contact	Surface Water	Default
Date Collected	8/18/10	8/18/10	8/18/10	8/18/10	8/18/10	8/18/10	8/18/10	Protection	Criteria	Interface	Background
Total Metals (μg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**				
Arsenic	**69,000**	**7,500**	**13,000**	**16,000**	**19,000**	**9,100**	**5,000**	4,600	7,600	70,000 (X)	5,800
Barium	NA	NA	NA	NA	NA	NA	NA	1,300,000	37,000,000	290,000	75,000
Cadmium	NA	NA	NA	NA	NA	NA	NA	6,000	550,000	2,600	1,200
Chromium	NA	NA	NA	NA	NA	NA	NA	1,000,000,000	790,000,000	2,100,000,000	18,000
Copper	NA	NA	NA	NA	NA	NA	NA	5,800,000	20,000,000	52,000	32,000
Lead	**54,000**	**13,000**	**25,000**	**65,000**	**4,400,000**	**32,000**	**15,000**	700,000	400,000	1,800,000	21,000
Mercury	NA	NA	NA	NA	NA	NA	NA	1,700	160,000	50 (M); 1.2	130
Selenium	NA	NA	NA	NA	NA	NA	NA	4,000	2,600,000	400	410
Silver	NA	NA	NA	NA	NA	NA	NA	4,500	2,500,000	100 (M); 27	1,000
Zinc	NA	NA	NA	NA	NA	NA	NA	2,400,000	170,000,000	120,000	47,000
TCLP Lead (μg/L)	NA	NA	NA	NA	55,000	NA	NA	NA	NA	NA	NA

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NA = Not Analyzed

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TABLE 3
SOIL SAMPLE ANALYTICAL RESULTS - Metals
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

								Part 201 Generic Cleanup Criteria*			
Sample ID	GP-12a	GP-12b	GP-12c	GP-12d	GP-12e	GP-12f	GP-12g	Residential	Residential	Groundwater	Statewide
Depth (feet)	1	1	1.5	1	1	1	1	Drinking Water	Direct Contact	Surface Water	Default
Date Collected	9/21/10	9/21/10	9/21/10	9/21/10	9/21/10	9/21/10	9/21/10	Protection	Criteria	Interface	Background
Total Metals (μg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**				
Arsenic	NA	NA	NA	NA	NA	NA	NA	4,600	7,600	70,000 (X)	5,800
Barium	NA	NA	NA	NA	NA	NA	NA	1,300,000	37,000,000	290,000	75,000
Cadmium	NA	NA	NA	NA	NA	NA	NA	6,000	550,000	2,600	1,200
Chromium	NA	NA	NA	NA	NA	NA	NA	1,000,000,000	790,000,000	2,100,000,000	18,000
Copper	NA	NA	NA	NA	NA	NA	NA	5,800,000	20,000,000	52,000	32,000
Lead	**1,000,000**	**26,000**	**29,000**	**10,000**	**28,000**	**130,000**	**12,000**	700,000	400,000	1,800,000	21,000
Mercury	NA	NA	NA	NA	NA	NA	NA	1,700	160,000	50 (M); 1.2	130
Selenium	NA	NA	NA	NA	NA	NA	NA	4,000	2,600,000	400	410
Silver	NA	NA	NA	NA	NA	NA	NA	4,500	2,500,000	100 (M); 27	1,000
Zinc	NA	NA	NA	NA	NA	NA	NA	2,400,000	170,000,000	120,000	47,000
TCLP Lead (μg/L)	<1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

* Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels, MDEQ Administrative Rules, January 2006

NA = Not Analyzed

Shaded cell indicates concentration exceeds one or more applicable criteria.

Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 3
SOIL SAMPLE ANALYTICAL RESULTS - Metals
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

					Part 201 Generic Cleanup Criteria*			
Sample ID	GP-12i	GP-12j	GP-12k	GP-12l	Residential	Residential	Groundwater	Statewide
Depth (feet)	1.5	1.5	1	1	Drinking Water	Direct Contact	Surface Water	Default
Date Collected	9/21/10	9/21/10	9/21/10	9/21/10	Protection	Criteria	Interface	Background
Total Metals (μg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**				
Arsenic	NA	NA	NA	NA	4,600	7,600	70,000 (X)	5,800
Barium	NA	NA	NA	NA	1,300,000	37,000,000	290,000	75,000
Cadmium	NA	NA	NA	NA	6,000	550,000	2,600	1,200
Chromium	NA	NA	NA	NA	1,000,000,000	790,000,000	2,100,000,000	18,000
Copper	NA	NA	NA	NA	5,800,000	20,000,000	52,000	32,000
Lead	**1,200,000**	**290,000**	**15,000**	**8,300**	700,000	400,000	1,800,000	21,000
Mercury	NA	NA	NA	NA	1,700	160,000	50 (M); 1.2	130
Selenium	NA	NA	NA	NA	4,000	2,600,000	400	410
Silver	NA	NA	NA	NA	4,500	2,500,000	100 (M); 27	1,000
Zinc	NA	NA	NA	NA	2,400,000	170,000,000	120,000	47,000
TCLP Lead (μg/L)	<1,000	NA	NA	NA	NA	NA	NA	NA

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NA = Not Analyzed
Shaded cell indicates concentration exceeds one or more applicable criteria.
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TABLE 4
SOIL SAMPLE ANALYTICAL RESULTS - PCBs
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

							Part 201 Generic Residential Cleanup Criteria*	
Sample ID	TP-3	TP-4	TP-5	TP-6	TP-9	TP-10	Drinking	Direct
Depth (feet)	6	4	3	1	8	1.5	Water	Contact
Date Collected	7/21/10	7/21/10	7/21/10	7/21/10	7/21/10	7/22/10	Protection	Criteria
PCBs by 8082 (μg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**		
Aroclor-1016	<420	<420	<750	<380	NA	<420	NLL	4,000
Aroclor-1221	<420	<420	<750	<380	NA	<420	NLL	4,000
Aroclor-1232	<420	<420	<750	<380	NA	<420	NLL	4,000
Aroclor-1242	<420	<420	<750	<380	NA	<420	NLL	4,000
Aroclor-1248	<420	<420	<750	<380	NA	<420	NLL	4,000
Aroclor-1254	<420	<420	<750	**420**	NA	<420	NLL	4,000
Aroclor-1260	<420	<420	<750	<380	NA	<420	NLL	4,000
Aroclor-1262	<420	<420	<750	<380	NA	<420	NLL	4,000
Aroclor-1268	<420	<420	<750	<380	NA	<420	NLL	4,000

* Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels, MDEQ Administrative Rules, January 2006

NA = Not Analyzed

Shaded cell indicates concentration exceeds one or more applicable criteria.

Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 4
SOIL SAMPLE ANALYTICAL RESULTS - PCBs
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

							Part 201 Generic Residential Cleanup Criteria*	
Sample ID	TP-11	TP-13	TP-14	TP-15	TP-16	TP-17	Drinking	Direct
Depth (feet)	3	2.5	3	1	1	1.5	Water	Contact
Date Collected	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	7/22/10	Protection	Criteria
PCBs by 8082 (µg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**		
Aroclor-1016	<620	<420	NA	<360	<530	<440	NLL	4,000
Aroclor-1221	<620	<420	NA	<360	<530	<440	NLL	4,000
Aroclor-1232	<620	<420	NA	<360	<530	<440	NLL	4,000
Aroclor-1242	<620	<420	NA	<360	<530	<440	NLL	4,000
Aroclor-1248	<620	<420	NA	<360	<530	<440	NLL	4,000
Aroclor-1254	<620	<420	NA	<360	<530	<440	NLL	4,000
Aroclor-1260	<620	<420	NA	<360	<530	<440	NLL	4,000
Aroclor-1262	<620	<420	NA	<360	<530	<440	NLL	4,000
Aroclor-1268	<620	<420	NA	<360	<530	<440	NLL	4,000

* Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels, MDEQ Administrative Rules, January 2006

NA = Not Analyzed

Shaded cell indicates concentration exceeds one or more applicable criteria.

Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 4
SOIL SAMPLE ANALYTICAL RESULTS - PCBs
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

					Part 201 Generic Residential Cleanup Criteria*	
Sample ID	TP-18	TP-19	TP-19	TP-20	Drinking	Direct
Depth (feet)	1.5	0.5	2	1.5	Water	Contact
Date Collected	7/22/10	7/22/10	7/22/10	7/22/10	Protection	Criteria
PCBs by 8082 (µg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**		
Aroclor-1016	<440	<380	<430	<380	NLL	4,000
Aroclor-1221	<440	<380	<430	<380	NLL	4,000
Aroclor-1232	<440	<380	<430	<380	NLL	4,000
Aroclor-1242	<440	<380	<430	<380	NLL	4,000
Aroclor-1248	<440	<380	<430	<380	NLL	4,000
Aroclor-1254	<440	<380	<430	<380	NLL	4,000
Aroclor-1260	<440	<380	<430	<380	NLL	4,000
Aroclor-1262	<440	<380	<430	<380	NLL	4,000
Aroclor-1268	<440	<380	<430	<380	NLL	4,000

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NA = Not Analyzed
Shaded cell indicates concentration exceeds one or more applicable criteria.
Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 5
GROUNDWATER SAMPLE ANALYTICAL RESULTS-FULL SCAN VOCs
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

										Part 201 Generic Cleanup Criteria*
Sample ID	TW-1	TW-2	TW-3	TW-4	TW-5	TW-7	TW-8	TW-9	TW-10	Residential
Date Collected	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	Drinking Water
Volatiles by 8260 (µg/L)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	
Acetone	<50	<50	<50	<50	<50	<50	<50	<50	<50	730
Acrylonitrile	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.6
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5
Bromobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	18
Bromochloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	No Criteria Available
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	80
Bromoform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	80
Bromomethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	10
2-Butanone	<25	<25	<25	<25	<25	<25	<25	<25	<25	13,000
n-Butylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	80
sec-Butylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	80
tert-Butylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	80
Carbon Disulfide	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	800
Carbon Tetrachloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	100
Chloroethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	430
Chloroform	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	80
Chloromethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	260
2-Chlorotoluene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	150
Dibromochloromethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	80
1,2-Dibromo-3-chloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	No Criteria Available
Dibromomethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	80
1,2-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	600
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.6
1,4-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	75
Dichlorodifluoromethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1,700
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	880
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5
1,1-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7
cis-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	70
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	100
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.5
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.5
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	74
Ethylene Dibromide	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.05
2-Hexanone	<50	<50	<50	<50	<50	<50	<50	<50	<50	1,000
Methyl Iodide	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	No Criteria Available
Isopropylbenzene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	800
4-Methyl-2-Pentanone	<50	<50	<50	<50	<50	<50	<50	<50	<50	1,800
Methylene Chloride	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5
MTBE	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	40
Naphthalene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	520
n-Propylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	80
Styrene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	100
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	77
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.5
Tetrachloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5
Toluene	**2.2**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.7**	790
1,2,4-Trichlorobenzene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	70
1,1,1-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	200
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2,600
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	42
1,2,3-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	No Criteria Available
1,2,4-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	63
1,3,5-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	72
Vinyl Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2
Total Xylenes	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	280

* Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels,
MDEQ Administrative Rules, January 2006
Shaded cell indicates concentration exceeds one or more applicable criteria.
Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 6
GROUNDWATER SAMPLE ANALYTICAL RESULTS - PNAs
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

										Part 201 Generic Residential Cleanup Criteria*
Sample ID	TW-1	TW-2	TW-3	TW-4	TW-5	TW-7	TW-8	TW-9	TW-10	Drinking
Date Collected	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	Water
PNAs by 8270 (µg/L)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	
Acenaphthene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1,300
Acenaphthylene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	52
Anthracene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	43
Benzo(a)anthracene	<1.2	<1.0	<1.4	<1.4	<1.3	<1.0	<1.1	<1.3	<1.1	2.1
Benzo(a)pyrene	<1.2	<1.0	<1.4	<1.4	<1.3	<1.0	<1.1	<1.3	<1.1	5.0
Benzo(b)fluoranthene	<1.2	<1.0	<1.4	<1.4	<1.3	<1.0	<1.1	<1.3	<1.1	1.5
Benzo(ghi)perylene	<1.2	<1.0	<1.4	<1.4	<1.3	<1.0	<1.1	<1.3	<1.1	1.0
Benzo(k)fluoranthene	<1.2	<1.0	<1.4	<1.4	<1.3	<1.0	<1.1	<1.3	<1.1	1.0
Chrysene	<1.2	<1.0	<1.4	<1.4	<1.3	<1.0	<1.1	<1.3	<1.1	1.6
Dibenzo(a,h)anthracene	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.2	<2.5	<2.2	2.0
Fluoranthene	<1.2	<1.0	<1.4	<1.4	<1.3	<1.0	<1.1	<1.3	<1.1	210
Fluorene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	880
Indeno(1,2,3-cd)pyrene	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.2	<2.5	<2.2	2.0
2-Methylnaphthalene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	260
Phenanthrene	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	52
Pyrene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	140

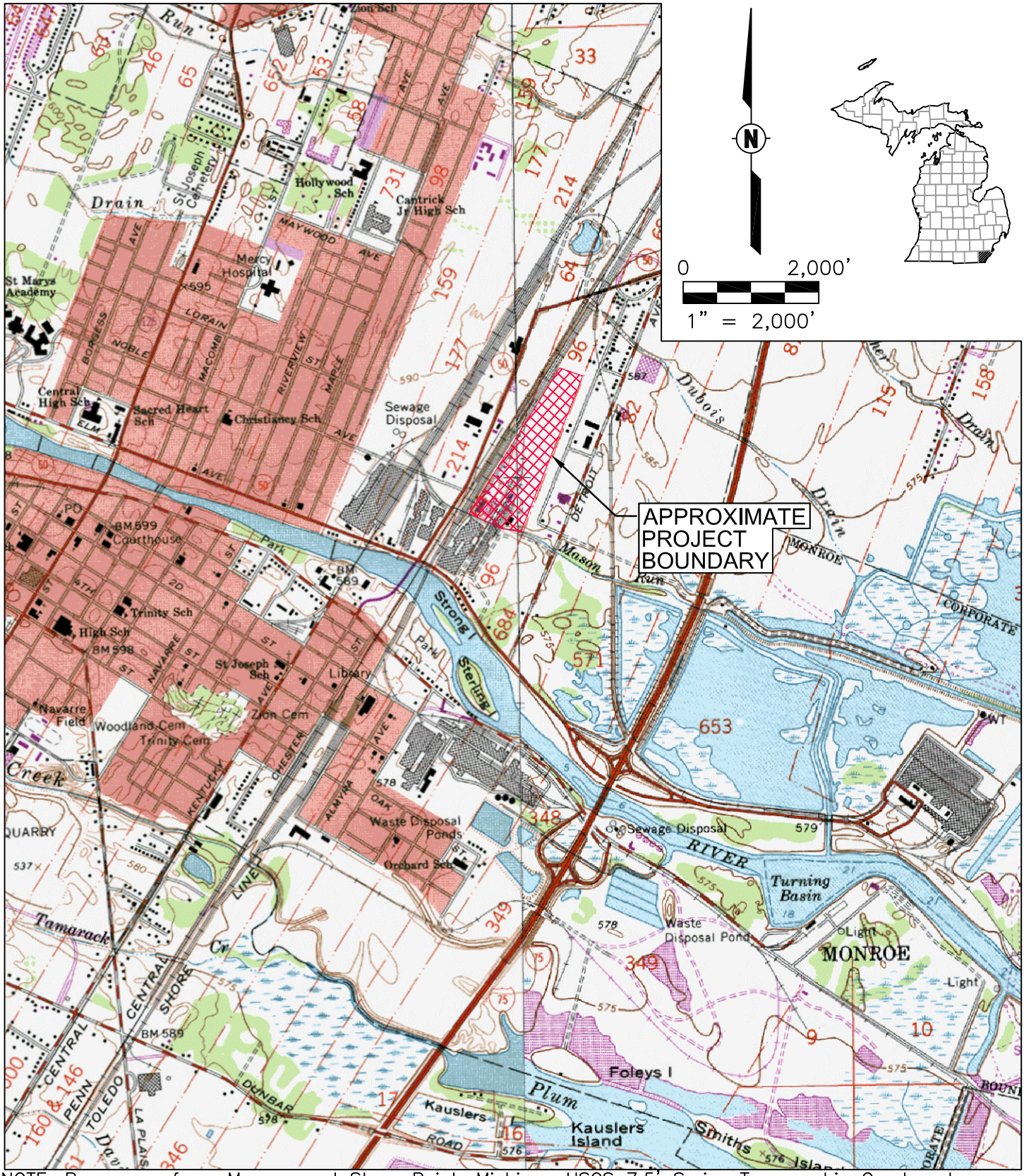
* Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels, MDEQ Administrative Rules, January 2006
Shaded cell indicates concentration exceeds one or more applicable criteria.
Bold cells indicates concentrations in excess of the laboratory reporting limit.

TABLE 7
GROUNDWATER SAMPLE ANALYTICAL RESULTS - Metals
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

									Part 201 Generic Cleanup Criteria*	
Sample ID	TW-2	TW-3	TW-4	TW-5	TW-7	TW-8	TW-9	TW-10	Drinking	Groundwater/Surface
Date Collected	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	7/29/10	Water	Water Interface
Total Metals (μg/L)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**		
Arsenic	<5.0	<5.0	<5.0	**5.7**	<5.0	<5.0	<5.0	<5.0	10	150
Barium	<100	<100	<100	<100	<100	<100	<100	<100	2,000	4.4 E+2
Cadmium	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5	2
Chromium	<10	<10	<10	<10	<10	<10	<10	<10	100	74
Copper	<4.0	<4.0	**4.1**	<4.0	<4.0	<4.0	<4.0	<4.0	1,000	9
Lead	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	4	10
Mercury	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	2	0.0013
Selenium	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	50	5.0
Silver	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	34	0.2 (M); 0.06
Zinc	**56**	<50	**71**	<50	<50	<50	<50	<50	2,400	120
Ammonia (μg/L)										
Ammonia	**5.76**	**7.92**	NA	**15.12**	NA	NA	NA	NA	10,000	53

[1] Part 201 Residential and Commercial I Generic Cleanup Criteria and Screening Levels,
2 Ammonia in Groundwater - Values represent laboratory result multiplied by 7.2% for warm wter streams. Refer to footmote CC of MDEQ Generic Cleanup Tables dated 12/10/2004
MDEQ Administrative Rules, January 2006
Shaded cell indicates concentration exceeds one or more applicable criteria.
Bold cells indicates concentrations in excess of the laboratory reporting limit.

Figures



NOTE: Base map from Monroe and Stony Point, Michigan USGS 7.5' Series Topographic Quadrangles dated 1967 and photorevised 1979 and 1973 respectively. Contour interval equals 5 feet.

AECOM

APPROXIMATE PROJECT SITE LOCATION
CATEGORY "N" BEA
MICHIGAN DEPARTMENT OF TRANSPORTATION
RIVER RAISIN BATTLEFIELD
MONROE, MICHIGAN

Drawn :	CJD	09/29/2010
Checked:	SGP	09/29/2010
Approved:	JSM	09/30/2010
PROJECT NUMBER	60157928	
FIGURE NUMBER	1	

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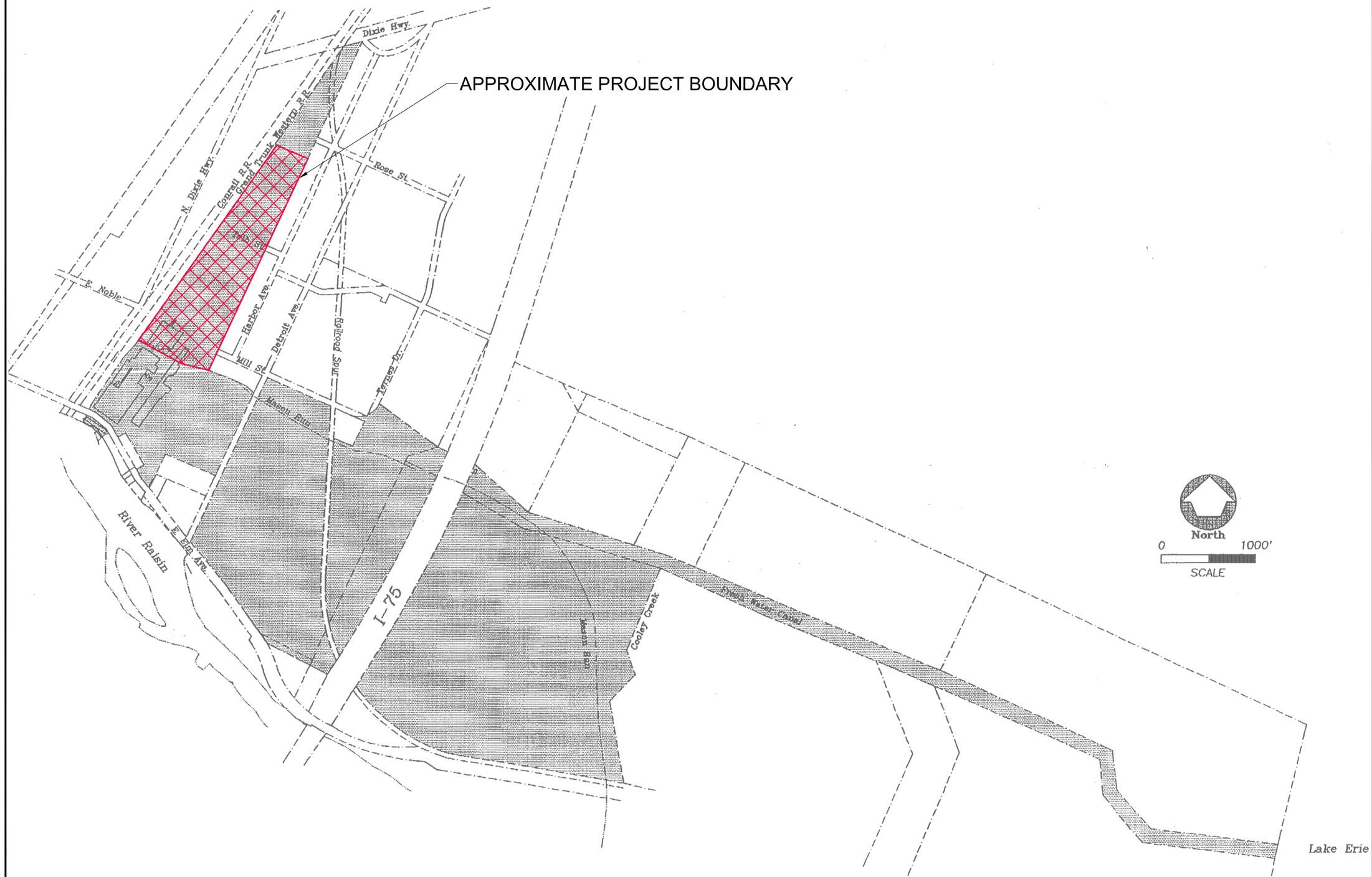

NOTE: Base map from Techna Corporation drawing dated 1998. Areas shown in gray shading depict East Mill Property purchased by Homrich, Incorporated.

AECOM

PROJECT SITE PLAN
CATEGORY "N" BEA
MICHIGAN DEPARTMENT OF TRANSPORTATION
RIVER RAISIN BATTLEFIELD
MONROE, MICHIGAN

Drawn :	CJD	09/30/2010
Checked:	SGP	09/30/2010
Approved:	JSM	09/30/2010

PROJECT NUMBER 60157928

FIGURE NUMBER 2

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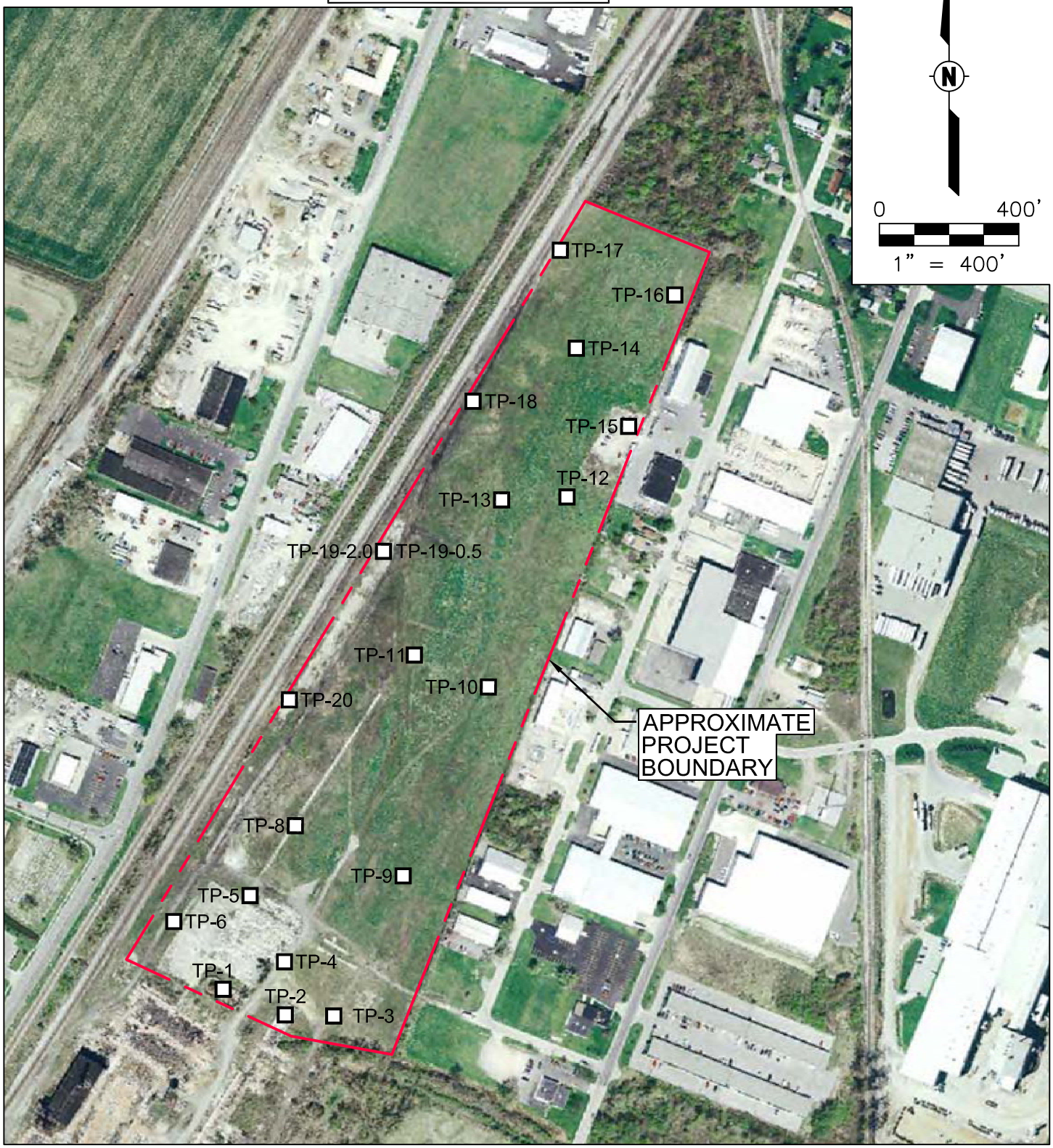

NOTE: Aerial photographic base map from SMCOG Southeast Michigan Orthoimagery Project dated spring 2005.

AECOM

TEST PIT LOCATIONS
CATEGORY "N" BEA
MICHIGAN DEPARTMENT OF TRANSPORTATION
RIVER RAISIN BATTLEFIELD
MONROE, MICHIGAN

Drawn :	CJD	09/29/2010
Checked:	SGP	09/29/2010
Approved:	JSM	09/30/2010
PROJECT NUMBER	60157928	
FIGURE NUMBER	3	

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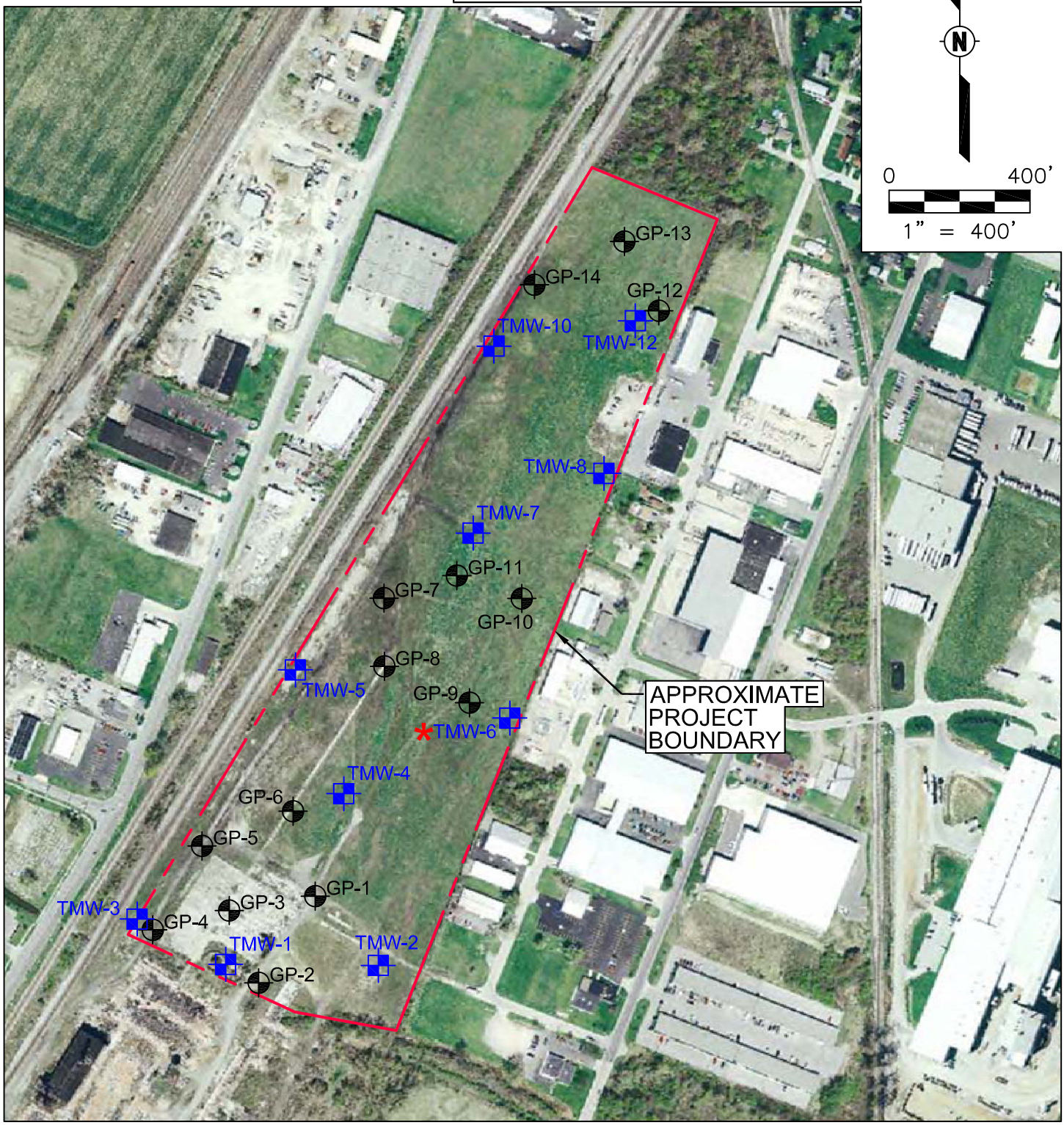
* NOTE: TMW-6 was dry. No groundwater sample collected.

LEGEND

GP GEOPROBE LOCATION

TMW TEMPORARY WELL LOCATION



NOTE: Aerial photographic base map from SMCOG Southeast Michigan Orthoimagery Project dated spring 2005.

AECOM

GEOPROBE AND TEMPORARY WELL LOCATIONS
CATEGORY "N" BEA
MICHIGAN DEPARTMENT OF TRANSPORTATION
RIVER RAISIN BATTLEFIELD
MONROE, MICHIGAN

Drawn :	CJD	09/29/2010
Checked:	SGP	09/29/2010
Approved:	JSM	09/30/2010
PROJECT NUMBER	60157928	
FIGURE NUMBER	4	

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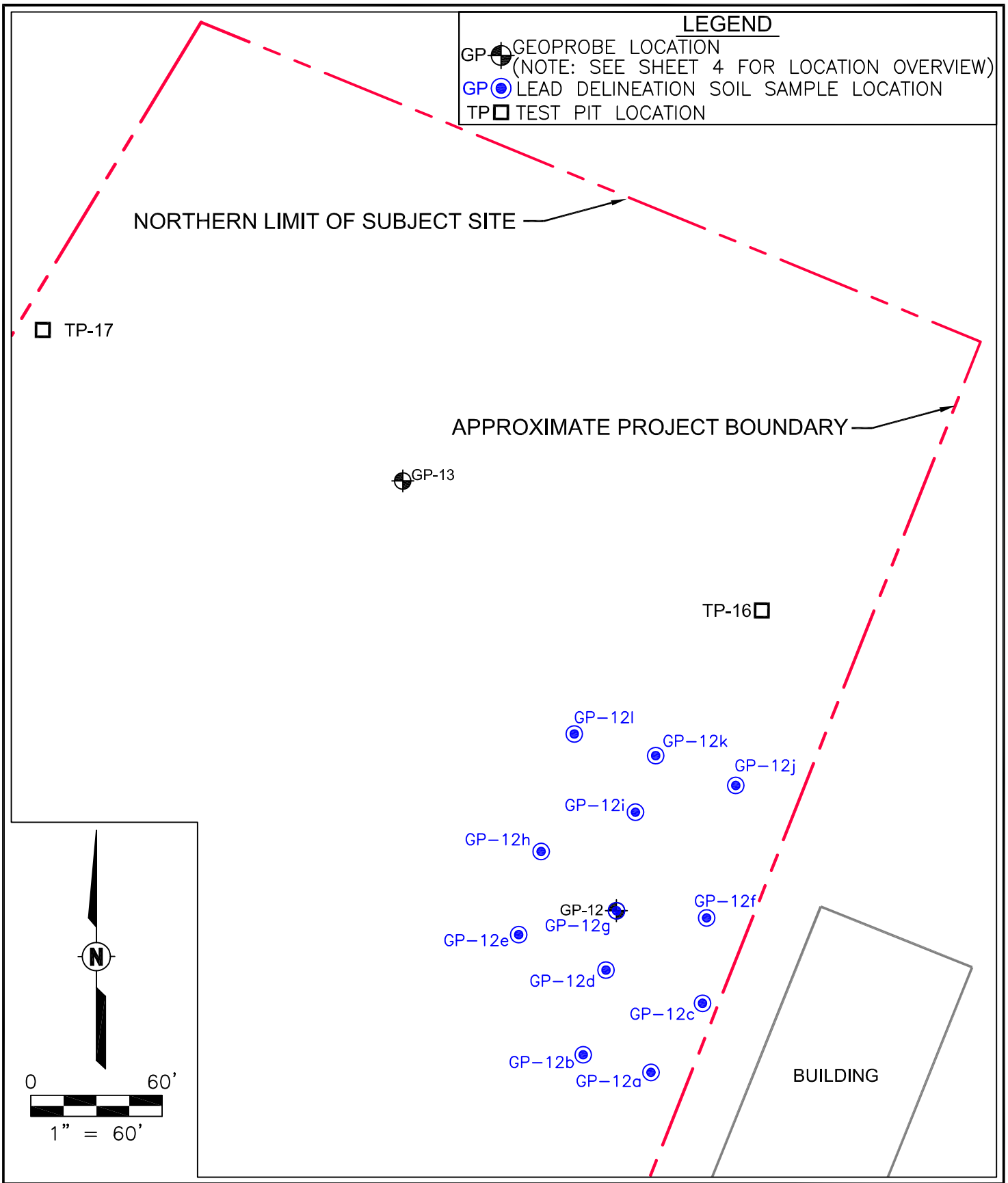

AECOM

GP-12 LEAD DELINEATION SOIL SAMPLE LOCATIONS
CATEGORY "N" BEA
MICHIGAN DEPARTMENT OF TRANSPORTATION
RIVER RAISIN BATTLEFIELD
MONROE, MICHIGAN

Drawn :	CJD	09/29/2010
Checked:	SGP	09/29/2010
Approved:	JSM	09/30/2010
PROJECT NUMBER	60157928	
FIGURE NUMBER	5	

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Appendix A

Gray Slag Aggregate Analytical Data

FAX COVER SHEET

TO	Roger Homrich
COMPANY	Homrich
FAX NUMBER	17344572969
FROM	Aaron Holdread
DATE	2010-09-24 21:13:13 GMT
RE	TCLP Data

COVER MESSAGE

Roger,

As requested here is a copy of the TCLP testing performed on the steel slag aggregate that was produced at our facility located at Gerdau-MacSteel-Monroe, in Monroe, MI. If you have any further questions please feel free to contact me at any time.

Regards,

Aaron Holdread
Director of Aggregate Sales
Tube City IMS

IMS Quality Services Laboratory
October 22, 2008

Laboratory Number: INO100955
PO Number: 79232

TCLP Extractions

Method of Tests : TCLP Leaching Procedure SW846-1311
Metals 6010B Mercury 7471A Selenium 7740
Arsenic 7060A Antimony 7041 Thallium 7841
Lead 7421

Element	Sample ID **P-08-057** Results, mg/L TCLP	Detection Limit, mg/L	Maximum Allowable (40CFR261), mg/L (TCLP Only)
Silver (Ag)	<0.003	0.003	5.0
Arsenic (As)	<0.004	0.004	5.0
Barium (Ba)	0.338	0.001	100.0
Cadmium (Cd)	<0.002	0.002	1.0
Chromium Total (Cr)	0.011	0.001	5.0
Mercury (Hg)	<0.001	0.001	0.2
Lead (Pb)	<0.003	0.003	5.0
Selenium (Se)	<0.004	0.004	1.0
Beryllium (Be)	<0.001	0.001	Not Listed
Chrome +6 (Hexavalent)	<0.04	0.04	Not Listed
Nickel (Ni)	<0.01	0.01	Not Listed
Thallium (Tl)	<0.001	0.001	Not Listed
Vanadium (V)	<0.01	0.01	Not Listed
Zinc (Zn)	<0.001	0.001	Not Listed
Antimony (Sb)	<0.003	0.003	Not Listed
Copper (Cu)	<0.002	0.002	Not Listed

Respectfully Submitted,
MODERN INDUSTRIES, INC.

James R. Yarris
Chemistry Department Manager

1-Client
JRY/dla

Appendix B

Test Pit Logs

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-1
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/21/10

Weather:	Sunny 83°			Excavation Equipment			
Time Started:	1000	Completed:	1040	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--					
1.0--					
2.0--					
3.0--					
4.0--		Dark brown silty fine sand with gravel. Some brick			
5.0--		and a steel pipe @ 1' bg.			
6.0--					
7.0--					
8.0--					
9.0--					
10.0--		Brown fine-medium sand, trace paper material.			
11.0--					
12.0--					
13.0--		Dark brown sandy clay, some silt. Saturated.			
14.0--					
15.0--		Bedrock.			
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2) | Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-2
Project Name:	MDOT River Raisin Battlefield	Page:	
Project Number:	60157928	Date:	7/21/10

Weather:	Sunny 83°			Excavation Equipment			
Time Started:	1050	Completed:	1115	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--					
1.0--		Brown silty sand with some clay and gravel.			
2.0--					
3.0--					
4.0--		Brown silty sand with debris (concrete, bricks, re-bar)			
5.0--					
6.0--					
7.0--		Concrete slab (former basement floor)			
8.0--		Brown fine sand. Saturated.			
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-3
Project Name:	MDOT River Raisin Battlefield	Page:	
Project Number:	60157928	Date:	7/21/10

Weather:	Sunny 83°			Excavation Equipment			
Time Started:	1130	Completed:	1205	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag			
1.0--					
2.0--					
3.0--		Brown silty sand with clay and debris (asphalt,			
4.0--		concrete, and brick)			
5.0--					
6.0--					
7.0--		Concrete slab (former basement floor)			
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					
* QP = Calibrated Penetrometer (tons/ft^2)			Depth to Groundwater		

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-4
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/21/10

Weather:	Sunny 83°			Excavation Equipment			
Time Started:	1300	Completed:	1330	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--					
1.0--		Silty sand with clay, gravel and brick			
2.0--					
3.0--					
4.0--		Coal/cinder with brick, some concrete debris			
5.0--					
6.0--					
7.0--		Brown sandy clay, some brick			
8.0--					
9.0--					
10.0--		Brown/gray silty clay. Upper portion of clay saturated.			
11.0--					
12.0--		Bedrock.			
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-5
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/21/10

Weather:	Sunny 90°			Excavation Equipment			
Time Started:	1420	Completed:	1445	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--					
1.0--		Silty sand with clay and gravel.			
2.0--					
3.0--					
4.0--		Coal/cinder with fine black sand, some brick and concrete debris			
5.0--					
6.0--					
7.0--					
8.0--					
9.0--					
10.0--		Brown silty clay with some gravel. Upper portion of clay saturated.			
11.0--					
12.0--					
13.0--		Bedrock.			
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-6
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/21/10

Weather:	Sunny 90°			Excavation Equipment			
Time Started:	1445	Completed:	1505	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--					
1.0--		Coal/cinder with fine black sand, some brick debris			
2.0--					
3.0--					
4.0--					
5.0--					
6.0--					
7.0--		Tan/gray silty clay.			
8.0--					
9.0--					
10.0--					
11.0--					
12.0--		Bedrock.			
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-7
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/21/10

Weather:	Sunny 90°			Excavation Equipment			
Time Started:	1530	Completed:	1555	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag.			
1.0--					
2.0--		Dark brown silty sand with gravel, trace brick.			
3.0--					
4.0--					
5.0--					
6.0--		Tan/gray silty clay, trace sand.			
7.0--					
8.0--					
9.0--					
10.0--		Bedrock.			
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-8
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/21/10

Weather:	Sunny 90°			Excavation Equipment			
Time Started:	1600	Completed:	1615	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag.			
1.0--					
2.0--		Dark brown silty sand with gravel, trace brick.			
3.0--					
4.0--		Hit an 8" clay pipe @ approximately 3' below grade. Water			
5.0--		leaking from tile immediately filled excavation.			
6.0--		Excavation discontinued.			
7.0--					
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-9
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/21/10

Weather:	Sunny 90°			Excavation Equipment			
Time Started:	1620	Completed:	1640	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag.			
1.0--					
2.0--		Brown silty sand with gravel, trace glass and brick.			
3.0--		Unscreened slag material.			
4.0--					
5.0--					
6.0--					
7.0--		Brown silty clay, trace sand.			
8.0--					
9.0--					
10.0--					
11.0--		Bedrock.			
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-10
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 76°			Excavation Equipment			
Time Started:	830	Completed:	850	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag.			
1.0--					
2.0--		Black silty sand with gravel, some unscreened slag.			
3.0--					
4.0--					
5.0--					
6.0--					
7.0--		Brown silty clay, trace sand and gravel.			
8.0--					
9.0--		Bedrock.			
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-11
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 76°			Excavation Equipment			
Time Started:	915	Completed:	935	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag.			
1.0--					
2.0--		Black sand with silt, trace concrete and brick.			
3.0--					
4.0--					
5.0--					
6.0--					
7.0--		Brown silty clay, trace sand and gravel.			
8.0--					
9.0--					
10.0--		Bedrock.			
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-12
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 76°			Excavation Equipment			
Time Started:	945	Completed:	1005	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag.			
1.0--		Black silty sand, some wood debris.			
2.0--					
3.0--		Brown silty clay, trace gravel			
4.0--					
5.0--		Bedrock.			
6.0--					
7.0--					
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-13
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 76°			Excavation Equipment			
Time Started:	1040	Completed:	1100	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag.			
1.0--					
2.0--		Black silty sand with tree roots, some gravel.			
3.0--		Brown silty clay, trace sand and gravel			
4.0--					
5.0--		Bedrock.			
6.0--					
7.0--					
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					
* QP = Calibrated Penetrometer (tons/ft^2)			Depth to Groundwater		

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-14
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 82°			Excavation Equipment			
Time Started:	1040	Completed:	1100	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag.			
1.0--		Black silty sand with clay.			
2.0--					
3.0--		Brown silty clay, trace sand and gravel			
4.0--		Bedrock.			
5.0--					
6.0--					
7.0--					
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

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Test Pit Field Record

Logged by:	CJS	No:	TP-15
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 82°			Excavation Equipment			
Time Started:	1110	Completed:	1125	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Brown fine sand and brick and plastic.			
1.0--					
2.0--					
3.0--		Brown silty clay, trace sand and gravel.			
4.0--					
5.0--		Bedrock.			
6.0--					
7.0--					
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					
* QP = Calibrated Penetrometer (tons/ft^2)			Depth to Groundwater		

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

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Test Pit Field Record

Logged by:	CJS	No:	TP-16
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 82°			Excavation Equipment			
Time Started:	1135	Completed:	1150	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag and black sand.			
1.0--					
2.0--					
3.0--		Brown silty clay, trace gravel.			
4.0--					
5.0--		Bedrock.			
6.0--					
7.0--					
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					
* QP = Calibrated Penetrometer (tons/ft^2)			Depth to Groundwater		

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

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Test Pit Field Record

Logged by:	CJS	No:	TP-17
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 90°			Excavation Equipment			
Time Started:	1320	Completed:	1335	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag			
1.0--		Black silty sand, some silt and gravel.			
2.0--					
3.0--		Brown silty clay, trace gravel.			
4.0--					
5.0--					
6.0--		Bedrock.			
7.0--					
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-18
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 90°			Excavation Equipment			
Time Started:	1350	Completed:	1405	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag			
1.0--		Black sand with coal, some some wood debris.			
2.0--					
3.0--		Brown clay, trace silt and gravel.			
4.0--					
5.0--					
6.0--		Bedrock.			
7.0--					
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-19
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 90°			Excavation Equipment			
Time Started:	1415	Completed:	1430	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Asphalt			
1.0--		Tan sand with brick and gravel.			
2.0--		Coal			
3.0--					
4.0--		Brown/gray silty clay, trace gravel.			
5.0--					
6.0--		Bedrock.			
7.0--					
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

AECOM

Test Pit Field Record

Logged by:	CJS	No:	TP-20
Project Name:	MDOT River Raisin Battlefield	Page:	1 of 1
Project Number:	60157928	Date:	7/22/10

Weather:	Sunny 90°			Excavation Equipment			
Time Started:	1450	Completed:	1510	Contractor:	K&D	Model:	Hyundai 360
Surface Elevation:				Capacity:		Reach:	

Depth (FT)	QP* (TSF)	Soil Description	Moisture Content	Excav. Effort	Comments
0.0--		Slag			
1.0--		Brown fine-medium sand.			
2.0--		Coal			
3.0--		Gray clay with silt and some vegetation			
4.0--					
5.0--		Brown/gray silty clay, trace gravel.			
6.0--					
7.0--					
8.0--					
9.0--					
10.0--					
11.0--					
12.0--					
13.0--					
14.0--					
15.0--					
16.0--					
17.0--					
18.0--					
19.0--					
20.0--					
21.0--					
22.0--					
23.0--					
24.0--					
25.0--					

* QP = Calibrated Penetrometer (tons/ft^2)

Depth to Groundwater

Proportion Used:		Abbreviations:		Excavation Effort:
trace (tr.)	1 - 10%	F - Fine	Gr. - Gray	E - East
little (lt.)	10 - 20%	M - Medium	Bn. - Brown	M - Moderate
some (so.)	20 - 35%	C - Coarse	Yel. - Yellow	D - Difficult
and	35 - 50%	V - Very		

Appendix C

Photographs

PHOTOGRAPH LOG – July 12, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

Southeast corner of concrete slab located near southern boundary of property. Facing west.

Looking northwest across the concrete slab from the southeast corner.

PHOTOGRAPH LOG – July 12, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

Looking northeast across the concrete slab.

Looking southeast across the concrete slab.

PHOTOGRAPH LOG – July 12, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

Looking northeast across the subject property from north of the concrete slab. Note the presence of gray aggregate cover and vegetation.

Western boundary of the subject property, looking north.

PHOTOGRAPH LOG – July 12, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

Looking southeast from the western property boundary.

Area of vegetation located along the eastern property boundary. Facing south.

PHOTOGRAPH LOG – July 12, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

Looking south across the subject property from the north end of the property.

North end of the subject property, looking east.

PHOTOGRAPH LOG – July 12, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

North end of the subject property looking west toward the railroad.

Looking west across the subject property from the eastern boundary.

PHOTOGRAPH LOG – July 12, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

Looking north from the eastern side of the southern end of the subject property.

County drain (Mason Run) located along the southern property boundary.

PHOTOGRAPH LOG – July 12, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

Adjacent property to the south where the East Mill was previously located.

Adjacent property to the south (east side).

PHOTOGRAPH LOG – July 12, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

Adjacent property to the east.

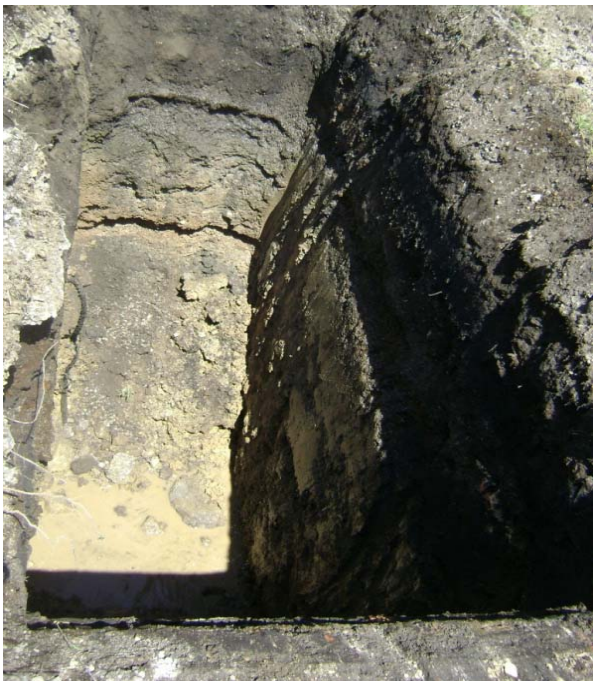
Adjacent property to the east.

PHOTOGRAPH LOG – July 21, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

Conducting test pit at location TP-2.

Concrete slab found at location TP-3.

PHOTOGRAPH LOG – July 21, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT



Test pit location TP-5. Note groundwater was encountered in the brown silty clay at approximately 6 feet below grade.

View of brown silty clay soils removed from location TP-7.

PHOTOGRAPH LOG – July 22, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

View of location TP-13. Note shallow groundwater encountered at approximately 4 feet below grade. Bedrock was encountered at approximately 5 feet below grade.

Location TP-19, note seam of coal at 2 feet below grade.

PHOTOGRAPH LOG – July 22, 2010
CATEGORY N BASELINE ENVIRONMENTAL SITE ASSESSMENT

Location TP-18, coal seam present at 1 foot below grade.

Location TP-15, note bricks and plastic debris.

Appendix D

Laboratory Analytical Data

Fibertec
environmental
services

Friday, July 30, 2010

Fibertec Project Number:	40185
Project Identification:	River Raisin Battlefield /60157928
Submittal Date:	07/23/2010

Mr. Craig Simon
AECOM - Lansing
401 S. Washington Square
Suite 103
Lansing, MI 48933

Dear Mr. Simon,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-3 6'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**1**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-001A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**21**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-001A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**1400**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**100000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**120**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**14000**		µg/kg	500	10	07/27/10	PT10G27C	07/28/10	T210G28A
5. Copper	**11000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**13000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**320**		µg/kg	200	10	07/27/10	PT10G27C	07/28/10	T210G28A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**44000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-001A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-001A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-001** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-3 6'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**1**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-001** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	63	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	63	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	63	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-3 6'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**1**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-001** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-001A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
9. Chrysene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
15. Phenanthrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
16. Pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-4 4'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**2**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-002A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**22**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-002A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**16000**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**170000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**1000**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**13000**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**720000**		µg/kg	1000	200	07/27/10	PT10G27C	07/28/10	T210G28A
6. Lead	**1300000**		µg/kg	1000	200	07/27/10	PT10G27C	07/28/10	T210G28A
7. Selenium	**1400**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	**390**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**740000**		µg/kg	10000	200	07/27/10	PT10G27C	07/28/10	T210G28A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-002A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	**790**		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-002A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-002** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-4 4'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**2**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-002** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	64	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	64	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	64	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-4 4'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**2**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-002** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-002A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
2. Acenaphthylene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
3. Anthracene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
4. Benzo(a)anthracene (SIM)	**540**		µg/kg	340	40	07/27/10	PS10G27E	07/28/10	S510G27B
5. Benzo(a)pyrene (SIM)	**420**		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
6. Benzo(b)fluoranthene (SIM)	**630**		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
7. Benzo(ghi)perylene (SIM)	**400**		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
9. Chrysene (SIM)	**430**		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	340	40	07/27/10	PS10G27E	07/28/10	S510G27B
11. Fluoranthene (SIM)	**710**		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
12. Fluorene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
13. Indeno(1,2,3-cd)pyrene (SIM)	**370**		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
15. Phenanthrene (SIM)	**360**		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
16. Pyrene (SIM)	**640**		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-5 3'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**3**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:20**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-003A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**56**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-003A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**9300**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**120000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**1600**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**6900**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**26000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**19000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**1200**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**720000**		µg/kg	10000	200	07/27/10	PT10G27C	07/28/10	T210G28A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-003A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	**420**		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-003A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	750	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	750	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	750	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	750	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	750	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	750	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	750	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	750	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	750	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-003** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-5 3'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**3**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:20**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-003** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	110	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	230	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	110	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	110	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	110	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	570	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-5 3'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**3**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:20**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-003** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	170	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-003A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
9. Chrysene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
15. Phenanthrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B
16. Pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G27B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-6 1'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**4**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**15:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-004A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**13**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-004A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**44000**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**95000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**390**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**12000**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**25000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**40000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**1700**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	**180**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**120000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-004A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	**94**		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-004A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/30/10	SB10G30A
2. Aroclor-1221	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/30/10	SB10G30A
3. Aroclor-1232	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/30/10	SB10G30A
4. Aroclor-1242	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/30/10	SB10G30A
5. Aroclor-1248	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/30/10	SB10G30A
6. Aroclor-1254	**420**		µg/kg	380	1.0	07/27/10	PS10G27E	07/30/10	SB10G30A
7. Aroclor-1260	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/30/10	SB10G30A
8. Aroclor-1262 (NN)	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/30/10	SB10G30A
9. Aroclor-1268 (NN)	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/30/10	SB10G30A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-004** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	**240**		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-6 1'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**4**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**15:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-004** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	**100**		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	**66**		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	**440**		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	57	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	**1300**		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	**220**		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-6 1'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**4**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**15:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-004** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	**1300**		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	**370**		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	**850**		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	**170**		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	**2900**		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-004A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
4. Benzo(a)anthracene	**360**		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
5. Benzo(a)pyrene	**580**		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
6. Benzo(b)fluoranthene	**980**		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
9. Chrysene	**510**		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
14. 2-Methylnaphthalene	**1400**		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
15. Phenanthrene	**660**		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B
16. Pyrene	**410**		µg/kg	330	1.0	07/27/10	PS10G27E	07/29/10	S310G28B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-9 8'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**5**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-005** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**18**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-005** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**6400**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**74000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	U		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**18000**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**14000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**13000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**380**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**40000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-005** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-10 1.5'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**6**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-006A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**21**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-006A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**13000**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**300000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**730**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**260000**		µg/kg	550	200	07/27/10	PT10G27C	07/28/10	T210G28A
5. Copper	**53000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**69000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**1200**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	**170**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**240000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-006A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	**130**		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-006A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-006** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-10 1.5'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**6**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-006** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	63	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	63	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	63	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-10 1.5'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**6**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-006** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	**96**		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-006A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
2. Acenaphthylene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
3. Anthracene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
4. Benzo(a)anthracene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
9. Chrysene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
11. Fluoranthene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
12. Fluorene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
15. Phenanthrene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A
16. Pyrene (SIM)	U		µg/kg	330	20	07/27/10	PS10G27E	07/28/10	S510G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-11 3'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**7**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-007A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**47**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-007A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**15000**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**140000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**74**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**6800**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**28000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**6800**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**970**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**38000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-007A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	**140**		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-007A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	620	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	620	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	620	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	620	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	620	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	620	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	620	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	620	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	620	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-007** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-11 3'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**7**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-007** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	94	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	94	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	94	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	470	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-11 3'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**7**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-007** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	47	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-007A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
9. Chrysene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
15. Phenanthrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
16. Pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-13 2.5'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**8**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-008A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**22**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-008A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**5900**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**130000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**360**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**18000**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**31000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**25000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**770**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**64000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-008A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	**52**		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-008A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	420	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-008** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-13 2.5'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**8**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-008** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	64	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	64	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	64	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-13 2.5'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**8**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-008** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	**220**		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-008A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
9. Chrysene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
15. Phenanthrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
16. Pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-14 3'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**9**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-009** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**14**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-009** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**3800**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**100000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**210**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**16000**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**21000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**8900**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**300**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**47000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-009** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-15 1'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**10**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**12:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-010A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**8.8**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-010A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**4900**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**280000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**370**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**20000**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**9800**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**67000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**330**		µg/kg	200	10	07/27/10	PT10G27C	07/28/10	T210G28A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**170000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-010A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	**200**		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-010A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	360	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	360	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	360	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	360	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	360	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	360	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	360	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	360	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	360	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-010** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-15 1'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**10**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**12:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-010** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	55	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	55	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	55	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-15 1'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**10**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**12:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-010** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-010A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
2. Acenaphthylene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
3. Anthracene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
4. Benzo(a)anthracene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
9. Chrysene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
11. Fluoranthene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
12. Fluorene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
15. Phenanthrene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B
16. Pyrene (SIM)	U		µg/kg	330	40	07/27/10	PS10G27E	07/28/10	S510G27B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-16 1'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**11**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-011A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**38**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-011A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**19000**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**120000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**140**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**88000**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**26000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**20000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**570**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**39000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-011A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	**61**		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-011A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	530	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	530	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	530	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	530	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	530	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	530	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	530	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	530	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	530	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-011** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-16 1'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**11**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-011** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	80	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	80	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	80	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	400	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-16 1'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**11**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-011** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-011A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
9. Chrysene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
15. Phenanthrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
16. Pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-17 1.5'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**12**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-012A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**25**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-012A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**9700**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**130000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**410**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**20000**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**34000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**39000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**1100**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**75000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-012A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	**73**		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-012A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-012** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-17 1.5'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**12**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-012** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	67	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	67	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	67	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-17 1.5'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**12**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-012** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-012A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
9. Chrysene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
15. Phenanthrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
16. Pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-18 1.5'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**13**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-013A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**25**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-013A** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**6400**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**130000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	**690**		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**18000**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**29000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**20000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**1200**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**120000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-013A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	**62**		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-013A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	440	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-013** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-18 1.5'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**13**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-013** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	67	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	67	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	67	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	340	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-18 1.5'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**13**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-013** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-013A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
9. Chrysene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
15. Phenanthrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
16. Pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-19 .5'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**14**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-014** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**14**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-014** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**3200**		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
2. Barium	**15000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
3. Cadmium	U		µg/kg	50	20	07/27/10	PT10G27C	07/27/10	T210G27A
4. Chromium	**3800**	J,L+	µg/kg	500	20	07/27/10	PT10G27C	07/27/10	T210G27A
5. Copper	**3700**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
6. Lead	**5500**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A
7. Selenium	**1000**		µg/kg	200	20	07/27/10	PT10G27C	07/27/10	T210G27A
8. Silver	U		µg/kg	100	20	07/27/10	PT10G27C	07/27/10	T210G27A
9. Zinc	**33000**		µg/kg	1000	20	07/27/10	PT10G27C	07/27/10	T210G27A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-014** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	07/27/10	PM10G27D	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-014** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-014** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-19 .5'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**14**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-014** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
9. Chrysene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
15. Naphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
16. Phenanthrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
17. Pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-19 2.0'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**15**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-015A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**23**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-015A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**5200**		µg/kg	100	20	07/28/10	PT10G28A	07/29/10	T210G29A
2. Barium	**95000**		µg/kg	1000	20	07/28/10	PT10G28A	07/29/10	T210G29A
3. Cadmium	**110**		µg/kg	50	20	07/28/10	PT10G28A	07/29/10	T210G29A
4. Chromium	**21000**		µg/kg	500	20	07/28/10	PT10G28A	07/29/10	T210G29A
5. Copper	**35000**		µg/kg	1000	20	07/28/10	PT10G28A	07/29/10	T210G29A
6. Lead	**20000**		µg/kg	1000	20	07/28/10	PT10G28A	07/29/10	T210G29A
7. Selenium	**1100**		µg/kg	200	20	07/28/10	PT10G28A	07/29/10	T210G29A
8. Silver	U		µg/kg	100	20	07/28/10	PT10G28A	07/29/10	T210G29A
9. Zinc	**100000**		µg/kg	1000	20	07/28/10	PT10G28A	07/29/10	T210G29A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-015A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	07/27/10	PM10G27A	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-015A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	430	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	430	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	430	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	430	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	430	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	430	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	430	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	430	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	430	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-015** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/28/10	V910G28A	07/28/10	V910G28A
2. Acrylonitrile	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A
3. Benzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
4. Bromobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
5. Bromochloromethane	U		µg/kg	100	1.0	07/28/10	V910G28A	07/28/10	V910G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-19 2.0'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**15**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-015** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Bromodichloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
7. Bromoform	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
8. Bromomethane	U		µg/kg	200	1.0	07/25/10	V910G25A	07/25/10	V910G25A
9. 2-Butanone	U		µg/kg	750	1.0	07/28/10	V910G28A	07/28/10	V910G28A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
15. Chlorobenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
16. Chloroethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
17. Chloroform	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
18. Chloromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	65	1.0	07/25/10	V910G25A	07/25/10	V910G25A
22. Dibromomethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
28. 1,2-Dichloroethane	U		µg/kg	65	1.0	07/25/10	V910G25A	07/25/10	V910G25A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
35. Ethylbenzene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
36. Ethylene Dibromide	U		µg/kg	65	1.0	07/25/10	V910G25A	07/25/10	V910G25A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/28/10	V910G28A	07/28/10	V910G28A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
39. Methyl Iodide	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
40. Methylene Chloride	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/25/10	V910G25A	07/25/10	V910G25A
42. MTBE	U		µg/kg	250	1.0	07/25/10	V910G25A	07/25/10	V910G25A
43. Naphthalene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
45. Styrene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-19 2.0'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**15**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40185-015** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
49. Toluene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/25/10	V910G25A	07/25/10	V910G25A
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
53. Trichloroethene	U		µg/kg	50	1.0	07/25/10	V910G25A	07/25/10	V910G25A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/25/10	V910G25A	07/25/10	V910G25A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/25/10	V910G25A	07/25/10	V910G25A
60. Xylenes	U		µg/kg	150	1.0	07/25/10	V910G25A	07/25/10	V910G25A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-015A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
9. Chrysene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
15. Phenanthrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A
16. Pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S110G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-20 1.5'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**16**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**15:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40185-016A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**13**		%	0.1	1.0	07/23/10	MC100723	07/26/10	MC100723

Michigan 10 Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40185-016A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**3100**		µg/kg	100	20	07/28/10	PT10G28A	07/29/10	T210G29A
2. Barium	**14000**		µg/kg	1000	20	07/28/10	PT10G28A	07/29/10	T210G29A
3. Cadmium	**57**		µg/kg	50	20	07/28/10	PT10G28A	07/29/10	T210G29A
4. Chromium	**4500**		µg/kg	500	20	07/28/10	PT10G28A	07/29/10	T210G29A
5. Copper	**3000**		µg/kg	1000	20	07/28/10	PT10G28A	07/29/10	T210G29A
6. Lead	**3000**		µg/kg	1000	20	07/28/10	PT10G28A	07/29/10	T210G29A
7. Selenium	**390**		µg/kg	200	20	07/28/10	PT10G28A	07/29/10	T210G29A
8. Silver	U		µg/kg	100	20	07/28/10	PT10G28A	07/29/10	T210G29A
9. Zinc	**15000**		µg/kg	1000	20	07/28/10	PT10G28A	07/29/10	T210G29A

Mercury by CVAAS (EPA 7471A) **Aliquot ID: 40185-016A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/kg	50	10	07/27/10	PM10G27A	07/27/10	M410G27A

Polychlorinated Biphenyls (PCBs) (EPA 3550B/EPA 8082) **Aliquot ID: 40185-016A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
2. Aroclor-1221	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
3. Aroclor-1232	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
4. Aroclor-1242	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
5. Aroclor-1248	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
6. Aroclor-1254	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
7. Aroclor-1260	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
8. Aroclor-1262 (NN)	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A
9. Aroclor-1268 (NN)	U		µg/kg	380	1.0	07/27/10	PS10G27E	07/29/10	SA10G29A

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-016A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
2. Acenaphthylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
3. Anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-20 1.5'**	Chain of Custody:	**82825**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**16**	Collect Date:	**07/22/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**15:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 40185-016A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
9. Chrysene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
11. Fluoranthene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
12. Fluorene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
15. Naphthalene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
16. Phenanthrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A
17. Pyrene	U		µg/kg	330	1.0	07/27/10	PS10G27E	07/28/10	S310G28A

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

L+ : Recovery in the associated laboratory sample (LCS) exceeds the upper control limit. Results may be biased high.

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number:

100312

Fibertec
environmental
services

Friday, August 06, 2010

Fibertec Project Number:	40297
Project Identification:	MDOT River Raisin /60157928
Submittal Date:	07/30/2010

Mr. Craig Simon
AECOM - Lansing
401 S. Washington Square
Suite 103
Lansing, MI 48933

Dear Mr. Simon,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

Ammonia samples were preserved at laboratory on July 30, 2010.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-1**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**1**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**10:10**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-001** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
2. Acrylonitrile	U		µg/L	2.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
3. Benzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
4. Bromobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
5. Bromochloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
6. Bromodichloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
7. Bromoform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
8. Bromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
9. 2-Butanone	U		µg/L	25	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
10. n-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
13. Carbon Disulfide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
15. Chlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
16. Chloroethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
17. Chloroform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
18. Chloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
20. Dibromochloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
21. 1,2-Dibromo-3-chloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
22. Dibromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
35. Ethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
37. 2-Hexanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
38. Isopropylbenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
39. Methyl Iodide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
40. Methylene Chloride	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-1**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**1**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**10:10**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-001** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
42. MTBE	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
43. Naphthalene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
44. n-Propylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
45. Styrene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
48. Tetrachloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
49. Toluene	**2.2**		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
53. Trichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
59. Vinyl Chloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
60. Xylenes	U		µg/L	3.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-001A** **Matrix: Ground Water** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
2. Acenaphthylene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
3. Anthracene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
4. Benzo(a)anthracene	U		µg/L	1.2	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
5. Benzo(a)pyrene	U		µg/L	1.2	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
6. Benzo(b)fluoranthene	U		µg/L	1.2	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
7. Benzo(ghi)perylene	U		µg/L	1.2	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
8. Benzo(k)fluoranthene	U		µg/L	1.2	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
9. Chrysene	U		µg/L	1.2	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
11. Fluoranthene	U		µg/L	1.2	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
12. Fluorene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
14. 2-Methylnaphthalene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
15. Phenanthrene	U		µg/L	2.0	1.2	08/05/10	PS10H05A	08/05/10	S510H05A
16. Pyrene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S510H05A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-2**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**2**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**11:00**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A/EPA 6020) **Aliquot ID: 40297-002A** **Matrix: Ground Water** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
2. Barium	U		µg/L	100	10	08/03/10	PT10H03D	08/03/10	T210H03A
3. Cadmium	U		µg/L	1.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
4. Chromium	U		µg/L	10	10	08/03/10	PT10H03D	08/03/10	T210H03A
5. Copper	U		µg/L	4.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
6. Lead	U		µg/L	3.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
7. Selenium	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
8. Silver	U		µg/L	0.20	10	08/03/10	PT10H03D	08/03/10	T210H03A
9. Zinc	**56**		µg/L	50	10	08/03/10	PT10H03D	08/03/10	T210H03A

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 40297-002A** **Matrix: Ground Water** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	08/03/10	PM10H03A	08/03/10	M410H03A

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-002** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
2. Acrylonitrile	U		µg/L	2.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
3. Benzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
4. Bromobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
5. Bromochloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
6. Bromodichloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
7. Bromoform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
8. Bromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
9. 2-Butanone	U		µg/L	25	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
10. n-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
13. Carbon Disulfide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
15. Chlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
16. Chloroethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
17. Chloroform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
18. Chloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
20. Dibromochloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
21. 1,2-Dibromo-3-chloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
22. Dibromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-2**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**2**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**11:00**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-002** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
35. Ethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
37. 2-Hexanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
38. Isopropylbenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
39. Methyl Iodide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
40. Methylene Chloride	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
42. MTBE	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
43. Naphthalene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
44. n-Propylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
45. Styrene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
48. Tetrachloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
49. Toluene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
53. Trichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
59. Vinyl Chloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
60. Xylenes	U		µg/L	3.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-002C** **Matrix: Ground Water** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-2**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**2**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**11:00**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-002C** **Matrix: Ground Water** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
2. Acenaphthylene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
3. Anthracene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
4. Benzo(a)anthracene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
5. Benzo(a)pyrene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
6. Benzo(b)fluoranthene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
7. Benzo(ghi)perylene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
8. Benzo(k)fluoranthene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
9. Chrysene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
11. Fluoranthene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
12. Fluorene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
14. 2-Methylnaphthalene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
15. Phenanthrene	U		µg/L	2.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A
16. Pyrene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S510H05A

Nitrogen, Ammonia (ISE) (SM 4500-NH3 D.) **Aliquot ID: 40297-002B** **Matrix: Ground Water** **Analyst: CML**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Ammonia-N	**80**		µg/L	50	1.0	NA	NA	08/04/10	WJ10H04A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-3**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**3**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**11:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A/EPA 6020) **Aliquot ID: 40297-003A** **Matrix: Ground Water** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
2. Barium	U		µg/L	100	10	08/03/10	PT10H03D	08/03/10	T210H03A
3. Cadmium	U		µg/L	1.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
4. Chromium	U		µg/L	10	10	08/03/10	PT10H03D	08/03/10	T210H03A
5. Copper	U		µg/L	4.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
6. Lead	U		µg/L	3.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
7. Selenium	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
8. Silver	U		µg/L	0.20	10	08/03/10	PT10H03D	08/03/10	T210H03A
9. Zinc	U		µg/L	50	10	08/03/10	PT10H03D	08/03/10	T210H03A

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 40297-003A** **Matrix: Ground Water** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	08/03/10	PM10H03A	08/03/10	M410H03A

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-003** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
2. Acrylonitrile	U		µg/L	2.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
3. Benzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
4. Bromobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
5. Bromochloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
6. Bromodichloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
7. Bromoform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
8. Bromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
9. 2-Butanone	U		µg/L	25	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
10. n-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
13. Carbon Disulfide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
15. Chlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
16. Chloroethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
17. Chloroform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
18. Chloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
20. Dibromochloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
21. 1,2-Dibromo-3-chloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
22. Dibromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-3**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**3**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**11:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-003** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
35. Ethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
37. 2-Hexanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
38. Isopropylbenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
39. Methyl Iodide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
40. Methylene Chloride	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
42. MTBE	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
43. Naphthalene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
44. n-Propylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
45. Styrene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
48. Tetrachloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
49. Toluene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
53. Trichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
59. Vinyl Chloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
60. Xylenes	U		µg/L	3.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-003C** **Matrix: Ground Water** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-3**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**3**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**11:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-003C** **Matrix: Ground Water** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
2. Acenaphthylene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
3. Anthracene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
4. Benzo(a)anthracene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
5. Benzo(a)pyrene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
6. Benzo(b)fluoranthene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
7. Benzo(ghi)perylene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
8. Benzo(k)fluoranthene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
9. Chrysene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
11. Fluoranthene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
12. Fluorene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
14. 2-Methylnaphthalene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
15. Phenanthrene	U		µg/L	2.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
16. Pyrene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A

Nitrogen, Ammonia (ISE) (SM 4500-NH3 D.) **Aliquot ID: 40297-003B** **Matrix: Ground Water** **Analyst: CML**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Ammonia-N	**110**		µg/L	50	1.0	NA	NA	08/04/10	WJ10H04A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-4**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**4**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**12:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A/EPA 6020) **Aliquot ID: 40297-004B** **Matrix: Ground Water** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
2. Barium	U		µg/L	100	10	08/03/10	PT10H03D	08/03/10	T210H03A
3. Cadmium	U		µg/L	1.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
4. Chromium	U		µg/L	10	10	08/03/10	PT10H03D	08/03/10	T210H03A
5. Copper	**4.1**		µg/L	4.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
6. Lead	U		µg/L	3.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
7. Selenium	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
8. Silver	U		µg/L	0.20	10	08/03/10	PT10H03D	08/03/10	T210H03A
9. Zinc	**71**		µg/L	50	10	08/03/10	PT10H03D	08/03/10	T210H03A

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 40297-004B** **Matrix: Ground Water** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	08/03/10	PM10H03A	08/03/10	M410H03A

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-004** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
2. Acrylonitrile	U		µg/L	2.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
3. Benzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
4. Bromobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
5. Bromochloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
6. Bromodichloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
7. Bromoform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
8. Bromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
9. 2-Butanone	U		µg/L	25	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
10. n-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
13. Carbon Disulfide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
15. Chlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
16. Chloroethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
17. Chloroform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
18. Chloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
20. Dibromochloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
21. 1,2-Dibromo-3-chloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
22. Dibromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-4**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**4**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**12:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-004** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
35. Ethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
37. 2-Hexanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
38. Isopropylbenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
39. Methyl Iodide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
40. Methylene Chloride	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
42. MTBE	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
43. Naphthalene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
44. n-Propylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
45. Styrene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
48. Tetrachloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
49. Toluene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
53. Trichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
59. Vinyl Chloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
60. Xylenes	U		µg/L	3.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-004A** **Matrix: Ground Water** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-4**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**4**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**12:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-004A** **Matrix: Ground Water** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
2. Acenaphthylene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
3. Anthracene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
4. Benzo(a)anthracene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
5. Benzo(a)pyrene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
6. Benzo(b)fluoranthene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
7. Benzo(ghi)perylene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
8. Benzo(k)fluoranthene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
9. Chrysene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
11. Fluoranthene	U		µg/L	1.4	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
12. Fluorene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
14. 2-Methylnaphthalene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
15. Phenanthrene	U		µg/L	2.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A
16. Pyrene	U		µg/L	5.0	1.4	08/05/10	PS10H05A	08/05/10	S510H05A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-5**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**5**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**13:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A/EPA 6020) **Aliquot ID: 40297-005A** **Matrix: Ground Water** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**5.7**		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
2. Barium	U		µg/L	100	10	08/03/10	PT10H03D	08/03/10	T210H03A
3. Cadmium	U		µg/L	1.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
4. Chromium	U		µg/L	10	10	08/03/10	PT10H03D	08/03/10	T210H03A
5. Copper	U		µg/L	4.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
6. Lead	U		µg/L	3.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
7. Selenium	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
8. Silver	U		µg/L	0.20	10	08/03/10	PT10H03D	08/03/10	T210H03A
9. Zinc	U		µg/L	50	10	08/03/10	PT10H03D	08/03/10	T210H03A

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 40297-005A** **Matrix: Ground Water** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	08/03/10	PM10H03A	08/03/10	M410H03A

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-005** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
2. Acrylonitrile	U		µg/L	2.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
3. Benzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
4. Bromobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
5. Bromochloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
6. Bromodichloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
7. Bromoform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
8. Bromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
9. 2-Butanone	U		µg/L	25	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
10. n-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
13. Carbon Disulfide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
15. Chlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
16. Chloroethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
17. Chloroform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
18. Chloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
20. Dibromochloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
21. 1,2-Dibromo-3-chloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
22. Dibromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-5**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**5**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**13:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-005** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
35. Ethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
37. 2-Hexanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
38. Isopropylbenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
39. Methyl Iodide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
40. Methylene Chloride	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
42. MTBE	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
43. Naphthalene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
44. n-Propylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
45. Styrene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
48. Tetrachloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
49. Toluene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
53. Trichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
59. Vinyl Chloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
60. Xylenes	U		µg/L	3.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-005C** **Matrix: Ground Water** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-5**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**5**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**13:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-005C** **Matrix: Ground Water** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
2. Acenaphthylene	U		µg/L	5.0	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
3. Anthracene	U		µg/L	5.0	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
4. Benzo(a)anthracene	U		µg/L	1.3	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
5. Benzo(a)pyrene	U		µg/L	1.3	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
6. Benzo(b)fluoranthene	U		µg/L	1.3	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
7. Benzo(ghi)perylene	U		µg/L	1.3	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
8. Benzo(k)fluoranthene	U		µg/L	1.3	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
9. Chrysene	U		µg/L	1.3	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
11. Fluoranthene	U		µg/L	1.3	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
12. Fluorene	U		µg/L	5.0	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
14. 2-Methylnaphthalene	U		µg/L	5.0	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
15. Phenanthrene	U		µg/L	2.0	1.3	08/05/10	PS10H05A	08/05/10	S510H05A
16. Pyrene	U		µg/L	5.0	1.3	08/05/10	PS10H05A	08/05/10	S510H05A

Nitrogen, Ammonia (ISE) (SM 4500-NH3 D.) **Aliquot ID: 40297-005B** **Matrix: Ground Water** **Analyst: CML**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Ammonia-N	**210**		µg/L	50	1.0	NA	NA	08/04/10	WJ10H04A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-7**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**6**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**15:10**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A/EPA 6020) **Aliquot ID: 40297-006B** **Matrix: Ground Water** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
2. Barium	U		µg/L	100	10	08/03/10	PT10H03D	08/03/10	T210H03A
3. Cadmium	U		µg/L	1.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
4. Chromium	U		µg/L	10	10	08/03/10	PT10H03D	08/03/10	T210H03A
5. Copper	U		µg/L	4.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
6. Lead	U		µg/L	3.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
7. Selenium	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
8. Silver	U		µg/L	0.20	10	08/03/10	PT10H03D	08/03/10	T210H03A
9. Zinc	U		µg/L	50	10	08/03/10	PT10H03D	08/03/10	T210H03A

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 40297-006B** **Matrix: Ground Water** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	08/03/10	PM10H03A	08/03/10	M410H03A

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-006** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
2. Acrylonitrile	U		µg/L	2.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
3. Benzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
4. Bromobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
5. Bromochloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
6. Bromodichloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
7. Bromoform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
8. Bromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
9. 2-Butanone	U		µg/L	25	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
10. n-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
13. Carbon Disulfide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
15. Chlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
16. Chloroethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
17. Chloroform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
18. Chloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
20. Dibromochloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
21. 1,2-Dibromo-3-chloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
22. Dibromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-7**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**6**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**15:10**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-006** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
35. Ethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
37. 2-Hexanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
38. Isopropylbenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
39. Methyl Iodide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
40. Methylene Chloride	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
42. MTBE	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
43. Naphthalene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
44. n-Propylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
45. Styrene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
48. Tetrachloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
49. Toluene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
53. Trichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
59. Vinyl Chloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
60. Xylenes	U		µg/L	3.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-006A** **Matrix: Ground Water** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-7**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**6**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**15:10**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-006A** **Matrix: Ground Water** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
2. Acenaphthylene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
3. Anthracene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
4. Benzo(a)anthracene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
5. Benzo(a)pyrene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
6. Benzo(b)fluoranthene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
7. Benzo(ghi)perylene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
8. Benzo(k)fluoranthene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
9. Chrysene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
11. Fluoranthene	U		µg/L	1.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
12. Fluorene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
14. 2-Methylnaphthalene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
15. Phenanthrene	U		µg/L	2.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A
16. Pyrene	U		µg/L	5.0	1.0	08/05/10	PS10H05A	08/05/10	S110H05A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-8**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**7**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**15:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A/EPA 6020) **Aliquot ID: 40297-007B** **Matrix: Ground Water** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
2. Barium	U		µg/L	100	10	08/03/10	PT10H03D	08/03/10	T210H03A
3. Cadmium	U		µg/L	1.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
4. Chromium	U		µg/L	10	10	08/03/10	PT10H03D	08/03/10	T210H03A
5. Copper	U		µg/L	4.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
6. Lead	U		µg/L	3.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
7. Selenium	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
8. Silver	U		µg/L	0.20	10	08/03/10	PT10H03D	08/03/10	T210H03A
9. Zinc	U		µg/L	50	10	08/03/10	PT10H03D	08/03/10	T210H03A

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 40297-007B** **Matrix: Ground Water** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	08/03/10	PM10H03A	08/03/10	M410H03A

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-007** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
2. Acrylonitrile	U		µg/L	2.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
3. Benzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
4. Bromobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
5. Bromochloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
6. Bromodichloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
7. Bromoform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
8. Bromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
9. 2-Butanone	U		µg/L	25	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
10. n-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
13. Carbon Disulfide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
15. Chlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
16. Chloroethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
17. Chloroform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
18. Chloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
20. Dibromochloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
21. 1,2-Dibromo-3-chloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
22. Dibromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-8**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**7**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**15:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-007** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
35. Ethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
37. 2-Hexanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
38. Isopropylbenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
39. Methyl Iodide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
40. Methylene Chloride	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
42. MTBE	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
43. Naphthalene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
44. n-Propylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
45. Styrene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
48. Tetrachloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
49. Toluene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
53. Trichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
59. Vinyl Chloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
60. Xylenes	U		µg/L	3.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-007A** **Matrix: Ground Water** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-8**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**7**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**15:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-007A** **Matrix: Ground Water** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
2. Acenaphthylene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
3. Anthracene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
4. Benzo(a)anthracene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
5. Benzo(a)pyrene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
6. Benzo(b)fluoranthene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
7. Benzo(ghi)perylene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
8. Benzo(k)fluoranthene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
9. Chrysene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
10. Dibenzo(a,h)anthracene	U		µg/L	2.2	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
11. Fluoranthene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
12. Fluorene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.2	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
14. 2-Methylnaphthalene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
15. Phenanthrene	U		µg/L	2.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
16. Pyrene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-9**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**8**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**16:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A/EPA 6020) **Aliquot ID: 40297-008B** **Matrix: Ground Water** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
2. Barium	U		µg/L	100	10	08/03/10	PT10H03D	08/03/10	T210H03A
3. Cadmium	U		µg/L	1.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
4. Chromium	U		µg/L	10	10	08/03/10	PT10H03D	08/03/10	T210H03A
5. Copper	U		µg/L	4.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
6. Lead	U		µg/L	3.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
7. Selenium	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
8. Silver	U		µg/L	0.20	10	08/03/10	PT10H03D	08/03/10	T210H03A
9. Zinc	U		µg/L	50	10	08/03/10	PT10H03D	08/03/10	T210H03A

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 40297-008B** **Matrix: Ground Water** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	08/03/10	PM10H03A	08/03/10	M410H03A

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-008** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
2. Acrylonitrile	U		µg/L	2.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
3. Benzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
4. Bromobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
5. Bromochloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
6. Bromodichloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
7. Bromoform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
8. Bromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
9. 2-Butanone	U		µg/L	25	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
10. n-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
13. Carbon Disulfide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
15. Chlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
16. Chloroethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
17. Chloroform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
18. Chloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
20. Dibromochloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
21. 1,2-Dibromo-3-chloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
22. Dibromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-9**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**8**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**16:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-008** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
35. Ethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
37. 2-Hexanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
38. Isopropylbenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
39. Methyl Iodide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
40. Methylene Chloride	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
42. MTBE	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
43. Naphthalene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
44. n-Propylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
45. Styrene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
48. Tetrachloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
49. Toluene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
53. Trichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
59. Vinyl Chloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
60. Xylenes	U		µg/L	3.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-008A** **Matrix: Ground Water** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-9**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**8**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**16:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-008A** **Matrix: Ground Water** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
2. Acenaphthylene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
3. Anthracene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
4. Benzo(a)anthracene	U		µg/L	1.3	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
5. Benzo(a)pyrene	U		µg/L	1.3	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
6. Benzo(b)fluoranthene	U		µg/L	1.3	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
7. Benzo(ghi)perylene	U		µg/L	1.3	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
8. Benzo(k)fluoranthene	U		µg/L	1.3	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
9. Chrysene	U		µg/L	1.3	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
10. Dibenzo(a,h)anthracene	U		µg/L	2.5	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
11. Fluoranthene	U		µg/L	1.3	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
12. Fluorene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.5	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
14. 2-Methylnaphthalene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
15. Phenanthrene	U		µg/L	2.0	1.2	08/05/10	PS10H05A	08/05/10	S110H05A
16. Pyrene	U		µg/L	5.0	1.2	08/05/10	PS10H05A	08/05/10	S110H05A

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-10**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**9**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**17:15**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A/EPA 6020) **Aliquot ID: 40297-009B** **Matrix: Ground Water** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
2. Barium	U		µg/L	100	10	08/03/10	PT10H03D	08/03/10	T210H03A
3. Cadmium	U		µg/L	1.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
4. Chromium	U		µg/L	10	10	08/03/10	PT10H03D	08/03/10	T210H03A
5. Copper	U		µg/L	4.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
6. Lead	U		µg/L	3.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
7. Selenium	U		µg/L	5.0	10	08/03/10	PT10H03D	08/03/10	T210H03A
8. Silver	U		µg/L	0.20	10	08/03/10	PT10H03D	08/03/10	T210H03A
9. Zinc	U		µg/L	50	10	08/03/10	PT10H03D	08/03/10	T210H03A

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 40297-009B** **Matrix: Ground Water** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	08/03/10	PM10H03A	08/03/10	M410H03A

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-009** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
2. Acrylonitrile	U		µg/L	2.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
3. Benzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
4. Bromobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
5. Bromochloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
6. Bromodichloromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
7. Bromoform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
8. Bromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
9. 2-Butanone	U		µg/L	25	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
10. n-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
11. sec-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
12. tert-Butylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
13. Carbon Disulfide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
15. Chlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
16. Chloroethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
17. Chloroform	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
18. Chloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
20. Dibromochloromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
21. 1,2-Dibromo-3-chloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
22. Dibromomethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-10**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**9**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**17:15**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 40297-009** **Matrix: Ground Water** **Analyst: BAG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
35. Ethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
36. Ethylene Dibromide	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
37. 2-Hexanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
38. Isopropylbenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
39. Methyl Iodide	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
40. Methylene Chloride	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
42. MTBE	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
43. Naphthalene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
44. n-Propylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
45. Styrene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
48. Tetrachloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
49. Toluene	**1.7**		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
53. Trichloroethene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
56. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
59. Vinyl Chloride	U		µg/L	1.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B
60. Xylenes	U		µg/L	3.0	1.0	08/03/10	VB10H03B	08/04/10	VB10H03B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-009A** **Matrix: Ground Water** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch

Client Identification:	**AECOM - Lansing**	Sample Description:	**TW-10**	Chain of Custody:	**82826**
Client Project Name:	**MDOT River Raisin**	Sample No:	**9**	Collect Date:	**07/29/10**
Client Project No:	**60157928**	Sample Matrix:	**Ground Water**	Collect Time:	**17:15**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3535/EPA 8270C) **Aliquot ID: 40297-009A** **Matrix: Ground Water** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
2. Acenaphthylene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
3. Anthracene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
4. Benzo(a)anthracene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
5. Benzo(a)pyrene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
6. Benzo(b)fluoranthene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
7. Benzo(ghi)perylene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
8. Benzo(k)fluoranthene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
9. Chrysene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
10. Dibenzo(a,h)anthracene	U		µg/L	2.2	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
11. Fluoranthene	U		µg/L	1.1	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
12. Fluorene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.2	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
14. 2-Methylnaphthalene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
15. Phenanthrene	U		µg/L	2.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A
16. Pyrene	U		µg/L	5.0	1.1	08/05/10	PS10H05A	08/05/10	S110H05A

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number:

100312

Fibertec
environmental
services

Wednesday, August 25, 2010

Fibertec Project Number:	40586
Project Identification:	River Raisin Battlefield /60157928
Submittal Date:	08/18/2010

Mr. Scott Park
AECOM - Lansing
401 S. Washington Square
Suite 103
Lansing, MI 48933

Dear Mr. Park,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-1-4**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**1**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-001A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**23**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-001A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**95000**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**24000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-001** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	08/20/10	V910H20C	08/21/10	V910H20C
2. Acrylonitrile	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
3. Benzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
4. Bromobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
5. Bromochloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
6. Bromodichloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
7. Bromoform	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
8. Bromomethane	U		µg/kg	200	1.0	08/20/10	V910H20C	08/21/10	V910H20C
9. 2-Butanone	U		µg/kg	750	1.0	08/20/10	V910H20C	08/21/10	V910H20C
10. n-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
13. Carbon Disulfide	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
14. Carbon Tetrachloride	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
15. Chlorobenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
16. Chloroethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
17. Chloroform	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
18. Chloromethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
20. Dibromochloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	33	1.0	08/20/10	V910H20C	08/21/10	V910H20C
22. Dibromomethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
28. 1,2-Dichloroethane	U		µg/kg	65	1.0	08/20/10	V910H20C	08/21/10	V910H20C
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-1-4**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**1**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-001** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
35. Ethylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
36. Ethylene Dibromide	U		µg/kg	26	1.0	08/20/10	V910H20C	08/21/10	V910H20C
37. 2-Hexanone	U		µg/kg	2500	1.0	08/20/10	V910H20C	08/21/10	V910H20C
38. Isopropylbenzene	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
39. Methyl Iodide	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
40. Methylene Chloride	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
41. 2-Methylnaphthalene (NN)	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
42. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/20/10	V910H20C	08/21/10	V910H20C
43. MTBE	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
44. Naphthalene	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
45. n-Propylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
46. Styrene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
47. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
48. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
49. Tetrachloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
50. Toluene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
51. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
52. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
53. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
54. Trichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
55. Trichlorofluoromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
56. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
57. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
58. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
59. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
60. Vinyl Chloride	U		µg/kg	40	1.0	08/20/10	V910H20C	08/21/10	V910H20C
61. Xylenes	U		µg/kg	150	1.0	08/20/10	V910H20C	08/21/10	V910H20C

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-2-4**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**2**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-002A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**20**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-002A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**12000**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**23000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-002** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	08/20/10	V910H20C	08/21/10	V910H20C
2. Acrylonitrile	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
3. Benzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
4. Bromobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
5. Bromochloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
6. Bromodichloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
7. Bromoform	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
8. Bromomethane	U		µg/kg	200	1.0	08/20/10	V910H20C	08/21/10	V910H20C
9. 2-Butanone	U		µg/kg	750	1.0	08/20/10	V910H20C	08/21/10	V910H20C
10. n-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
13. Carbon Disulfide	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
14. Carbon Tetrachloride	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
15. Chlorobenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
16. Chloroethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
17. Chloroform	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
18. Chloromethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
20. Dibromochloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	31	1.0	08/20/10	V910H20C	08/21/10	V910H20C
22. Dibromomethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
28. 1,2-Dichloroethane	U		µg/kg	63	1.0	08/20/10	V910H20C	08/21/10	V910H20C
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-2-4**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**2**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-002** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
35. Ethylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
36. Ethylene Dibromide	U		µg/kg	25	1.0	08/20/10	V910H20C	08/21/10	V910H20C
37. 2-Hexanone	U		µg/kg	2500	1.0	08/20/10	V910H20C	08/21/10	V910H20C
38. Isopropylbenzene	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
39. Methyl Iodide	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
40. Methylene Chloride	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
41. 2-Methylnaphthalene (NN)	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
42. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/20/10	V910H20C	08/21/10	V910H20C
43. MTBE	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
44. Naphthalene	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
45. n-Propylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
46. Styrene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
47. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
48. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
49. Tetrachloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
50. Toluene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
51. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
52. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
53. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
54. Trichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
55. Trichlorofluoromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
56. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
57. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
58. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
59. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
60. Vinyl Chloride	U		µg/kg	40	1.0	08/20/10	V910H20C	08/21/10	V910H20C
61. Xylenes	U		µg/kg	150	1.0	08/20/10	V910H20C	08/21/10	V910H20C

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-3-1**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**3**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-003A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**18**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-003A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**6800**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**3900**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-003** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	08/20/10	V910H20C	08/21/10	V910H20C
2. Acrylonitrile	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
3. Benzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
4. Bromobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
5. Bromochloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
6. Bromodichloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
7. Bromoform	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
8. Bromomethane	U		µg/kg	200	1.0	08/20/10	V910H20C	08/21/10	V910H20C
9. 2-Butanone	U		µg/kg	750	1.0	08/20/10	V910H20C	08/21/10	V910H20C
10. n-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
13. Carbon Disulfide	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
14. Carbon Tetrachloride	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
15. Chlorobenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
16. Chloroethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
17. Chloroform	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
18. Chloromethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
20. Dibromochloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	30	1.0	08/20/10	V910H20C	08/21/10	V910H20C
22. Dibromomethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
28. 1,2-Dichloroethane	U		µg/kg	61	1.0	08/20/10	V910H20C	08/21/10	V910H20C
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-3-1**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**3**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-003** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
35. Ethylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
36. Ethylene Dibromide	U		µg/kg	24	1.0	08/20/10	V910H20C	08/21/10	V910H20C
37. 2-Hexanone	U		µg/kg	2500	1.0	08/20/10	V910H20C	08/21/10	V910H20C
38. Isopropylbenzene	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
39. Methyl Iodide	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
40. Methylene Chloride	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
41. 2-Methylnaphthalene (NN)	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
42. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/20/10	V910H20C	08/21/10	V910H20C
43. MTBE	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
44. Naphthalene	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
45. n-Propylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
46. Styrene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
47. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
48. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
49. Tetrachloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
50. Toluene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
51. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
52. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
53. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
54. Trichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
55. Trichlorofluoromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
56. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
57. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
58. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
59. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
60. Vinyl Chloride	U		µg/kg	40	1.0	08/20/10	V910H20C	08/21/10	V910H20C
61. Xylenes	U		µg/kg	150	1.0	08/20/10	V910H20C	08/21/10	V910H20C

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-3-4**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**4**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:10**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-004A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**22**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-004A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**7100**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**8500**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-004** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	08/20/10	V910H20C	08/21/10	V910H20C
2. Acrylonitrile	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
3. Benzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
4. Bromobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
5. Bromochloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
6. Bromodichloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
7. Bromoform	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
8. Bromomethane	U		µg/kg	200	1.0	08/20/10	V910H20C	08/21/10	V910H20C
9. 2-Butanone	U		µg/kg	750	1.0	08/20/10	V910H20C	08/21/10	V910H20C
10. n-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
13. Carbon Disulfide	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
14. Carbon Tetrachloride	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
15. Chlorobenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
16. Chloroethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
17. Chloroform	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
18. Chloromethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
20. Dibromochloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	32	1.0	08/20/10	V910H20C	08/21/10	V910H20C
22. Dibromomethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
28. 1,2-Dichloroethane	U		µg/kg	64	1.0	08/20/10	V910H20C	08/21/10	V910H20C
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-3-4**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**4**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:10**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-004** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
35. Ethylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
36. Ethylene Dibromide	U		µg/kg	26	1.0	08/20/10	V910H20C	08/21/10	V910H20C
37. 2-Hexanone	U		µg/kg	2500	1.0	08/20/10	V910H20C	08/21/10	V910H20C
38. Isopropylbenzene	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
39. Methyl Iodide	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
40. Methylene Chloride	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
41. 2-Methylnaphthalene (NN)	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
42. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/20/10	V910H20C	08/21/10	V910H20C
43. MTBE	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
44. Naphthalene	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
45. n-Propylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
46. Styrene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
47. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
48. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
49. Tetrachloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
50. Toluene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
51. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
52. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
53. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
54. Trichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
55. Trichlorofluoromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
56. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
57. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
58. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
59. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
60. Vinyl Chloride	U		µg/kg	40	1.0	08/20/10	V910H20C	08/21/10	V910H20C
61. Xylenes	U		µg/kg	150	1.0	08/20/10	V910H20C	08/21/10	V910H20C

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-4-1**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**5**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-005A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**17**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-005A** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**29000**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**26000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-005** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	08/20/10	V910H20C	08/21/10	V910H20C
2. Acrylonitrile	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
3. Benzene	**65**		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
4. Bromobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
5. Bromochloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
6. Bromodichloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
7. Bromoform	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
8. Bromomethane	U		µg/kg	200	1.0	08/20/10	V910H20C	08/21/10	V910H20C
9. 2-Butanone	U		µg/kg	750	1.0	08/20/10	V910H20C	08/21/10	V910H20C
10. n-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
13. Carbon Disulfide	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
14. Carbon Tetrachloride	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
15. Chlorobenzene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
16. Chloroethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
17. Chloroform	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
18. Chloromethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
20. Dibromochloromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	30	1.0	08/20/10	V910H20C	08/21/10	V910H20C
22. Dibromomethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
28. 1,2-Dichloroethane	U		µg/kg	60	1.0	08/20/10	V910H20C	08/21/10	V910H20C
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-4-1**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**5**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-005** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
35. Ethylbenzene	**87**		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
36. Ethylene Dibromide	U		µg/kg	24	1.0	08/20/10	V910H20C	08/21/10	V910H20C
37. 2-Hexanone	U		µg/kg	2500	1.0	08/20/10	V910H20C	08/21/10	V910H20C
38. Isopropylbenzene	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
39. Methyl Iodide	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
40. Methylene Chloride	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
41. 2-Methylnaphthalene (NN)	U		µg/kg	390	1.0	08/20/10	V910H20C	08/21/10	V910H20C
42. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/20/10	V910H20C	08/21/10	V910H20C
43. MTBE	U		µg/kg	250	1.0	08/20/10	V910H20C	08/21/10	V910H20C
44. Naphthalene	**480**		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
45. n-Propylbenzene	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
46. Styrene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
47. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
48. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
49. Tetrachloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
50. Toluene	**510**		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
51. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/20/10	V910H20C	08/21/10	V910H20C
52. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
53. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
54. Trichloroethene	U		µg/kg	50	1.0	08/20/10	V910H20C	08/21/10	V910H20C
55. Trichlorofluoromethane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
56. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
57. 1,2,3-Trimethylbenzene (NN)	**180**		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
58. 1,2,4-Trimethylbenzene	**290**		µg/kg	100	1.0	08/20/10	V910H20C	08/21/10	V910H20C
59. 1,3,5-Trimethylbenzene	U		µg/kg	110	1.0	08/20/10	V910H20C	08/21/10	V910H20C
60. Vinyl Chloride	U		µg/kg	40	1.0	08/20/10	V910H20C	08/21/10	V910H20C
61. Xylenes	**1000**		µg/kg	150	1.0	08/20/10	V910H20C	08/21/10	V910H20C

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-5-1**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**6**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-006** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**20**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-006** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**62000**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**44000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-006A** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	08/23/10	V910H23A	08/23/10	V910H23A
2. Acrylonitrile	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
3. Benzene	**150**		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
4. Bromobenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
5. Bromochloromethane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
6. Bromodichloromethane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
7. Bromoform	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
8. Bromomethane	U		µg/kg	200	1.0	08/23/10	V910H23A	08/23/10	V910H23A
9. 2-Butanone	U		µg/kg	750	1.0	08/23/10	V910H23A	08/23/10	V910H23A
10. n-Butylbenzene	U		µg/kg	56	1.0	08/23/10	V910H23A	08/23/10	V910H23A
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
13. Carbon Disulfide	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
15. Chlorobenzene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
16. Chloroethane	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
17. Chloroform	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
18. Chloromethane	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
20. Dibromochloromethane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	31	1.0	08/23/10	V910H23A	08/23/10	V910H23A
22. Dibromomethane	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
28. 1,2-Dichloroethane	U		µg/kg	62	1.0	08/23/10	V910H23A	08/23/10	V910H23A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-5-1**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**6**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-006A** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
35. Ethylbenzene	**130**		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
36. Ethylene Dibromide	U		µg/kg	25	1.0	08/23/10	V910H23A	08/23/10	V910H23A
37. 2-Hexanone	U		µg/kg	2500	1.0	08/23/10	V910H23A	08/23/10	V910H23A
38. Isopropylbenzene	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
39. Methyl Iodide	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
40. Methylene Chloride	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
41. 2-Methylnaphthalene (NN)	**540**		µg/kg	330	1.0	08/23/10	V910H23A	08/23/10	V910H23A
42. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/23/10	V910H23A	08/23/10	V910H23A
43. MTBE	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
44. Naphthalene	**550**		µg/kg	330	1.0	08/23/10	V910H23A	08/23/10	V910H23A
45. n-Propylbenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
46. Styrene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
47. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
48. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
49. Tetrachloroethene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
50. Toluene	**770**		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
51. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/23/10	V910H23A	08/23/10	V910H23A
52. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
53. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
54. Trichloroethene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
55. Trichlorofluoromethane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
56. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
57. 1,2,3-Trimethylbenzene (NN)	**170**		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
58. 1,2,4-Trimethylbenzene	**300**		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
59. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
60. Vinyl Chloride	U		µg/kg	40	1.0	08/23/10	V910H23A	08/23/10	V910H23A
61. Xylenes	**1200**		µg/kg	150	1.0	08/23/10	V910H23A	08/23/10	V910H23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-6-3**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**7**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-007** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**12**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-007** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**7400**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**130000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-007A** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	08/23/10	V910H23A	08/23/10	V910H23A
2. Acrylonitrile	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
3. Benzene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
4. Bromobenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
5. Bromochloromethane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
6. Bromodichloromethane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
7. Bromoform	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
8. Bromomethane	U		µg/kg	200	1.0	08/23/10	V910H23A	08/23/10	V910H23A
9. 2-Butanone	U		µg/kg	750	1.0	08/23/10	V910H23A	08/23/10	V910H23A
10. n-Butylbenzene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
13. Carbon Disulfide	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
14. Carbon Tetrachloride	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
15. Chlorobenzene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
16. Chloroethane	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
17. Chloroform	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
18. Chloromethane	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
20. Dibromochloromethane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
21. 1,2-Dibromo-3-chloropropane	U		µg/kg	28	1.0	08/23/10	V910H23A	08/23/10	V910H23A
22. Dibromomethane	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
28. 1,2-Dichloroethane	U		µg/kg	57	1.0	08/23/10	V910H23A	08/23/10	V910H23A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-6-3**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**7**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 40586-007A** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
35. Ethylbenzene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
36. Ethylene Dibromide	U		µg/kg	23	1.0	08/23/10	V910H23A	08/23/10	V910H23A
37. 2-Hexanone	U		µg/kg	2500	1.0	08/23/10	V910H23A	08/23/10	V910H23A
38. Isopropylbenzene	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
39. Methyl Iodide	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
40. Methylene Chloride	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
41. 2-Methylnaphthalene (NN)	U		µg/kg	570	1.0	08/23/10	V910H23A	08/23/10	V910H23A
42. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/23/10	V910H23A	08/23/10	V910H23A
43. MTBE	U		µg/kg	250	1.0	08/23/10	V910H23A	08/23/10	V910H23A
44. Naphthalene	U		µg/kg	330	1.0	08/23/10	V910H23A	08/23/10	V910H23A
45. n-Propylbenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
46. Styrene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
47. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
48. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
49. Tetrachloroethene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
50. Toluene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
51. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/23/10	V910H23A	08/23/10	V910H23A
52. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
53. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
54. Trichloroethene	U		µg/kg	50	1.0	08/23/10	V910H23A	08/23/10	V910H23A
55. Trichlorofluoromethane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
56. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
57. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
58. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
59. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/23/10	V910H23A	08/23/10	V910H23A
60. Vinyl Chloride	U		µg/kg	40	1.0	08/23/10	V910H23A	08/23/10	V910H23A
61. Xylenes	U		µg/kg	150	1.0	08/23/10	V910H23A	08/23/10	V910H23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-7-3**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**8**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-008** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**38**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-008** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**25000**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**7900**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-8-3**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**9**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-009** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**34**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-009** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**69000**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**54000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-9-1.5**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**10**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-010** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**22**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-010** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**7500**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**13000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-10-1.5**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**11**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:55**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-011** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**22**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-011** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**13000**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**25000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-11-2**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**12**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-012** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**32**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-012** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**16000**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**65000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12-1**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**13**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-013** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**18**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-013** **Matrix: Soil/Solid** **Analyst: JLH**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**19000**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**4400000**		µg/kg	4000	2000	08/24/10	PT10H24C	08/25/10	T210H25A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-13-1**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**14**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-014** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**27**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-014** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**9100**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**32000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-14-1**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**15**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**12:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 40586-015** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**15**		%	0.1	1.0	08/23/10	MC100823	08/24/10	MC100823

Trace Elements by ICP/MS (EPA 3050B/EPA 6020) **Aliquot ID: 40586-015** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	**5000**		µg/kg	100	20	08/24/10	PT10H24C	08/24/10	T210H24B
2. Lead	**15000**		µg/kg	1000	20	08/24/10	PT10H24C	08/24/10	T210H24B

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number:

100312

Fibertec
environmental
services

Wednesday, September 15, 2010

Fibertec Project Number:	40185 Supplemental
Project Identification:	River Raisin Battlefield /60157928
Submittal Date:	07/23/2010

Mr. Craig Simon
AECOM - Lansing
401 S. Washington Square
Suite 103
Lansing, MI 48933

Dear Mr. Simon,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

TCLP (1311) extraction date for metals is Setpember 14, 2010.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

Analytical Laboratory Report
Laboratory Project Number: 40185
Laboratory Sample Number: 40185-002

Client Identification:	**AECOM - Lansing**	Sample Description:	**TP-4 4'**	Chain of Custody:	**82824**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**2**	Collect Date:	**07/21/10**
Client Project No:	**60157928**	Sample Matrix:	**TCLP Extract**	Collect Time:	**13:15**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

TCLP Metals by ICP/MS (EPA 3010A/EPA 6020A) **Aliquot ID: 40185-002AB** **Matrix: TCLP Extract** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	U		mg/L	1.0	20	09/15/10	PT10I15A	09/15/10	T210I15A

1914 Holloway Drive *Holt, MI 48842* *T: (517) 699-0345* *F: (517) 699-0388*
11766 E. Grand River *Brighton, MI 48116* *T: (810) 220-3300* *F: (810) 220-3311*
8660 S. Mackinaw Trail *Cadillac, MI 49601* *T: (231) 775-8368* *F: (231) 775-8584*

lab@fibertec.us

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number:

100312

Fibertec
environmental
services

Tuesday, September 14, 2010

Fibertec Project Number:	40586 Supplemental
Project Identification:	River Raisin Battlefield /60157928
Submittal Date:	08/18/2010

Mr. Scott Park
AECOM - Lansing
401 S. Washington Square
Suite 103
Lansing, MI 48933

Dear Mr. Park,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

TCLP (1311) extraction date is September 9, 2010.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12-1**	Chain of Custody:	**NA**
Client Project Name:	**River Raisin Battlefield**	Sample No:	**13**	Collect Date:	**08/18/10**
Client Project No:	**60157928**	Sample Matrix:	**TCLP Extract**	Collect Time:	**11:25**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

TCLP Metals by ICP/MS (EPA 3010A/EPA 6020) **Aliquot ID: 40586-013AA** **Matrix: TCLP Extract** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**55**		mg/L	1.0	200	09/09/10	PT10I09C	09/13/10	T210I13B

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number:

100312

Fibertec
environmental
services

Thursday, September 23, 2010

Fibertec Project Number:	41118
Project Identification:	MDOT River Raisin /60157928
Submittal Date:	09/22/2010

Mr. Craig Simon
AECOM - Lansing
401 S. Washington Square
Suite 103
Lansing, MI 48933

Dear Mr. Simon,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 A 1'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**1**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-001** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**38**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-001** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**1000000**		µg/kg	1000	200	09/23/10	PT10I23A	09/23/10	T210I23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 B 1'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**2**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-002** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**23**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-002** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**26000**		µg/kg	1000	20	09/23/10	PT10I23A	09/23/10	T210I23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 C 1.5'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**3**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-003** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**30**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-003** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**29000**		µg/kg	1000	20	09/23/10	PT10I23A	09/23/10	T210I23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 D 1'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**4**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-004** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**7.4**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-004** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**10000**		µg/kg	1000	20	09/23/10	PT10I23A	09/23/10	T210I23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 E 1'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**5**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-005** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**28**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-005** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**28000**		µg/kg	1000	20	09/23/10	PT10I23A	09/23/10	T210I23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 F 1'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**6**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-006** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**24**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-006** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**130000**		µg/kg	1000	20	09/23/10	PT10I23A	09/23/10	T210I23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 G 1'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**7**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-007** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**6.9**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-007** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**12000**		µg/kg	1000	20	09/23/10	PT10I23A	09/23/10	T210I23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 I 1.5'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**8**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-008** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**24**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-008** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**1200000**		µg/kg	1000	200	09/23/10	PT10I23A	09/23/10	T210I23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 J 1'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**9**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-009** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**15**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-009** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**290000**		µg/kg	1000	200	09/23/10	PT10I23A	09/23/10	T210I23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 K 1'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**10**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-010** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**9.6**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-010** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**15000**		µg/kg	1000	20	09/23/10	PT10I23A	09/23/10	T210I23A

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 L 1'**	Chain of Custody:	**82829**
Client Project Name:	**MDOT River Raisin**	Sample No:	**11**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41118-011** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**11**		%	0.1	1.0	09/22/10	MC100922	09/23/10	MC100922

Trace Elements by ICP/MS (EPA 3050B/EPA 6020A) **Aliquot ID: 41118-011** **Matrix: Soil/Solid** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	**8300**		µg/kg	1000	20	09/23/10	PT10I23A	09/23/10	T210I23A

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number:

100312

Fibertec
environmental
services

Monday, September 27, 2010

Fibertec Project Number:	41118 Supplemental
Project Identification:	MDOT River Raisin /60157928
Submittal Date:	09/22/2010

Mr. Craig Simon
AECOM - Lansing
401 S. Washington Square
Suite 103
Lansing, MI 48933

Dear Mr. Simon,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

TCLP (1311) extraction date is September 23, 2010.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 A 1'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**1**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**TCLP Extract**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

TCLP Metals by ICP/MS (EPA 3010A/EPA 6020A) **Aliquot ID: 41118-001A** **Matrix: TCLP Extract** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	U		mg/L	1.0	20	09/24/10	PT10I24A	09/25/10	T210I25A

Analytical Laboratory Report
Laboratory Project Number: 41118
Laboratory Sample Number: 41118-008

Client Identification:	**AECOM - Lansing**	Sample Description:	**GP-12 I 1.5'**	Chain of Custody:	**82828**
Client Project Name:	**MDOT River Raisin**	Sample No:	**8**	Collect Date:	**09/21/10**
Client Project No:	**60157928**	Sample Matrix:	**TCLP Extract**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

TCLP Metals by ICP/MS (EPA 3010A/EPA 6020A) **Aliquot ID: 41118-008A** **Matrix: TCLP Extract** **Analyst: MAP**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Lead	U		mg/L	1.0	20	09/24/10	PT10I24A	09/25/10	T210I25A

1914 Holloway Drive *Holt, MI 48842* *T: (517) 699-0345* *F: (517) 699-0388*
11766 E. Grand River *Brighton, MI 48116* *T: (810) 220-3300* *F: (810) 220-3311*
8660 S. Mackinaw Trail *Cadillac, MI 49601* *T: (231) 775-8368* *F: (231) 775-8584*

lab@fibertec.us

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number:

100312

Appendix E

Annual Environmental Checklist

Annual Environmental Checklist

MDOT

River Raisin Battlefield

1220 E. Elm Avenue

Monroe, Michigan 48162

Due to the presence of hazardous substances in soil samples collected at the Property, MDOT staff will conduct (or retain a consultant to conduct) annual visual inspections of the Property (while in possession of the Property) to assure that a suitable asphalt, concrete, or soil cover is present over contaminated soil and that no subsoil is exposed. The presence of topsoil, vegetation, pavement, the building, and mulch will be deemed sufficient cover for this inspection. Inspect in particular for deep animal burrows (ground hogs), erosion cuts, evidence of digging not associated with routine maintenance activities (such as soil piles), devoid of vegetation cover. Also observe parking and other asphalt areas for holes or cracks greater than ¼". The presence of any of these will require repair as described below.

If sufficient cover was not found during the inspection, a response must be initiated within 14 days of the date of the inspection. Record the dates that cover repair was initiated and complete below.

Date of Inspection: _____

Name of Inspector: _____

Signature of Inspector: _____

Date any Required Repairs Initiated: _____

Date any Required Repairs Completed: _____

The original copy of this form must be filed in the Due Care file at the office at the Property.

AKTPEERLESS
environmental & energy services

August 2, 2011

Mr. Roger Homrich
Homrich, Inc.
200 Matlin Road
Carleton, Michigan

Subject: Fill Placement Oversight
1220 E. Elm Avenue
Monroe, Michigan
AKT Peerless Project No. 1983F7-1-10

Mr. Homrich:

On behalf of Homrich, Inc., AKT Peerless Environmental & Energy Services (AKT Peerless) oversaw the placement of fill material at the property located at 1220 East Elm Avenue in Monroe, Michigan (subject property). The fill placement was conducted in accordance with AKT Peerless' proposal for fill placement oversight (PF-12188-1), dated July 20, 2011.

Three areas of the subject property (Areas 1, 2, and 3) were selected for fill placement in accordance with AECOM's March 2011 "Estimated Areas with Metal Concentrations Exceeding Direct Contact Criteria" map. Fill soil placement depths were outlined in AECOM's January 2011 Placement of Additional Cover for Due Care report, as specified below:

- Area 1 – Two inches of fill soil
- Area 2 – Three inches of fill soil
- Area 3 – Six inches of fill soil (excluding the cement slab)

Refer to Appendixt A for a copy of the above referenced report and map.

The fill material was obtained from the Denniston Quarry in Monroe, Michigan. AKT Peerless inspected the fill placement at the subject property on July 18, 21, and 25, 2011 to confirm (1) fill material was placed within the areas outlined in AECOM's map, and (2) sufficient fill material was placed to meet AECOM requirements for each select Area. A copy of the Load Ticket Detail Report is provided as Appendix B. Photographs of the fill placement activities are included in Appendix C.

If you have any questions or need additional information please contact Megan Napier or the undersigned at (248) 615-1333.

Sincerely,

AKT PEERLESS ENVIRONMENTAL & ENERGY SERVICES

Jessica T. Cory

Jessica T. Cory
Project Manager

AKTPEERLESS
environmental & energy services

APPENDIX A

AECOM'S JANUARY 2011 REPORT AND MARCH 2011 MAP

AECOM
401 S. Washington Square, Suite 103
Lansing, Michigan 48933

517 913 5800 tel
517 319 5401 fax

January 25, 2011

Mr. Steve B. Adams
Project Manager
Michigan Department of Transportation
P.O. Box 30049
Lansing, Michigan 48909

Subject: **Placement of Additional Cover for Due Care**
River Raisin Battlefield Property in the City of Monroe, Monroe County, Michigan
AECOM Project No. 60157928

Dear Mr. Adams,

AECOM has prepared an estimate of costs to place additional surficial fill at the River Raisin Battlefield Property (Site), located in the City of Monroe, Michigan. In accordance with the Due Care Plan prepared by AECOM in August 2010 for the Site, the placement of surficial fill was presented as an option to comply with certain Due Care obligations as outlined in Section 7(a) of Michigan Part 201 of P.A. 451. As documented in the Due Care Plan, the Michigan Department of Environmental Quality (MDEQ) generally accepts a minimum of 6 inches of clean surficial fill to provide a reliable barrier. Therefore, a minimum of 6 inches of ground cover should be present over the entire property to act as a reliable barrier to prevent direct exposure of third parties to impacted soils on the Site. Impacted soils with arsenic and lead at concentrations greater than Michigan's Part 201 Residential Direct Contact Criteria were identified during subsurface investigations conducted at the Site by AECOM in July, August, and September 2010.

The Site is currently covered with a nonhazardous slag aggregate ground cover. Based on observations made by AECOM during the soil investigation, the slag aggregate is present at various thicknesses across the Site. AECOM observed areas with no slag aggregate present while areas containing the surficial slag aggregate generally had between 3 and 6 inches. To ensure that the entire Site is covered by 6 inches of ground cover, additional cover should be placed in areas where not enough cover exists. The Michigan Department of Transportation (MDOT) has requested that AECOM prepare cost estimates for the following:

- The approximate cost to cover the entire Site with 6 inches of cover (can include the slag already present);
- The approximate cost to cover the areas of the Site where exceedances of Direct Contact Criteria are present; and,
- The approximate cost for AECOM to provide oversight of the cover placement activities.

Placement of Cover on the Entire Site

Table 1 includes cost estimates to cover the entire Site with additional gravel. AECOM has estimated that an average of 2 to 3 inches of additional cover should be sufficient to cover the entire Site with 6 inches of ground cover. AECOM has estimated the cost the cover the Site with 6, 3, and 2 inches of gravel. As shown on Table 1, the approximate cost to cover the entire Site with gravel ranges from $170,198 to $510,593, depending on the amount of gravel added.

Placement of Cover on Areas with Direct Contact Exceedances

AECOM has identified three areas (Area 1 through Area 3) of the Site where Direct Contact exceedances are present. The areas are shown on Figure 1. Based on field observations, Area 1 currently has approximately 4 inches of slag aggregate cover and Area 2 has approximately 3 inches of slag aggregate cover. Area 3 is divided into two sections, 3A and 3B. Area 3A currently has approximately 3 inches of slag aggregate cover and Area 3B currently does not have any slag aggregate cover present. As shown on Table 1, AECOM has estimated the cost to place 2 inches of gravel on Area 1, 3 inches of gravel on Area 2, 3 inches of gravel on Area 3A, and 6 inches of gravel on Area 3B. The approximate cost to add gravel to each area is $152,100. In addition, AECOM estimate the cost to place 6 inches of gravel on all three areas. The approximate cost for placement of 6 inches of gravel on each area is $241,200.

AECOM Oversight of Cover Placement

The cost for AECOM to provide oversight of the cover placement will vary depending on the option chosen. Options that require more fill will require more time to complete. A cost estimate for AECOM's oversight for each option is included in Table 1. The approximate cost of AECOM's oversight ranges from $6,380 to $17,224, depending on the option.

Total costs including oversight by AECOM are also included in Table 1. The total cost to place additional surficial fill on the Site ranges from approximately $158,480 to $527,817, depending on the option chosen.

On behalf of AECOM, we would be happy to discuss the cost estimates with you at your earliest convenience. It's been a pleasure to work with you on this important project.

Yours sincerely,

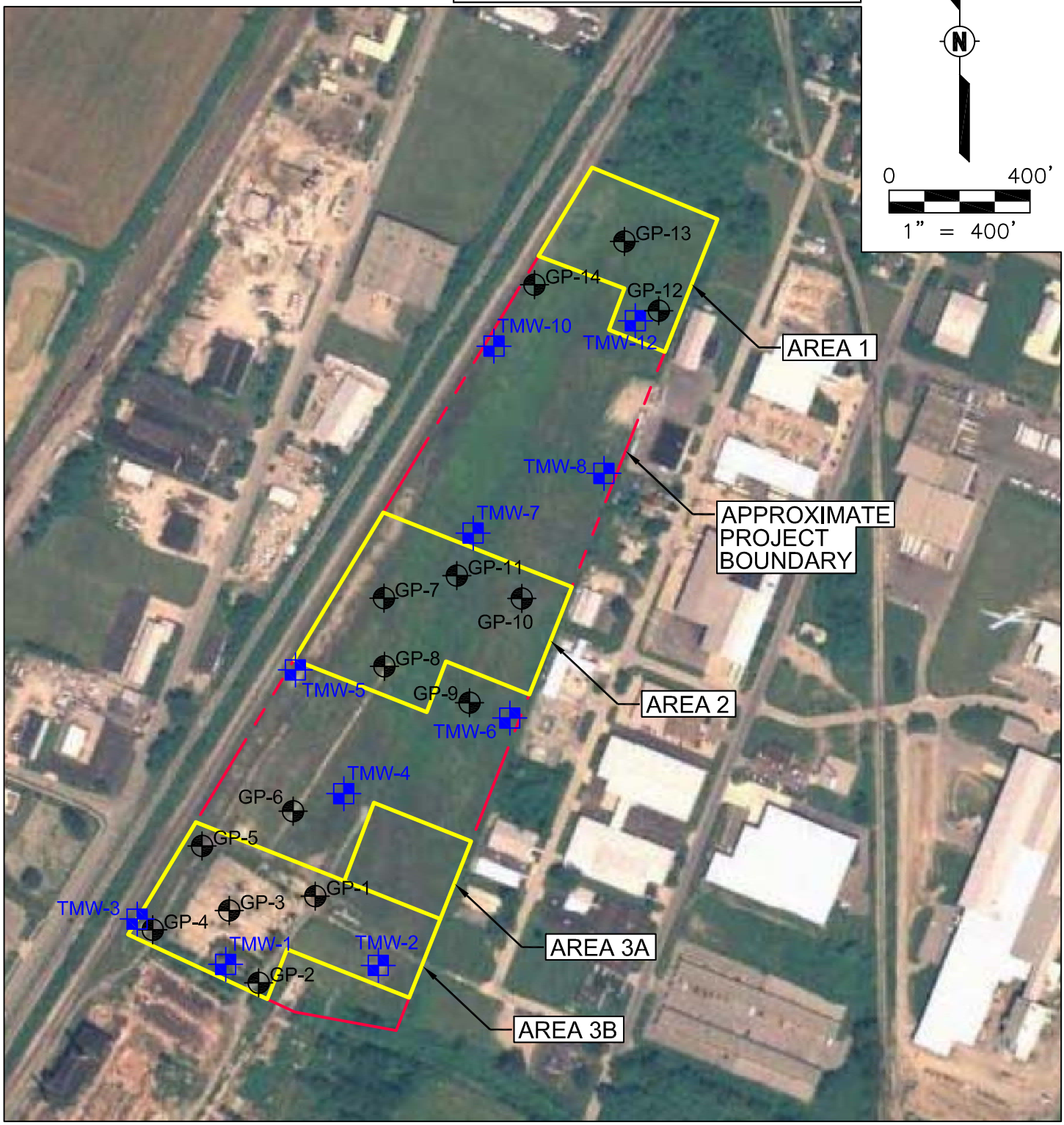
Bridget A. Walsh, PE
Assistant Project Engineer

Scott G. Park, CPG
Senior Project Geologist

TABLE 1
COST ESTIMATES FOR SURFICIAL FILL PLACEMENT
RIVER RAISIN BATTLEFIELD, MONROE, MICHIGAN

	Area (ft^2)	Amount of Cover (yd^3)	Amount of Cover (tons)[1]	Approximate Cost of Fill[2]	AECOM Oversight	Total Costs
Cover Entire Property						
Option 1 - 6" of cover	1,418,314	26,265	42,549	$ 510,593	$ 17,224	$ 527,817
Option 2 - 3" of cover	1,418,314	13,133	21,275	$ 255,296	$ 8,616	$ 263,912
Option 3 - 2" of cover	1,418,314	8,755	14,183	$ 170,198	$ 6,380	$ 176,578
Cover Areas Exceeding Direct Contact Criteria						
Area 1 with 2" of cover	135,000	833	1,350	$ 16,200		
Area 2 with 3" of cover	225,000	2,083	3,375	$ 40,500		
Area 3a with 3" of cover	90,000	833	1,350	$ 16,200		
Area 3b with 6" of cover	220,000	4,074	6,600	$ 79,200		
Option 4 - TOTAL	670,000	7,824	12,675	$ 152,100	$ 6,380	$ 158,480
Option 5 - Cover all 3 areas with 6" of cover	670,000	12,407	20,100	$ 241,200	$ 8,616	$ 249,816

1. Assumes gravel is used as cover
2. Includes cost to place fill



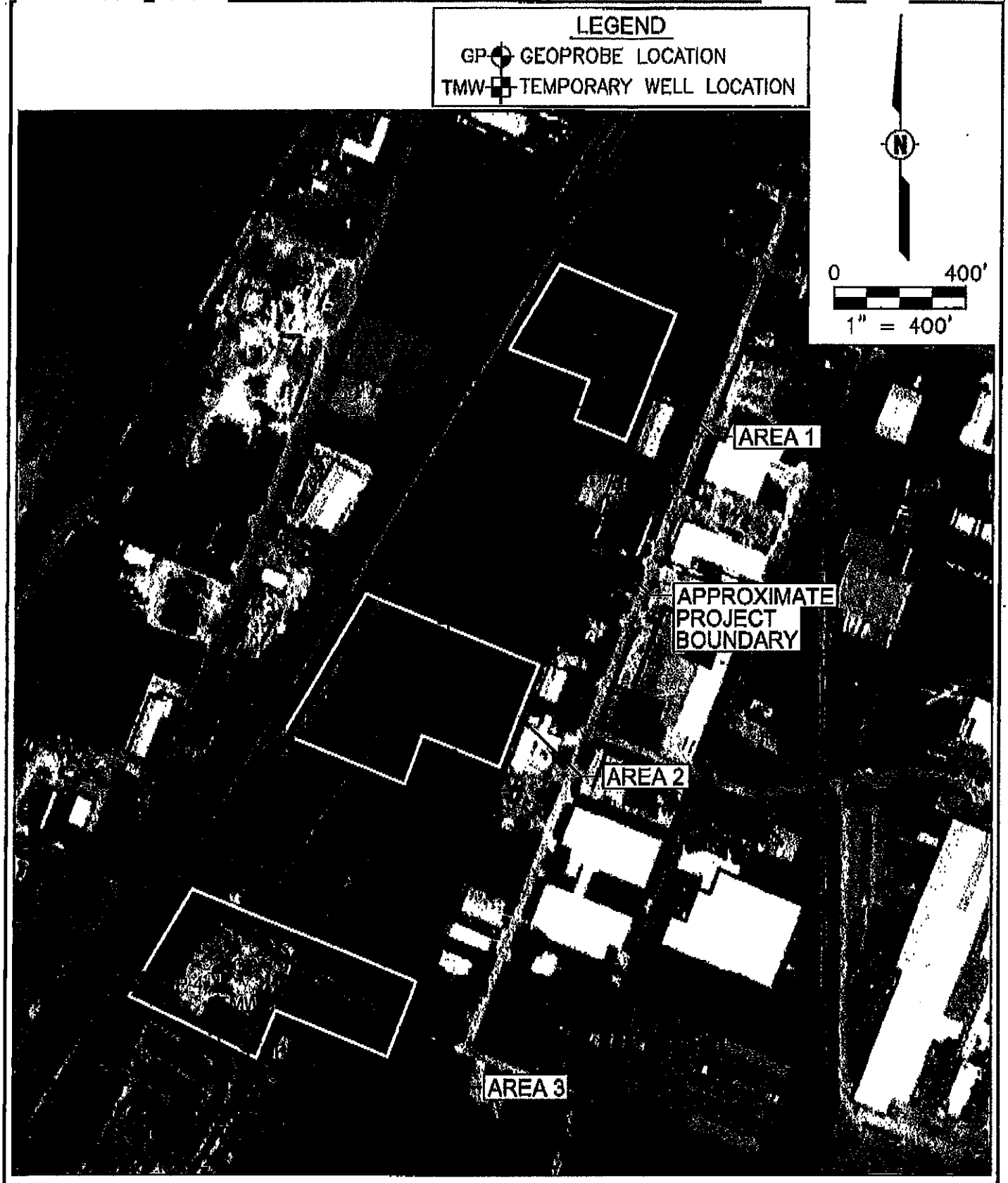
NOTE: Aerial photographic base map from Bing Microsoft 2010 courtesy of USDA.

AECOM

ESTIMATED AREAS WITH METAL CONCENTRATIONS EXCEEDING DIRECT CONTACT
MICHIGAN DEPARTMENT OF TRANSPORTATION
RIVER RAISIN BATTLEFIELD
MONROE, MICHIGAN

Drawn :	CJD	01/21/2011
Checked:	SGP	01/21/2011
Approved:	JSM	01/21/2011
PROJECT NUMBER	60181336	
FIGURE NUMBER	1	

X:\PROJECTS\60181336\Task-200\G601282336-001-METALS_EXCEEDANCES.dwg; 1/20/2011 10:33:12 PM; DOYLE, CONAN



NOTE: Aerial photographic base map from Bing Microsoft 2010 courtesy of USDA.

AECOM

ESTIMATED AREAS WITH METAL CONCENTRATIONS EXCEEDING DIRECT CONTACT
MICHIGAN DEPARTMENT OF TRANSPORTATION
RIVER RAISIN BATTLEFIELD
MONROE, MICHIGAN

Drawn:	CJD	03/02/2011
Checked:	SGP	03/02/2011
Approved:	JSM	03/02/2011
PROJECT NUMBER	60181336	
FIGURE NUMBER	1	

X:\PROJECTS\60181336\Task-200\G60181336-001-METALS_EXCEEDANCES.dwg; 3/2/2011 8:52:32 AM; DOYLE_CONAN

AKTPEERLESS
environmental & energy services

APPENDIX B

LOAD TICKET DETAIL REPORT

200 Matlin Rd.
Carleton, MI 48117
ph. (734)-654-9800 ext. 80
fax (734)-654-3116

Homrich, Inc.

Fax

To: Megan Napier – AKT Peerless

From: Renee Miller

Fax: (248) 615-1334 **Page:** 5 including fax cover sheet

Phone: **Date:** July 27, 2011

Re: Load tickets

☐ **Please Reply** ☐ **Please Recycle**

Comments:

If you have any questions or additional information is needed please feel free to contact me @ (734) 654-9800 ext. 80.

Thank you

Renee L. Miller

Renee L. Miller

MS OMG Ticket Detail Report - Customer

Month: 07/11 - 07/11 | Ticket Date: First - Last | Customer: 10598 - 10598 | Customer Job: First - Last | Location Gr
Plant: 00474 - 00474 | Material: 2606 - 2606 | Batch: First - Last | % Of Decrease From PriceList: 0.00% | Include

Customer: 10598 - Homrich Inc. | Job: P11 CLAY LOADING FEE | P O #: GRAVEL TRAIN

Trans#	Date	From Location	Ticket	Item#	Description	UOM	Units	Unit Price	Matl Total	Trk#	Zone	Haul Code	Haul Rate	Hi To
14403	07/19/11	00474	261019	2606	Loading Fee	TON	47.20						0.00	
14405	07/19/11	00474	261021	2606	Loading Fee	TON	49.60						0.00	
14413	07/19/11	00474	261029	2606	Loading Fee	TON	45.78						0.00	
14415	07/19/11	00474	261031	2606	Loading Fee	TON	43.39						0.00	
14417	07/19/11	00474	261033	2606	Loading Fee	TON	44.58						0.00	
14424	07/19/11	00474	261040	2606	Loading Fee	TON	47.20						0.00	
14426	07/19/11	00474	261042	2606	Loading Fee	TON	44.91						0.00	
14429	07/19/11	00474	261045	2606	Loading Fee	TON	42.07						0.00	
14430	07/19/11	00474	261046	2606	Loading Fee	TON	48.11						0.00	
14433	07/19/11	00474	261049	2606	Loading Fee	TON	44.50						0.00	
14435	07/19/11	00474	261051	2606	Loading Fee	TON	44.10						0.00	
14437	07/19/11	00474	261053	2606	Loading Fee	TON	49.27						0.00	
14440	07/19/11	00474	261056	2606	Loading Fee	TON	41.30						0.00	
14442	07/19/11	00474	261058	2606	Loading Fee	TON	47.20						0.00	
14445	07/19/11	00474	261061	2606	Loading Fee	TON	42.07						0.00	
14446	07/19/11	00474	261062	2606	Loading Fee	TON	48.11						0.00	
14448	07/19/11	00474	261064	2606	Loading Fee	TON	44.50						0.00	
14452	07/19/11	00474	261068	2606	Loading Fee	TON	48.20						0.00	
14454	07/19/11	00474	261070	2606	Loading Fee	TON	49.27						0.00	
14455	07/19/11	00474	261071	2606	Loading Fee	TON	44.10						0.00	
14456	07/19/11	00474	261072	2606	Loading Fee	TON	44.91						0.00	
14457	07/19/11	00474	261073	2606	Loading Fee	TON	47.20						0.00	
14459	07/19/11	00474	261075	2606	Loading Fee	TON	42.07						0.00	
14461	07/19/11	00474	261077	2606	Loading Fee	TON	48.11						0.00	
14464	07/19/11	00474	261080	2606	Loading Fee	TON	44.50						0.00	
14467	07/19/11	00474	261083	2606	Loading Fee	TON	48.20						0.00	
14468	07/19/11	00474	261084	2606	Loading Fee	TON	49.27						0.00	
14471	07/19/11	00474	261087	2606	Loading Fee	TON	44.10						0.00	
14472	07/19/11	00474	261088	2606	Loading Fee	TON	47.20						0.00	
14476	07/19/11	00474	261092	2606	Loading Fee	TON	44.91						0.00	
14478	07/19/11	00474	261094	2606	Loading Fee	TON	42.07						0.00	
14482	07/19/11	00474	261098	2606	Loading Fee	TON	44.50						0.00	
14484	07/19/11	00474	261100	2606	Loading Fee	TON	48.20						0.00	
14491	07/19/11	00474	261107	2606	Loading Fee	TON	49.27						0.00	
14492	07/19/11	00474	261108	2606	Loading Fee	TON	44.10						0.00	
14494	07/19/11	00474	261110	2606	Loading Fee	TON	48.11						0.00	
14495	07/19/11	00474	261111	2606	Loading Fee	TON	44.91						0.00	
14497	07/19/11	00474	261113	2606	Loading Fee	TON	42.07						0.00	
14505	07/19/11	00474	261121	2606	Loading Fee	TON	49.27						0.00	
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14509	07/19/11	00474	261125	2606	Loading Fee	TON	44.50						0.00	
14518	07/19/11	00474	261134	2606	Loading Fee	TON	48.20						0.00	
14519	07/19/11	00474	261135	2606	Loading Fee	TON	44.91						0.00	
14520	07/19/11	00474	261136	2606	Loading Fee	TON	48.11						0.00	
14521	07/19/11	00474	261137	2606	Loading Fee	TON	42.07						0.00	
14523	07/19/11	00474	261139	2606	Loading Fee	TON	47.65						0.00	
14528	07/19/11	00474	261144	2606	Loading Fee	TON	48.20						0.00	
14530	07/19/11	00474	261146	2606	Loading Fee	TON	49.27						0.00	
14532	07/19/11	00474	261148	2606	Loading Fee	TON	44.10						0.00	
14534	07/19/11	00474	261150	2606	Loading Fee	TON	44.50						0.00	
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14541	07/19/11	00474	261157	2606	Loading Fee	TON	44.91						0.00	
14543	07/19/11	00474	261159	2606	Loading Fee	TON	49.81						0.00	
14546	07/19/11	00474	261162	2606	Loading Fee	TON	47.65						0.00	
14547	07/19/11	00474	261163	2606	Loading Fee	TON	48.20						0.00	
14548	07/19/11	00474	261164	2606	Loading Fee	TON	49.27						0.00	
14552	07/19/11	00474	261168	2606	Loading Fee	TON	44.10						0.00	
14554	07/19/11	00474	261170	2606	Loading Fee	TON	44.50						0.00	
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14558	07/19/11	00474	261174	2606	Loading Fee	TON	44.91						0.00	
14562	07/19/11	00474	261178	2606	Loading Fee	TON	48.20						0.00	
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14250	07/20/11	00474	261201	2606	Loading Fee	TON	45.53						0.00	

MS OMG Ticket Detail Report - Customer

Month: 07/11 - 07/11 Ticket Date: First - Last Customer: 10598 - 10598 Customer Job: First - Last Location Gr
Plant: 00474 - 00474 Material: 2606 - 2606 Batch: First - Last % Of Decrease From PriceList: 0.00% Include

Trans#	Date	From Location	Ticket	Item#	Description	UOM	Units	Unit Price	Matl Total	Trk#	Zone	Haul Code	Haul Rate	H To
14255	07/20/11	00474	261206	2606	Loading Fee	TON	46.37						0.00	
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14267	07/20/11	00474	261218	2606	Loading Fee	TON	45.55						0.00	
14274	07/20/11	00474	261225	2606	Loading Fee	TON	48.11						0.00	
14276	07/20/11	00474	261227	2606	Loading Fee	TON	45.29						0.00	
14278	07/20/11	00474	261229	2606	Loading Fee	TON	44.81						0.00	
14281	07/20/11	00474	261232	2606	Loading Fee	TON	48.77						0.00	
14283	07/20/11	00474	261234	2606	Loading Fee	TON	43.12						0.00	
14285	07/20/11	00474	261236	2606	Loading Fee	TON	42.93						0.00	
14292	07/20/11	00474	261243	2606	Loading Fee	TON	42.18						0.00	
14293	07/20/11	00474	261244	2606	Loading Fee	TON	46.90						0.00	
14295	07/20/11	00474	261246	2606	Loading Fee	TON	43.21						0.00	
14298	07/20/11	00474	261249	2606	Loading Fee	TON	51.30						0.00	
14299	07/20/11	00474	261250	2606	Loading Fee	TON	43.08						0.00	
14301	07/20/11	00474	261252	2606	Loading Fee	TON	47.23						0.00	
14305	07/20/11	00474	261256	2606	Loading Fee	TON	45.82						0.00	
14310	07/20/11	00474	261261	2606	Loading Fee	TON	47.97						0.00	
14312	07/20/11	00474	261263	2606	Loading Fee	TON	43.93						0.00	
14314	07/20/11	00474	261265	2606	Loading Fee	TON	49.09						0.00	
14318	07/20/11	00474	261269	2606	Loading Fee	TON	47.97						0.00	
14322	07/20/11	00474	261273	2606	Loading Fee	TON	50.36						0.00	
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14327	07/20/11	00474	261278	2606	Loading Fee	TON	50.00						0.00	
14328	07/20/11	00474	261279	2606	Loading Fee	TON	47.11						0.00	
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14342	07/20/11	00474	261293	2606	Loading Fee	TON	42.55						0.00	
14343	07/20/11	00474	261294	2606	Loading Fee	TON	45.08						0.00	
14348	07/20/11	00474	261299	2606	Loading Fee	TON	48.95						0.00	
14350	07/20/11	00474	261301	2606	Loading Fee	TON	48.42						0.00	
14352	07/20/11	00474	261303	2606	Loading Fee	TON	42.19						0.00	
14353	07/20/11	00474	261304	2606	Loading Fee	TON	45.56						0.00	
14354	07/20/11	00474	261305	2606	Loading Fee	TON	49.38						0.00	
14356	07/20/11	00474	261307	2606	Loading Fee	TON	48.95						0.00	
14359	07/20/11	00474	261310	2606	Loading Fee	TON	44.03						0.00	
14360	07/20/11	00474	261311	2606	Loading Fee	TON	47.74						0.00	
14366	07/20/11	00474	261317	2606	Loading Fee	TON	42.01						0.00	
14367	07/20/11	00474	261318	2606	Loading Fee	TON	40.98						0.00	
14369	07/20/11	00474	261320	2606	Loading Fee	TON	43.95						0.00	
14370	07/20/11	00474	261321	2606	Loading Fee	TON	44.27						0.00	
14371	07/20/11	00474	261322	2606	Loading Fee	TON	47.57						0.00	
14372	07/20/11	00474	261323	2606	Loading Fee	TON	36.76						0.00	
14375	07/20/11	00474	261326	2606	Loading Fee	TON	40.50						0.00	
14377	07/20/11	00474	261328	2606	Loading Fee	TON	43.55						0.00	
14381	07/20/11	00474	261332	2606	Loading Fee	TON	39.50						0.00	
14383	07/20/11	00474	261334	2606	Loading Fee	TON	41.74						0.00	
14386	07/20/11	00474	261337	2606	Loading Fee	TON	43.97						0.00	
14388	07/20/11	00474	261339	2606	Loading Fee	TON	41.77						0.00	
14596	07/21/11	00474	261347	2606	Loading Fee	TON	46.13						0.00	
14599	07/21/11	00474	261350	2606	Loading Fee	TON	42.46						0.00	
14603	07/21/11	00474	261354	2606	Loading Fee	TON	44.21						0.00	
14606	07/21/11	00474	261357	2606	Loading Fee	TON	45.00						0.00	
14614	07/21/11	00474	261365	2606	Loading Fee	TON	45.99						0.00	
14616	07/21/11	00474	261367	2606	Loading Fee	TON	48.63						0.00	
14619	07/21/11	00474	261370	2606	Loading Fee	TON	44.05						0.00	
14622	07/21/11	00474	261373	2606	Loading Fee	TON	45.36						0.00	
14627	07/21/11	00474	261378	2606	Loading Fee	TON	48.48						0.00	
14628	07/21/11	00474	261379	2606	Loading Fee	TON	47.35						0.00	
14629	07/21/11	00474	261380	2606	Loading Fee	TON	43.63						0.00	
14632	07/21/11	00474	261383	2606	Loading Fee	TON	43.09						0.00	
14637	07/21/11	00474	261388	2606	Loading Fee	TON	43.82						0.00	
14639	07/21/11	00474	261390	2606	Loading Fee	TON	43.61						0.00	
14640	07/21/11	00474	261391	2606	Loading Fee	TON	38.41						0.00	
14641	07/21/11	00474	261392	2606	Loading Fee	TON	43.80						0.00	
14643	07/21/11	00474	261394	2606	Loading Fee	TON	47.01						0.00	

MS OMG Ticket Detail Report - Customer

Month: 07/11 - 07/11 Ticket Date: First - Last Customer: 10598 - 10598 Customer Job: First - Last Location Gr
Plant: 00474 - 00474 Material: 2606 - 2606 Batch: First - Last % Of Decrease From PriceList: 0.00% Include

Trans#	Date	From Location	Ticket	Item#	Description	UOM	Units	Unit Price	Matl Total	Trk#	Zone	Haul Code	Haul Rate	Hi To
14645	07/21/11	00474	261396	2606	Loading Fee	TON	43.26						0.00	
14647	07/21/11	00474	261398	2606	Loading Fee	TON	44.48						0.00	
14652	07/21/11	00474	261403	2606	Loading Fee	TON	46.43						0.00	
14656	07/21/11	00474	261407	2606	Loading Fee	TON	46.10						0.00	
14657	07/21/11	00474	261408	2606	Loading Fee	TON	44.25						0.00	
14660	07/21/11	00474	261411	2606	Loading Fee	TON	47.79						0.00	
14661	07/21/11	00474	261412	2606	Loading Fee	TON	46.74						0.00	
14664	07/21/11	00474	261415	2606	Loading Fee	TON	45.12						0.00	
14670	07/21/11	00474	261421	2606	Loading Fee	TON	48.18						0.00	
14673	07/21/11	00474	261424	2606	Loading Fee	TON	49.28						0.00	
14676	07/21/11	00474	261427	2606	Loading Fee	TON	45.66						0.00	
14678	07/21/11	00474	261429	2606	Loading Fee	TON	45.99						0.00	
14679	07/21/11	00474	261430	2606	Loading Fee	TON	43.20						0.00	
14681	07/21/11	00474	261432	2606	Loading Fee	TON	43.65						0.00	
14690	07/21/11	00474	261441	2606	Loading Fee	TON	42.95						0.00	
14693	07/21/11	00474	261444	2606	Loading Fee	TON	46.46						0.00	
14694	07/21/11	00474	261445	2606	Loading Fee	TON	44.97						0.00	
14698	07/21/11	00474	261449	2606	Loading Fee	TON	42.45						0.00	
14699	07/21/11	00474	261450	2606	Loading Fee	TON	42.93						0.00	
14701	07/21/11	00474	261452	2606	Loading Fee	TON	45.23						0.00	
14702	07/21/11	00474	261453	2606	Loading Fee	TON	41.98						0.00	
14703	07/21/11	00474	261454	2606	Loading Fee	TON	38.23						0.00	
14707	07/21/11	00474	261458	2606	Loading Fee	TON	44.04						0.00	
14711	07/21/11	00474	261462	2606	Loading Fee	TON	42.31						0.00	
14718	07/21/11	00474	261469	2606	Loading Fee	TON	44.46						0.00	
14719	07/21/11	00474	261470	2606	Loading Fee	TON	43.30						0.00	
14722	07/21/11	00474	261473	2606	Loading Fee	TON	42.92						0.00	
14723	07/21/11	00474	261474	2606	Loading Fee	TON	41.00						0.00	
14724	07/21/11	00474	261475	2606	Loading Fee	TON	43.92						0.00	
14727	07/21/11	00474	261478	2606	Loading Fee	TON	43.76						0.00	
14729	07/21/11	00474	261480	2606	Loading Fee	TON	47.06						0.00	
14731	07/21/11	00474	261482	2606	Loading Fee	TON	42.12						0.00	
14733	07/21/11	00474	261484	2606	Loading Fee	TON	37.34						0.00	
14734	07/21/11	00474	261485	2606	Loading Fee	TON	39.61						0.00	
14736	07/21/11	00474	261487	2606	Loading Fee	TON	38.83						0.00	
14737	07/21/11	00474	261488	2606	Loading Fee	TON	43.20						0.00	
14744	07/21/11	00474	261495	2606	Loading Fee	TON	43.96						0.00	
14746	07/21/11	00474	261497	2606	Loading Fee	TON	48.20						0.00	
14747	07/21/11	00474	261498	2606	Loading Fee	TON	48.35						0.00	
16405	07/22/11	00474	261501	2606	Loading Fee	TON	46.66						0.00	
16416	07/22/11	00474	261512	2606	Loading Fee	TON	49.38						0.00	
16418	07/22/11	00474	261514	2606	Loading Fee	TON	45.57						0.00	
16427	07/22/11	00474	261523	2606	Loading Fee	TON	47.10						0.00	
16429	07/22/11	00474	261525	2606	Loading Fee	TON	46.79						0.00	
16431	07/22/11	00474	261527	2606	Loading Fee	TON	45.29						0.00	
16440	07/22/11	00474	261536	2606	Loading Fee	TON	41.24						0.00	
16444	07/22/11	00474	261540	2606	Loading Fee	TON	42.71						0.00	
16451	07/22/11	00474	261547	2606	Loading Fee	TON	47.13						0.00	
16453	07/22/11	00474	261549	2606	Loading Fee	TON	44.96						0.00	
16454	07/22/11	00474	261550	2606	Loading Fee	TON	43.32						0.00	
16461	07/22/11	00474	261557	2606	Loading Fee	TON	43.55						0.00	
16464	07/22/11	00474	261560	2606	Loading Fee	TON	42.02						0.00	
16470	07/22/11	00474	261566	2606	Loading Fee	TON	43.16						0.00	
16473	07/22/11	00474	261569	2606	Loading Fee	TON	37.10						0.00	
16476	07/22/11	00474	261572	2606	Loading Fee	TON	42.99						0.00	
16479	07/22/11	00474	261575	2606	Loading Fee	TON	39.48						0.00	
16482	07/22/11	00474	261578	2606	Loading Fee	TON	41.62						0.00	
16487	07/22/11	00474	261583	2606	Loading Fee	TON	41.51						0.00	
16488	07/22/11	00474	261584	2606	Loading Fee	TON	42.22						0.00	
16489	07/22/11	00474	261585	2606	Loading Fee	TON	43.66						0.00	
16491	07/22/11	00474	261587	2606	Loading Fee	TON	42.95						0.00	
16496	07/22/11	00474	261592	2606	Loading Fee	TON	40.40						0.00	
16498	07/22/11	00474	261594	2606	Loading Fee	TON	38.91						0.00	
16506	07/22/11	00474	261602	2606	Loading Fee	TON	42.04						0.00	
16507	07/22/11	00474	261603	2606	Loading Fee	TON	42.91						0.00	
16509	07/22/11	00474	261605	2606	Loading Fee	TON	45.26						0.00	
16511	07/22/11	00474	261607	2606	Loading Fee	TON	42.55						0.00	
16513	07/22/11	00474	261609	2606	Loading Fee	TON	45.34						0.00	
16515	07/22/11	00474	261611	2606	Loading Fee	TON	44.42						0.00	

MS OMG Ticket Detail Report - Customer

Month: 07/11 - 07/11 Ticket Date: First - Last Customer: 10598 - 10598 Customer Job: First - Last Location Gr
Plant: 00474 - 00474 Material: 2606 - 2606 Batch: First - Last % Of Decrease From PriceList: 0.00% Include

Trans#	Date	From Location	Ticket	Item#	Description	UOM	Units	Unit Price	Matl Total	Trk#	Zone	Haul Code	Haul Rate	Hi To
16518	07/22/11	00474	261614	2606	Loading Fee	TON	43.63						0.00	
16523	07/22/11	00474	261619	2606	Loading Fee	TON	43.13						0.00	
16526	07/22/11	00474	261622	2606	Loading Fee	TON	39.22						0.00	
16529	07/22/11	00474	261625	2606	Loading Fee	TON	45.56						0.00	
16531	07/22/11	00474	261627	2606	Loading Fee	TON	43.96						0.00	
16535	07/22/11	00474	261631	2606	Loading Fee	TON	49.22						0.00	
16538	07/22/11	00474	261634	2606	Loading Fee	TON	43.28						0.00	
16543	07/22/11	00474	261639	2606	Loading Fee	TON	44.71						0.00	
16544	07/22/11	00474	261640	2606	Loading Fee	TON	41.62						0.00	
16548	07/22/11	00474	261644	2606	Loading Fee	TON	46.10						0.00	
16550	07/22/11	00474	261646	2606	Loading Fee	TON	40.91						0.00	
16554	07/22/11	00474	261650	2606	Loading Fee	TON	42.86						0.00	
16557	07/22/11	00474	261653	2606	Loading Fee	TON	41.62						0.00	
16560	07/22/11	00474	261656	2606	Loading Fee	TON	45.72						0.00	
16564	07/22/11	00474	261660	2606	Loading Fee	TON	45.49						0.00	
16570	07/22/11	00474	261666	2606	Loading Fee	TON	48.27						0.00	
16572	07/22/11	00474	261668	2606	Loading Fee	TON	50.81						0.00	
16574	07/22/11	00474	261670	2606	Loading Fee	TON	44.06						0.00	
16584	07/22/11	00474	261680	2606	Loading Fee	TON	47.58						0.00	
16586	07/22/11	00474	261682	2606	Loading Fee	TON	47.18						0.00	
16587	07/22/11	00474	261683	2606	Loading Fee	TON	44.81						0.00	
16590	07/22/11	00474	261686	2606	Loading Fee	TON	49.91						0.00	
16594	07/22/11	00474	261690	2606	Loading Fee	TON	45.00						0.00	
16596	07/22/11	00474	261692	2606	Loading Fee	TON	44.51						0.00	
16599	07/22/11	00474	261695	2606	Loading Fee	TON	42.53						0.00	
16601	07/22/11	00474	261697	2606	Loading Fee	TON	40.02						0.00	
16608	07/22/11	00474	261704	2606	Loading Fee	TON	48.02						0.00	
16610	07/22/11	00474	261706	2606	Loading Fee	TON	40.96						0.00	
16612	07/22/11	00474	261708	2606	Loading Fee	TON	46.11						0.00	
16618	07/22/11	00474	261714	2606	Loading Fee	TON	44.64						0.00	
16620	07/22/11	00474	261716	2606	Loading Fee	TON	44.57						0.00	
16621	07/22/11	00474	261717	2606	Loading Fee	TON	48.24						0.00	
16624	07/22/11	00474	261720	2606	Loading Fee	TON	41.93						0.00	
16627	07/22/11	00474	261723	2606	Loading Fee	TON	48.72						0.00	
16628	07/22/11	00474	261724	2606	Loading Fee	TON	44.56						0.00	
16629	07/22/11	00474	261725	2606	Loading Fee	TON	44.48						0.00	
16630	07/22/11	00474	261726	2606	Loading Fee	TON	46.82						0.00	
16631	07/22/11	00474	261727	2606	Loading Fee	TON	40.65						0.00	
16632	07/22/11	00474	261728	2606	Loading Fee	TON	43.63						0.00	
16633	07/22/11	00474	261729	2606	Loading Fee	TON	43.73						0.00	
16634	07/22/11	00474	261730	2606	Loading Fee	TON	43.58						0.00	
16635	07/22/11	00474	261731	2606	Loading Fee	TON	47.60						0.00	
16636	07/22/11	00474	261732	2606	Loading Fee	TON	46.84						0.00	
16637	07/22/11	00474	261733	2606	Loading Fee	TON	44.45						0.00	
16638	07/22/11	00474	261734	2606	Loading Fee	TON	44.87						0.00	
16639	07/22/11	00474	261735	2606	Loading Fee	TON	47.08						0.00	
16640	07/22/11	00474	261736	2606	Loading Fee	TON	43.62						0.00	
16641	07/22/11	00474	261737	2606	Loading Fee	TON	51.87						0.00	
16642	07/22/11	00474	261738	2606	Loading Fee	TON	47.55						0.00	
16643	07/22/11	00474	261739	2606	Loading Fee	TON	48.31						0.00	
16644	07/22/11	00474	261740	2606	Loading Fee	TON	44.20						0.00	
					Material Totals: 2606		11,572.12							
					P O Totals: GRAVEL TRAIN		11,572.12							
					Job Totals: P11 CLAY LOADING FEE		11,572.12							
					Customer Totals: 10598		11,572.12							
					Grand total		11,572.12							

AKTPEERLESS
environmental & energy services

APPENDIX C

PROPERTY PHOTOGRAPHS

PHOTOGRAPH NO. 1: AREA 1

PHOTOGRAPH NO. 2: AREA 1

AKTPEERLESS
environmental & energy services

PROPERTY PHOTOGRAPHS

1220 EAST ELM AVENUE
MONROE, MICHIGAN

TAKEN BY: D. ISABELL
DATE: 07.21.2011

PROJECT NUMBER: 1983F7-1-10

PHOTOGRAPH NO. 3: AREA 1

PHOTOGRAPH NO. 4: AREA 2

AKTPEERLESS
environmental & energy services

PROPERTY PHOTOGRAPHS

1220 EAST ELM AVENUE
MONROE, MICHIGAN

TAKEN BY: D. ISABELL
DATE: 07.21.2011

PROJECT NUMBER: 1983F7-1-10

PHOTOGRAPH NO. 5: AREA 2

PHOTOGRAPH NO. 6: AREA 2

AKTPEERLESS
environmental & energy services

PROPERTY PHOTOGRAPHS

1220 EAST ELM AVENUE
MONROE, MICHIGAN

TAKEN BY: D. ISABELL
DATE: 07.21/25.2011

PROJECT NUMBER: 1983F7-1-10

PHOTOGRAPH NO. 7: AREA 2

PHOTOGRAPH NO. 8: AREA 3

AKTPEERLESS
environmental & energy services

PROPERTY PHOTOGRAPHS

1220 EAST ELM AVENUE
MONROE, MICHIGAN

TAKEN BY: D. ISABELL
DATE: 07.21/25.2011

PROJECT NUMBER: 1983F7-1-10

PHOTOGRAPH NO. 9: AREA 3

PHOTOGRAPH NO. 10: AREA 3

AKTPEERLESS
environmental & energy services

PROPERTY PHOTOGRAPHS

1220 EAST ELM AVENUE
MONROE, MICHIGAN

TAKEN BY: D. ISABELL
DATE: 07.21/25.2011

PROJECT NUMBER: 1983F7-1-10

PHOTOGRAPH NO. 11: AREA 3

PHOTOGRAPH NO. 12: AREA 3

AKTPEERLESS
environmental & energy services

PROPERTY PHOTOGRAPHS

1220 EAST ELM AVENUE
MONROE, MICHIGAN

TAKEN BY: D. ISABELL
DATE: 07.25.2011

PROJECT NUMBER: 1983F7-1-10