

Appendix A
Exhibits

Appendix B
Agency Correspondence



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / FAX (614) 416-8994
May 18, 2011

Ashley Ostrow
Planning Branch, Environmental Analysis Section
U.S. Army Corps of Engineers
502 Eighth Street
Huntington, West Virginia 25701-2070

Re: City of Marietta Section 14 Project

Dear Ms. Ostrow:

TAILS #: 31420-2011-TA-0638

This is in response to your April 29, 2011 request for U.S. Fish and Wildlife Service technical assistance for the proposed streambank protection project in Marietta. Approximately 1,050 linear feet of 36-inch sewer main is in imminent danger of further misalignment and eventual catastrophic failure. A six-foot-high longitudinal dike with transitional tie-backs is proposed to correct the problem and protect the sewer main from further misalignment and potential for breaching. Construction would be accomplished by using a combination of floating plant and land based equipment. The project is located on the right descending bank of the Ohio River at Ohio River Mile 171, near Jefferson Street, Marietta, Washington County, Ohio.

There are no Federal wilderness areas or designated Critical Habitat within the vicinity of the proposed site. The proposed site is adjacent to Buckley Island, which is part of the Ohio River Islands National Wildlife Refuge.

ENDANGERED SPECIES COMMENTS: The proposed project lies within the range of the federally listed endangered **fanshell** (*Cyprogenia stegaria*) and **pink mucket pearly mussel** (*Lampsilis abrupta*) as well as the **sheepnose** (*Plethobasus cyphus*) and **snuffbox** (*Epioblasma triquetra*), two freshwater mussels that are currently proposed for listing as federally endangered. The fanshell inhabits areas with sand or gravel substrate and also prefer areas with riffles. The pink mucket pearly mussel prefers strong currents in shallow to deep water with substrates composed of boulders, rubble, gravel, sand or silt. The sheepnose typically occurs in shallow shoal habitats with moderate to swift currents over coarse sand and gravel. Habitats with sheepnose may also have mud, cobble, and boulders. The snuffbox occurs in swift currents of riffles and shoals over gravel and sand with occasional cobble and boulders. Should the proposed project directly or indirectly impact any of the habitat types described above, we recommend that a survey be conducted to determine the presence or probable absence of these mussels in the vicinity of the project site. Any survey should be designed and conducted in coordination with the Endangered Species Coordinator for this office. Surveyors must have valid

Federal and State permits to survey for federally listed mussels in Ohio.

The proposed project also lies within the range of the federally listed endangered **Indiana bat** (*Myotis sodalis*) and the **eastern hellbender** (*Cryptobranchus a. alleganiensis*) and **bald eagle** (*Haliaeetus leucocephalus*), Federal species of concern. Due to the project type, size, and location, the project, as proposed, should not impact these species.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the Endangered Species Act of 1973 (ESA), as amended, and are consistent with the intent of the National Environmental Policy Act of 1969 and the U. S. Fish and Wildlife Service's Mitigation Policy.

If you have questions, or if we may be of further assistance in this matter, please contact Angela Boyer at extension 22 in this office.

Sincerely,



Mary M. Knapp, Ph.D.
Field Supervisor

cc: ODNR, DOW, SCEA Unit, Columbus, Ohio



United States Department of the Interior



FISH AND WILDLIFE SERVICE

West Virginia Field Office
694 Beverly Pike
Elkins, West Virginia 26241

September 2, 2011

Ms. Ashley Ostrow, CFM
U.S. Army Corps of Engineers
502 Eighth Street
Huntington, West Virginia 25701

Re: Marietta Section 14 Streambank Protection Project

Dear Ms. Ostrow:

This responds to your request of May 2, 2011, for information regarding the potential occurrence of Federally-listed endangered or threatened species or their designated critical habitats in the vicinity of the referenced project. The U.S. Army Corps of Engineers (Corps) proposes a streambank protection project on the right descending bank of the Ohio River near Jefferson Street, Marietta, Ohio. The project entails the construction of a longitudinal dike six-feet (1.83 m), high with transitional tie backs to protect the sewer main from further misalignment and potential for breaching. The project involves placement of COE 15-inch rock within the lower bank bench extending from normal pool/land water contact to form a slope of 1.5 horizontal (H): 1 vertical (V) on the riverward face of the dike, while rock placement would form a 1.3H:1V back slope. The interior dike area would be filled with failed soils and sediments after storms and high water events. Construction would occur with floating plant and land-based equipment. These comments are provided pursuant to the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

The portion of the Ohio River in which the project is proposed is known to have historically supported the clubshell (*Pleurobema clava*) which is a Federally-listed endangered freshwater mussel, and the snuffbox (*Eplioblasma triquetra*), a freshwater mussel that has been proposed for listing under the ESA. The project is also within the current range of the pink mucket pearly mussel (*Lampsilis abrupta*), a Federally-listed endangered freshwater mussel, and the sheepnose mussel (*Plethobasus cyphus*), which is also proposed for listing under the ESA.

Mussel biologists Patricia Morrison and Craig Zievis of the Ohio River Islands National Wildlife Refuge performed a habitat and mussel community assessment of the project area August 22-24, 2011. They collected 427 individuals representing 17 species of mussels after two days of

Ms. Ashley Ostrow, CFM
September 2, 2011

2

surveying; of these, there was one sheepnose mussel and one fanshell (*Cyprogenia stegaria*) mussel, a Federally-listed endangered species. After being notified of the presence of endangered mussels in the area, Ms. Ashley Ostrow of the Corps indicated via electronic correspondence on August 31, 2011, that the project would now be conducted from the land. As well, the dike would be constructed above the normal pool elevation to avoid potential impacts to mussels. Therefore, we have determined that this project is not likely to adversely affect listed mussel species.

There are no other Federally-listed species or designated critical habitats in the vicinity of the proposed project. No further section 7 consultation under the ESA is required for this proposed action. Should project plans change, or if additional information on listed and proposed species or species of concern becomes available, this determination may be reconsidered. If you have any questions regarding this letter, please contact Liz Stout of my staff at (304) 636-6586, Ext. 25, or at the letterhead address.

Sincerely,

A handwritten signature in cursive script that reads "Laura Hill".

For Deborah Carter
Field Supervisor

Ostrow, Ashley L LRH

From: Angela_Boyer@fws.gov
Sent: Wednesday, September 14, 2011 10:20 AM
To: Ostrow, Ashley L LRH
Subject: Re: Marietta Section 14 Project - Section 7 Consultation (UNCLASSIFIED)

Ashley,

Thank you for contacting me. Consultation under section of the ESA has been completed. No additional coordination with my office is necessary at this time. Should, during the term of this action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, consultation with the Service should be reinitiated to assess whether the determinations are still valid.

Sincerely,

Angela

Inactive hide details for "Ostrow, Ashley L LRH" <Ashley.L.Ostrow@usace.army.mil>"Ostrow, Ashley L LRH" <Ashley.L.Ostrow@usace.army.mil>

"Ostrow, Ashley L LRH" <Ashley.L.Ostrow@usace.army.mil>

09/12/2011 01:04 PM

To

<Angela_Boyer@fws.gov>

cc

Subject

Marietta Section 14 Project - Section 7 Consultation (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Ms. Boyer,

This email is in regards to section 7 consultations for the U.S. Army Corps of Engineers City of Marietta Section 14 Project. We received correspondence from your office on May 18, 2011. The letter identified potential impact to federally listed mussel species including the fanshell and pink mucket pearly mussel as well as sheepsnose and snuffbox proposed for listing as federally endangered. As there are no known published information on the location of

mussel beds in the project area, a survey was recommended to determine the presence or possible absence of these mussels in the vicinity of the project site.

A recon was conducted by the USFWS Ohio River Islands NWR personnel on August 22 to 24, 2011. A total of 427 individuals representing 17 species of mussels were collected alive, including the endangered fanshell, candidate sheepnose, and rare salamander mussel. The Corp will avoid long term potential impacts to mussels by constructing the dike above the normal pool elevation, 582 ft-msl and by constructing the dike using only land based equipment.

Attached is a letter received by our office from the U.S. Fish and Wildlife Office in Elkins, WV. This letter concludes that no further section 7 consultation is required. Since the Corps will be constructing this project in Ohio, I want to make sure that your office is in concurrence with the findings of the Elkins office. If you have any additional questions regarding this request or about project details, please contact me to discuss.

Thanks,
Ashley Ostrow, CFM
US Army Corps of Engineers
Huntington District
(304)399-5947

Classification: UNCLASSIFIED
Caveats: NONE

[attachment "U.S. Fish and Wildlife Responce Letter September 2,2011.pdf" deleted by Angela Boyer/R3/FWS/DOI]

Ostrow, Ashley L LRH

From: Mitch, Brian [Brian.Mitch@dnr.state.oh.us]
Sent: Wednesday, June 08, 2011 10:43 AM
To: Ostrow, Ashley L LRH
Subject: 11-0200; CELRH City of Marietta Section 14 Project

ODNR COMMENTS TO Ashley Ostrow, U.S. Army Corps of Engineers, Huntington District, 502 Eighth Street, Huntington, West Virginia 25701

Project: The project involves the construction of a longitudinal dike, six feet high, with transitional tie-backs. The proposed treatment would consist of placing COE 15" rock within the lower bank bench, extending from normal pool/land water contact, to form a slope of 1.5H: 1V on the riverward face of dike. Rock placement would form a 1.3H: 1V back slope. The purpose of the project is to prevent further bank erosion and protect a 36" sewer collection line.

Location: The proposed stream bank project is located on the right descending bank of the Ohio River near Jefferson Street, Marietta, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Fish and Wildlife: The ODNR, Division of Wildlife (DOW) has the following comments.

The project must not have an impact on freshwater native mussels in the area. If impacted, the applicant must work with ODNR personnel to determine the appropriate compensation for what will be considered a "takings" situation. This applies to both listed and non-listed species. Surveys and other information regarding the location of mussels in Ohio are limited. This includes information regarding the possibility of mussels being located in this area of the Ohio River. Therefore, the possibility of mussels within the area of the project cannot be eliminated. If mussels are encountered during construction, work should immediately be stopped and the DOW should be contacted.

The Ohio Biodiversity Database has records for the following four rare fish within the Ohio River in this project area and immediate vicinity: Ohio lamprey (*Ichthyomyzon bdellium*), state endangered, channel darter (*Percina copelandi*), state threatened, river darter (*Percina shumardi*), state threatened, and river redhorse (*Moxostoma carinatum*), state species of concern. The DOW recommends no in-water work March 15 to June 30 to reduce impacts to aquatic species and their habitat.

Boating and Navigation: The ODNR, Division of Watercraft has no comments on this project.

ODNR appreciates the opportunity to provide these comments. Please contact Brian Mitch at (614) 265-6378 if you have questions about these comments or need additional information.

Brian Mitch, Environmental Review Manager Ohio Department of Natural Resources Environmental Services Section

2045 Morse Road, Building E-3

Columbus, Ohio 43229-6693

Office: (614) 265-6378

Fax: (614) 262-2197

brian.mitch@dnr.state.oh.us

Ostrow, Ashley L LRH

From: Clayton, Janet L [Janet.L.Clayton@wv.gov]
Sent: Monday, May 09, 2011 1:56 PM
To: Ostrow, Ashley L LRH
Cc: Anderson, Roger J; Sargent, Barbara D; barbara_Douglas@fws.gov
Subject: Ohio RM 171

I just received Jonathan Ayaay's letter addressing the streambank restoration project on the Ohio River at RM 171. I currently have no information on freshwater mussels at this site, therefore a mussel survey would be required. As endangered mussels are known from this reach of the river, coordination must also be conducted with the USFWS to address potential impacts. If mussels are found within the direct impact area and no endangered species issues then mussels may be relocated to an approved location. Surveyor and survey protocol must be approved by this office.

Thanks for you inquiry,

Janet L. Clayton

Wildlife Diversity Biologist

WV Division of Natural Resources

Wildlife Resources Section

PO Box 67

Elkins, WV 26241

voice 304-637-0245

cell 304-389-8526 (only used when I am on the road or in the field so if leaving message should leave on office phone as well)

fax 304-637-0250

Ostrow, Ashley L LRH

From: Davis, Kathy - Marietta, OH [Kathy.Davis@oh.nacdnet.net]
Sent: Friday, June 03, 2011 10:48 AM
To: Ostrow, Ashley L LRH
Cc: Joe Tucker; Tina M. Lones
Subject: Marietta bank stabilization project

June 3, 2011

TO: Ashley Ostrow

FROM: Kathy Davis, Washington Soil and Water Conservation District

RE: City of Marietta Bank Stabilization Project / Flood Control Project

The USDA Natural Resources Conservation Service, our federal partner in conservation, received a notice from you, dated April 29, 2011, concerning the above project. This was passed on to myself, as I assist, the City of Marietta with their Ohio EPA NPDES MS4 Storm Water Permit.

Per our conversation this morning, and at your request, I am sending this email to confirm a response from you concerning this project. You mentioned that this project has and will consider water quality practices. To receive this statement from you and how this will be achieved is all that I need for my records. We are in hopes that this project will be completed as it will protect the integrity of the sewage system. The following information explains my request. In addition, I have listed additional permits that may be required.

Storm Water MS4 NPDES Permit Commitment - City of Marietta

Through the City of Marietta's NPDES MS4 Storm Water Permit, the city is obligated to assess new and existing flood management projects for incorporation of water quality practices. The number six minimum control measure (MCM), which is the Pollution Prevention Good Housekeeping Section, references this in number 3.2.6.2.3.4. as follows: "Procedures to ensure that new flood management projects are assessed for impacts on water quality and existing projects are assessed for incorporation of additional water quality protection devices or practices."

The City of Marietta's Storm Water Management Plan responds to the above statement with the following: "New and existing projects will be assessed for incorporation of water quality practices."

Additional Permits that may be required:

Ohio EPA Storm Water NPDES Construction General Permit: If one or more acres of soil is disturbed, the permit requires that best management practices will be addressed during and following construction that will protect the quality of storm water runoff. Contact Ohio EPA for information on compliance with this type of project.

City of Marietta Land Development Ordinance: Applies if one or more of the following apply: Development Located in a Zone of Moderate or Severe landslip Potential; Development to Affect

Stream Channel; Development Area of More Than one Acre. Contact the City of Marietta Engineering for more information 740-373-5495.

Flood Plain Permit: For work being completed in the 100 year floodplain. For more information contact Connie Hoblitzol, Flood Plain Manager, 740-374-4185.

Thanks for your input concerning the City of Marietta Storm Water Permit obligations. If you have any questions concerning this email, please contact me.

Kathy Davis
Storm Water Coordinator
Washington SWCD
kathy.davis@oh.nacdnet.net
740-373-7113 ext. 229

From: [Spence, James B LRH](#)
To: [Ostrow, Ashley L LRH](#)
Subject: RE: Marietta Ohio Nationwide Permit Assistance (UNCLASSIFIED)
Date: Thursday, May 12, 2011 9:58:29 AM

Classification: UNCLASSIFIED
Caveats: NONE

Hi Ashley,

I apologize it has taken me a little while to get back to you! And yes, based on what we have previously discussed regarding the bank repair associated with the stabilization of the 36" storm sewer line and the project description below, this project would qualify for Nationwide Permit 12 for maintenance of utility lines. Let me know if you need anything else!

Jim

-----Original Message-----

From: Ostrow, Ashley L LRH
Sent: Wednesday, April 27, 2011 3:57 PM
To: Spence, James B LRH
Subject: FW: Marietta Ohio Nationwide Permit Assistance (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

-----Original Message-----

From: Rose McLean [<mailto:rose.mclean@epa.state.oh.us>]
Sent: Tuesday, April 12, 2011 12:02 PM
To: Ostrow, Ashley L LRH
Subject: RE: Marietta Ohio Nationwide Permit Assistance (UNCLASSIFIED)

Ashley,

If the USACE Regulatory Section has looked at this project and determined that it would meet NWP #12, then Ohio EPA would agree.

Sincerely,

~~~~

Rose McLean  
401 Coordinator  
Division of Surface Water  
Ohio EPA  
50 West Town Street, Suite 700  
P.O. Box 1049  
Columbus, Ohio 43216-1049  
(614) 644-2148  
[rose.mclean@epa.state.oh.us](mailto:rose.mclean@epa.state.oh.us)

>>> On 3/28/2011 at 4:25 PM, in message <451FE8D31A6B4340BA01715EFC32C9DBD7F269@lrh-ml3hun.lrh.ds.usace.army.mil>, "Ostrow, Ashley L LRH" <Ashley.L.Ostrow@usace.army.mil> wrote:

**From:** [Rose McLean](#)  
**To:** [Ostrow, Ashley L LRH](#)  
**Subject:** RE: Marietta Ohio Nationwide Permit Assistance (UNCLASSIFIED)  
**Date:** Tuesday, April 12, 2011 12:02:28 PM

---

Ashley,

If the USACE Regulatory Section has looked at this project and determined that it would meet NWP #12, then Ohio EPA would agree.

Sincerely,

~~~~

Rose McLean
401 Coordinator
Division of Surface Water
Ohio EPA
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049
(614) 644-2148
rose.mclean@epa.state.oh.us

>>> On 3/28/2011 at 4:25 PM, in message <451FE8D31A6B4340BA01715EFC32C9DBD7F269@lrh-ml3hun.lrh.ds.usace.army.mil>, "Ostrow, Ashley L LRH" <Ashley.L.Ostrow@usace.army.mil> wrote:

Classification: UNCLASSIFIED
Caveats: NONE

Ms. McLean,

The streambank protection in Marietta is authorized under Section 14 of the 1946 Flood Control Act. The Act provides authority for the Corps of Engineers to plan and construct emergency streambank and shoreline protection projects to protect endangered highways, highway bridge approaches, public facilities such as water and sewer lines, churches, public and private nonprofit schools and hospitals, and other nonprofit public facilities. Although the City of Marietta is the local sponsor, the Corps is still responsible for the design and construction of the protection for assuring all permit conditions are met. As with other Corps projects, we cannot permit ourselves. We are therefore asking for your concurrence that Nationwide Permit 12 applies for this project so that we can document concurrence with the Clean Water Act. If you have any additional questions regarding this request or about project details, please contact me to discuss.

Thanks,
Ashley Ostrow, CFM
US Army Corps of Engineers
Huntington District
(304)399-5947

-----Original Message-----

From: Rose McLean [<mailto:rose.mclean@epa.state.oh.us>]
Sent: Wednesday, March 23, 2011 4:12 PM

To: Ostrow, Ashley L LRH
Subject: Re: Marietta Ohio Nationwide Permit Assistance (UNCLASSIFIED)

Ashley,

After speaking with my Manager about this project, we're uncertain whether Ohio EPA can certify this project without a NWP being issued. It appears that the fastest way for the project to move forward is for Marietta to be the applicant - as this would allow the issuance of a NWP (with Ohio's certification).

Sincerely,
Rose McLean

~~~~

Rose McLean  
401 Coordinator  
Division of Surface Water  
Ohio EPA  
50 West Town Street, Suite 700  
P.O. Box 1049  
Columbus, Ohio 43216-1049  
(614) 644-2148  
rose.mclean@epa.state.oh.us

>>> On 3/21/2011 at 9:42 AM, in message  
<451FE8D31A6B4340BA01715EFC32C9DBC5ED8@lrh-ml3hun.lrh.ds.usace.army.mil>,  
"Ostrow, Ashley L LRH" <Ashley.L.Ostrow@usace.army.mil> wrote:

Classification: UNCLASSIFIED  
Caveats: NONE

Ms. McLean,

This email is in regards to the Corps Section 14 Emergency Streambank Protection Project in Marietta, Ohio. I have spoken with Jim Spence in our Northern Regulatory Section and we agree that this project meets the conditions for Nationwide Permit 12. Below is a brief description of the project and the recommended plan. Since the sewer main line is misaligning, we would be protecting the utility line by stabilizing the bank. Attached are drawings of the recommended plan and the project location. Per our conversation with Andy Johnson on March 8, 2011, we are seeking concurrence with OEPA for our Nationwide Permit 12 determination. If this is acceptable by your office, would you please send us a email or letter of concurrence to Ashley Ostrow U.S. Army Corps of Engineers 502 Eighth Street Huntington, WV 25701. Thank you for your assistance and please let me know if you have any questions.

Project Description:

The proposed stream bank project is located on the right descending bank of the Ohio River (River Mile 171) near Jefferson Street, Marietta, OH. Approximately 1050 linear feet of 36-inch sewer main is endangered due to bank failures along the Ohio River caused by recent flooding events. These flood erosion related failures have exposed, undermined, and caused misalignment of the sewer line and manholes within this reach. A longitudinal dike, six feet high, with transitional tie-backs, would be constructed to

protect the sewer main from misalignment and potential for breaching. The proposed treatment would consist of placing COE 15 or 18-inch rock within the lower bank bench, extending from normal pool/land water contact, to form a slope of 1.5H:1V on the riverward face of dike. Rock placement, would form a 1.1H:1V back slope. The interior dike area would then fill with failed soils and sediments after storms and high water events. Up and downriver transitions and woody adventitious vegetation (deposited from high water events) will be necessary to prevent flood flows from eroding recently retained sediments and failed bank soils and to address the potential for outflanking. Construction would be accomplished by using a combination of floating plant and land based equipment.

Thanks,  
Ashley Ostrow, CFM  
US Army Corps of Engineers  
Huntington District  
(304)399-5947

Classification: UNCLASSIFIED  
Caveats: NONE

Ohio Environmental Protection Agency Unless otherwise provided by law, this communication and any response to it constitutes a public record. Ohio EPA Logo <<http://www.epa.ohio.gov/portals/0/images/email.gif>>

Classification: UNCLASSIFIED  
Caveats: NONE

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Appendix C  
Notice of Availability

**NOTICE OF AVAILABILITY  
DRAFT ENVIRONMENTAL ASSESSMENT  
SECION 14 EMERGENCY STREAMBANK PROTECTION PROJECT  
CITY OF MARIETTA  
WASHINGTON COUNTY, OHIO**

The U.S. Army Corps of Engineers, Huntington District, by this Notice of Availability (NOA), advises the public that the combined Draft Planning Design Analysis (PDA) and Environmental Assessment (EA) for the City of Marietta Emergency Streambank Protection project is complete and available for public review. The project is located in the City of Marietta in Washington County, Ohio. A Finding of No Significant Impact (FONSI) is anticipated for the proposed project. A copy of the draft FONSI is included with the Draft PDA/EA for public review.

In compliance with the National Environmental Policy Act (NEPA) and 40 CFR 1501.4, the Draft PDA/EA and draft FONSI will be available to the public in the affected area for thirty (30) days for review and comment. Final determination regarding the need for additional NEPA documentation will be made after the public review period, which begins on or about 30 September 2011. Copies of the documents may be viewed at the following locations:

Washington County Library  
615 5th Street  
Marietta, OH 45750  
(740) 373-1057

The documents may also be viewed at the following website:  
<http://www.lrh.usace.army.mil/projects/review/>. Copies of the Draft PDA/EA and draft FONSI may be obtained by contacting the Huntington District Office of the Corps of Engineers at (304) 399-5276. Comments pertaining to the documents may be submitted on the website named above, by e-mail to: LRHPublicCommets@usace.army.mil; or by letter to:

Mr. Jonathan J. Aya-ay, Chief  
Environmental Analysis Section, Planning Branch  
Huntington District Corps of Engineers  
502 Eighth Street  
Huntington, West Virginia 25701-2070

Appendix D  
Mailing List

**Draft Environmental Assessment and Planning Design Analysis  
Section 14 Streambank Protection Project, Marietta, Ohio  
Mailing List**

**Federal Agencies and Officials**

Honorable Sherrod Brown  
United States Senator  
200 N High St.  
Room 614  
Columbus, OH 43215

Honorable Robert Portman  
United States Senator  
37 West Broad Street  
Room 300  
Columbus, OH 43215

Honorable Bill Johnson  
Representative In Congress  
258 Front St.  
Marietta, OH 45750

Ms. Angela Boyer  
U.S. Fish and Wildlife Service  
Ohio Ecological Services Field Office  
4625 Morse Road, Suite 104  
Columbus, OH 43230

Ms. Patricia Morrison  
U.S Fish and Wildlife Service  
Ohio River Island National Wildlife Refuge  
3983 Waverly Road  
Williamstown, WV 26187

U.S. Environmental Protection Agency  
Region 5  
25089 Center Ridge Road  
Westlake, OH 44145-4170

## **State Agencies and Officials**

Honorable John Kasich  
Governor of Ohio  
Riffe Center, 30th Floor  
77 South High Street  
Columbus, Oh 43215-6117

Mr. Brian Mitch, Manager  
Environmental Services  
Ohio Department of Natural Resources  
Division of Engineering  
2045 Morse Rd., Bldg. C-4  
Columbus, OH 43229-6693

Ms. Deborah Carter, Field Supervisor  
U.S. Fish and Wildlife Service  
West Virginia Field Office  
Ecological Services  
694 Beverly Pike  
Elkins, WV 26241

Ms. Janet Clayton  
West Virginia Division of Natural Resources  
PO Box 67  
Elkins, WV 26241

Ms. Kathy Davis  
USDA Natural Resources Conservation Service  
Marietta Service Center  
21330 State Route 676 STE E  
Marietta, OH 45750-6799

Mr. Mark Epstein, Department Head  
Resource Protection and Review  
Ohio Historic Preservation Office  
800 E. 17<sup>th</sup> Ave  
Columbus, OH 43211-2474

Ms. Rose McLean  
Ohio Environmental Protection Agency  
Division of Surface Water  
P.O. Box 1049  
Columbus, Ohio 43216-1049

### **County Agencies and Officials**

Ms. Connie Hoblitzell  
Washington County Floodplain Manager  
217 Putnam Street  
Marietta, OH 45750

Washington County Library  
615 5th Street  
Marietta, OH 45750

### **Municipal Agencies and Officers**

Honorable Joe Matthews  
Mayor of Marietta  
301 Putnam Street  
Marietta, Ohio 45750

### **Civil and Environmental Engineering Consultants**

Mr. Joseph Tucker  
City Engineer  
304 Putnam Street  
Marietta, OH 45750

## Appendix E

### Hazardous, Toxic and Radioactive Wastes (HTRW) Assessment

**LIMITED PHASE I  
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW)  
INVESTIGATION REPORT  
MARIETTA SECTION 14  
STREAMBANK PROTECTION PROJECT  
MARIETTA, OH**

**JULY 2011  
REVISION 1 – SEPTEMBER 2011**

**DEPARTMENT OF THE ARMY  
U. S. ARMY CORPS OF ENGINEERS  
GREAT LAKES AND OHIO RIVER DIVISION  
HUNTINGTON DISTRICT  
502 EIGHTH STREET  
HUNTINGTON, WV 25701**

**LIMITED PHASE I  
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW)  
INVESTIGATION REPORT  
MARIETTA SECTION 14 STREAMBANK PROTECTION PROJECT  
MARIETTA, OH  
JULY 2011**

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- APPENDIX B: Topographic Maps and Aerial Photos
- APPENDIX C: Site Photos
- APPENDIX D: Environmental Database Search Report
- APPENDIX E: Quality Control Plan
- APPENDIX F: Site Safety and Health Plan
- APPENDIX G: E-Mail Logs



**LIMITED PHASE I  
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW)  
INVESTIGATION REPORT  
MARIETTA SECTION 14  
STREAMBANK PROTECTION PROJECT  
MARIETTA, OH  
JULY 2011**

**EXECUTIVE SUMMARY**

**1. SCOPE OF WORK**

Heavy precipitation and flood events from 2001 to present have caused bank failure and soil erosion which endangers a 36-inch diameter sewer line along a reach approximately 1,050 linear feet in length. A preliminary evaluation of alternatives has been conducted indicating that construction of a continuous longitudinal dike to be placed above the landwater contact at the Belleville Navigation pool will be the least costly alternative for stabilizing the right descending bank of the Ohio River and protecting the erosion endangered sewer collection line near Marietta, OH. Authority for the project is Section 14 of the Flood Control Act of 1946, as amended.

The Corps of Engineers Huntington District (CELRH) conducted a Limited Phase I HTRW Investigation of the area where the streambank protection work will be performed, in order to provide an initial assessment of the potential for HTRW contamination to the project area. The investigation included the following:

- Site visit to the project area.
- Environmental database search report.
- Interviews with local officials.
- Documentation of findings and conclusions in a Limited Phase I HTRW Investigation Report.

**2. CONCLUSIONS**

2.1. Based on the investigative findings and the planned activities for this project, the following recommendations are presented.

- ***Avoid excavation or other movement*** of the coal slag and cinder ash located along the county property and along the downstream end of the project. If construction activities will include disturbing the embankment in the area of the slag/ash, preventive measures need to include sampling, analysis, and/or removing the disturbed slag/ash material away from the area in immediate contact with the river and stabilization of the streambank. Any slag/ash material that is removed or excavated needs to be properly characterized (by analysis) and disposed in accordance with the Ohio EPA Solid/Hazardous Waste Regulations.

- Construction workers need to be made aware that the coal slag/ash may contain elevated levels of heavy metals. The construction contractor must prepare a safety and health plan prior to construction for approval which addresses proper safety procedures and personal protection equipment for working in the vicinity of this material. If construction will include movement of this material, then sampling and analysis must be performed prior to movement.
- Miscellaneous debris such as concrete and bricks, along with other miscellaneous materials or waste, that are removed from the work zone need to be disposed at a permitted solid waste landfill in accordance with the appropriate solid waste regulations. Discarded tires that are removed from the work zone are considered a “special waste” and need to be recycled/disposed at a permitted solid waste facility in accordance with the appropriate Ohio EPA Solid Waste Regulations.
- Impacts to the stormwater outfall located within the eastern portion of the project area need to be avoided. It is not expected that fecal coliform is an issue at this outfall, since this appears to be a stormwater outfall and not a combined sewer overflow outfall.
- During construction, if evidence of contamination is discovered in the area of the auto salvage facility, then construction shall be halted for consideration of impacts to the project.
- No sampling of surface water or soil is recommended at this time. No further HTRW concerns were noted.

## 2.2. Changes in Design.

If the design plans undergo further changes to include any additional areas, the additional areas would also require a Limited Phase I investigation prior to implementation.

**LIMITED PHASE I  
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW)  
INVESTIGATION REPORT  
MARIETTA  
SECTION 14 STREAMBANK PROTECTION PROJECT  
MARIETTA, OH  
JULY 2011**

## **1.0 INTRODUCTION**

The Marietta, OH, Section 14 Streambank Protection Project is located in Marietta, OH, along the right descending bank of the Ohio River at approximate River Mile 171. Authority for the project is Section 14 of the Flood Control Act of 1946, as amended. Heavy precipitation and flood events from 2001 to present have caused bank failure and soil erosion which endangers a 36-inch diameter sewer line. Rapid recessional loading and flood flows have lead to the collapse of alluvial soils and fills along a reach approximately 1,050 linear feet in length. These flood erosion related failures have exposed, undermined, and caused misalignment of the sewer line and manholes within this reach.

A preliminary evaluation of alternatives has been conducted indicating that construction of a continuous longitudinal dike to be placed above the landwater contact at the Belleville Navigation pool will be the least costly alternative for stabilizing the right descending bank of the Ohio River and protecting the erosion endangered sewer collection line near Marietta, OH.

A vicinity map is included in Appendix A. As part of the study phase, a Limited Phase I HTRW Investigation is necessary.

### **1.1 Scope of Work**

The Corps of Engineers Huntington District, Environmental and Remediation Section (CELRH-EC-CE) conducted a Limited Phase I HTRW Investigation of the area where streambank protection work will be performed, in order to provide an initial assessment of the potential for HTRW contamination to the project area. Under this limited investigation, individual tracts were not separately assessed and sixty-year ownership histories were not obtained. Records, mapping, and aerial photography were reviewed, and city officials were contacted to determine both prior and existing problematic land uses which could have caused contamination within the project area. A site reconnaissance was conducted to define any contamination within the project CWL areas. The investigation included the following:

- Site visit to the project area.
- Review of environmental database search reports.
- Interviews with local officials.

- Documentation of findings and conclusions in a Phase I HTRW Investigation Report.

## **1.2 Limitations of Investigation**

The investigation was performed based solely upon information available to the Corps of Engineers at the time of the investigation. Services for the Limited Phase I HTRW Investigation did not include sampling, testing, and/or analysis to conclusively ascertain that contamination exists or is absent at or near the project site. Information concerning environmentally sensitive incidents was gathered based on state information available for public review and on information from local government officials. No warranties or certifications can be provided by CELRH-EC-CE concerning the accuracy or completeness of all the information reviewed during the investigation.

The determination of potential HTRW contamination should not be considered as a definite assertion that an environmentally sensitive condition actually exists. The conclusions and recommendations presented herein are based on information gathered using that degree of care and skill ordinarily exercised under similar circumstances by competent members of the environmental profession and no warranties are expressed or implied.

Furthermore, no environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. Conducting a Limited Phase I HTRW Investigation is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions and this assessment recognizes reasonable limits of time and cost. In addition, appropriate inquiry does not mean an exhaustive assessment of a property. At some point, the cost of information obtained or the time required to gather it outweighs the usefulness of the information and in fact may be a material detriment to the orderly completion of transactions. Furthermore, subsequent environmental site assessments should not be considered valid standards to judge the appropriateness of any prior assessment based on hindsight, new information, use of developing technology or analytical techniques, changing regulatory or industry standards, or other factors.

## **2.0 INVESTIGATIVE FINDINGS**

In accordance with Corps of Engineers policy for HTRW investigations, a Quality Control Plan (QCP) and Site-Specific Safety and Health Plan (SSHP) were developed and implemented prior to and during all phases of this investigation. Procedures and documentation of the QCP are enclosed in Appendix E. A copy of the SSHP is in Appendix F.

### **2.1 Site Descriptions and Field Investigative Findings**

The Marietta, OH Project is located along the Ohio River in a commercial area where the city wastewater treatment plant, the Washington County, OH tract where road maintenance storage materials are located, and a junkyard are located.

On June 22, 2011, a site visit was made to the Marietta, OH Section 14 Project site.

Riverbank Area. Coal slag/coal cinder ash was observed along the western portion of the project area and along the bank in the vicinity of the Washington County, OH property. Discarded tires and concrete were visible in several places along the bank. A discarded auto part of some sort was visible along the bank at the water's edge (Photo No. 15 Appendix C), potentially located in the general vicinity of the auto salvage facility discussed below. A graded portion of riverbank, appearing to be a barge unloading area, was observed along the bank at the county property. One stormwater outfall, located on private property, was seen along the eastern portion of the project area. Further details on the nature of the outfall are included in Section 2.4 of the report.

Adjacent Property. The Washington County, OH road maintenance and storage facility is located adjacent to the riverbank. Sand and gravel piles, along with a storage building containing salt, were observed on the county property. As indicated above, a barge unloading area is located on county property. Also, a sewer manhole is located along the bank of the county property. Bill's Auto Salvage was observed to the east of the Washington County property. No impacts from this automotive facility were evident, although the riverbank in the area of the auto salvage facility was not easily accessible during the site visit because of bank steepness and vegetative overgrowth. The City of Marietta's wastewater treatment plant (WWTP) is located west of the county property. The outfall for this WWTP, according to the plant superintendent, Mr. Steve Elliott, is located downstream of the project area.

Historical information from the City of Marietta's Wastewater Treatment Plant and Washington County, OH personnel is included in Appendix G. Site mapping is included in Appendices A and B. Site photos are included in Appendix C.

## **2.2. Mapping**

Mapping was obtained for the project area and a review of reasonably ascertainable standard historical sources was performed as part of this investigation. The purpose of this historical record search is to determine the past uses of the project area. Aerial photographs and the USGS 7.5-minute historical topographic maps showing the project area were available and reviewed. Copies of these maps are included in Appendix B. The topographic maps and historical investigation did not indicate any past or present activities that would cause HTRW concerns within the project area.

## **2.3 Ownership Histories**

Ownership histories were not included in this investigation.

## **2.4. Interviews**

Interviews with local and county officials were conducted. Details of phone conversations and e-mail correspondence are included below and in Appendix G.

Steve Elliott, Wastewater Superintendent for the Marietta Wastewater Treatment Plant (WWTP), was questioned during the site visit about the location of the city's outfalls and

sludge management practices for the WWTP. According to Mr. Elliott, no land farming of sludge takes place within the project area. Sludge is managed off-site at permitted facilities in accordance with appropriate environmental regulations. Mr. Elliott stated that the city's outfall is downstream of the project area and that no combined sewer overflows are located within the project area. Mr. Elliott was subsequently contacted by e-mail about the unidentified outfall visible during the site visit. The information he received from Frank Christy, property owner where the drainage pipe is located, indicates it is an active, main storm drainage line that drains about 12 acres from the Jefferson Street to Pike Street area.

Kathy Davis, Stormwater Specialist for the Washington County, OH Soil and Water Conservation District, was also contacted about the unidentified outfall. Ms. Davis did not believe this was a NPDES outfall. Ms. Davis stated that this site was not in the NPDES database and that this was possibly storm drainage from development off Pike Street.

Robert Badger, Washington County, OH Engineer, was contacted about the county property within the project area where materials for road maintenance are stored and about the bank area where it appears that unloading of barges may take place. According to Mr. Badger, the bank area is currently used for barge off-loading of transit aggregates (sand and gravel) for road maintenance. Mr. Badger was questioned about historical use of the bank area for barge off-loading. According to Mr. Badger, previously barges would off-load cinder ash from power plants to be used by the county for snow and ice control. Mr. Badger also stated that a storage building is located at the site for storing salt that is used on roads in winter.

## **2.5. Regulatory Records Search**

Records of regulatory agencies listing recognized environmental conditions were obtained for the project area from Environmental Data Resources, Inc., a commercial database retrieval company. The search of environmental database records was based on a one-mile radius search area surrounding the site. These records have been included in Appendix D. The information presented in the database search reports includes mapped and unmapped sites. Unmapped sites are properties with insufficient address information to be precisely mapped and are listed in the "Orphan Summary".

Several mapped sites, including former leaking underground storage tanks (LUST), are located within the search area. None of the mapped site appears to be impacting the project area. The former LUST sites have a "No Further Action" status.

The *unmapped sites* in the Orphan Summary were reviewed for proximity to the project area. From information gathered during the site visit, along with a review of the site addresses, it was determined that none of the sites listed in the Orphan Summary are located within the immediate vicinity of the project.

### 3.0 RECOMMENDATIONS

3.1. Based on the investigative findings and the planned activities for this project, the following recommendations are presented.

- ***Avoid excavation or other movement*** of the coal slag and cinder ash located along the county property and along the downstream end of the project. If construction activities will include disturbing the embankment in the area of the slag/ash, preventive measures need to include sampling, analysis, and/or removing the disturbed slag/ash material away from the area in immediate contact with the river and stabilization of the streambank. Any slag/ash material that is removed or excavated needs to be properly characterized (by analysis) and disposed in accordance with the Ohio EPA Solid/Hazardous Waste Regulations.
- Construction workers need to be made aware that the coal slag/ash may contain elevated levels of heavy metals. The construction contractor must prepare a safety and health plan prior to construction for approval which addresses proper safety procedures and personal protection equipment for working in the vicinity of this material. If construction will include movement of this material, then sampling and analysis must be performed prior to movement.
- Miscellaneous debris such as concrete and bricks, along with other miscellaneous materials or waste, that are removed from the work zone need to be disposed at a permitted solid waste landfill in accordance with the appropriate solid waste regulations. Discarded tires that are removed from the work zone are considered a “special waste” and need to be recycled/disposed at a permitted solid waste facility in accordance with the appropriate Ohio EPA Solid Waste Regulations.
- Impacts to the stormwater outfall located within the eastern portion of the project area need to be avoided. It is not expected that fecal coliform is an issue at this outfall, since this appears to be a stormwater outfall and not a combined sewer overflow outfall.
- During construction, if evidence of contamination is discovered in the area of the auto salvage facility, then construction shall be halted for consideration of impacts to the project.
- No sampling of surface water or soil is recommended at this time. No further HTRW concerns were noted.

3.2. Changes in Design.

If the design plans undergo further changes to include any additional areas, the additional areas would also require a Limited Phase I investigation prior to implementation.

## **4.0 REFERENCES**

ASTM E 1527-05, Standard Practices for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

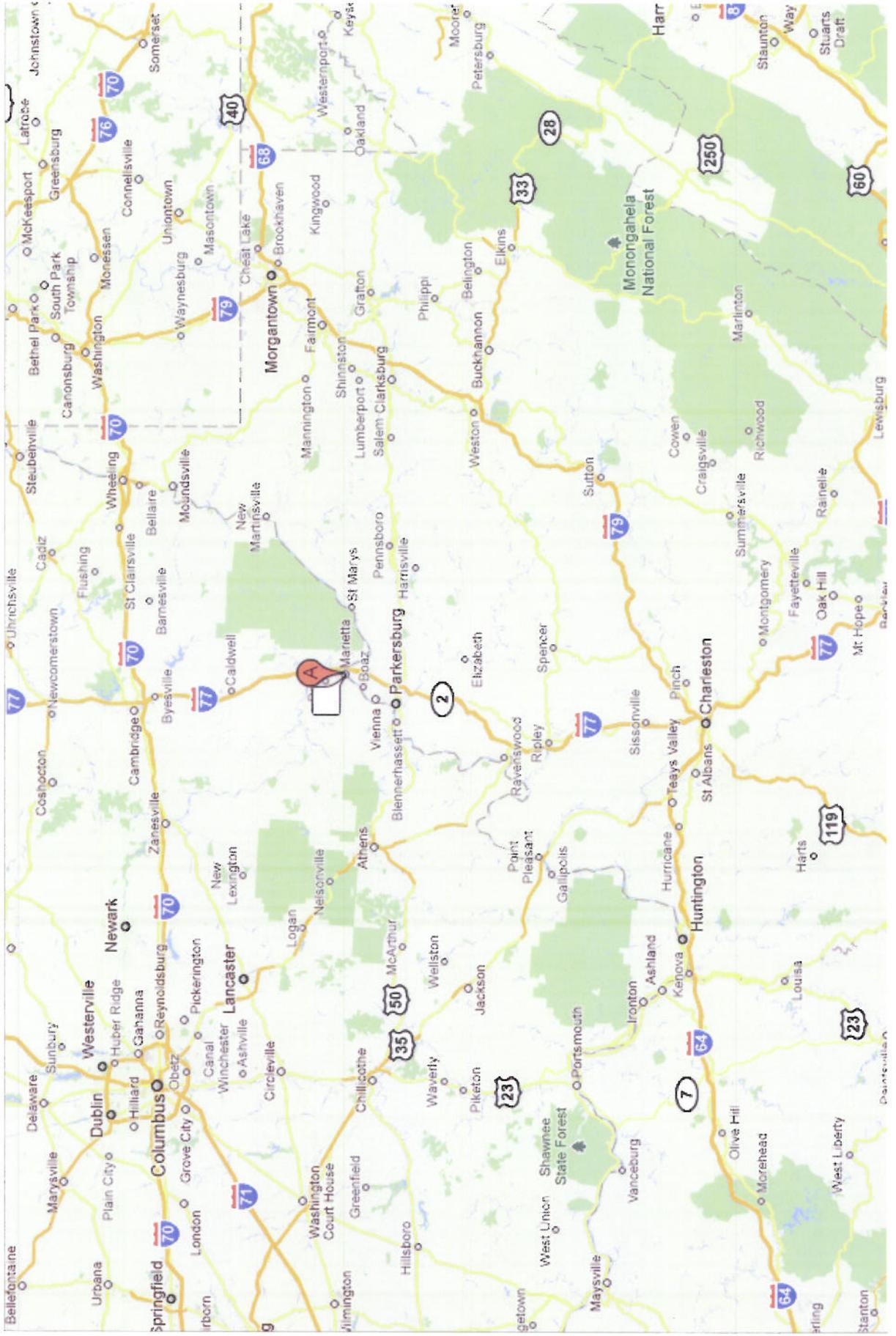
ASTM E 1528-06, Standard Practices for Environmental Site Assessments: Transaction Screening Process.

EM 385-1-1, Safety and Health Requirements Manual

ER 1165-2-132, Hazardous, Toxic, and Radioactive Waste (HTRW) Guidance for Civil Works Projects.

**APPENDIX A**  
**SITE PLANS AND MAP LOCATION**

To see all the details that are visible on the screen, use the "Print" link next to the map.





**APPENDIX B**

**TOPOGRAPHIC MAPS AND AERIAL PHOTOS**



**Marietta, OH Sect. 14**

25 Pierce Street

Marietta, OH 45750

Inquiry Number: 3067385.5

May 16, 2011

## The EDR Aerial Photo Decade Package

# 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 May 16, 2011

**Target Property:**

25 Pierce Street

Marietta, OH 45750

| <u>Year</u> | <u>Scale</u>                       | <u>Details</u>                                                   | <u>Source</u> |
|-------------|------------------------------------|------------------------------------------------------------------|---------------|
| 1956        | Aerial Photograph. Scale: 1"=750'  | Panel #: 39081-D4, Marietta, OH;/Flight Date: March 21, 1956     | EDR           |
| 1957        | Aerial Photograph. Scale: 1"=750'  | Panel #: 39081-D4, Marietta, OH;/Flight Date: September 24, 1957 | EDR           |
| 1960        | Aerial Photograph. Scale: 1"=1000' | Panel #: 39081-D4, Marietta, OH;/Flight Date: June 09, 1960      | EDR           |
| 1968        | Aerial Photograph. Scale: 1"=500'  | Panel #: 39081-D4, Marietta, OH;/Flight Date: May 07, 1968       | EDR           |
| 1975        | Aerial Photograph. Scale: 1"=1000' | Panel #: 39081-D4, Marietta, OH;/Flight Date: May 02, 1975       | EDR           |
| 1976        | Aerial Photograph. Scale: 1"=1000' | Panel #: 39081-D4, Marietta, OH;/Flight Date: March 22, 1976     | EDR           |
| 1984        | Aerial Photograph. Scale: 1"=1000' | Panel #: 39081-D4, Marietta, OH;/Flight Date: April 11, 1984     | EDR           |
| 1990        | Aerial Photograph. Scale: 1"=750'  | Panel #: 39081-D4, Marietta, OH;/Flight Date: April 18, 1990     | EDR           |
| 1996        | Aerial Photograph. Scale: 1"=750'  | Panel #: 39081-D4, Marietta, OH;/Flight Date: April 11, 1996     | EDR           |
| 2000        | Aerial Photograph. Scale: 1"=750'  | Panel #: 39081-D4, Marietta, OH;/Flight Date: October 10, 2000   | EDR           |
| 2005        | Aerial Photograph. Scale: 1"=604'  | Panel #: 39081-D4, Marietta, OH;/Flight Date: January 01, 2005   | EDR           |
| 2006        | Aerial Photograph. Scale: 1"=604'  | Panel #: 39081-D4, Marietta, OH;/Flight Date: January 01, 2006   | EDR           |



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**YEAR:** 1956

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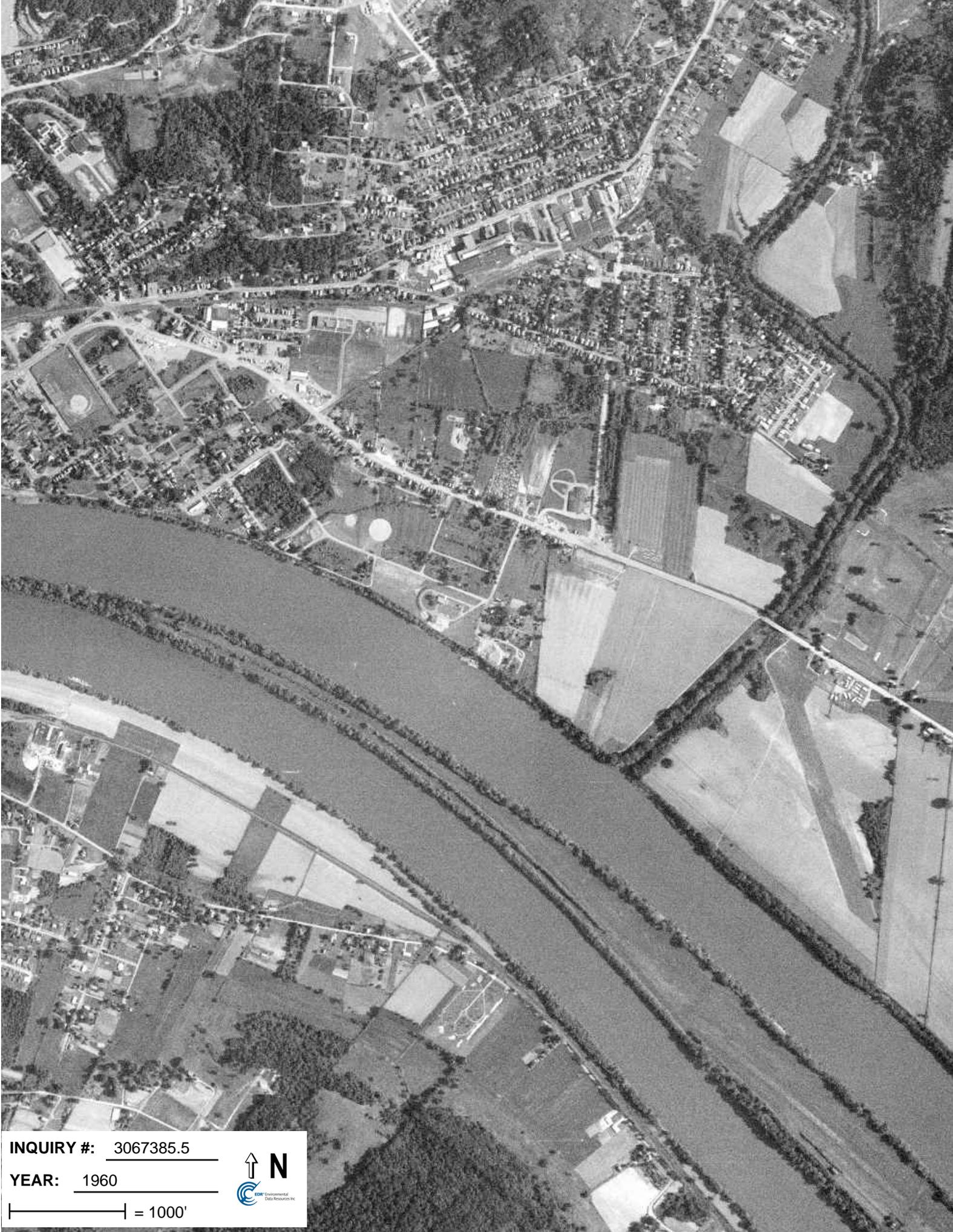


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**YEAR:** 1957

| = 750'





INQUIRY #: 3067385.5

YEAR: 1960

| = 1000'





**INQUIRY #:** 3067385.5

**YEAR:** 1968

 = 500'





**INQUIRY #:** 3067385.5

**YEAR:** 1975

 = 1000'





**INQUIRY #:** 3067385.5

**YEAR:** 1976

 = 1000'





**INQUIRY #:** 3067385.5

**YEAR:** 1984

| = 1000'



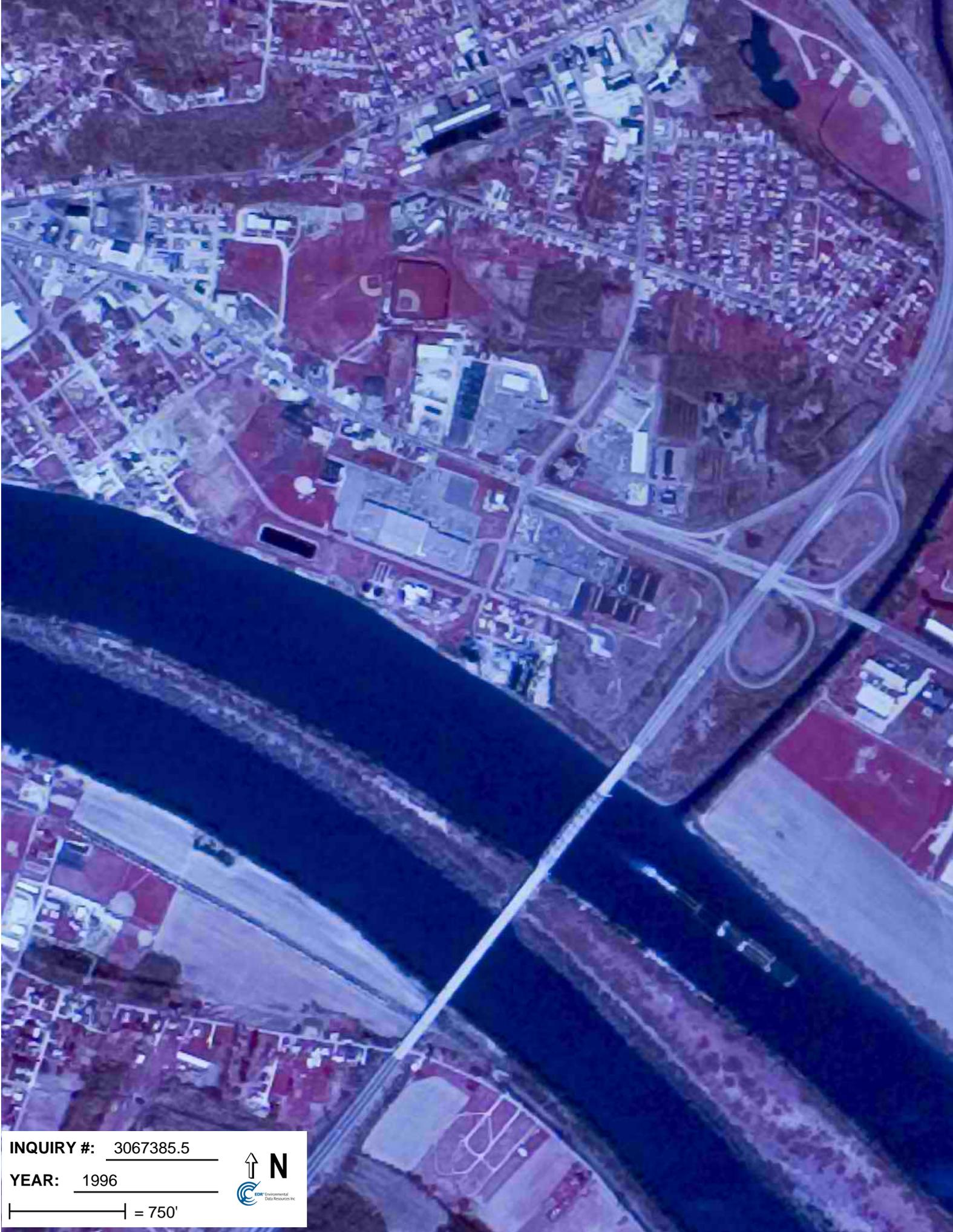


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**YEAR:** 1990

| = 750'





**INQUIRY #:** 3067385.5

**YEAR:** 1996

| = 750'





**INQUIRY #:** 3067385.5

**YEAR:** 2000

| = 750'





**INQUIRY #:** 3067385.5

**YEAR:** 2005

 = 604'





**INQUIRY #:** 3067385.5

**YEAR:** 2006

 = 604'





**Marietta, OH Sect. 14**

25 Pierce Street

Marietta, OH 45750

Inquiry Number: 3067385.4

May 13, 2011

# EDR Historical Topographic Map Report

# 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.

***Thank you for your business.***  
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# Historical Topographic Map



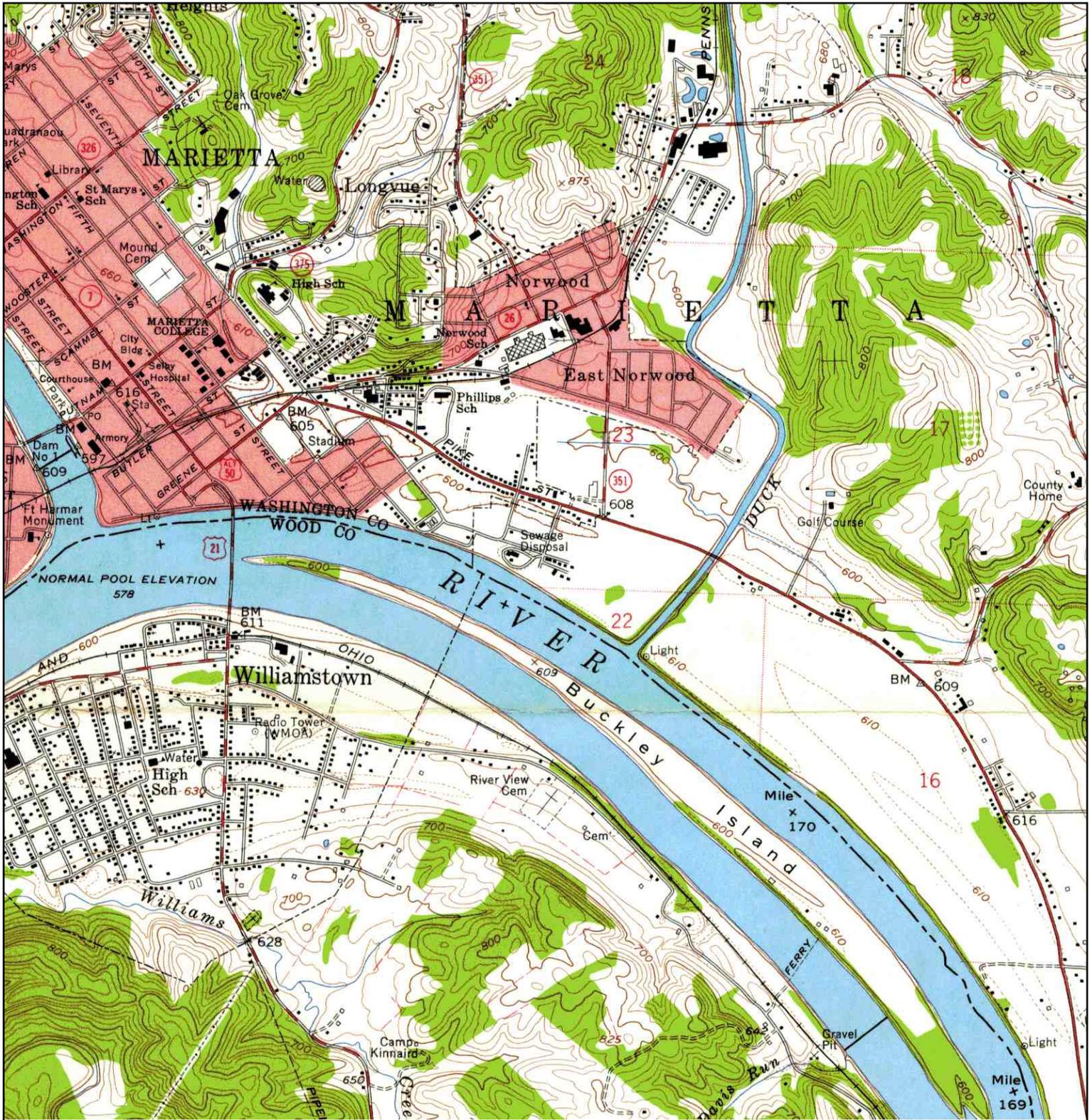
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|                                                                                    | <b>NAME:</b> MARIETTA | <b>ADDRESS:</b> 25 Pierce Street        | <b>CONTACT:</b> Janet Wolfe                 |
|                                                                                    | <b>MAP YEAR:</b> 1904 | Marietta, OH 45750                      | <b>INQUIRY#:</b> 3067385.4                  |
|                                                                                    | <b>SERIES:</b> 15     | <b>LAT/LONG:</b> 39.4085 / -81.4317     | <b>RESEARCH DATE:</b> 05/13/2011            |
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# Historical Topographic Map



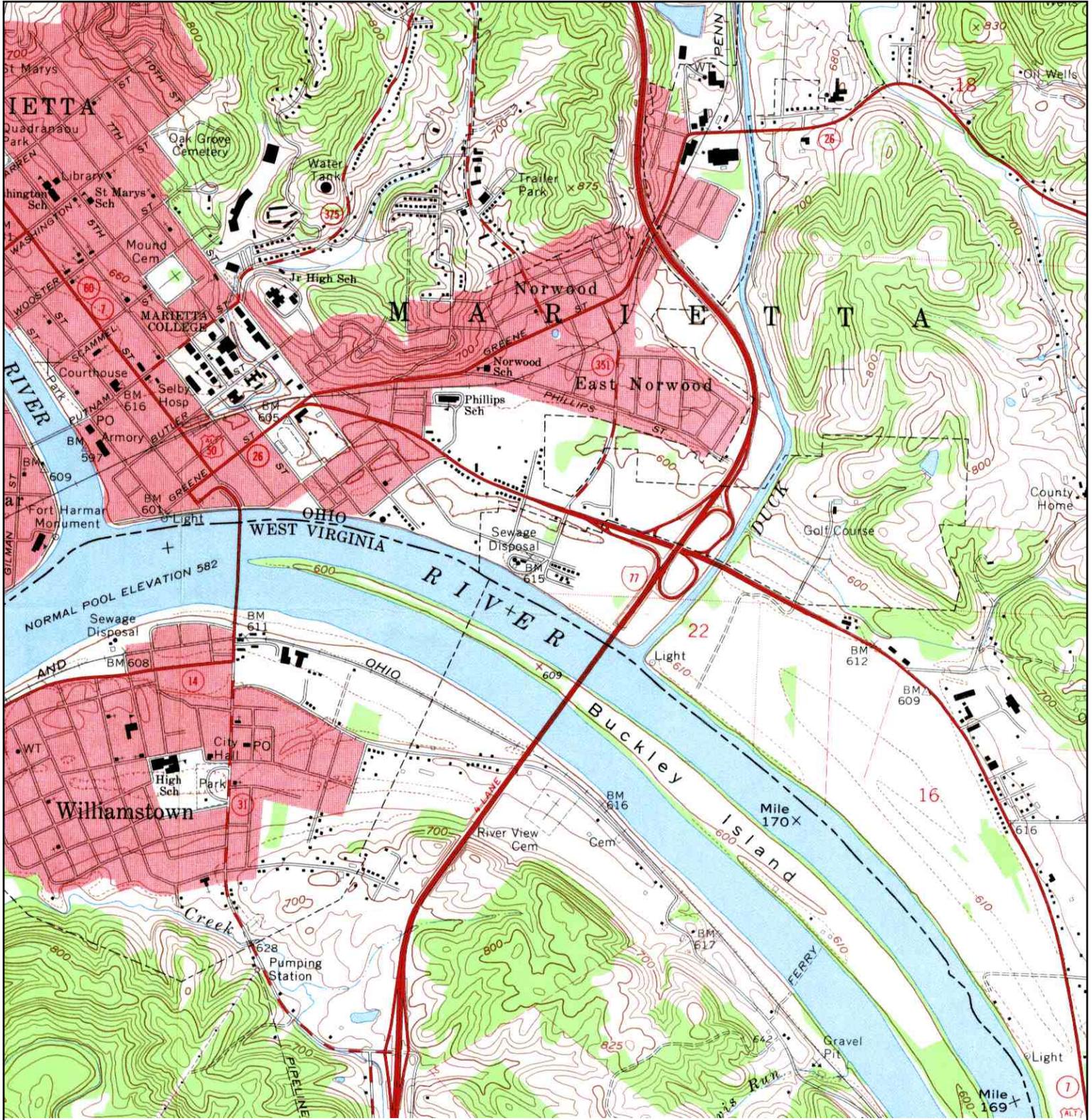
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|                                                                                             | <b>NAME:</b> MARIETTA | <b>ADDRESS:</b> 25 Pierce Street        | <b>CONTACT:</b> Janet Wolfe                 |
|                                                                                             | <b>MAP YEAR:</b> 1927 | Marietta, OH 45750                      | <b>INQUIRY#:</b> 3067385.4                  |
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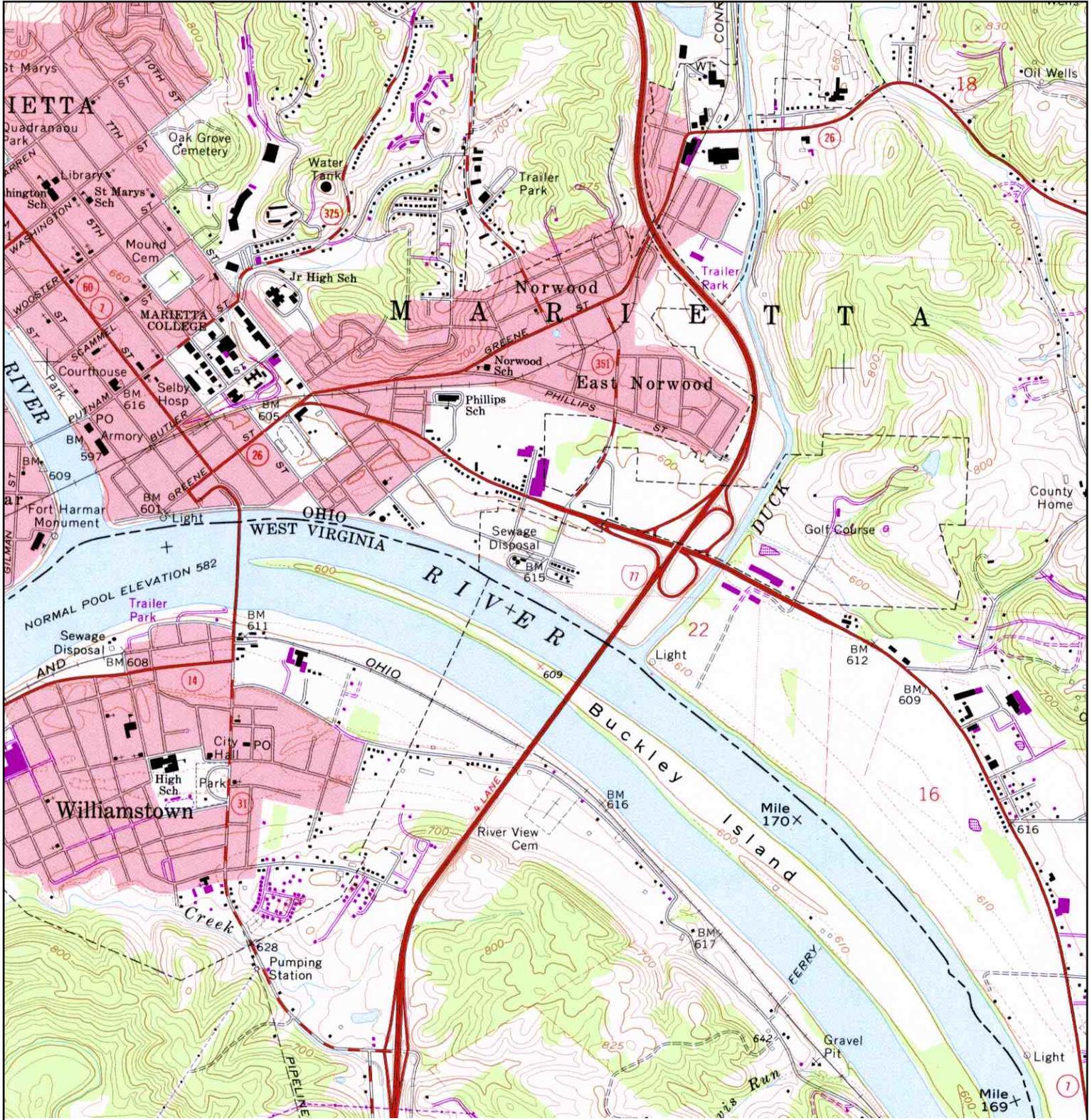
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|                                                                                               | <b>NAME:</b> MARIETTA | <b>ADDRESS:</b> 25 Pierce Street        | <b>CONTACT:</b> Janet Wolfe                 |
|                                                                                               | <b>MAP YEAR:</b> 1957 | <b>LAT/LONG:</b> 39.4085 / -81.4317     | <b>INQUIRY#:</b> 3067385.4                  |
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# Historical Topographic Map



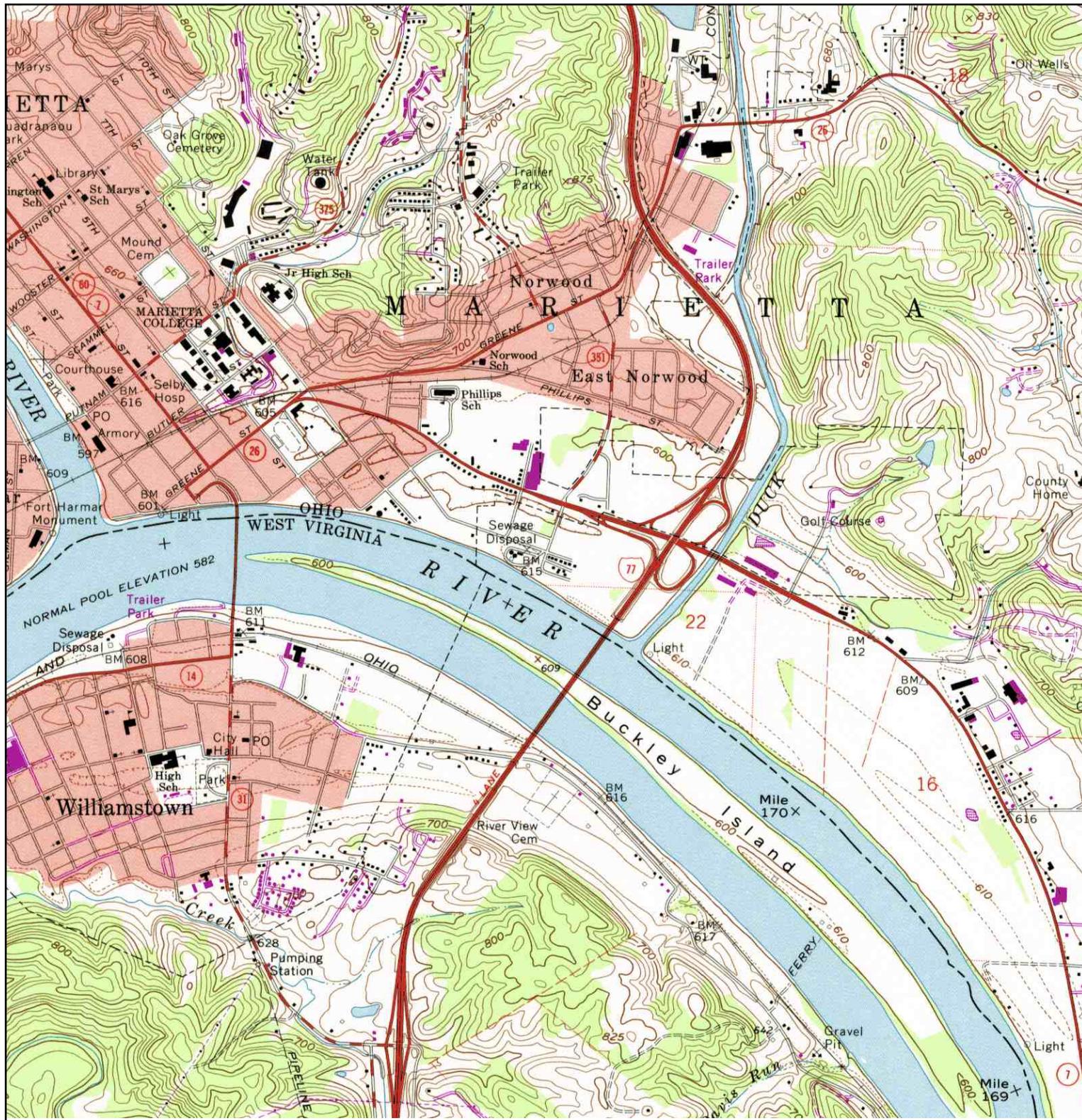
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|  | <b>NAME:</b> MARIETTA | <b>ADDRESS:</b> 25 Pierce Street        | <b>CONTACT:</b> Janet Wolfe                 |
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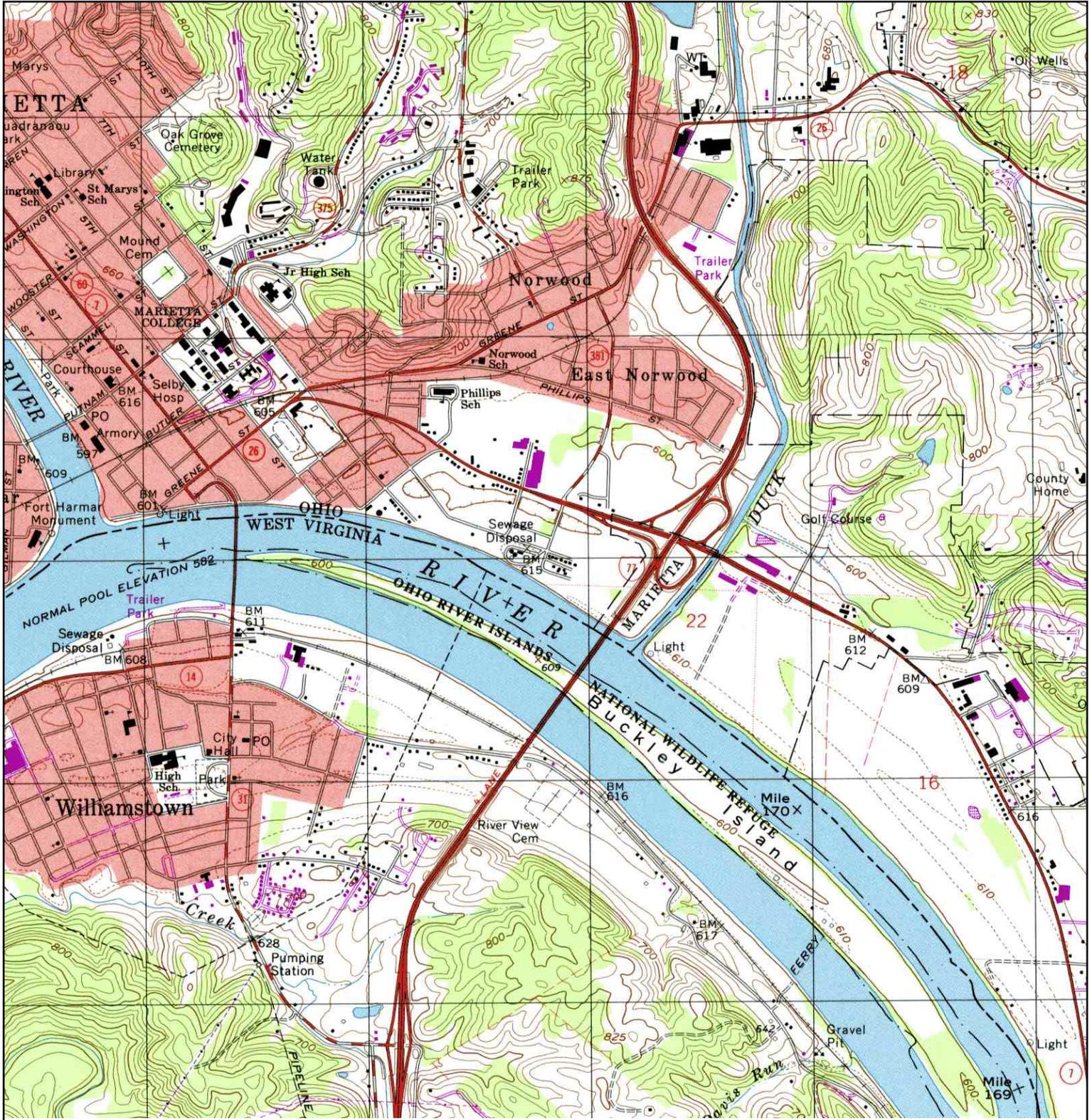
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|          | <b>NAME:</b> MARIETTA     | <b>ADDRESS:</b> 25 Pierce Street        | <b>CONTACT:</b> Janet Wolfe                 |
|          | <b>MAP YEAR:</b> 1975     | <b>Marietta, OH 45750</b>               | <b>INQUIRY#:</b> 3067385.4                  |
|          | <b>PHOTOREVISED:</b> 1969 | <b>LAT/LONG:</b> 39.4085 / -81.4317     | <b>RESEARCH DATE:</b> 05/13/2011            |
|          | <b>SERIES:</b> 7.5        |                                         |                                             |
|          | <b>SCALE:</b> 1:24000     |                                         |                                             |
|          |                           |                                         |                                             |

# Historical Topographic Map



|          |                             |                                                |                                                    |
|----------|-----------------------------|------------------------------------------------|----------------------------------------------------|
| <p>N</p> | <p><b>TARGET QUAD</b></p>   | <p><b>SITE NAME:</b> Marietta, OH Sect. 14</p> | <p><b>CLIENT:</b> U.S. Army Corps of Engineers</p> |
|          | <p>NAME: MARIETTA</p>       | <p>ADDRESS: 25 Pierce Street</p>               | <p>CONTACT: Janet Wolfe</p>                        |
|          | <p>MAP YEAR: 1984</p>       | <p>Marietta, OH 45750</p>                      | <p>INQUIRY#: 3067385.4</p>                         |
|          | <p>PHOTOINSPECTED: 1969</p> | <p>LAT/LONG: 39.4085 / -81.4317</p>            | <p>RESEARCH DATE: 05/13/2011</p>                   |
|          | <p>SERIES: 7.5</p>          |                                                |                                                    |
|          | <p>SCALE: 1:24000</p>       |                                                |                                                    |
|          |                             |                                                |                                                    |

# Historical Topographic Map



|                                                                                    |                       |                                         |                                             |
|------------------------------------------------------------------------------------|-----------------------|-----------------------------------------|---------------------------------------------|
|  | <b>TARGET QUAD</b>    | <b>SITE NAME:</b> Marietta, OH Sect. 14 | <b>CLIENT:</b> U.S. Army Corps of Engineers |
|                                                                                    | <b>NAME:</b> MARIETTA | <b>ADDRESS:</b> 25 Pierce Street        | <b>CONTACT:</b> Janet Wolfe                 |
|                                                                                    | <b>MAP YEAR:</b> 1994 | <b>LAT/LONG:</b> 39.4085 / -81.4317     | <b>INQUIRY#:</b> 3067385.4                  |
|                                                                                    | <b>SERIES:</b> 7.5    |                                         | <b>RESEARCH DATE:</b> 05/13/2011            |
|                                                                                    | <b>SCALE:</b> 1:24000 |                                         |                                             |

**APPENDIX C**  
**COLOR PHOTOGRAPHS**

**Marietta, OH Section 14 Streambank Protection Project  
Marietta, Ohio  
6/22/11 Site Visit**

**Photo No. 1**

**Looking downstream and west, along right descending bank of Ohio River**



**Photo No. 2**

**Slag and cinders along right descending bank of Ohio River**



**Marietta, OH Section 14 Streambank Protection Project  
Marietta, Ohio  
6/22/11 Site Visit**

**Photo No. 3**

**Looking upstream and east, along right descending bank of Ohio River**



**Photo No. 4**

**Facing east, adjacent property to project area. Washington County, OH road maintenance facility. Sand & gravel piles/salt storage bldg. Bill's Auto Salvage, another adjacent property, located in area of trees behind fence line, in which automotive repair/vehicle & recycled auto parts storage located.**



**Marietta, OH Section 14 Streambank Protection Project  
Marietta, Ohio  
6/22/11 Site Visit**

**Photo No. 5  
Aggregate storage at Washington County, OH road maintenance facility,  
located adjacent to project area.**



**Photo No. 6  
Aggregate storage at Washington County, OH road maintenance facility,  
located adjacent to project area.**



**Marietta, OH Section 14 Streambank Protection Project  
Marietta, Ohio  
6/22/11 Site Visit**

**Photo No. 7  
Miscellaneous materials at Washington County, OH**



**Photo No. 8  
Washington County property - off-loading area for barges for delivery of aggregates**



**Marietta, OH Section 14 Streambank Protection Project  
Marietta, Ohio  
6/22/11 Site Visit**

**Photo No. 9  
Slag and bricks along bank**



**Photo No. 10  
Slag and bricks along bank**



**Marietta, OH Section 14 Streambank Protection Project  
Marietta, Ohio  
6/22/11 Site Visit**

**Photo No. 11  
Concrete rubble along bank**



**Photo No. 12  
Stormwater drainage pipe and debris along bank at Washington Co. property.**



**Marietta, OH Section 14 Streambank Protection Project  
Marietta, Ohio  
6/22/11 Site Visit**

**Photo No. 13  
Stormwater drainage system along bank at Washington Co. property.**



**Photo No. 14  
Discarded tires along bank at Washington Co. property.**



**Marietta, OH Section 14 Streambank Protection Project**

**Marietta, Ohio**

**6/22/11 Site Visit**

**Photo No. 15**

**Debris at water's edge**



**Photo No. 16**

**Concrete rubble and blocks along bank**



**Marietta, OH Section 14 Streambank Protection Project  
Marietta, Ohio  
6/22/11 Site Visit**

**Photo No. 17  
Stormwater outfall pipe along eastern portion of project area**



**Photo No. 18  
Another photo of stormwater pipe shown in Photo No. 17 above**



**Marietta, OH Section 14 Streambank Protection Project**

**Marietta, Ohio**

**6/22/11 Site Visit**

**Photo No. 19**

**Another photo of stormwater outfall pipe shown in Photo No. 17 above and associated flap valve**



**APPENDIX D**

**RECORDS OF FEDERAL AND STATE REGULATORY AGENCIES**



**Marietta, OH Sect. 14**

25 Pierce Street

Marietta, OH 45750

Inquiry Number: 3067385.3

May 13, 2011

## Certified Sanborn® Map Report

# Certified Sanborn® Map Report

5/13/11

**Site Name:**

Marietta, OH Sect. 14  
25 Pierce Street  
Marietta, OH 45750

**Client Name:**

U.S. Army Corps of Engineers  
502 8th Street  
Huntington, WV 25701



EDR Inquiry # 3067385.3

Contact: Janet Wolfe

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by U.S. Army Corps of Engineers 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](http://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:** Marietta, OH Sect. 14  
**Address:** 25 Pierce Street  
**City, State, Zip:** Marietta, OH 45750  
**Cross Street:**  
**P.O. #** NA  
**Project:** Marietta, OH Sect. 14  
**Certification #** BCB4-4556-8FA9



Sanborn® Library search results  
Certification # BCB4-4556-8FA9

## 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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**Marietta, OH Sect. 14**

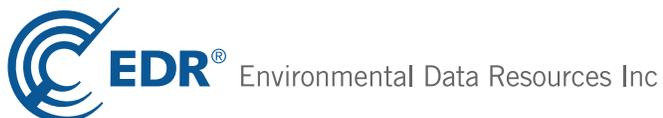
25 Pierce Street

Marietta, OH 45750

Inquiry Number: 3067385.2s

May 13, 2011

# The EDR Radius Map™ Report with GeoCheck®



440 Wheelers Farms Road  
Milford, CT 06461  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

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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

25 PIERCE STREET  
MARIETTA, OH 45750

#### COORDINATES

Latitude (North): 39.408500 - 39° 24' 30.6"  
Longitude (West): 81.431700 - 81° 25' 54.1"  
Universal Transverse Mercator: Zone 17  
UTM X (Meters): 462833.2  
UTM Y (Meters): 4361990.0  
Elevation: 606 ft. above sea level

#### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 39081-D4 MARIETTA, OH  
Most Recent Revision: 1998

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

#### ***Federal Delisted NPL site list***

Delisted NPL..... National Priority List Deletions

## EXECUTIVE SUMMARY

### **Federal CERCLIS list**

CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System  
FEDERAL FACILITY..... Federal Facility Site Information listing

### **Federal CERCLIS NFRAP site List**

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

### **Federal RCRA non-CORRACTS TSD facilities list**

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

### **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 - equivalent CERCLIS**

OH SHWS..... This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.  
WV SHWS..... This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

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

OH SWF/LF..... Licensed Solid Waste Facilities  
WV SWF/LF..... List of M.S.W. Landfills/Transfer Station Listing

### **State and tribal leaking storage tank lists**

WV LUST..... Leaking Underground Storage Tanks  
OH UNREG LTANKS..... Ohio Leaking UST File  
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

### **State and tribal registered storage tank lists**

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

### **State and tribal institutional control / engineering control registries**

OH ENG CONTROLS..... Sites with Engineering Controls

## EXECUTIVE SUMMARY

OH INST CONTROL..... Sites with Institutional Engineering Controls  
WV INST CONTROL..... Sites with Institutional Controls  
OH HIST ENG CONTROLS... Operation & Maintenance Agreements Database  
OH HIST INST CONTROLS... Institutional Controls Database

### ***State and tribal voluntary cleanup sites***

OH VCP..... Voluntary Action Program Sites  
WV VCP..... Voluntary Remediation Sites  
INDIAN VCP..... Voluntary Cleanup Priority Listing

### ***State and tribal Brownfields sites***

OH BROWNFIELDS..... Ohio Brownfield Inventory  
WV BROWNFIELDS..... Brownfields Sites Listing

### **ADDITIONAL ENVIRONMENTAL RECORDS**

#### ***Local Brownfield lists***

US BROWNFIELDS..... A Listing of Brownfields Sites

#### ***Local Lists of Landfill / Solid Waste Disposal Sites***

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

#### ***Local Lists of Hazardous waste / Contaminated Sites***

US CDL..... Clandestine Drug Labs  
OH CDL..... Clandestine Drug Lab Locations  
WV CDL..... Drug Lab Site Locations  
US HIST CDL..... National Clandestine Laboratory Register

#### ***Local Land Records***

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

#### ***Records of Emergency Release Reports***

HMIRS..... Hazardous Materials Information Reporting System  
OH SPILLS..... Emergency Response Database  
WV SPILLS..... Spills Listing

#### ***Other Ascertainable Records***

DOT OPS..... Incident and Accident Data  
DOD..... Department of Defense Sites  
FUDS..... Formerly Used Defense Sites  
CONSENT..... Superfund (CERCLA) Consent Decrees

## EXECUTIVE SUMMARY

|                             |                                                                                                                             |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 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                                                                                              |
| RAATS.....                  | RCRA Administrative Action Tracking System                                                                                  |
| OH UIC.....                 | Underground Injection Wells Listing                                                                                         |
| WV UIC.....                 | Underground Injection Wells                                                                                                 |
| OH DRYCLEANERS.....         | Drycleaner Facility Listing                                                                                                 |
| WV DRYCLEANERS.....         | Listing of Drycleaner Locations                                                                                             |
| OH NPDES.....               | NPDES General Permit List                                                                                                   |
| WV NPDES.....               | Wastewater Discharge Permits Listing                                                                                        |
| OH AIRS.....                | Title V Permits Listing                                                                                                     |
| WV AIRS.....                | Permitted Facility and Emissions Listing                                                                                    |
| OH USD.....                 | Urban Setting Designation Sites                                                                                             |
| OH HIST USD.....            | Urban Setting Designations Database                                                                                         |
| INDIAN RESERV.....          | Indian Reservations                                                                                                         |
| SCRD DRYCLEANERS.....       | State Coalition for Remediation of Drycleaners Listing                                                                      |
| OH FINANCIAL ASSURANCE..... | Financial Assurance Information Listing                                                                                     |
| OH COAL ASH.....            | Coal Ash Disposal Site Listing                                                                                              |
| OH CRO.....                 | Cessation of Regulated Operations Facility Listing                                                                          |
| WV COAL ASH.....            | Coal Ash Landfills                                                                                                          |
| PCB TRANSFORMER.....        | PCB Transformer Registration Database                                                                                       |
| COAL ASH EPA.....           | Coal Combustion Residues Surface Impoundments List                                                                          |
| WV FINANCIAL ASSURANCE..... | Financial Assurance Information Listing                                                                                     |
| COAL ASH DOE.....           | Sleam-Electric Plan Operation Data                                                                                          |

### 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.

## EXECUTIVE SUMMARY

### STANDARD ENVIRONMENTAL RECORDS

#### ***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 05/25/2010 has revealed that there is 1 CORRACTS site within approximately 1 mile of the target property.

| <u>Equal/Higher Elevation</u> | <u>Address</u>       | <u>Direction / Distance</u>    | <u>Map ID</u> | <u>Page</u> |
|-------------------------------|----------------------|--------------------------------|---------------|-------------|
| <b>KARDEX SYSTEMS INC</b>     | <b>900 GREENE ST</b> | <b>NNW 1/2 - 1 (0.635 mi.)</b> | <b>17</b>     | <b>35</b>   |

#### ***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 03/11/2011 has revealed that there are 3 RCRA-CESQG sites within approximately 0.25 miles of the target property.

| <u>Lower Elevation</u> | <u>Address</u>     | <u>Direction / Distance</u>      | <u>Map ID</u> | <u>Page</u> |
|------------------------|--------------------|----------------------------------|---------------|-------------|
| HAMPTON INN            | 508 PIKE ST        | NNW 1/8 - 1/4 (0.194 mi.)        | A1            | 8           |
| KMART # 7477           | 502 PIKE STREET    | NNW 1/8 - 1/4 (0.198 mi.)        | A3            | 10          |
| <b>BP OIL CO</b>       | <b>497 PIKE ST</b> | <b>NNW 1/8 - 1/4 (0.201 mi.)</b> | <b>A8</b>     | <b>20</b>   |

#### ***State- and tribal - equivalent CERCLIS***

OH DERR: The DERR database is an index of sites for which Ohio EPA maintains files. It includes sites with known or suspected contamination, but a site's inclusion in the database does not mean that it is now or has ever been contaminated.

A review of the OH DERR list, as provided by EDR, and dated 02/22/2011 has revealed that there is 1 OH DERR site within approximately 1 mile of the target property.

| <u>Lower Elevation</u>   | <u>Address</u>          | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|--------------------------|-------------------------|-----------------------------|---------------|-------------|
| OHIO RIV BRIDGE APPROACH | CORNER OF FIFTH & GREEN | WNW 1/2 - 1 (0.947 mi.)     | 20            | 41          |

## EXECUTIVE SUMMARY

### **State and tribal leaking storage tank lists**

OH 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 Commerce Division of State Fire Marshal's List of Reported Petroleum Underground Storage Tank Release Incidents.

A review of the OH LUST list, as provided by EDR, and dated 02/23/2011 has revealed that there are 10 OH LUST sites within approximately 0.5 miles of the target property.

| <u>Equal/Higher Elevation</u>                                                                                                                                                                                                                                                                                                                                                                                                      | <u>Address</u>               | <u>Direction / Distance</u>      | <u>Map ID</u> | <u>Page</u> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------------|---------------|-------------|
| BILL DUNNING MOTORS, INC.<br>FR Status: Inactive FR Status: NFA: No Further Action<br>Facility Status: Inactive FR Status: NFA: No Further Action                                                                                                                                                                                                                                                                                  | ST RT 7 N                    | ENE 1/4 - 1/2 (0.312 mi.)        | 11            | 25          |
| <b>BFS</b><br>FR Status: Inactive FR Status: NFA: No Further Action<br>Facility Status: Inactive FR Status: NFA: No Further Action                                                                                                                                                                                                                                                                                                 | <b>SR 7 &amp; TWP.RD 125</b> | <b>E 1/4 - 1/2 (0.495 mi.)</b>   | <b>16</b>     | <b>33</b>   |
| <u>Lower Elevation</u>                                                                                                                                                                                                                                                                                                                                                                                                             | <u>Address</u>               | <u>Direction / Distance</u>      | <u>Map ID</u> | <u>Page</u> |
| K MART #7477<br>FR Status: Inactive FR Status: NFA: No Further Action<br>Facility Status: Inactive FR Status: NFA: No Further Action                                                                                                                                                                                                                                                                                               | 502 PIKE ST                  | NNW 1/8 - 1/4 (0.198 mi.)        | A4            | 11          |
| <b>MARATHON #1825</b><br>FR Status: Inactive FR Status: NFA: No Further Action<br>FR Status: Inactive FR Status: NFA: No Further Action<br>Facility Status: Inactive FR Status: NFA: No Further Action<br>Facility Status: Inactive FR Status: NFA: No Further Action                                                                                                                                                              | <b>498 PIKE ST</b>           | <b>NNW 1/8 - 1/4 (0.201 mi.)</b> | <b>A6</b>     | <b>16</b>   |
| <b>BP OIL CO. #02046</b><br>FR Status: Active FR Status: DIS: a release is disproved<br>FR Status: Active FR Status: TR2: Tier 2<br>Facility Status: Active FR Status: DIS: a release is disproved<br>Facility Status: Active FR Status: TR2: Tier 2                                                                                                                                                                               | <b>497 PIKE ST</b>           | <b>NNW 1/8 - 1/4 (0.201 mi.)</b> | <b>A9</b>     | <b>22</b>   |
| WASTEWATER TREATMENT PLANT<br>FR Status: Inactive FR Status: NFA: No Further Action<br>Facility Status: Inactive FR Status: NFA: No Further Action                                                                                                                                                                                                                                                                                 | 440 E 8TH ST                 | WNW 1/4 - 1/2 (0.269 mi.)        | 10            | 25          |
| BP SOFT CLOTH CAR WASH<br>FR Status: Inactive FR Status: NFA: No Further Action<br>Facility Status: Inactive FR Status: NFA: No Further Action                                                                                                                                                                                                                                                                                     | 348 PIKE ST                  | NW 1/4 - 1/2 (0.378 mi.)         | B12           | 26          |
| <b>GETGO FROM GIANT EAGLE # 3510</b><br>FR Status: Active FR Status: NFA: No Further Action<br>FR Status: Active FR Status: NFA: No Further Action<br><i>*Additional key fields are available in the Map Findings section</i><br>Facility Status: Active FR Status: NFA: No Further Action<br>Facility Status: Active FR Status: NFA: No Further Action<br><i>*Additional key fields are available in the Map Findings section</i> | <b>331 PIKE ST</b>           | <b>NW 1/4 - 1/2 (0.402 mi.)</b>  | <b>B13</b>    | <b>26</b>   |
| PAR MAR FOOD STORE #9<br>FR Status: Inactive FR Status: NFA: No Further Action<br>FR Status: Inactive FR Status: NFA: No Further Action<br>Facility Status: Inactive FR Status: NFA: No Further Action<br>Facility Status: Inactive FR Status: NFA: No Further Action                                                                                                                                                              | 328 PIKE ST                  | NW 1/4 - 1/2 (0.405 mi.)         | 14            | 32          |
| MOTOR CARE<br>FR Status: Inactive FR Status: NFA: No Further Action<br>Facility Status: Inactive FR Status: NFA: No Further Action                                                                                                                                                                                                                                                                                                 | 307 PIKE ST                  | NW 1/4 - 1/2 (0.436 mi.)         | 15            | 33          |

## EXECUTIVE SUMMARY

### **State and tribal registered storage tank lists**

OH 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 Commerce Division of State Fire Marshal's Facility File.

A review of the OH UST list, as provided by EDR, and dated 03/30/2011 has revealed that there are 3 OH UST sites within approximately 0.25 miles of the target property.

| <u>Lower Elevation</u>   | <u>Address</u>     | <u>Direction / Distance</u>      | <u>Map ID</u> | <u>Page</u> |
|--------------------------|--------------------|----------------------------------|---------------|-------------|
| K MART #7477             | 502 PIKE ST        | NNW 1/8 - 1/4 (0.198 mi.)        | A2            | 9           |
| MARATHON #1825           | 498 PIKE ST        | NNW 1/8 - 1/4 (0.201 mi.)        | A5            | 12          |
| <b>BP OIL CO. #02046</b> | <b>497 PIKE ST</b> | <b>NNW 1/8 - 1/4 (0.201 mi.)</b> | <b>A9</b>     | <b>22</b>   |

### **ADDITIONAL ENVIRONMENTAL RECORDS**

#### **Local Lists of Registered Storage Tanks**

OH ARCHIVE UST: Underground storage tank records that have been removed from the Underground Storage Tank database.

A review of the OH ARCHIVE UST list, as provided by EDR, and dated 10/05/2010 has revealed that there is 1 OH ARCHIVE UST site within approximately 0.25 miles of the target property.

| <u>Lower Elevation</u> | <u>Address</u>     | <u>Direction / Distance</u>      | <u>Map ID</u> | <u>Page</u> |
|------------------------|--------------------|----------------------------------|---------------|-------------|
| <b>MARATHON #1825</b>  | <b>498 PIKE ST</b> | <b>NNW 1/8 - 1/4 (0.201 mi.)</b> | <b>A6</b>     | <b>16</b>   |

#### **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 03/11/2011 has revealed that there is 1 RCRA-NonGen site within approximately 0.25 miles of the target property.

| <u>Lower Elevation</u>     | <u>Address</u>     | <u>Direction / Distance</u>      | <u>Map ID</u> | <u>Page</u> |
|----------------------------|--------------------|----------------------------------|---------------|-------------|
| <b>HENDERSHOT MARATHON</b> | <b>498 PIKE ST</b> | <b>NNW 1/8 - 1/4 (0.201 mi.)</b> | <b>A7</b>     | <b>19</b>   |

OH TOWNGAS: The database includes 82 very old sites (circa 1895) which produced gas from coal for street lighting. Most visual evidence of these sites has disappeared, however the potential for buried coal tar remains. The database is no longer in active use.

A review of the OH TOWNGAS list, as provided by EDR, and dated 07/28/1992 has revealed that there is

## EXECUTIVE SUMMARY

1 OH TOWNGAS site within approximately 1 mile of the target property.

| <u>Lower Elevation</u>     | <u>Address</u>                                 | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|----------------------------|------------------------------------------------|-----------------------------|---------------|-------------|
| MARIETTA GAS LIGHT COMPANY | GREENE & NORTH 7TH STRE NW 1/2 - 1 (0.827 mi.) |                             | C19           | 40          |

### EDR PROPRIETARY RECORDS

#### ***EDR Proprietary Records***

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.

A review of the Manufactured Gas Plants list, as provided by EDR, has revealed that there is 1 Manufactured Gas Plants site within approximately 1 mile of the target property.

| <u>Lower Elevation</u>     | <u>Address</u>                                 | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|----------------------------|------------------------------------------------|-----------------------------|---------------|-------------|
| MARIETTA GAS LIGHT COMPANY | GREENE AND NORTH 7TH ST NW 1/2 - 1 (0.826 mi.) |                             | C18           | 40          |

## EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 40 records.

| <u>Site Name</u>                   | <u>Database(s)</u> |
|------------------------------------|--------------------|
| ADEX CORPORATION                   | FINDS,RCRA-NLR     |
| LEASCO EQUIPMENT SERVICES INC      | RCRA-NLR           |
| R & R PIPELINE INC                 | RCRA-NLR           |
| BLAUSER WELL SERVICE               | RCRA-CESQG         |
| RAAMP GROUP                        | RCRA-CESQG         |
| HEALTH PRO AMBULANCE               | RCRA-CESQG         |
| BETWEEN MARIETTA AND BELPREE OHIO  | ERNS               |
| OHIO RT 7, 3MI S. OF MARIETTA      | ERNS               |
| OUTFALL 001,AMOCO PLANT RTE 7 SOUT | ERNS               |
| ST ROUTE 7, 4 MI SOUTH OF MARIETTA | ERNS               |
| MARIETTA BIBLE CENTER CHURCH       | FINDS              |
| MARIETTA SHRINE CLUB               | FINDS              |
| ALLTEL - MARIETTA                  | FINDS              |
| MARIETTA WWTP & SEWER SYSTEM       | FINDS              |
| MARIETTA CITY                      | FINDS              |
| MARIETTA ARMORY                    | FINDS              |
| MARIETTA TERMINAL                  | FINDS              |
| MARIETTA OH BULK PLT NO 368        | FINDS              |
| MARATHON ASHLAND PETROLEUM LLC - M | FINDS              |
| ASHLAND PETROLEUM MARIETTA         | FINDS              |
| MARIETTA JUNIOR HIGH SCHOOL        | FINDS              |
| MARIETTA MICRO PROCESSING *        | FINDS              |
| ERGON TRUCKING INC MARIETTA        | FINDS              |
| ITAPCO/CARETAKER STATUS - MARIETTA | FINDS              |
| MARATHON PETROLEUM LLC MARIETTA TE | FINDS              |
| ASHLAND PETROLEUM CO MARIETTA TERM | FINDS              |
| ASPHALT MATERIALS MARIETTA PLT 2   | FINDS              |
| MARIETTA NORTH FACILITY            | TSCA               |
| AMOCO - MARIETTA PLANT             | TSCA               |
| MARIETTA PLT                       | TSCA               |
| CHEVRON CHEMICAL MARIETTA PLANT    | TSCA               |
| MARIETTA SOUTH FCILITY             | TSCA               |
| CHEVRON PHILLIPS CHEMICAL MARIETTA | TSCA               |
| ERAMET MARIETTA INCORPORATED       | TSCA               |
| ASPHALT MATERIALS - MARIETTA (SOUT | TSCA               |
| FEDERAL MOGUL GALLIPOLIS           | DERR,VCP           |
| LAWRENCE ELEM                      | DERR               |
| EVEREADY BATTERY LAGOON, MARIETTA  | DERR               |
| UNION CARBIDE CORP, MARIETTA       | DERR               |
| ERAMET MARIETTA INC.               | ICIS               |

# OVERVIEW MAP - 3067385.2s



- ★ 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
- ☒ Indian Reservations BIA
- ↗ County Boundary
- ↗ Oil & Gas pipelines
- ▨ 100-year flood zone
- ▨ 500-year flood zone
- National Wetland Inventory
- State Wetlands

|                                                                                                                   |                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| SITE NAME: Marietta, OH Sect. 14<br>ADDRESS: 25 Pierce Street<br>Marietta OH 45750<br>LAT/LONG: 39.4085 / 81.4317 | CLIENT: U.S. Army Corps of Engineers<br>CONTACT: Janet Wolfe<br>INQUIRY #: 3067385.2s<br>DATE: May 13, 2011 11:06 am |
|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|

# DETAIL MAP - 3067385.2s



- ★ 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
- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands

|                                                                                                                                                        |                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>SITE NAME: Marietta, OH Sect. 14<br/>         ADDRESS: 25 Pierce Street<br/>         Marietta OH 45750<br/>         LAT/LONG: 39.4085 / 81.4317</p> | <p>CLIENT: U.S. Army Corps of Engineers<br/>         CONTACT: Janet Wolfe<br/>         INQUIRY #: 3067385.2s<br/>         DATE: May 13, 2011 11:06 am</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|

## MAP FINDINGS SUMMARY

| Database                                                                           | Target<br>Property | Search<br>Distance<br>(Miles) | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total<br>Plotted |
|------------------------------------------------------------------------------------|--------------------|-------------------------------|-------|-----------|-----------|---------|-----|------------------|
| <b><u>STANDARD ENVIRONMENTAL RECORDS</u></b>                                       |                    |                               |       |           |           |         |     |                  |
| <b><i>Federal NPL site list</i></b>                                                |                    |                               |       |           |           |         |     |                  |
| 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                |
| <b><i>Federal Delisted NPL site list</i></b>                                       |                    |                               |       |           |           |         |     |                  |
| Delisted NPL                                                                       |                    | 1.000                         | 0     | 0         | 0         | 0       | NR  | 0                |
| <b><i>Federal CERCLIS list</i></b>                                                 |                    |                               |       |           |           |         |     |                  |
| CERCLIS                                                                            |                    | 0.500                         | 0     | 0         | 0         | NR      | NR  | 0                |
| FEDERAL FACILITY                                                                   |                    | 1.000                         | 0     | 0         | 0         | 0       | NR  | 0                |
| <b><i>Federal CERCLIS NFRAP site List</i></b>                                      |                    |                               |       |           |           |         |     |                  |
| CERC-NFRAP                                                                         |                    | 0.500                         | 0     | 0         | 0         | NR      | NR  | 0                |
| <b><i>Federal RCRA CORRACTS facilities list</i></b>                                |                    |                               |       |           |           |         |     |                  |
| CORRACTS                                                                           |                    | 1.000                         | 0     | 0         | 0         | 1       | NR  | 1                |
| <b><i>Federal RCRA non-CORRACTS TSD facilities list</i></b>                        |                    |                               |       |           |           |         |     |                  |
| RCRA-TSDF                                                                          |                    | 0.500                         | 0     | 0         | 0         | NR      | NR  | 0                |
| <b><i>Federal RCRA generators list</i></b>                                         |                    |                               |       |           |           |         |     |                  |
| RCRA-LQG                                                                           |                    | 0.250                         | 0     | 0         | NR        | NR      | NR  | 0                |
| RCRA-SQG                                                                           |                    | 0.250                         | 0     | 0         | NR        | NR      | NR  | 0                |
| RCRA-CESQG                                                                         |                    | 0.250                         | 0     | 3         | NR        | NR      | NR  | 3                |
| <b><i>Federal institutional controls /<br/>engineering controls registries</i></b> |                    |                               |       |           |           |         |     |                  |
| US ENG CONTROLS                                                                    |                    | 0.500                         | 0     | 0         | 0         | NR      | NR  | 0                |
| US INST CONTROL                                                                    |                    | 0.500                         | 0     | 0         | 0         | NR      | NR  | 0                |
| <b><i>Federal ERNS list</i></b>                                                    |                    |                               |       |           |           |         |     |                  |
| ERNS                                                                               |                    | TP                            | NR    | NR        | NR        | NR      | NR  | 0                |
| <b><i>State- and tribal - equivalent CERCLIS</i></b>                               |                    |                               |       |           |           |         |     |                  |
| OH SHWS                                                                            |                    | N/A                           | N/A   | N/A       | N/A       | N/A     | N/A | N/A              |
| WV SHWS                                                                            |                    | N/A                           | N/A   | N/A       | N/A       | N/A     | N/A | N/A              |
| OH DERR                                                                            |                    | 1.000                         | 0     | 0         | 0         | 1       | NR  | 1                |
| <b><i>State and tribal landfill and/or<br/>solid waste disposal site lists</i></b> |                    |                               |       |           |           |         |     |                  |
| OH SWF/LF                                                                          |                    | 0.500                         | 0     | 0         | 0         | NR      | NR  | 0                |
| WV SWF/LF                                                                          |                    | 0.500                         | 0     | 0         | 0         | NR      | NR  | 0                |
| <b><i>State and tribal leaking storage tank lists</i></b>                          |                    |                               |       |           |           |         |     |                  |
| OH LUST                                                                            |                    | 0.500                         | 0     | 3         | 7         | NR      | NR  | 10               |
| WV LUST                                                                            |                    | 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 |
|--------------------------------------------------------------------------------|-----------------|-------------------------|-------|-----------|-----------|---------|-----|---------------|
| OH UNREG LTANKS                                                                |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| INDIAN LUST                                                                    |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| <b>State and tribal registered storage tank lists</b>                          |                 |                         |       |           |           |         |     |               |
| OH UST                                                                         |                 | 0.250                   | 0     | 3         | NR        | NR      | NR  | 3             |
| WV UST                                                                         |                 | 0.250                   | 0     | 0         | NR        | NR      | NR  | 0             |
| INDIAN UST                                                                     |                 | 0.250                   | 0     | 0         | NR        | NR      | NR  | 0             |
| FEMA UST                                                                       |                 | 0.250                   | 0     | 0         | NR        | NR      | NR  | 0             |
| <b>State and tribal institutional control / engineering control registries</b> |                 |                         |       |           |           |         |     |               |
| OH ENG CONTROLS                                                                |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| OH INST CONTROL                                                                |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| WV INST CONTROL                                                                |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| OH HIST ENG CONTROLS                                                           |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| OH HIST INST CONTROLS                                                          |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| <b>State and tribal voluntary cleanup sites</b>                                |                 |                         |       |           |           |         |     |               |
| OH VCP                                                                         |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| WV VCP                                                                         |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| INDIAN VCP                                                                     |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| <b>State and tribal Brownfields sites</b>                                      |                 |                         |       |           |           |         |     |               |
| OH BROWNFIELDS                                                                 |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| WV BROWNFIELDS                                                                 |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| <b>ADDITIONAL ENVIRONMENTAL RECORDS</b>                                        |                 |                         |       |           |           |         |     |               |
| <b>Local Brownfield lists</b>                                                  |                 |                         |       |           |           |         |     |               |
| US BROWNFIELDS                                                                 |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| <b>Local Lists of Landfill / Solid Waste Disposal Sites</b>                    |                 |                         |       |           |           |         |     |               |
| DEBRIS REGION 9                                                                |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| ODI                                                                            |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| OH SWRCY                                                                       |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| OH HIST LF                                                                     |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| INDIAN ODI                                                                     |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| <b>Local Lists of Hazardous waste / Contaminated Sites</b>                     |                 |                         |       |           |           |         |     |               |
| US CDL                                                                         |                 | TP                      | NR    | NR        | NR        | NR      | NR  | 0             |
| OH CDL                                                                         |                 | TP                      | NR    | NR        | NR        | NR      | NR  | 0             |
| WV CDL                                                                         |                 | TP                      | NR    | NR        | NR        | NR      | NR  | 0             |
| US HIST CDL                                                                    |                 | TP                      | NR    | NR        | NR        | NR      | NR  | 0             |
| <b>Local Lists of Registered Storage Tanks</b>                                 |                 |                         |       |           |           |         |     |               |
| OH ARCHIVE UST                                                                 |                 | 0.250                   | 0     | 1         | NR        | NR      | NR  | 1             |
| <b>Local Land Records</b>                                                      |                 |                         |       |           |           |         |     |               |
| LIENS 2                                                                        |                 | TP                      | NR    | NR        | NR        | 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 |
|---------------------------------------------|-----------------|-------------------------|-------|-----------|-----------|---------|-----|---------------|
| LUCIS                                       |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| <b>Records of Emergency Release Reports</b> |                 |                         |       |           |           |         |     |               |
| HMIRS                                       |                 | TP                      | NR    | NR        | NR        | NR      | NR  | 0             |
| OH SPILLS                                   |                 | TP                      | NR    | NR        | NR        | NR      | NR  | 0             |
| WV SPILLS                                   |                 | TP                      | NR    | NR        | NR        | NR      | NR  | 0             |
| <b>Other Ascertainable Records</b>          |                 |                         |       |           |           |         |     |               |
| RCRA-NonGen                                 |                 | 0.250                   | 0     | 1         | NR        | NR      | NR  | 1             |
| 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             |
| 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             |
| OH TOWNGAS                                  |                 | 1.000                   | 0     | 0         | 0         | 1       | NR  | 1             |
| OH UIC                                      |                 | TP                      | NR    | NR        | NR        | NR      | NR  | 0             |
| WV UIC                                      |                 | TP                      | NR    | NR        | NR        | NR      | NR  | 0             |
| OH DRYCLEANERS                              |                 | 0.250                   | 0     | 0         | NR        | NR      | NR  | 0             |
| WV DRYCLEANERS                              |                 | 0.250                   | 0     | 0         | NR        | NR      | NR  | 0             |
| OH NPDES                                    |                 | TP                      | NR    | NR        | NR        | NR      | NR  | 0             |
| WV NPDES                                    |                 | TP                      | NR    | NR        | NR        | NR      | NR  | 0             |
| OH AIRS                                     |                 | TP                      | NR    | NR        | NR        | NR      | NR  | 0             |
| WV AIRS                                     |                 | TP                      | NR    | NR        | NR        | NR      | NR  | 0             |
| OH USD                                      |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| OH HIST USD                                 |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| INDIAN RESERV                               |                 | 1.000                   | 0     | 0         | 0         | 0       | NR  | 0             |
| SCRD DRYCLEANERS                            |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| OH FINANCIAL ASSURANCE                      |                 | TP                      | NR    | NR        | NR        | NR      | NR  | 0             |
| OH COAL ASH                                 |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| OH CRO                                      |                 | TP                      | NR    | NR        | NR        | NR      | NR  | 0             |
| WV COAL ASH                                 |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| PCB TRANSFORMER                             |                 | TP                      | NR    | NR        | NR        | NR      | NR  | 0             |
| COAL ASH EPA                                |                 | 0.500                   | 0     | 0         | 0         | NR      | NR  | 0             |
| WV FINANCIAL ASSURANCE                      |                 | TP                      | NR    | NR        | NR        | NR      | NR  | 0             |
| COAL ASH DOE                                |                 | TP                      | NR    | NR        | NR        | NR      | NR  | 0             |
| <b>EDR PROPRIETARY RECORDS</b>              |                 |                         |       |           |           |         |     |               |
| <b>EDR Proprietary Records</b>              |                 |                         |       |           |           |         |     |               |
| Manufactured Gas Plants                     |                 | 1.000                   | 0     | 0         | 0         | 1       | NR  | 1             |

## MAP FINDINGS SUMMARY

| <u>Database</u> | <u>Target<br/>Property</u> | <u>Search<br/>Distance<br/>(Miles)</u> | <u>&lt; 1/8</u> | <u>1/8 - 1/4</u> | <u>1/4 - 1/2</u> | <u>1/2 - 1</u> | <u>&gt; 1</u> | <u>Total<br/>Plotted</u> |
|-----------------|----------------------------|----------------------------------------|-----------------|------------------|------------------|----------------|---------------|--------------------------|
|-----------------|----------------------------|----------------------------------------|-----------------|------------------|------------------|----------------|---------------|--------------------------|

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

N/A = This State does not maintain a SHWS list. See the Federal CERCLIS list.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

A1  
NNW  
1/8-1/4  
0.194 mi.  
1025 ft.

HAMPTON INN  
508 PIKE ST  
MARIETTA, OH 45750

RCRA-CESQG 1007371512  
OHR000120501

Site 1 of 9 in cluster A

Relative:  
Lower

RCRA-CESQG:

Actual:  
599 ft.

Date form received by agency: 11/28/2001  
Facility name: HAMPTON INN  
Facility address: 508 PIKE ST  
MARIETTA, OH 45750  
EPA ID: OHR000120501  
Contact: Not reported  
Contact address: 508 PIKE ST  
MARIETTA, OH 45750  
Contact country: US  
Contact telephone: (740) 373-5353  
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

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

Violation Status: No violations found

Evaluation Action Summary:

Evaluation date: 11/28/2001  
Evaluation: FOCUSED COMPLIANCE INSPECTION

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HAMPTON INN (Continued)**

1007371512

Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

**A2**  
**NNW**  
**1/8-1/4**  
**0.198 mi.**  
**1046 ft.**

**K MART #7477**  
**502 PIKE ST**  
**MARIETTA, OH 45750**  
**Site 2 of 9 in cluster A**

**OH UST** **U004094175**  
**N/A**

**Relative:**  
**Lower**

Facility:

**Actual:**  
**599 ft.**

Facility ID: 84000034  
Facility Type: Gas Station  
24 Hr Emergency Contact: Not reported  
24 Hr Emergency Phone: Not reported  
Number Of Tanks On Site: Not reported  
Local Fire Department: Zero  
Delegated Authority: No  
Elig For Green Buckeye Award: Not reported  
Active Release Site: No  
Owner Id: W003267  
Owner Name: SEARS HOLDING GROUP  
Owner Address: 3333 BEVERLY RD  
Owner City/State/Zip: HOFFMAN ESTATES, IL 60179  
Owner Phone: (847)286-1109

UST:

Tank ID: T00001  
**Tank Status: REM**  
Tank Type: Steel  
Capacity: 1000  
Content: Used Oil  
CAS #: Not reported  
Regulated: Yes  
Overfill Device Installed: No  
Spill Device Installed: No  
AST/UST: UST  
Installation Date: 6/1/1981  
Date Removed: 3/13/1989  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: Not reported  
Release Detection on Tank: Not reported  
Corrosion Protection Piping: Not reported  
Piping Material: Galvanized Steel  
Piping Type: Gravity Feed  
Release Detection on Piping: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

A3  
NNW  
1/8-1/4  
0.198 mi.  
1046 ft.

**KMART # 7477**  
**502 PIKE STREET**  
**MARIETTA, OH 45750**  
**Site 3 of 9 in cluster A**

**RCRA-CESQG** **1012187492**  
**OHR000154229**

**Relative:**  
**Lower**

RCRA-CESQG:

**Actual:**  
**599 ft.**

Date form received by agency: 05/18/2009  
Facility name: KMART # 7477  
Facility address: 502 PIKE STREET  
MARIETTA, OH 45750  
EPA ID: OHR000154229  
Mailing address: 3333 BEVERLY RD  
HOFFMAN ESTATES, IL 60179  
Contact: DAWN A JESS  
Contact address: 3333 BEVERLY RD  
HOFFMAN ESTATES, IL 60179  
Contact country: US  
Contact telephone: (847) 286-8616  
Contact email: DJESS1@SEARSHC.COM  
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: KMART  
Owner/operator address: 502 PIKE STREET  
MARIETTA, OH 45750  
Owner/operator country: US  
Owner/operator telephone: (847) 286-8616  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: 01/01/1901  
Owner/Op end date: Not reported  
  
Owner/operator name: KMART CORPORATION  
Owner/operator address: 3333 BEVERLY RD  
HOFFMAN ESTATES, IL 60179  
Owner/operator country: US  
Owner/operator telephone: (847) 286-8616  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: 01/01/1901  
Owner/Op end date: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**KMART # 7477 (Continued)**

**1012187492**

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 PENSKEY-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.

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.

Violation Status: No violations found

**A4** **K MART #7477**  
**NNW** **502 PIKE ST**  
**1/8-1/4** **MARIETTA, OH 45750**  
**0.198 mi.**  
**1046 ft.** **Site 4 of 9 in cluster A**

**OH LUST** **S105555982**  
**N/A**

**Relative:** LUST:  
**Lower** Release Number: 84000034-N00001  
Release Date: 3/13/1989  
**Actual:** **Facility Status: Inactive**  
**599 ft.** LTF Status: 6 Closure of regulated UST  
**FR Status: NFA: No Further Action**  
Priority: 2  
Review Date: 1/11/2007  
Class: Viable Responsible Party has been identified

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**A5**            **MARATHON #1825**  
**NNW**        **498 PIKE ST**  
**1/8-1/4**      **MARIETTA, OH 45750**  
**0.201 mi.**  
**1061 ft.**      **Site 5 of 9 in cluster A**

**OH UST**    **U004095600**  
**N/A**

**Relative:**  
**Lower**

Facility:  
 Facility ID: 84000007  
 Facility Type: Gas Station  
 24 Hr Emergency Contact: KEITH PRIDEMORE  
 24 Hr Emergency Phone: (304)593-4960  
 Number Of Tanks On Site: 3  
 Local Fire Department: MARIETTA FIRE DEPARTMENT  
 Delegated Authority: No  
 Elig For Green Buckeye Award: Not reported  
 Active Release Site: No  
 Owner Id: W004890  
 Owner Name: CITY ICE & FUEL CO.  
 Owner Address: PO BOX 27  
 Owner City/State/Zip: POINT PLEASANT, WV 25550  
 Owner Phone: (304) 675-2460

**Actual:**  
**599 ft.**

Inspection:  
 Facility Id: 84000007  
 Inspection Id: 8/5/98  
 Code: 503  
 Permit Number: P00001  
 Inspection Type: Final

Facility Id: 84000007  
 Inspection Id: 4/13/92  
 Code: 501  
 Permit Number: P00001  
 Inspection Type: Final

Facility Id: 84000007  
 Inspection Id: 1/10/07  
 Code: 103  
 Permit Number: P00002  
 Inspection Type: Final

Facility Id: 84000007  
 Inspection Id: 7/25/07  
 Code: 203  
 Permit Number: P00003  
 Inspection Type: Preliminary

Facility Id: 84000007  
 Inspection Id: 8/23/07  
 Code: 203  
 Permit Number: P00003  
 Inspection Type: Preliminary

Facility Id: 84000007  
 Inspection Id: 10/22/07  
 Code: 203  
 Permit Number: P00003  
 Inspection Type: Final

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MARATHON #1825 (Continued)**

**U004095600**

Permit:

Facility Id: 84000007  
Permit Id: P00001  
Permit Status: Expired  
Issued Date: 10/20/1999  
Lfd Permit Id: Not reported

Facility Id: 84000007  
Permit Id: P00002  
Permit Status: Closed  
Issued Date: 1/8/2007  
Lfd Permit Id: Not reported

Facility Id: 84000007  
Permit Id: P00003  
Permit Status: Closed  
Issued Date: 7/9/2007  
Lfd Permit Id: Not reported

UST:

Tank ID: T00001  
**Tank Status:** **REM**  
Tank Type: Fiberglass Reinforced Plastic  
Capacity: 8000  
Content: Gasoline  
CAS #: 8006-61-9  
Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes  
AST/UST: UST  
Installation Date: 1/1/1968  
Date Removed: 12/1/2006  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: None Required  
Release Detection on Tank: Automatic Tank Gauging  
Corrosion Protection Piping: None Required  
Piping Material: Fiberglass Reinforced Plastic;Se  
Piping Type: Pressure  
Release Detection on Piping: Electronic Line Leak Detector

Tank ID: T00002  
**Tank Status:** **REM**  
Tank Type: Fiberglass Reinforced Plastic  
Capacity: 6000  
Content: Gasoline  
CAS #: 8006-61-9  
Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes  
AST/UST: UST  
Installation Date: 1/1/1968  
Date Removed: 12/1/2006  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: None Required

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MARATHON #1825 (Continued)**

**U004095600**

Release Detection on Tank: Automatic Tank Gauging  
Corrosion Protection Piping: None Required  
Piping Material: Fiberglass Reinforced Plastic;Se  
Piping Type: Pressure  
Release Detection on Piping: Electronic Line Leak Detector

Tank ID: T00003  
**Tank Status:** **REM**  
Tank Type: Fiberglass Reinforced Plastic  
Capacity: 6000  
Content: Gasoline  
CAS #: 8006-61-9  
Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes  
AST/UST: UST  
Installation Date: 1/1/1968  
Date Removed: 12/1/2006  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: None Required  
Release Detection on Tank: Automatic Tank Gauging  
Corrosion Protection Piping: None Required  
Piping Material: Fiberglass Reinforced Plastic;Se  
Piping Type: Pressure  
Release Detection on Piping: Electronic Line Leak Detector

Tank ID: T00004  
**Tank Status:** **REM**  
Tank Type: Fiberglass Reinforced Plastic  
Capacity: 8000  
Content: Kerosene  
CAS #: 8008-20-6  
Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes  
AST/UST: UST  
Installation Date: 1/1/1984  
Date Removed: 12/1/2006  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: None Required  
Release Detection on Tank: Automatic Tank Gauging  
Corrosion Protection Piping: None Required  
Piping Material: Fiberglass Reinforced Plastic  
Piping Type: Pressure  
Release Detection on Piping: Electronic Line Leak Detector

Tank ID: T00005  
**Tank Status:** **REM**  
Tank Type: Fiberglass Reinforced Plastic  
Capacity: 550  
Content: Used Oil  
CAS #: Not reported  
Regulated: Yes  
Overfill Device Installed: No  
Spill Device Installed: Yes

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MARATHON #1825 (Continued)**

**U004095600**

AST/UST: UST  
Installation Date: 5/1/1988  
Date Removed: 12/1/2006  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: None Required  
Release Detection on Tank: Alternative Method;Manual Tank Gauging  
Corrosion Protection Piping: None Required  
Piping Material: Fiberglass Reinforced Plastic;Se  
Piping Type: Gravity Feed  
Release Detection on Piping: No Monitoring Suction/Gravity System

Tank ID: T00006  
**Tank Status: Currently In Use**  
Tank Type: SW - Clad Steel  
Capacity: 20000  
Content: Gasoline  
CAS #: 8006-61-9  
Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes  
AST/UST: UST  
Installation Date: 7/25/2007  
Date Removed: Not reported  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: None Required  
Release Detection on Tank: Automatic Tank Gauging  
Corrosion Protection Piping: None Required  
Piping Material: DW FRP - Fiberglass  
Piping Type: Pressure  
Release Detection on Piping: Electronic Line Leak Detector

Tank ID: T00007  
**Tank Status: Currently In Use**  
Tank Type: SW - Clad Steel  
Capacity: 12000  
Content: Gasoline  
CAS #: 8006-61-9  
Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes  
AST/UST: UST  
Installation Date: 7/25/2007  
Date Removed: Not reported  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: None Required  
Release Detection on Tank: Automatic Tank Gauging  
Corrosion Protection Piping: None Required  
Piping Material: DW FRP - Fiberglass  
Piping Type: Pressure  
Release Detection on Piping: Electronic Line Leak Detector

Tank ID: T00008  
**Tank Status: Currently In Use**  
Tank Type: SW - Clad Steel

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MARATHON #1825 (Continued)**

**U004095600**

Capacity: 8000  
Content: Gasoline  
CAS #: 8006-61-9  
Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes  
AST/UST: UST  
Installation Date: 7/25/2007  
Date Removed: Not reported  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: None Required  
Release Detection on Tank: Automatic Tank Gauging  
Corrosion Protection Piping: None Required  
Piping Material: DW FRP - Fiberglass  
Piping Type: Pressure  
Release Detection on Piping: Electronic Line Leak Detector

**A6  
NNW  
1/8-1/4  
0.201 mi.  
1061 ft.**

**MARATHON #1825  
498 PIKE ST  
MARIETTA, OH 45750**

**OH LUST U000896693  
OH ARCHIVE UST N/A**

**Site 6 of 9 in cluster A**

**Relative:  
Lower**

**LUST:**

Release Number: 84000007-N00001  
Release Date: Not reported  
**Facility Status: Inactive**  
LTF Status: 6 Closure of regulated UST  
**FR Status: NFA: No Further Action**  
Priority: 3  
Review Date: 6/20/2000  
Class: Responsible Party for release has not yet been determined

Release Number: 84000007-N00002  
Release Date: 1/11/2007  
**Facility Status: Inactive**  
LTF Status: 6 Closure of regulated UST  
**FR Status: NFA: No Further Action**  
Priority: 2  
Review Date: 2/26/2008  
Class: Viable Responsible Party has been identified

**OH UST ARCHIVE:**

Facility ID: 84000007  
Owner Name: Not reported  
Owner Address: Not reported  
Owner City,St,Zip: Not reported  
Tank ID: T00001  
Install Date: 1/1/1968 0:00  
Content: Gasoline  
Capacity: 8000  
Tank Type: Fiberglass Reinforced Plastic  
Tank Status: CIU - Currently In Use  
Corrosion Protection Piping: Not reported  
Corrosion Protection Tank: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MARATHON #1825 (Continued)**

**U000896693**

|                              |                               |
|------------------------------|-------------------------------|
| Cas #:                       | Not reported                  |
| Regulated:                   | Not reported                  |
| Overfill Device Installed:   | Not reported                  |
| Spill Device Installed:      | Not reported                  |
| Ast/Ust:                     | Not reported                  |
| Piping Material:             | Not reported                  |
| Piping Type:                 | Not reported                  |
| Release Detection On Piping: | Not reported                  |
| Release Detection On Tank:   | Not reported                  |
| Date Removed:                | Not reported                  |
| Date Last Use:               | Not reported                  |
| Date Abandoned/Closed:       | Not reported                  |
| Facility ID:                 | 84000007                      |
| Owner Name:                  | Not reported                  |
| Owner Address:               | Not reported                  |
| Owner City,St,Zip:           | Not reported                  |
| Tank ID:                     | T00004                        |
| Install Date:                | 1/1/1984 0:00                 |
| Content:                     | Gasoline                      |
| Capacity:                    | 8000                          |
| Tank Type:                   | Fiberglass Reinforced Plastic |
| Tank Status:                 | CIU - Currently In Use        |
| Corrosion Protection Piping: | Not reported                  |
| Corrosion Protection Tank:   | Not reported                  |
| Cas #:                       | Not reported                  |
| Regulated:                   | Not reported                  |
| Overfill Device Installed:   | Not reported                  |
| Spill Device Installed:      | Not reported                  |
| Ast/Ust:                     | Not reported                  |
| Piping Material:             | Not reported                  |
| Piping Type:                 | Not reported                  |
| Release Detection On Piping: | Not reported                  |
| Release Detection On Tank:   | Not reported                  |
| Date Removed:                | Not reported                  |
| Date Last Use:               | Not reported                  |
| Date Abandoned/Closed:       | Not reported                  |
| Facility ID:                 | 84000007                      |
| Owner Name:                  | Not reported                  |
| Owner Address:               | Not reported                  |
| Owner City,St,Zip:           | Not reported                  |
| Tank ID:                     | T00003                        |
| Install Date:                | 1/1/1968 0:00                 |
| Content:                     | Diesel                        |
| Capacity:                    | 6000                          |
| Tank Type:                   | Fiberglass Reinforced Plastic |
| Tank Status:                 | CIU - Currently In Use        |
| Corrosion Protection Piping: | Not reported                  |
| Corrosion Protection Tank:   | Not reported                  |
| Cas #:                       | Not reported                  |
| Regulated:                   | Not reported                  |
| Overfill Device Installed:   | Not reported                  |
| Spill Device Installed:      | Not reported                  |
| Ast/Ust:                     | Not reported                  |
| Piping Material:             | Not reported                  |
| Piping Type:                 | Not reported                  |

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MARATHON #1825 (Continued)**

**U000896693**

Release Detection On Piping: Not reported  
Release Detection On Tank: Not reported  
Date Removed: Not reported  
Date Last Use: Not reported  
Date Abandoned/Closed: Not reported

Facility ID: 84000007  
Owner Name: Not reported  
Owner Address: Not reported  
Owner City,St,Zip: Not reported  
Tank ID: T00002  
Install Date: 1/1/1968 0:00  
Content: Gasoline  
Capacity: 6000  
Tank Type: Fiberglass Reinforced Plastic  
Tank Status: CIU - Currently In Use  
Corrosion Protection Piping: Not reported  
Corrosion Protection Tank: Not reported  
Cas #: Not reported  
Regulated: Not reported  
Overfill Device Installed: Not reported  
Spill Device Installed: Not reported  
Ast/Ust: Not reported  
Piping Material: Not reported  
Piping Type: Not reported  
Release Detection On Piping: Not reported  
Release Detection On Tank: Not reported  
Date Removed: Not reported  
Date Last Use: Not reported  
Date Abandoned/Closed: Not reported

Facility ID: 84000007  
Owner Name: Not reported  
Owner Address: Not reported  
Owner City,St,Zip: Not reported  
Tank ID: T00005  
Install Date: 5/1/1988 0:00  
Content: Used Oil-Petroleum  
Capacity: 550  
Tank Type: Fiberglass Reinforced Plastic  
Tank Status: CIU - Currently In Use  
Corrosion Protection Piping: Not reported  
Corrosion Protection Tank: Not reported  
Cas #: Not reported  
Regulated: Not reported  
Overfill Device Installed: Not reported  
Spill Device Installed: Not reported  
Ast/Ust: Not reported  
Piping Material: Not reported  
Piping Type: Not reported  
Release Detection On Piping: Not reported  
Release Detection On Tank: Not reported  
Date Removed: Not reported  
Date Last Use: Not reported  
Date Abandoned/Closed: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

A7  
NNW  
1/8-1/4  
0.201 mi.  
1061 ft.

**HENDERSHOT MARATHON**  
498 PIKE ST  
MARIETTA, OH 45750  
**Site 7 of 9 in cluster A**

**RCRA-NonGen** 1000890592  
**FINDS** OH0000283929

**Relative:**  
**Lower**

RCRA-NonGen:

Date form received by agency: 12/17/1997  
Facility name: HENDERSHOTS MARATHON  
Facility address: 498 PIKE ST  
MARIETTA, OH 457503328  
EPA ID: OH0000283929  
Contact: EARL HENDERSHOT  
Contact address: 498 PIKE ST  
MARIETTA, OH 457503328  
Contact country: US  
Contact telephone: (614) 374-8463  
Contact email: Not reported  
EPA Region: 05  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste

**Actual:**  
**599 ft.**

Owner/Operator Summary:

Owner/operator name: MARATHON OIL COMPANY  
Owner/operator address: 539 S MAIN ST  
FINDLAY, OH 45840  
Owner/operator country: Not reported  
Owner/operator telephone: (419) 422-2121  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
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  
Used 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 PENSKEY-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

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**HENDERSHOT MARATHON (Continued)**

**1000890592**

WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

**FINDS:**

Registry ID: 110008115547

**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.

The OH-CORE (Ohio - Core) database contains information commonly shared among the Ohio EPA environmental programs. The information is facility-based, general in nature, and used to support specific programmatic systems while simultaneously maintaining an inventory of common facility-related data. Specific programmatic details are maintained in programmatic databases.

**A8  
 NNW  
 1/8-1/4  
 0.201 mi.  
 1063 ft.**

**BP OIL CO  
 497 PIKE ST  
 MARIETTA, OH 45750  
 Site 8 of 9 in cluster A**

**RCRA-CESQG 1004765206  
 FINDS OHD987017282**

**Relative:  
 Lower  
 Actual:  
 599 ft.**

RCRA-CESQG:  
 Date form received by agency: 07/20/1998  
 Facility name: BP OIL CO  
 Facility address: 497 PIKE ST  
 MARIETTA, OH 45750  
 EPA ID: OHD987017282  
 Mailing address: 4440 WARRENSVILLE CENTER RD  
 WARRENSVILLE HTS, OH 441282837  
 Contact: GEORGE PEYTON  
 Contact address: 4440 WARRENSVILLE CENTER RD  
 WARRENSVILLE HTS, OH 441282837  
 Contact country: US  
 Contact telephone: (614) 840-1405  
 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

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BP OIL CO (Continued)**

**1004765206**

the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: BP OIL COMPANY  
Owner/operator address: ADDRESS NOT REPORTED  
CITY NOT REPORTED, OH 00000  
Owner/operator country: Not reported  
Owner/operator telephone: (000) 000-0000  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
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 PENSKEY-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: 110007713974

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.

The OH-CORE (Ohio - Core) database contains information commonly

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BP OIL CO (Continued)**

**1004765206**

shared among the Ohio EPA environmental programs. The information is facility-based, general in nature, and used to support specific programmatic systems while simultaneously maintaining an inventory of common facility-related data. Specific programmatic details are maintained in programmatic databases.

**A9**  
**NNW**  
**1/8-1/4**  
**0.201 mi.**  
**1063 ft.**

**BP OIL CO. #02046**  
**497 PIKE ST**  
**MARIETTA, OH 45750**

**OH LUST 1000560941**  
**OH UST N/A**

**Site 9 of 9 in cluster A**

**Relative:**  
**Lower**

**LUST:**

Release Number: 84000217-N00001  
Release Date: Not reported  
**Facility Status: Active**  
LTF Status: 1 SUS/CON from regulated UST  
**FR Status: DIS: a release is disproved**  
Priority: 2  
Review Date: 6/20/2000  
Class: Viable Responsible Party has been identified

**Actual:**  
**599 ft.**

Release Number: 84000217-N00002  
Release Date: 12/2/2000  
**Facility Status: Active**  
LTF Status: 1 SUS/CON from regulated UST  
**FR Status: TR2: Tier 2**  
Priority: 2  
Review Date: 11/16/2010  
Class: Viable Responsible Party has been identified

**Facility:**

Facility ID: 84000217  
Facility Type: Gas Station  
24 Hr Emergency Contact: HARTLEY CO  
24 Hr Emergency Phone: (740)432-2328  
Number Of Tanks On Site: 4  
Local Fire Department: MARIETTA FIRE DEPARTMENT  
Delegated Authority: No  
Elig For Green Buckeye Award: Not reported  
Active Release Site: Yes  
Owner Id: W000018  
Owner Name: HARTLEY CO.  
Owner Address: P.O. BOX 160  
Owner City/State/Zip: CAMBRIDGE, OH 43725  
Owner Phone: (740)432-2328

**Inspection:**

Facility Id: 84000217  
Inspection Id: 9/4/97  
Code: 501  
Permit Number: P00001  
Inspection Type: Final

Facility Id: 84000217  
Inspection Id: 6/29/99  
Code: 504

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BP OIL CO. #02046 (Continued)**

**1000560941**

Permit Number: P00002  
Inspection Type: Final

Facility Id: 84000217  
Inspection Id: 1/12/01  
Code: 402  
Permit Number: P00003  
Inspection Type: Final

Facility Id: 84000217  
Inspection Id: 1/11/06  
Code: 501  
Permit Number: P00004  
Inspection Type: Final

Permit:  
Facility Id: 84000217  
Permit Id: P00001  
Permit Status: Expired  
Issued Date: 9/4/1997  
Lfd Permit Id: Not reported

Facility Id: 84000217  
Permit Id: P00002  
Permit Status: Expired  
Issued Date: 11/2/1999  
Lfd Permit Id: Not reported

Facility Id: 84000217  
Permit Id: P00003  
Permit Status: Closed  
Issued Date: 1/3/2001  
Lfd Permit Id: Not reported

Facility Id: 84000217  
Permit Id: P00004  
Permit Status: Closed  
Issued Date: 12/12/2005  
Lfd Permit Id: Not reported

UST:  
Tank ID: T00001  
**Tank Status: Currently In Use**  
Tank Type: SW - FRP - Fiberglass  
Capacity: 10000  
Content: Diesel  
CAS #: 68334-30-5  
Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes  
AST/UST: UST  
Installation Date: 1/1/1981  
Date Removed: Not reported  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: None Required

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BP OIL CO. #02046 (Continued)**

1000560941

Release Detection on Tank: Automatic Tank Gauging  
Corrosion Protection Piping: None Required  
Piping Material: SW FRP - Fiberglass  
Piping Type: Pressure  
Release Detection on Piping: Electronic Line Leak Detector

Tank ID: T00002  
**Tank Status: Currently In Use**  
Tank Type: SW - FRP - Fiberglass  
Capacity: 10000  
Content: Gasoline  
CAS #: 8006-61-9  
Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes  
AST/UST: UST  
Installation Date: 1/1/1981  
Date Removed: Not reported  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: None Required  
Release Detection on Tank: Automatic Tank Gauging  
Corrosion Protection Piping: None Required  
Piping Material: SW FRP - Fiberglass  
Piping Type: Pressure  
Release Detection on Piping: Electronic Line Leak Detector

Tank ID: T00003  
**Tank Status: Currently In Use**  
Tank Type: SW - FRP - Fiberglass  
Capacity: 10000  
Content: Gasoline  
CAS #: 8006-61-9  
Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes  
AST/UST: UST  
Installation Date: 1/1/1981  
Date Removed: Not reported  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: None Required  
Release Detection on Tank: Automatic Tank Gauging  
Corrosion Protection Piping: None Required  
Piping Material: SW FRP - Fiberglass  
Piping Type: Pressure  
Release Detection on Piping: Electronic Line Leak Detector

Tank ID: T00004  
**Tank Status: Currently In Use**  
Tank Type: SW - FRP - Fiberglass  
Capacity: 10000  
Content: Gasoline  
CAS #: 8006-61-9  
Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BP OIL CO. #02046 (Continued)**

1000560941

AST/UST: UST  
Installation Date: 1/1/1981  
Date Removed: Not reported  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: None Required  
Release Detection on Tank: Automatic Tank Gauging  
Corrosion Protection Piping: None Required  
Piping Material: SW FRP - Fiberglass  
Piping Type: Pressure  
Release Detection on Piping: Electronic Line Leak Detector

10  
WNW  
1/4-1/2  
0.269 mi.  
1421 ft.

**WASTEWATER TREATMENT PLANT**  
440 E 8TH ST  
MARIETTA, OH 45750

OH LUST S104799475  
N/A

Relative:  
Lower

LUST:

Release Number: 84009150-N00001  
Release Date: Not reported  
**Facility Status: Inactive**  
LTF Status: 6 Closure of regulated UST  
**FR Status: NFA: No Further Action**  
Priority: 3  
Review Date: 6/20/2000  
Class: Viable Responsible Party has been identified

Actual:  
600 ft.

11  
ENE  
1/4-1/2  
0.312 mi.  
1646 ft.

**BILL DUNNING MOTORS, INC.**  
ST RT 7 N  
MARIETTA, OH 45750

OH LUST S104263299  
N/A

Relative:  
Higher

LUST:

Release Number: 84000102-N00001  
Release Date: Not reported  
**Facility Status: Inactive**  
LTF Status: 6 Closure of regulated UST  
**FR Status: NFA: No Further Action**  
Priority: 3  
Review Date: 6/20/2000  
Class: Viable Responsible Party has been identified

Actual:  
617 ft.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**B12**  
**NW**  
**1/4-1/2**  
**0.378 mi.**  
**1998 ft.**

**BP SOFT CLOTH CAR WASH**  
**348 PIKE ST**  
**MARIETTA, OH 45750**  
**Site 1 of 2 in cluster B**

**OH LUST** **S104799474**  
**N/A**

**Relative:**  
**Lower**

**LUST:**  
Release Number: 84008776-N00002  
Release Date: 10/10/2000  
**Facility Status: Inactive**  
LTF Status: 6 Closure of regulated UST  
**FR Status: NFA: No Further Action**  
Priority: 3  
Review Date: 1/4/2001 7:35:58 AM  
Class: Viable Responsible Party has been identified

**Actual:**  
**598 ft.**

**B13**  
**NW**  
**1/4-1/2**  
**0.402 mi.**  
**2125 ft.**

**GETGO FROM GIANT EAGLE # 3510**  
**331 PIKE ST**  
**MARIETTA, OH 45750**  
**Site 2 of 2 in cluster B**

**OH LUST** **U003096027**  
**OH UST** **N/A**

**Relative:**  
**Lower**

**LUST:**  
Release Number: 84002621-N00001  
Release Date: Not reported  
**Facility Status: Active**  
LTF Status: 1 SUS/CON from regulated UST  
**FR Status: NFA: No Further Action**  
Priority: 1  
Review Date: 6/20/2000  
Class: Viable Responsible Party has been identified

**Actual:**  
**598 ft.**

Release Number: 84002621-N00002  
Release Date: 2/28/2003  
**Facility Status: Active**  
LTF Status: 6 Closure of regulated UST  
**FR Status: NFA: No Further Action**  
Priority: 2  
Review Date: 6/20/2000  
Class: Viable Responsible Party has been identified

Release Number: 84002621-N00003  
Release Date: 1/20/2009  
**Facility Status: Active**  
LTF Status: 1 SUS/CON from regulated UST  
**FR Status: TR1: Tier 1**  
Priority: 2  
Review Date: 10/21/2009  
Class: Viable Responsible Party has been identified

Release Number: 84002621-N00004  
Release Date: 9/22/1998  
**Facility Status: Active**  
LTF Status: 6 Closure of regulated UST  
**FR Status: NFA: No Further Action**  
Priority: 2  
Review Date: 6/20/2000  
Class: Viable Responsible Party has been identified

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GETGO FROM GIANT EAGLE # 3510 (Continued)**

**U003096027**

Facility:

Facility ID: 84002621  
Facility Type: Gas Station  
24 Hr Emergency Contact: Helpdesk  
24 Hr Emergency Phone: 1-800-547-9552  
Number Of Tanks On Site: 3  
Local Fire Department: MARIETTA FIRE DEPARTMENT  
Delegated Authority: No  
Elig For Green Buckeye Award: Not reported  
Active Release Site: Yes  
Owner Id: W012571  
Owner Name: Giant Eagle Inc  
Owner Address: 101 Kappa Dr  
Owner City/State/Zip: Pittsburgh, PA 15238  
Owner Phone: (412)963-6200

Inspection:

Facility Id: 84002621  
Inspection Id: 6/8/98  
Code: 103  
Permit Number: P00003  
Inspection Type: Final

Facility Id: 84002621  
Inspection Id: 9/14/92  
Code: 501  
Permit Number: P00001  
Inspection Type: Final

Facility Id: 84002621  
Inspection Id: 1/21/03  
Code: 503  
Permit Number: P00004  
Inspection Type: Final

Facility Id: 84002621  
Inspection Id: 1/21/03  
Code: 503  
Permit Number: P00004  
Inspection Type: Final

Facility Id: 84002621  
Inspection Id: 1/9/03  
Code: 302  
Permit Number: P00004  
Inspection Type: Preliminary

Facility Id: 84002621  
Inspection Id: 1/9/03  
Code: 503  
Permit Number: P00004  
Inspection Type: Preliminary

Facility Id: 84002621  
Inspection Id: 1/10/03  
Code: 503  
Permit Number: P00004

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GETGO FROM GIANT EAGLE # 3510 (Continued)**

**U003096027**

Inspection Type: Preliminary

Facility Id: 84002621  
Inspection Id: 1/11/03  
Code: 503  
Permit Number: P00004  
Inspection Type: Preliminary

Facility Id: 84002621  
Inspection Id: 4/28/09  
Code: 103  
Permit Number: P00006  
Inspection Type: Preliminary

Facility Id: 84002621  
Inspection Id: 4/28/09  
Code: 103  
Permit Number: P00006  
Inspection Type: Preliminary

Facility Id: 84002621  
Inspection Id: 5/5/09  
Code: 203  
Permit Number: P00007  
Inspection Type: Preliminary

Facility Id: 84002621  
Inspection Id: 5/5/09  
Code: 203  
Permit Number: P00007  
Inspection Type: Preliminary

Facility Id: 84002621  
Inspection Id: 5/15/09  
Code: 203  
Permit Number: P00007  
Inspection Type: Preliminary

Facility Id: 84002621  
Inspection Id: 5/21/09  
Code: 203  
Permit Number: P00007  
Inspection Type: Final

**Permit:**

Facility Id: 84002621  
Permit Id: P00001  
Permit Status: Expired  
Issued Date: 1/28/1994  
Lfd Permit Id: Not reported

Facility Id: 84002621  
Permit Id: P00002  
Permit Status: Expired  
Issued Date: 3/23/1995  
Lfd Permit Id: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GETGO FROM GIANT EAGLE # 3510 (Continued)**

**U003096027**

Facility Id: 84002621  
Permit Id: P00003  
Permit Status: Expired  
Issued Date: 11/4/1999  
Lfd Permit Id: Not reported

Facility Id: 84002621  
Permit Id: P00004  
Permit Status: Closed  
Issued Date: 12/11/2002  
Lfd Permit Id: Not reported

Facility Id: 84002621  
Permit Id: P00005  
Permit Status: Closed  
Issued Date: 2/19/2009  
Lfd Permit Id: Not reported

Facility Id: 84002621  
Permit Id: P00006  
Permit Status: Closed  
Issued Date: 4/9/2009  
Lfd Permit Id: Not reported

Facility Id: 84002621  
Permit Id: P00007  
Permit Status: Closed  
Issued Date: 4/24/2009  
Lfd Permit Id: Not reported

**UST:**

Tank ID: T00001  
**Tank Status:** REM  
Tank Type: BM - Bare Metal  
Capacity: 550  
Content: Used Oil  
CAS #: Not reported  
Regulated: Not reported  
Overfill Device Installed: Not reported  
Spill Device Installed: Not reported  
AST/UST: UST  
Installation Date: Not reported  
Date Removed: 6/8/1998  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: Not reported  
Release Detection on Tank: Not reported  
Corrosion Protection Piping: Not reported  
Piping Material: Not reported  
Piping Type: Not reported  
Release Detection on Piping: Not reported

Tank ID: T00002  
**Tank Status:** REM  
Tank Type: Composite (Steel with Fiberglass)  
Capacity: 6000  
Content: Gasoline

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**GETGO FROM GIANT EAGLE # 3510 (Continued)**

**U003096027**

CAS #: 8006-61-9  
Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes  
AST/UST: UST  
Installation Date: 11/1/1967  
Date Removed: 1/20/2009  
Date Last Used: 1/20/2009  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: None Required  
Release Detection on Tank: Automatic Tank Gauging  
Corrosion Protection Piping: None Required  
Piping Material: Fiberglass Reinforced Plastic  
Piping Type: Pressure  
Release Detection on Piping: Mechanical Line Leak Detector

Tank ID: T00003  
**Tank Status:** **REM**  
Tank Type: Composite (Steel with Fiberglass)  
Capacity: 6000  
Content: Gasoline  
CAS #: 8006-61-9  
Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes  
AST/UST: UST  
Installation Date: 11/1/1967  
Date Removed: 4/30/2009  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: None Required  
Release Detection on Tank: Automatic Tank Gauging  
Corrosion Protection Piping: None Required  
Piping Material: Fiberglass Reinforced Plastic  
Piping Type: Pressure  
Release Detection on Piping: Mechanical Line Leak Detector

Tank ID: T00004  
**Tank Status:** **REM**  
Tank Type: Composite (Steel with Fiberglass)  
Capacity: 6000  
Content: Gasoline  
CAS #: 8006-61-9  
Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes  
AST/UST: UST  
Installation Date: 11/1/1967  
Date Removed: 4/30/2009  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: None Required  
Release Detection on Tank: Automatic Tank Gauging  
Corrosion Protection Piping: None Required  
Piping Material: Fiberglass Reinforced Plastic  
Piping Type: Pressure  
Release Detection on Piping: Mechanical Line Leak Detector

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

GETGO FROM GIANT EAGLE # 3510 (Continued)

U003096027

Tank ID: T00005  
**Tank Status:** REM  
Tank Type: Composite (Steel with Fiberglass)  
Capacity: 6000  
Content: Gasoline  
CAS #: 8006-61-9  
Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes  
AST/UST: UST  
Installation Date: 11/1/1967  
Date Removed: 4/30/2009  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: Lining  
Release Detection on Tank: Automatic Tank Gauging  
Corrosion Protection Piping: None Required  
Piping Material: Fiberglass Reinforced Plastic  
Piping Type: Pressure  
Release Detection on Piping: Mechanical Line Leak Detector

Tank ID: T00006  
**Tank Status:** Currently In Use  
Tank Type: DW - FRP - Fiberglass  
Capacity: 12000  
Content: Gasoline  
CAS #: 8006-61-9  
Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes  
AST/UST: UST  
Installation Date: 5/11/2009  
Date Removed: Not reported  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: NR - None Required by Rule  
Release Detection on Tank: Interstitial Monitoring Double Walled  
Corrosion Protection Piping: NR - None Required  
Piping Material: DW FPTP - Flex Pipe  
Piping Type: Pressure  
Release Detection on Piping: Interstitial Monitoring Double Walled

Tank ID: T00007  
**Tank Status:** Currently In Use  
Tank Type: DW - FRP - Fiberglass  
Capacity: 4000  
Content: Gasoline  
CAS #: 8006-61-9  
Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes  
AST/UST: UST  
Installation Date: 5/11/2009  
Date Removed: Not reported  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: NR - None Required by Rule

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

GETGO FROM GIANT EAGLE # 3510 (Continued)

U003096027

Release Detection on Tank: Interstitial Monitoring Double Walled  
Corrosion Protection Piping: NR - None Required  
Piping Material: DW FPTP - Flex Pipe  
Piping Type: Pressure  
Release Detection on Piping: Interstitial Monitoring Double Walled

Tank ID: T00008  
**Tank Status: Currently In Use**  
Tank Type: DW - FRP - Fiberglass  
Capacity: 4000  
Content: Diesel  
CAS #: 68334-30-5  
Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes  
AST/UST: UST  
Installation Date: 5/5/2009  
Date Removed: Not reported  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: NR - None Required by Rule  
Release Detection on Tank: Interstitial Monitoring Double Walled  
Corrosion Protection Piping: NR - None Required  
Piping Material: DW FPTP - Flex Pipe  
Piping Type: Pressure  
Release Detection on Piping: Interstitial Monitoring Double Walled

14  
NW  
1/4-1/2  
0.405 mi.  
2141 ft.

PAR MAR FOOD STORE #9  
328 PIKE ST  
MARIETTA, OH 45750

OH LUST S104779749  
N/A

Relative:  
Lower

LUST:

Actual:  
598 ft.

Release Number: 84000133-N00001  
Release Date: Not reported  
**Facility Status: Inactive**  
LTF Status: 6 Closure of regulated UST  
**FR Status: NFA: No Further Action**  
Priority: 3  
Review Date: 11/17/2000  
Class: Viable Responsible Party has been identified

Release Number: 84000133-N00002  
Release Date: 3/26/1998  
**Facility Status: Inactive**  
LTF Status: 1 SUS/CON from regulated UST  
**FR Status: NFA: No Further Action**  
Priority: 2  
Review Date: 12/1/2005  
Class: Viable Responsible Party has been identified

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

15  
NW  
1/4-1/2  
0.436 mi.  
2300 ft.

**MOTOR CARE**  
**307 PIKE ST**  
**MARIETTA, OH 45750**

**OH LUST**    **S104779750**  
**N/A**

**Relative:**  
**Lower**

LUST:  
Release Number: 84000135-N00001  
Release Date: Not reported  
**Facility Status: Inactive**  
LTF Status: 6 Closure of regulated UST  
**FR Status: NFA: No Further Action**  
Priority: 3  
Review Date: 6/20/2000  
Class: Viable Responsible Party has been identified

**Actual:**  
**599 ft.**

16  
East  
1/4-1/2  
0.495 mi.  
2612 ft.

**BFS**  
**SR 7 & TWP.RD 125**  
**MARIETTA, OH 45750**

**OH LUST**    **U000757426**  
**OH UST**    **N/A**

**Relative:**  
**Higher**

LUST:  
Release Number: 84000044-N00001  
Release Date: 3/18/1991  
**Facility Status: Inactive**  
LTF Status: 1 SUS/CON from regulated UST  
**FR Status: NFA: No Further Action**  
Priority: 2  
Review Date: 12/2/2002  
Class: Viable Responsible Party has been identified

**Actual:**  
**610 ft.**

Facility:

Facility ID: 84000044  
Facility Type: Gas Station  
24 Hr Emergency Contact: HOWARD GOODSTEIN  
24 Hr Emergency Phone: (304)291-6980  
Number Of Tanks On Site: 4  
Local Fire Department: WARREN TWP VOL FIRE DEPARTMENT  
Delegated Authority: No  
Elig For Green Buckeye Award: Not reported  
Active Release Site: No  
Owner Id: W009696  
Owner Name: BFS PETROLEUM PRODUCTS INC  
Owner Address: 1768 MILEGROUND RD  
Owner City/State/Zip: MORGANTOWN, WV 26505  
Owner Phone: (304) 291-6980

Inspection:

Facility Id: 84000044  
Inspection Id: 3/17/08  
Code: 502  
Permit Number: P00001  
Inspection Type: Preliminary

Facility Id: 84000044  
Inspection Id: 3/31/08  
Code: 502  
Permit Number: P00001  
Inspection Type: Final

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BFS (Continued)**

**U000757426**

Permit:

Facility Id: 84000044  
Permit Id: P00001  
Permit Status: Closed  
Issued Date: 3/14/2008  
Lfd Permit Id: Not reported

UST:

Tank ID: T00001  
**Tank Status: Currently In Use**  
Tank Type: SW - FRP - Fiberglass  
Capacity: 3000  
Content: Gasoline  
CAS #: 8006-61-9  
Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes  
AST/UST: UST  
Installation Date: 3/1/1991  
Date Removed: Not reported  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: None Required  
Release Detection on Tank: Statistical Inventory Reconciliation  
Corrosion Protection Piping: None Required  
Piping Material: SW FRP - Fiberglass  
Piping Type: Suction: no valve at tank  
Release Detection on Piping: No Monitoring Suction/Gravity System;Safe Suction

Tank ID: T00002  
**Tank Status: Currently In Use**  
Tank Type: SW - FRP - Fiberglass  
Capacity: 3000  
Content: Gasoline  
CAS #: 8006-61-9  
Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes  
AST/UST: UST  
Installation Date: 3/1/1991  
Date Removed: Not reported  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: None Required  
Release Detection on Tank: Statistical Inventory Reconciliation  
Corrosion Protection Piping: None Required  
Piping Material: SW FRP - Fiberglass  
Piping Type: Suction: no valve at tank  
Release Detection on Piping: No Monitoring Suction/Gravity System;Safe Suction

Tank ID: T00003  
**Tank Status: Currently In Use**  
Tank Type: SW - FRP - Fiberglass  
Capacity: 3000  
Content: Gasoline  
CAS #: 8006-61-9

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BFS (Continued)**

**U000757426**

Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes  
AST/UST: UST  
Installation Date: 3/1/1991  
Date Removed: Not reported  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: None Required  
Release Detection on Tank: Statistical Inventory Reconciliation  
Corrosion Protection Piping: None Required  
Piping Material: SW FRP - Fiberglass  
Piping Type: Suction: no valve at tank  
Release Detection on Piping: No Monitoring Suction/Gravity System;Safe Suction

Tank ID: T00004  
**Tank Status: Currently In Use**  
Tank Type: SW - FRP - Fiberglass  
Capacity: 3000  
Content: Gasoline  
CAS #: 8006-61-9  
Regulated: Yes  
Overfill Device Installed: Yes  
Spill Device Installed: Yes  
AST/UST: UST  
Installation Date: 3/1/1991  
Date Removed: Not reported  
Date Last Used: Not reported  
Date Abandoned/Closed: Not reported  
Corrosion Protection Tank: None Required  
Release Detection on Tank: Statistical Inventory Reconciliation  
Corrosion Protection Piping: None Required  
Piping Material: SW FRP - Fiberglass  
Piping Type: Suction: no valve at tank  
Release Detection on Piping: No Monitoring Suction/Gravity System;Safe Suction

17  
NNW  
1/2-1  
0.635 mi.  
3352 ft.

**KARDEX SYSTEMS INC**  
**900 GREENE ST**  
**MARIETTA, OH 45750**

**CORRACTS** 1000834183  
**RCRA-NonGen** OHD987050283  
**FINDS**

**Relative:**  
**Higher**

**CORRACTS:**

**Actual:**  
**639 ft.**

EPA ID: OHD987050283  
EPA Region: 5  
Area Name: ENTIRE FACILITY  
Actual Date: 1/24/2007  
Action: CA003  
NAICS Code(s): Not reported  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: OHD987050283  
EPA Region: 5  
Area Name: ENTIRE FACILITY

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**KARDEX SYSTEMS INC (Continued)**

**1000834183**

Actual Date: 3/8/2007  
Action: CA004OH  
NAICS Code(s): Not reported  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: OHD987050283  
EPA Region: 5  
Area Name: ENTIRE FACILITY  
Actual Date: 4/3/2007  
Action: CA005  
NAICS Code(s): Not reported  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: OHD987050283  
EPA Region: 5  
Area Name: ENTIRE FACILITY  
Actual Date: 7/1/2006  
Action: CA002IL  
NAICS Code(s): Not reported  
Original schedule date: Not reported  
Schedule end date: Not reported

**RCRA-NonGen:**

Date form received by agency: 12/12/1997  
Facility name: KARDEX SYSTEMS INC  
Facility address: 900 GREENE ST  
MARIETTA, OH 45750  
EPA ID: OHD987050283  
Mailing address: PO BOX 171  
MARIETTA, OH 45750  
Contact: GARY VIRANT  
Contact address: PO BOX 171  
MARIETTA, OH 45750  
Contact country: US  
Contact telephone: (614) 374-9300  
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: AARQUE MANAGEMENT CORP  
Owner/operator address: PO BOX 0310  
JAMESTOWN, NY 14702  
Owner/operator country: Not reported  
Owner/operator telephone: (716) 664-6014  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

**Handler Activities Summary:**

U.S. importer of hazardous waste: No

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**KARDEX SYSTEMS INC (Continued)**

**1000834183**

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 PENSKEY-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: 07/01/2006  
Event: CA002IL  
  
Event date: 01/24/2007  
Event: CA003  
  
Event date: 03/08/2007  
Event: CA004OH  
  
Event date: 04/03/2007  
Event: CA005

**Facility Has Received Notices of Violations:**

Regulation violated: SR - 3745-59-07  
Area of violation: LDR - General  
Date violation determined: 08/24/1993  
Date achieved compliance: 10/29/1993  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 09/15/1993  
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: SR - 3745-66-73  
Area of violation: Generators - Pre-transport  
Date violation determined: 08/24/1993

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**KARDEX SYSTEMS INC (Continued)**

**1000834183**

Date achieved compliance: 10/29/1993  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 09/15/1993  
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: SR - 3745-52-34(C)  
Area of violation: Generators - Pre-transport  
Date violation determined: 08/24/1993  
Date achieved compliance: 10/29/1993  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 09/15/1993  
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: SR - 3745-52-20  
Area of violation: Generators - General  
Date violation determined: 08/24/1993  
Date achieved compliance: 10/29/1993  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 10/01/1993  
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: SR - 3745-52-12(A)  
Area of violation: Generators - General  
Date violation determined: 08/24/1993  
Date achieved compliance: 10/29/1993  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 10/01/1993  
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: SR - 3745-65-33  
Area of violation: Generators - Pre-transport  
Date violation determined: 08/24/1993  
Date achieved compliance: 10/29/1993

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**KARDEX SYSTEMS INC (Continued)**

**1000834183**

Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 09/15/1993  
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: SR - 3745-52-34  
Area of violation: Generators - Pre-transport  
Date violation determined: 08/24/1993  
Date achieved compliance: 10/29/1993  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 09/15/1993  
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: SR - 3745-66-74  
Area of violation: Generators - Pre-transport  
Date violation determined: 08/24/1993  
Date achieved compliance: 10/29/1993  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 09/15/1993  
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: SR - 3745-52-11  
Area of violation: Generators - General  
Date violation determined: 08/24/1993  
Date achieved compliance: 10/29/1993  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 09/15/1993  
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

Evaluation Action Summary:  
Evaluation date: 08/24/1993  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Generators - Pre-transport  
Date achieved compliance: 10/29/1993

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**KARDEX SYSTEMS INC (Continued)**

**1000834183**

Evaluation lead agency: State  
  
Evaluation date: 08/24/1993  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Generators - General  
Date achieved compliance: 10/29/1993  
Evaluation lead agency: State

Evaluation date: 08/24/1993  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: LDR - General  
Date achieved compliance: 10/29/1993  
Evaluation lead agency: State

**FINDS:**

Registry ID: 110004701760

**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.

**C18  
NW  
1/2-1  
0.826 mi.  
4364 ft.**  
  
**Relative:  
Lower**  
  
**Actual:  
603 ft.**

**MARIETTA GAS LIGHT COMPANY  
GREENE AND NORTH 7TH STREETS  
MARIETTA, OH 45750**

**Manufactured Gas Plants**

**1008407607  
N/A**

**Site 1 of 2 in cluster C**

Manufactured Gas Plants:  
No additional information available

**C19  
NW  
1/2-1  
0.827 mi.  
4367 ft.**  
  
**Relative:  
Lower**  
  
**Actual:  
602 ft.**

**MARIETTA GAS LIGHT COMPANY  
GREENE & NORTH 7TH STREETS  
MARIETTA, OH 45750**

**OH TOWNGAS**

**S105743215  
N/A**

**Site 2 of 2 in cluster C**

TWNGAS:  
District: 4  
Lat/Long: 39 24 11 / 81 26 31  
Process: COAL GAS

MAP FINDINGS

|                                              |      |             |                                |
|----------------------------------------------|------|-------------|--------------------------------|
| Map ID<br>Direction<br>Distance<br>Elevation | Site | Database(s) | EDR ID Number<br>EPA ID Number |
|----------------------------------------------|------|-------------|--------------------------------|

---

20  
WNW  
1/2-1  
0.947 mi.  
4998 ft.

**OHIO RIV BRIDGE APPROACH  
CORNER OF FIFTH & GREEN STS  
MARIETTA, OH 45750**

**OH DERR S100037754  
N/A**

**Relative:  
Lower**

DERR:  
 DERR ID: 484001297  
 District: SEDO  
 Alias: Not reported  
 Lat/Long: 39.413888890000003 -81.44722222  
 EPA ID: Not reported  
**Program: Not reported**  
 Contact Phone: (740) 385-8501

**Actual:  
600 ft.**

## ORPHAN SUMMARY

| City         | EDR ID     | Site Name                          | Site Address                   | Zip   | Database(s)    |
|--------------|------------|------------------------------------|--------------------------------|-------|----------------|
| MARIETTA     | 1005798662 | ASHLAND PETROLEUM MARIETTA         | RURAL RTE 4 BOX 175            | 45750 | FINDS          |
| MARIETTA     | 1005869911 | MARIETTA MICRO PROCESSING *        | STATE RTE 7 AND CO RD 10       | 45750 | FINDS          |
| MARIETTA     | 1005871083 | MARATHON ASHLAND PETROLEUM LLC - M | RURAL RTE 4                    | 45750 | FINDS          |
| MARIETTA     | 1005871084 | ASHLAND PETROLEUM CO MARIETTA TERM | WARREN TWP RD 720              | 45750 | FINDS          |
| MARIETTA     | 1005871113 | LAWRENCE ELEM                      | RTE 5                          | 45750 | DERR           |
| MARIETTA     | 1005871123 | MARIETTA CITY                      | CO FAIRGROUNDS                 | 45750 | FINDS          |
| MARIETTA     | 1005871147 | MARIETTA ARMORY                    | FRONT ST                       | 45750 | FINDS          |
| MARIETTA     | 1005871149 | MARIETTA JUNIOR HIGH SCHOOL        | SEVENTH AND GLENDALE ST        | 45750 | FINDS          |
| MARIETTA     | 1005872329 | MARIETTA OH BULK PLT NO 368        | ST RTE AND TWP RD 125 MOORES   | 45750 | FINDS          |
| MARIETTA     | 1005872338 | ASPHALT MATERIALS MARIETTA PLT 2   | WARREN TWP RD 720              | 45750 | FINDS          |
| MARIETTA     | 1005872602 | ERGON TRUCKING INC MARIETTA        | STATE RTE 7                    | 45750 | FINDS          |
| MARIETTA     | 1005925870 | AMOCO - MARIETTA PLANT             | ROUTE 7 SOUTH                  | 45750 | TSCA           |
| MARIETTA     | 1005927115 | CHEVRON CHEMICAL MARIETTA PLANT    | P.O. BOX 1000                  | 45750 | TSCA           |
| MARIETTA     | 1005930393 | MARIETTA PLT                       | RTE 7 S                        | 45750 | TSCA           |
| WAVERLY      | 1006812387 | ADEX CORPORATION                   | RT 2                           | 26187 | FINDS,RCRA-NLR |
| MARIETTA     | 1007088546 | CHEVRON PHILLIPS CHEMICAL MARIETTA | STATE ROUTE 7 SOUTH            | 45750 | TSCA           |
| MARIETTA     | 1007089289 | MARIETTA NORTH FACILITY            | RR #4 STATE ROUTE 7            | 45750 | TSCA           |
| MARIETTA     | 1007089290 | MARIETTA SOUTH FCILITY             | RR#4 BOX 188                   | 45750 | TSCA           |
| MARIETTA     | 1007113476 | BLAUSER WELL SERVICE               | ST RTE 7 S                     | 45750 | RCRA-CESQG     |
| WILLIAMSTOWN | 1007117333 | LEASCO EQUIPMENT SERVICES INC      | RT 31 & RT 14                  | 26187 | RCRA-NLR       |
| MARIETTA     | 1007119431 | RAAMP GROUP                        | STATE ROUTE 550                | 45750 | RCRA-CESQG     |
| MARIETTA     | 1007151819 | ALLTEL - MARIETTA                  | CISTER DRIVE/JAYCEE PARK       | 45750 | FINDS          |
| MARIETTA     | 1007220786 | MARATHON PETROLEUM LLC MARIETTA TE | WARREN TWP RD 720              | 45750 | FINDS          |
| MARIETTA     | 1007657837 | MARIETTA BIBLE CENTER CHURCH       | RTE 3 BOX 32                   | 45750 | FINDS          |
| MARIETTA     | 1007660355 | MARIETTA SHRINE CLUB               | PO BOX 729                     | 45750 | FINDS          |
| MARIETTA     | 1010329508 | HEALTH PRO AMBULANCE               | STATE ROUTE 676                | 45750 | RCRA-CESQG     |
| MARIETTA     | 1010454402 | ITAPCO/CARETAKER STATUS - MARIETTA | STATE RT. 7 SOUTH AND MILE RUN | 45750 | FINDS          |
| MARIETTA     | 1011571243 | ERAMET MARIETTA INC.               | STATE RT 7, S RIVERVIEW RD     | 45750 | ICIS           |
| WILLIAMSTOWN | 1012189671 | R & R PIPELINE INC                 | STATE ROUTE 2 & STATE ROUTE 31 | 26187 | RCRA-NLR       |
| MARIETTA     | 1012224409 | MARIETTA TERMINAL                  | OLD ROUTE 7 & MOORES JUNCTION  | 45750 | FINDS          |
| MARIETTA     | 1012243223 | MARIETTA WWTP & SEWER SYSTEM       | EIGHTH AND JEFFERSON STREETS   | 45750 | FINDS          |
| MARIETTA     | 1014197804 | ASPHALT MATERIALS - MARIETTA (SOUT | 13925 STATE ROAD 7             | 45750 | TSCA           |
| MARIETTA     | 1014198819 | ERAMET MARIETTA INCORPORATED       | STATE ROUTE 7 SOUTH, RIVERVIEW | 45750 | TSCA           |
| MARIETTA     | 87250      | OUTFALL 001,AMOCO PLANT RTE 7 SOUT | OUTFALL 001,AMOCO PLANT RTE 7  |       | ERNS           |
| MARIETTA     | 876286     | BETWEEN MARIETTA AND BELPREE OHIO  | BETWEEN MARIETTA AND BELPREE O |       | ERNS           |
| MARIETTA     | 877804     | OHIO RT 7, 3MI S. OF MARIETTA      | OHIO RT 7, 3MI S. OF MARIETTA  |       | ERNS           |
| MARIETTA     | 8863859    | ST ROUTE 7, 4 MI SOUTH OF MARIETTA | ST ROUTE 7, 4 MI SOUTH OF MARI |       | ERNS           |
| GALLIPOLIS   | S104517709 | FEDERAL MOGUL GALLIPOLIS           | RTE 7                          | 45750 | DERR,VCP       |
| MARIETTA     | S109580741 | UNION CARBIDE CORP, MARIETTA       | STATE RTE 7 PO BOX 446         | 45750 | DERR           |
| MARIETTA     | S109580743 | EVEREADY BATTERY LAGOON, MARIETTA  | STATE RTE 7                    | 45750 | DERR           |

# 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  | 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      |

#### **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  | 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      |

#### **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  | Source: EPA                               |
| Date Data Arrived at EDR: 02/02/1994    | Telephone: 202-564-4267                   |
| Date Made Active in Reports: 03/30/1994 | Last EDR Contact: 02/14/2011              |
| Number of Days to Update: 56            | Next Scheduled EDR Contact: 05/30/2011    |
|                                         | Data Release Frequency: No Update Planned |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## ***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 EPA'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.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 02/14/2011  
Next Scheduled EDR Contact: 05/30/2011  
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

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## ***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  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 01/14/2011    | Telephone: 703-603-0695                 |
| Date Made Active in Reports: 01/28/2011 | Last EDR Contact: 03/14/2011            |
| Number of Days to Update: 14            | 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  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 01/14/2011    | Telephone: 703-603-0695                 |
| Date Made Active in Reports: 01/28/2011 | Last EDR Contact: 03/14/2011            |
| Number of Days to Update: 14            | 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  | Source: National Response Center, United States Coast Guard |
| Date Data Arrived at EDR: 01/07/2011    | Telephone: 202-267-2180                                     |
| Date Made Active in Reports: 03/21/2011 | Last EDR Contact: 04/05/2011                                |
| Number of Days to Update: 73            | Next Scheduled EDR Contact: 07/18/2011                      |
|                                         | Data Release Frequency: Annually                            |

## ***State- and tribal - equivalent CERCLIS***

### OH SHWS: This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

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: N/A  | Source: Ohio EPA                       |
| Date Data Arrived at EDR: N/A    | Telephone: 614-644-2924                |
| Date Made Active in Reports: N/A | Last EDR Contact: 02/14/2011           |
| Number of Days to Update: N/A    | Next Scheduled EDR Contact: 05/30/2011 |
|                                  | Data Release Frequency: N/A            |

### WV SHWS: This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

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: N/A  | Source: Department of Environmental Protection |
| Date Data Arrived at EDR: N/A    | Telephone: 304-926-0455                        |
| Date Made Active in Reports: N/A | Last EDR Contact: 02/28/2011                   |
| Number of Days to Update: N/A    | Next Scheduled EDR Contact: 06/13/2011         |
|                                  | Data Release Frequency: N/A                    |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## OH DERR: Division of Emergency & Remedial Response's Database

The DERR listings contains sites from all of Ohio that are in the Division of Emergency and Remedial Response (DERR) database, which is an index of sites for which our district offices maintain files. The database is NOT a record of contaminated sites or sites suspected of contamination. Not all sites in the database are contaminated, and a site's absence from the database does not imply that it is uncontaminated.

|                                         |                                                           |
|-----------------------------------------|-----------------------------------------------------------|
| Date of Government Version: 02/22/2011  | Source: Ohio EPA, Div. of Emergency and Remedial Response |
| Date Data Arrived at EDR: 02/22/2011    | Telephone: 614-644-3538                                   |
| Date Made Active in Reports: 03/10/2011 | Last EDR Contact: 02/22/2011                              |
| Number of Days to Update: 16            | Next Scheduled EDR Contact: 06/06/2011                    |
|                                         | Data Release Frequency: Semi-Annually                     |

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

#### OH SWF/LF: Licensed Solid Waste Facilities

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: 01/17/2011  | Source: Ohio Environmental Protection Agency |
| Date Data Arrived at EDR: 01/19/2011    | Telephone: 614-644-2621                      |
| Date Made Active in Reports: 02/21/2011 | Last EDR Contact: 04/18/2011                 |
| Number of Days to Update: 33            | Next Scheduled EDR Contact: 08/01/2011       |
|                                         | Data Release Frequency: Annually             |

#### WV SWF/LF: List of M.S.W. Landfills/Transfer Station Listing

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: 01/04/2011  | Source: Division of Environmental Protection |
| Date Data Arrived at EDR: 01/11/2011    | Telephone: 304-926-0499                      |
| Date Made Active in Reports: 03/04/2011 | Last EDR Contact: 04/04/2011                 |
| Number of Days to Update: 52            | Next Scheduled EDR Contact: 07/18/2011       |
|                                         | Data Release Frequency: Varies               |

### **State and tribal leaking storage tank lists**

#### OH LUST: Leaking Underground Storage Tank File

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: 02/23/2011  | Source: Department of Commerce         |
| Date Data Arrived at EDR: 02/23/2011    | Telephone: 614-752-8200                |
| Date Made Active in Reports: 03/10/2011 | Last EDR Contact: 04/07/2011           |
| Number of Days to Update: 15            | Next Scheduled EDR Contact: 06/06/2011 |
|                                         | Data Release Frequency: Quarterly      |

#### WV LUST: Leaking Underground Storage Tanks

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: 02/11/2011  | Source: Division of Environmental Protection |
| Date Data Arrived at EDR: 03/09/2011    | Telephone: 304-926-0455                      |
| Date Made Active in Reports: 03/30/2011 | Last EDR Contact: 04/21/2011                 |
| Number of Days to Update: 21            | Next Scheduled EDR Contact: 06/20/2011       |
|                                         | Data Release Frequency: Semi-Annually        |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## OH UNREG LTANKS: Ohio Leaking UST File

A suspected or confirmed release of petroleum from a non-regulated UST.

Date of Government Version: 08/25/1999  
Date Data Arrived at EDR: 08/19/2003  
Date Made Active in Reports: 08/26/2003  
Number of Days to Update: 7

Source: Department of Commerce  
Telephone: 614-752-7938  
Last EDR Contact: 08/01/2003  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## 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

## 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

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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  | Source: EPA Region 4                   |
| Date Data Arrived at EDR: 03/18/2011    | Telephone: 404-562-8677                |
| Date Made Active in Reports: 05/02/2011 | Last EDR Contact: 05/02/2011           |
| Number of Days to Update: 45            | Next Scheduled EDR Contact: 08/15/2011 |
|                                         | Data Release Frequency: Semi-Annually  |

## **State and tribal registered storage tank lists**

OH UST: Underground Storage Tank Tank File  
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: 03/30/2011  | Source: Department of Commerce         |
| Date Data Arrived at EDR: 03/31/2011    | Telephone: 614-752-8200                |
| Date Made Active in Reports: 05/09/2011 | Last EDR Contact: 03/21/2011           |
| Number of Days to Update: 39            | Next Scheduled EDR Contact: 06/06/2011 |
|                                         | Data Release Frequency: Quarterly      |

WV UST: Underground Storage Tank Database  
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: 03/10/2011  | Source: Division of Environmental Protection |
| Date Data Arrived at EDR: 03/11/2011    | Telephone: 304-926-0495                      |
| Date Made Active in Reports: 04/11/2011 | Last EDR Contact: 03/07/2011                 |
| Number of Days to Update: 31            | Next Scheduled EDR Contact: 06/20/2011       |
|                                         | Data Release Frequency: 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: 02/03/2011  | Source: EPA Region 10                  |
| Date Data Arrived at EDR: 02/04/2011    | Telephone: 206-553-2857                |
| Date Made Active in Reports: 03/21/2011 | Last EDR Contact: 05/02/2011           |
| Number of Days to Update: 45            | 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  | Source: EPA, Region 1                  |
| Date Data Arrived at EDR: 11/05/2010    | Telephone: 617-918-1313                |
| Date Made Active in Reports: 01/28/2011 | Last EDR Contact: 05/03/2011           |
| Number of Days to Update: 84            | 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)

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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 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 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 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 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

## FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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***

### **OH ENG CONTROLS: Sites with Engineering Controls**

A database that tracks properties with engineering controls.

Date of Government Version: 02/14/2011  
Date Data Arrived at EDR: 02/16/2011  
Date Made Active in Reports: 03/10/2011  
Number of Days to Update: 22

Source: Ohio EPA  
Telephone: 614-644-2306  
Last EDR Contact: 02/14/2011  
Next Scheduled EDR Contact: 05/30/2011  
Data Release Frequency: Semi-Annually

### **OH INST CONTROL: Sites with Institutional Engineering Controls**

A database that tracks properties with institutional controls.

Date of Government Version: 02/14/2011  
Date Data Arrived at EDR: 02/16/2011  
Date Made Active in Reports: 03/10/2011  
Number of Days to Update: 22

Source: Ohio Environmental Protection Agency  
Telephone: 614-644-2306  
Last EDR Contact: 02/14/2011  
Next Scheduled EDR Contact: 05/30/2011  
Data Release Frequency: Semi-Annually

### **WV INST CONTROL: Sites with Institutional Controls**

Sites that have institutional controls in place.

Date of Government Version: 01/10/2011  
Date Data Arrived at EDR: 02/18/2011  
Date Made Active in Reports: 03/16/2011  
Number of Days to Update: 26

Source: Department of Environmental Protection  
Telephone: 304-558-2508  
Last EDR Contact: 03/03/2011  
Next Scheduled EDR Contact: 06/13/2011  
Data Release Frequency: Varies

### **OH HIST INST CONTROLS: Institutional Controls Database**

"Institutional control" is a restriction that is recorded in the same manner as a deed which limits access to or use of the property such that exposure to hazardous substances or petroleum are effectively and reliably eliminated or mitigated. Examples of institutional controls include land and water use restrictions. This database is no longer updated or maintained by the state agency.

Date of Government Version: 05/10/2005  
Date Data Arrived at EDR: 04/06/2006  
Date Made Active in Reports: 05/04/2006  
Number of Days to Update: 28

Source: Ohio EPA  
Telephone: 614-644-2306  
Last EDR Contact: 06/02/2008  
Next Scheduled EDR Contact: 09/01/2008  
Data Release Frequency: No Update Planned

### **OH HIST ENG CONTROLS: Operation & Maintenance Agreements Database**

Volunteers that complete a voluntary action that relies on the ongoing operation and maintenance (O&M) of an engineered control to make the site protective (e.g. cap systems and ground water treatment systems) must enter into a legally binding agreement with the Ohio EPA before the director issues a covenant not to sue. This O&M Agreement must describe how the remedy is constructed and how it will be monitored, maintained and repaired. It also lays out inspection opportunities for the agency. Companies must document that they have the financial capability to operate any remedy relied on, before the agency will agree to enter into the O&M Agreement. The statute requires that the agency be notified of any change in ownership. This database is no longer updated or maintained by the state agency.

Date of Government Version: 05/10/2005  
Date Data Arrived at EDR: 04/04/2006  
Date Made Active in Reports: 05/04/2006  
Number of Days to Update: 30

Source: Ohio EPA  
Telephone: 614-644-2306  
Last EDR Contact: 06/02/2008  
Next Scheduled EDR Contact: 09/01/2008  
Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **State and tribal voluntary cleanup sites**

### OH VCP: Voluntary Action Program Sites

Site involved in the Voluntary Action Program.

Date of Government Version: 02/14/2011

Date Data Arrived at EDR: 02/16/2011

Date Made Active in Reports: 03/10/2011

Number of Days to Update: 22

Source: Ohio EPA, Voluntary Action Program

Telephone: 614-728-1298

Last EDR Contact: 02/14/2011

Next Scheduled EDR Contact: 05/30/2011

Data Release Frequency: Semi-Annually

### WV VCP: Voluntary Remediation Sites

Sites involved in the Voluntary Remediation Program.

Date of Government Version: 01/10/2011

Date Data Arrived at EDR: 02/18/2011

Date Made Active in Reports: 03/16/2011

Number of Days to Update: 26

Source: Department of Environmental Protection

Telephone: 304-558-2745

Last EDR Contact: 03/03/2011

Next Scheduled EDR Contact: 06/13/2011

Data Release Frequency: Semi-Annually

### INDIAN VCP R7: Voluntary Cleanup Priority Listing

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**

### OH BROWNFIELDS: Ohio Brownfield Inventory

A statewide brownfields inventory. A brownfield is an abandoned, idled or under-used industrial or commercial property where expansion or redevelopment is complicated by known or potential releases of hazardous substances and/or petroleum.

Date of Government Version: 12/23/2010

Date Data Arrived at EDR: 12/29/2010

Date Made Active in Reports: 01/12/2011

Number of Days to Update: 14

Source: Ohio EPA

Telephone: 614-644-3748

Last EDR Contact: 04/04/2011

Next Scheduled EDR Contact: 07/04/2011

Data Release Frequency: Varies

### WV BROWNFIELDS: Brownfields Sites Listing

Brownfields are abandoned, idle or underused commercial or industrial properties, where the expansion or redevelopment is hindered by real or perceived contamination. Brownfields vary in size, location, age, and past use -- they can be anything from a five-hundred acre automobile assembly plant to a small, abandoned corner gas station.

Date of Government Version: 04/07/2010

Date Data Arrived at EDR: 04/08/2010

Date Made Active in Reports: 04/19/2010

Number of Days to Update: 11

Source: Department of Environmental Protection

Telephone: 304-926-0455

Last EDR Contact: 04/05/2011

Next Scheduled EDR Contact: 07/18/2011

Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## 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  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 12/30/2010    | Telephone: 202-566-2777                 |
| Date Made Active in Reports: 03/21/2011 | Last EDR Contact: 03/29/2011            |
| Number of Days to Update: 81            | Next Scheduled EDR Contact: 07/11/2011  |
|                                         | 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  | Source: Environmental Protection Agency   |
| Date Data Arrived at EDR: 08/09/2004    | Telephone: 800-424-9346                   |
| Date Made Active in Reports: 09/17/2004 | Last EDR Contact: 06/09/2004              |
| Number of Days to Update: 39            | 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  | Source: EPA, Region 9                     |
| Date Data Arrived at EDR: 05/07/2009    | Telephone: 415-947-4219                   |
| Date Made Active in Reports: 09/21/2009 | Last EDR Contact: 03/28/2011              |
| Number of Days to Update: 137           | Next Scheduled EDR Contact: 07/11/2011    |
|                                         | Data Release Frequency: No Update Planned |

#### OH SWRCY: Recycling Facility Listing

A listing of recycling facility locations.

|                                         |                                        |
|-----------------------------------------|----------------------------------------|
| Date of Government Version: 01/31/2011  | Source: Ohio EPA                       |
| Date Data Arrived at EDR: 02/04/2011    | Telephone: 614-728-5357                |
| Date Made Active in Reports: 02/21/2011 | Last EDR Contact: 04/18/2011           |
| Number of Days to Update: 17            | Next Scheduled EDR Contact: 08/01/2011 |
|                                         | Data Release Frequency: Varies         |

#### OH HIST LF: Old Solid Waste Landfill

A list of about 1200 old abandoned dumps or landfills. This database was developed from Ohio EPA staff notebooks and other information dating from the mid-1970s

|                                         |                                           |
|-----------------------------------------|-------------------------------------------|
| Date of Government Version: 01/01/1980  | Source: Ohio EPA                          |
| Date Data Arrived at EDR: 07/01/2003    | Telephone: 614-644-3749                   |
| Date Made Active in Reports: 07/17/2003 | Last EDR Contact: 06/26/2003              |
| Number of Days to Update: 16            | Next Scheduled EDR Contact: N/A           |
|                                         | Data Release Frequency: No Update Planned |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 12/03/2007    | Telephone: 703-308-8245                 |
| Date Made Active in Reports: 01/24/2008 | Last EDR Contact: 05/09/2011            |
| Number of Days to Update: 52            | 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  | Source: Drug Enforcement Administration |
| Date Data Arrived at EDR: 03/17/2011    | Telephone: 202-307-1000                 |
| Date Made Active in Reports: 05/02/2011 | Last EDR Contact: 03/08/2011            |
| Number of Days to Update: 46            | Next Scheduled EDR Contact: 06/20/2011  |
|                                         | Data Release Frequency: Quarterly       |

OH CDL: Clandestine Drug Lab Locations

A list of clandestine drug lab sites with environmental impact. This list is extracted from the SPILLS database based on the "product" type.

|                                         |                                        |
|-----------------------------------------|----------------------------------------|
| Date of Government Version: 12/31/2009  | Source: Ohio EPA                       |
| Date Data Arrived at EDR: 02/19/2010    | Telephone: 614-644-2080                |
| Date Made Active in Reports: 03/09/2010 | Last EDR Contact: 02/14/2011           |
| Number of Days to Update: 18            | Next Scheduled EDR Contact: 05/30/2011 |
|                                         | Data Release Frequency: Varies         |

WV CDL: Drug Lab Site Locations

A listing of clandestine drug lab site locations.

|                                         |                                                |
|-----------------------------------------|------------------------------------------------|
| Date of Government Version: 01/27/2011  | Source: Department of Environmental Protection |
| Date Data Arrived at EDR: 02/24/2011    | Telephone: 304-926-0499                        |
| Date Made Active in Reports: 03/28/2011 | Last EDR Contact: 03/14/2011                   |
| Number of Days to Update: 32            | Next Scheduled EDR Contact: 06/06/2011         |
|                                         | 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  | Source: Drug Enforcement Administration   |
| Date Data Arrived at EDR: 11/19/2008    | Telephone: 202-307-1000                   |
| Date Made Active in Reports: 03/30/2009 | Last EDR Contact: 03/23/2009              |
| Number of Days to Update: 131           | Next Scheduled EDR Contact: 06/22/2009    |
|                                         | Data Release Frequency: No Update Planned |

## **Local Lists of Registered Storage Tanks**

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## OH ARCHIVE UST: Archived Underground Storage Tank Sites

Underground storage tank records that have been removed from the Underground Storage Tank database.

|                                         |                                                                |
|-----------------------------------------|----------------------------------------------------------------|
| Date of Government Version: 10/05/2010  | Source: Department of Commerce, Division of State Fire Marshal |
| Date Data Arrived at EDR: 10/07/2010    | Telephone: 614-752-7938                                        |
| Date Made Active in Reports: 10/29/2010 | Last EDR Contact: 03/21/2011                                   |
| Number of Days to Update: 22            | Next Scheduled EDR Contact: 06/06/2011                         |
|                                         | Data Release Frequency: Quarterly                              |

## 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  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 02/04/2011    | Telephone: 202-564-6023                 |
| Date Made Active in Reports: 05/02/2011 | Last EDR Contact: 05/02/2011            |
| Number of Days to Update: 87            | 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  | Source: Department of the Navy         |
| Date Data Arrived at EDR: 12/11/2006    | Telephone: 843-820-7326                |
| Date Made Active in Reports: 01/11/2007 | Last EDR Contact: 02/22/2011           |
| Number of Days to Update: 31            | Next Scheduled EDR Contact: 06/06/2011 |
|                                         | 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  | Source: U.S. Department of Transportation |
| Date Data Arrived at EDR: 01/05/2011    | Telephone: 202-366-4555                   |
| Date Made Active in Reports: 02/25/2011 | Last EDR Contact: 04/05/2011              |
| Number of Days to Update: 51            | Next Scheduled EDR Contact: 07/18/2011    |
|                                         | Data Release Frequency: Annually          |

### OH SPILLS: Emergency Response Database

Incidents reported to the Emergency Response Unit. The focus of the ER program is to minimize the impact on the environment from accidental releases, spills, and unauthorized discharges from any fixed or mobile sources. Incidents involving petroleum products, hazardous materials, hazardous waste, abandoned drums, or other materials which may pose as a pollution threat to the state's water, land, or air should be reported immediately. Not all incidents included in the database are actual SPILLS, they can simply be reported incidents.

|                                         |                                        |
|-----------------------------------------|----------------------------------------|
| Date of Government Version: 12/01/2010  | Source: Ohio EPA                       |
| Date Data Arrived at EDR: 12/02/2010    | Telephone: 614-644-2084                |
| Date Made Active in Reports: 01/12/2011 | Last EDR Contact: 02/14/2011           |
| Number of Days to Update: 41            | Next Scheduled EDR Contact: 05/30/2011 |
|                                         | Data Release Frequency: Varies         |

### WV SPILLS: Spills Listing

A listing of spills and releases reported to the Office of Emergency Services, they do not include any TRI information.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/02/2011  
Date Data Arrived at EDR: 02/03/2011  
Date Made Active in Reports: 02/17/2011  
Number of Days to Update: 14

Source: Office of Emergency Services  
Telephone: 304-558-5380  
Last EDR Contact: 05/02/2011  
Next Scheduled EDR Contact: 08/15/2011  
Data Release Frequency: Varies

## **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 Transportation, 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 Transportation, 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

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## 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  | Source: EPA                            |
| Date Data Arrived at EDR: 03/16/2011    | Telephone: 703-416-0223                |
| Date Made Active in Reports: 03/21/2011 | Last EDR Contact: 03/16/2011           |
| Number of Days to Update: 5             | 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  | Source: Department of Energy           |
| Date Data Arrived at EDR: 10/21/2010    | Telephone: 505-845-0011                |
| Date Made Active in Reports: 01/28/2011 | Last EDR Contact: 03/04/2011           |
| Number of Days to Update: 99            | 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  | Source: Department of Labor, Mine Safety and Health Administration |
| Date Data Arrived at EDR: 03/09/2011    | Telephone: 303-231-5959                                            |
| Date Made Active in Reports: 05/02/2011 | Last EDR Contact: 03/09/2011                                       |
| Number of Days to Update: 54            | 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  | Source: EPA                            |
| Date Data Arrived at EDR: 12/17/2010    | Telephone: 202-566-0250                |
| Date Made Active in Reports: 03/21/2011 | Last EDR Contact: 03/01/2011           |
| Number of Days to Update: 94            | Next Scheduled EDR Contact: 06/13/2011 |
|                                         | 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  | Source: EPA                            |
| Date Data Arrived at EDR: 09/29/2010    | Telephone: 202-260-5521                |
| Date Made Active in Reports: 12/02/2010 | Last EDR Contact: 03/29/2011           |
| Number of Days to Update: 64            | 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  | Source: EPA/Office of Prevention, Pesticides and Toxic Substances |
| Date Data Arrived at EDR: 04/16/2009    | Telephone: 202-566-1667                                           |
| Date Made Active in Reports: 05/11/2009 | Last EDR Contact: 02/28/2011                                      |
| Number of Days to Update: 25            | Next Scheduled EDR Contact: 06/13/2011                            |
|                                         | Data Release Frequency: Quarterly                                 |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

**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  | Source: EPA                            |
| Date Data Arrived at EDR: 04/16/2009    | Telephone: 202-566-1667                |
| Date Made Active in Reports: 05/11/2009 | Last EDR Contact: 02/28/2011           |
| Number of Days to Update: 25            | Next Scheduled EDR Contact: 06/13/2011 |
|                                         | 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  | Source: Environmental Protection Agency   |
| Date Data Arrived at EDR: 03/01/2007    | Telephone: 202-564-2501                   |
| Date Made Active in Reports: 04/10/2007 | Last EDR Contact: 12/17/2007              |
| Number of Days to Update: 40            | 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  | Source: Environmental Protection Agency   |
| Date Data Arrived at EDR: 03/01/2007    | Telephone: 202-564-2501                   |
| Date Made Active in Reports: 04/10/2007 | Last EDR Contact: 12/17/2008              |
| Number of Days to Update: 40            | 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  | Source: EPA                            |
| Date Data Arrived at EDR: 12/10/2010    | Telephone: 202-564-4203                |
| Date Made Active in Reports: 02/25/2011 | Last EDR Contact: 05/02/2011           |
| Number of Days to Update: 77            | 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  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 01/21/2011    | Telephone: 202-564-5088                 |
| Date Made Active in Reports: 03/21/2011 | Last EDR Contact: 03/28/2011            |
| Number of Days to Update: 59            | Next Scheduled EDR Contact: 07/11/2011  |
|                                         | Data Release Frequency: Quarterly       |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## 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  | Source: EPA                            |
| Date Data Arrived at EDR: 11/10/2010    | Telephone: 202-566-0500                |
| Date Made Active in Reports: 02/16/2011 | Last EDR Contact: 04/22/2011           |
| Number of Days to Update: 98            | 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  | Source: Nuclear Regulatory Commission  |
| Date Data Arrived at EDR: 04/06/2010    | Telephone: 301-415-7169                |
| Date Made Active in Reports: 05/27/2010 | Last EDR Contact: 03/14/2011           |
| Number of Days to Update: 51            | 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  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 01/13/2011    | Telephone: 202-343-9775                 |
| Date Made Active in Reports: 02/16/2011 | Last EDR Contact: 04/13/2011            |
| Number of Days to Update: 34            | 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  | Source: EPA                            |
| Date Data Arrived at EDR: 04/16/2010    | Telephone: (312) 353-2000              |
| Date Made Active in Reports: 05/27/2010 | Last EDR Contact: 03/14/2011           |
| Number of Days to Update: 41            | 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  | Source: EPA                               |
| Date Data Arrived at EDR: 07/03/1995    | Telephone: 202-564-4104                   |
| Date Made Active in Reports: 08/07/1995 | Last EDR Contact: 06/02/2008              |
| Number of Days to Update: 35            | 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.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 03/01/2011  
Next Scheduled EDR Contact: 06/13/2011  
Data Release Frequency: Biennially

## OH TOWNGAS: DERR Towngas Database

The database includes 82 very old sites (circa 1895) which produced gas from coal for street lighting. Most visual evidence of these sites has disappeared, however the potential for buried coal tar remains. The database is no longer in active use.

Date of Government Version: 07/28/1992  
Date Data Arrived at EDR: 02/21/2003  
Date Made Active in Reports: 03/05/2003  
Number of Days to Update: 12

Source: Ohio EPA  
Telephone: 614-644-3749  
Last EDR Contact: 02/12/2003  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## OH UIC: Underground Injection Wells Listing

A listing of underground injection well locations.

Date of Government Version: 11/19/2010  
Date Data Arrived at EDR: 11/19/2010  
Date Made Active in Reports: 01/12/2011  
Number of Days to Update: 54

Source: Ohio EPA  
Telephone: 614-644-2752  
Last EDR Contact: 02/14/2011  
Next Scheduled EDR Contact: 05/30/2011  
Data Release Frequency: Varies

## WV UIC: Underground Injection Wells

A listing of underground injection well locations.

Date of Government Version: 02/02/2010  
Date Data Arrived at EDR: 02/03/2010  
Date Made Active in Reports: 03/11/2010  
Number of Days to Update: 36

Source: Department of Environmental Protection  
Telephone: 304-926-0499  
Last EDR Contact: 04/18/2011  
Next Scheduled EDR Contact: 08/01/2011  
Data Release Frequency: Varies

## OH DRYCLEANERS: Drycleaner Facility Listing

A listing of drycleaner facility locations.

Date of Government Version: 01/03/2011  
Date Data Arrived at EDR: 01/04/2011  
Date Made Active in Reports: 01/12/2011  
Number of Days to Update: 8

Source: Ohio EPA  
Telephone: 614-644-3469  
Last EDR Contact: 04/04/2011  
Next Scheduled EDR Contact: 07/18/2011  
Data Release Frequency: Varies

## WV DRYCLEANERS: Listing of Drycleaner Locations

A listing of drycleaners which use perchloroethylene.

Date of Government Version: 02/25/2011  
Date Data Arrived at EDR: 03/02/2011  
Date Made Active in Reports: 03/28/2011  
Number of Days to Update: 26

Source: Department of Environmental Protection  
Telephone: 304-926-0475  
Last EDR Contact: 02/22/2011  
Next Scheduled EDR Contact: 06/06/2011  
Data Release Frequency: Varies

## OH NPDES: NPDES General Permit List

General information regarding NPDES (National Pollutant Discharge Elimination System) permits.

Date of Government Version: 02/15/2011  
Date Data Arrived at EDR: 02/16/2011  
Date Made Active in Reports: 03/11/2011  
Number of Days to Update: 23

Source: Ohio EPA  
Telephone: 614-644-2031  
Last EDR Contact: 02/16/2011  
Next Scheduled EDR Contact: 05/30/2011  
Data Release Frequency: Semi-Annually

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## WV NPDES: Wastewater Discharge Permits Listing

A listing of wastewater discharge permits.

Date of Government Version: 01/19/2010  
Date Data Arrived at EDR: 01/21/2010  
Date Made Active in Reports: 02/25/2010  
Number of Days to Update: 35

Source: Department of Environmental Protection  
Telephone: 304-926-0495  
Last EDR Contact: 04/29/2011  
Next Scheduled EDR Contact: 08/08/2011  
Data Release Frequency: Varies

## OH AIRS: Title V Permits Listing

A listing of Title V Permits issued by the Division of Air Pollution Control. It is a federal operating permit program adopted and implemented by the state. The basic program elements typically specify that major sources will submit an operating application to the specified state environmental regulatory agency according to a schedule.

Date of Government Version: 01/03/2011  
Date Data Arrived at EDR: 01/04/2011  
Date Made Active in Reports: 01/12/2011  
Number of Days to Update: 8

Source: Ohio EPA  
Telephone: 614-644-2270  
Last EDR Contact: 03/28/2011  
Next Scheduled EDR Contact: 07/11/2011  
Data Release Frequency: Varies

## WV AIRS: Permitted Facility and Emissions Listing

Permitted facility and emissions information listing.

Date of Government Version: 09/01/2009  
Date Data Arrived at EDR: 09/02/2009  
Date Made Active in Reports: 09/21/2009  
Number of Days to Update: 19

Source: Department of Environmental Protection  
Telephone: 304-926-0499  
Last EDR Contact: 05/02/2011  
Next Scheduled EDR Contact: 08/15/2011  
Data Release Frequency: Varies

## OH USD: Urban Setting Designation Sites

A USD may be requested for properties participating in the VAP when there is no current or future use of the ground water by local residents for drinking, showering, bathing or cooking. In these areas, an approved USD would lower the cost of cleanup and promote economic redevelopment while still protecting public health and safety. If these USDs were to be approved, the ground water cleanup or response requirements for the areas could be lessened. The Ohio EPA director may approve a USD request based on a demonstration that the USD requirements are met and an evaluation of existing and future uses of ground water in the area. The Ohio EPA director's decision on approval or denial of the request is needed before cleanup requirements for the site can be determined.

Date of Government Version: 02/14/2011  
Date Data Arrived at EDR: 02/16/2011  
Date Made Active in Reports: 03/10/2011  
Number of Days to Update: 22

Source: Ohio EPA  
Telephone: 614-644-3749  
Last EDR Contact: 02/14/2011  
Next Scheduled EDR Contact: 05/30/2011  
Data Release Frequency: Varies

## OH HIST USD: Urban Setting Designations Database

A USD may be requested for properties participating in the VAP when there is no current or future use of the ground water by local residents for drinking, showering, bathing or cooking. In these areas, an approved USD would lower the cost of cleanup and promote economic redevelopment while still protecting public health and safety. If these USDs were to be approved, the ground water cleanup or response requirements for the areas could be lessened. The Ohio EPA director may approve a USD request based on a demonstration that the USD requirements are met and an evaluation of existing and future uses of ground water in the area. The Ohio EPA director's decision on approval or denial of the request is needed before cleanup requirements for the site can be determined. This database is no longer updated or maintained by the state agency.

Date of Government Version: 05/10/2005  
Date Data Arrived at EDR: 04/25/2006  
Date Made Active in Reports: 05/11/2006  
Number of Days to Update: 16

Source: Ohio EPA  
Telephone: 614-644-3749  
Last EDR Contact: 06/02/2008  
Next Scheduled EDR Contact: 09/01/2008  
Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## 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  | Source: USGS                           |
| Date Data Arrived at EDR: 12/08/2006    | Telephone: 202-208-3710                |
| Date Made Active in Reports: 01/11/2007 | Last EDR Contact: 04/21/2011           |
| Number of Days to Update: 34            | 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  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 03/09/2011    | Telephone: 615-532-8599                 |
| Date Made Active in Reports: 05/02/2011 | Last EDR Contact: 05/09/2011            |
| Number of Days to Update: 54            | Next Scheduled EDR Contact: 08/08/2011  |
|                                         | Data Release Frequency: Varies          |

## OH COAL ASH: Coal Ash Disposal Site Listing

A listing of coal ash disposal site locations.

|                                         |                                        |
|-----------------------------------------|----------------------------------------|
| Date of Government Version: 01/23/2009  | Source: Ohio EPA                       |
| Date Data Arrived at EDR: 06/26/2009    | Telephone: 614-644-2134                |
| Date Made Active in Reports: 07/06/2009 | Last EDR Contact: 04/18/2011           |
| Number of Days to Update: 10            | Next Scheduled EDR Contact: 08/01/2011 |
|                                         | Data Release Frequency: Varies         |

## OH CRO: Cessation of Regulated Operations Facility Listing

"Cessation of Regulated Operations" means the discontinuation or termination of regulated operations or the finalizing of any transaction or proceeding through which those operations are discontinued. "Regulated Operations" means the production, use, storage or handling of regulated substances.

|                                         |                                        |
|-----------------------------------------|----------------------------------------|
| Date of Government Version: 02/16/2011  | Source: Ohio EPA                       |
| Date Data Arrived at EDR: 02/22/2011    | Telephone: 614-644-3065                |
| Date Made Active in Reports: 03/10/2011 | Last EDR Contact: 02/17/2011           |
| Number of Days to Update: 16            | Next Scheduled EDR Contact: 05/30/2011 |
|                                         | Data Release Frequency: Varies         |

## OH FINANCIAL ASSURANCE: Financial Assurance Information Listing

Financial assurance information.

|                                         |                                        |
|-----------------------------------------|----------------------------------------|
| Date of Government Version: 01/20/2011  | Source: Ohio EPA                       |
| Date Data Arrived at EDR: 01/21/2011    | Telephone: 614-644-2955                |
| Date Made Active in Reports: 02/21/2011 | Last EDR Contact: 05/02/2011           |
| Number of Days to Update: 31            | Next Scheduled EDR Contact: 08/01/2011 |
|                                         | 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  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 01/03/2011    | Telephone: N/A                          |
| Date Made Active in Reports: 03/21/2011 | Last EDR Contact: 03/18/2011            |
| Number of Days to Update: 77            | Next Scheduled EDR Contact: 06/27/2011  |
|                                         | Data Release Frequency: Varies          |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## WV FINANCIAL ASSURANCE: Financial Assurance Information Listing

A listing of financial assurance information for underground storage tank 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: 12/26/2008  | Source: Department of Environmental Protection |
| Date Data Arrived at EDR: 12/29/2008    | Telephone: 304-926-0499                        |
| Date Made Active in Reports: 02/27/2009 | Last EDR Contact: 03/07/2011                   |
| Number of Days to Update: 60            | Next Scheduled EDR Contact: 06/20/2011         |
|                                         | Data Release Frequency: Varies                 |

## WV COAL ASH: Coal Ash Landfills

A listing of coal ash landfill site locations.

|                                         |                                                |
|-----------------------------------------|------------------------------------------------|
| Date of Government Version: 05/07/2010  | Source: Department of Environmental Protection |
| Date Data Arrived at EDR: 05/11/2010    | Telephone: 304-926-0499                        |
| Date Made Active in Reports: 06/30/2010 | Last EDR Contact: 04/04/2011                   |
| Number of Days to Update: 50            | Next Scheduled EDR Contact: 07/18/2011         |
|                                         | 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  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 02/18/2009    | Telephone: 202-566-0517                 |
| Date Made Active in Reports: 05/29/2009 | Last EDR Contact: 05/05/2011            |
| Number of Days to Update: 100           | Next Scheduled EDR Contact: 08/15/2011  |
|                                         | 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  | Source: U.S. Geological Survey         |
| Date Data Arrived at EDR: 02/06/2006    | Telephone: 888-275-8747                |
| Date Made Active in Reports: 01/11/2007 | Last EDR Contact: 04/21/2011           |
| Number of Days to Update: 339           | Next Scheduled EDR Contact: 08/01/2011 |
|                                         | Data Release Frequency: N/A            |

## 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  | Source: Department of Energy           |
| Date Data Arrived at EDR: 08/07/2009    | Telephone: 202-586-8719                |
| Date Made Active in Reports: 10/22/2009 | Last EDR Contact: 04/19/2011           |
| Number of Days to Update: 76            | Next Scheduled EDR Contact: 08/01/2011 |
|                                         | 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.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 02/25/2011  
Next Scheduled EDR Contact: 06/06/2011  
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: 02/09/2011  
Date Made Active in Reports: 03/04/2011  
Number of Days to Update: 23

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: 02/28/2011  
Next Scheduled EDR Contact: 06/13/2011  
Data Release Frequency: Annually

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## VT MANIFEST: Hazardous Waste Manifest Data Hazardous waste manifest information.

Date of Government Version: 03/29/2010  
Date Data Arrived at EDR: 05/14/2010  
Date Made Active in Reports: 06/22/2010  
Number of Days to Update: 39

Source: Department of Environmental Conservation  
Telephone: 802-241-3443  
Last EDR Contact: 04/25/2011  
Next Scheduled EDR Contact: 08/08/2011  
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: Licensed Child Day Care Facilities

Source: Department of Job & Family Services  
Telephone: 614-466-6282

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.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 614-265-1044

### STREET AND ADDRESS INFORMATION

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## **GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE ADDENDUM**

### **TARGET PROPERTY ADDRESS**

MARIETTA, OH SECT. 14  
25 PIERCE STREET  
MARIETTA, OH 45750

### **TARGET PROPERTY COORDINATES**

|                               |                          |
|-------------------------------|--------------------------|
| Latitude (North):             | 39.40850 - 39° 24' 30.6" |
| Longitude (West):             | 81.4317 - 81° 25' 54.1"  |
| Universal Tranverse Mercator: | Zone 17                  |
| UTM X (Meters):               | 462833.2                 |
| UTM Y (Meters):               | 4361990.0                |
| Elevation:                    | 606 ft. above sea level  |

### **USGS TOPOGRAPHIC MAP**

|                       |                       |
|-----------------------|-----------------------|
| Target Property Map:  | 39081-D4 MARIETTA, OH |
| Most Recent Revision: | 1998                  |

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).

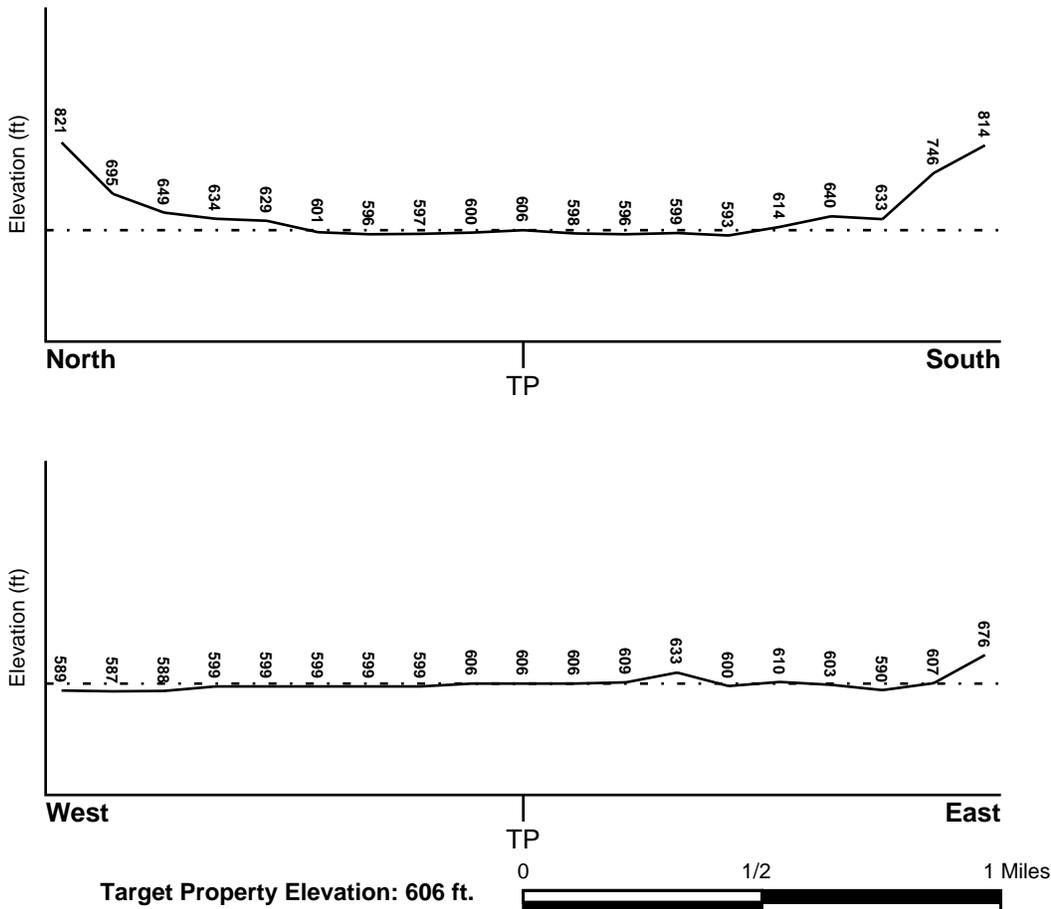
## TOPOGRAPHIC INFORMATION

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 WSW

## SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



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  
WASHINGTON, OH

FEMA Flood Electronic Data  
YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 39167C - FEMA DFIRM Flood data

Additional Panels in search area:  
5402160001B - FEMA Q3 Flood data  
5402130004A - FEMA Q3 Flood data  
5402130003A - FEMA Q3 Flood data  
5402130011A - FEMA Q3 Flood data

## NATIONAL WETLAND INVENTORY

NWI Quad at Target Property  
MARIETTA

NWI Electronic Data Coverage  
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.

## 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.

| <u>MAP ID</u> | <u>LOCATION FROM TP</u> | <u>GENERAL DIRECTION GROUNDWATER FLOW</u> |
|---------------|-------------------------|-------------------------------------------|
| Not Reported  |                         |                                           |

## 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**

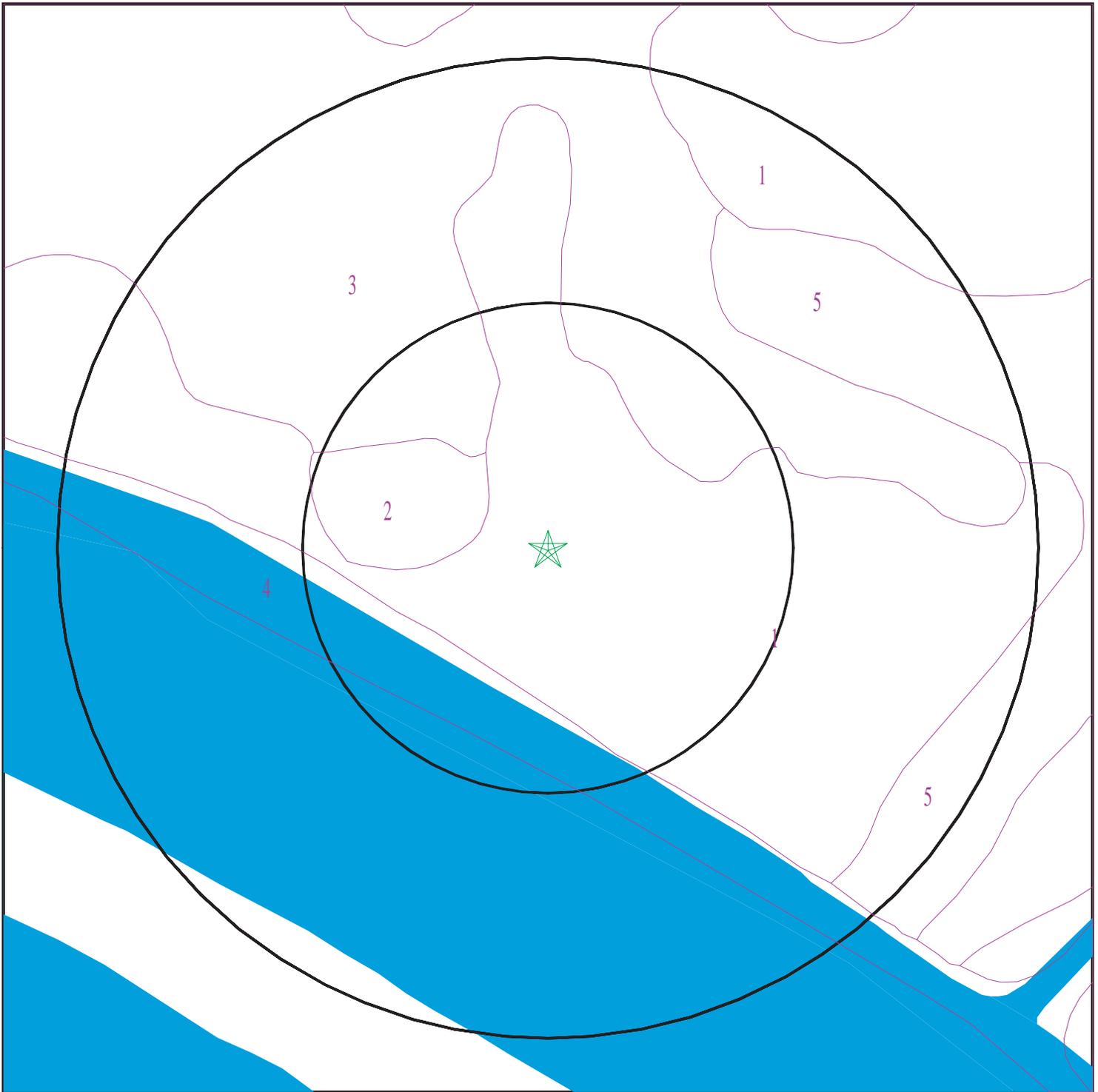
Era: Paleozoic  
System: Permian  
Series: Wolfcampian Series  
Code: P1 (*decoded above as Era, System & Series*)

#### **GEOLOGIC AGE IDENTIFICATION**

Category: Stratified 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 - 3067385.2s



- ★ Target Property
- SSURGO Soil
- Water



SITE NAME: Marietta, OH Sect. 14  
ADDRESS: 25 Pierce Street  
Marietta OH 45750  
LAT/LONG: 39.4085 / 81.4317

CLIENT: U.S. Army Corps of Engineers  
CONTACT: Janet Wolfe  
INQUIRY #: 3067385.2s  
DATE: May 13, 2011 11:06 am

# 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: Nolin

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

| Soil Layer Information |           |           |                    |                                                                       |                                                                             |                                              |                      |
|------------------------|-----------|-----------|--------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------|----------------------|
| Layer                  | Boundary  |           | Soil Texture Class | Classification                                                        |                                                                             | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH)   |
|                        | Upper     | Lower     |                    | AASHTO Group                                                          | Unified Soil                                                                |                                              |                      |
| 1                      | 0 inches  | 7 inches  | silt loam          | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay | Max: 14.11<br>Min: 4.23                      | Max: 7.3<br>Min: 5.6 |
| 2                      | 7 inches  | 42 inches | silt loam          | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay | Max: 14.11<br>Min: 4.23                      | Max: 7.3<br>Min: 5.6 |
| 3                      | 42 inches | 59 inches | silt loam          | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay | Max: 14.11<br>Min: 4.23                      | Max: 7.3<br>Min: 5.6 |

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### Soil Map ID: 2

Soil Component Name: Udorthents, loamy

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

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: Newark

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

| Soil Layer Information |          |          |                    |                                                                       |                                                                             |                                                 |                      |
|------------------------|----------|----------|--------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------|----------------------|
| Layer                  | Boundary |          | Soil Texture Class | Classification                                                        |                                                                             | Saturated hydraulic conductivity<br>micro m/sec | Soil Reaction (pH)   |
|                        | Upper    | Lower    |                    | AASHTO Group                                                          | Unified Soil                                                                |                                                 |                      |
| 1                      | 0 inches | 5 inches | silt loam          | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay | Max: 14.11<br>Min: 4.23                         | Max: 7.3<br>Min: 5.6 |

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

| Soil Layer Information |           |           |                    |                                                                       |                                                                                    |                                                 |                      |
|------------------------|-----------|-----------|--------------------|-----------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------|----------------------|
| Layer                  | Boundary  |           | Soil Texture Class | Classification                                                        |                                                                                    | Saturated hydraulic conductivity<br>micro m/sec | Soil Reaction (pH)   |
|                        | Upper     | Lower     |                    | AASHTO Group                                                          | Unified Soil                                                                       |                                                 |                      |
| 2                      | 5 inches  | 40 inches | silt loam          | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils. | Max: 14.11<br>Min: 4.23                         | Max: 7.3<br>Min: 5.6 |
| 3                      | 40 inches | 59 inches | silt loam          | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils. | Max: 14.11<br>Min: 4.23                         | Max: 7.3<br>Min: 5.6 |

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### Soil Map ID: 4

Soil Component Name: Water

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

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: 5

Soil Component Name: Udorthents

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class:

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

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.

## 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

| <u>DATABASE</u>  | <u>SEARCH DISTANCE (miles)</u> |
|------------------|--------------------------------|
| Federal USGS     | 1.000                          |
| Federal FRDS PWS | Nearest PWS within 1 mile      |
| State Database   | 1.000                          |

## **FEDERAL USGS WELL INFORMATION**

| <u>MAP ID</u>  | <u>WELL ID</u> | <u>LOCATION FROM TP</u> |
|----------------|----------------|-------------------------|
| No Wells Found |                |                         |

## **FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION**

| <u>MAP ID</u>       | <u>WELL ID</u> | <u>LOCATION FROM TP</u> |
|---------------------|----------------|-------------------------|
| No PWS System Found |                |                         |

Note: PWS System location is not always the same as well location.

## **STATE DATABASE WELL INFORMATION**

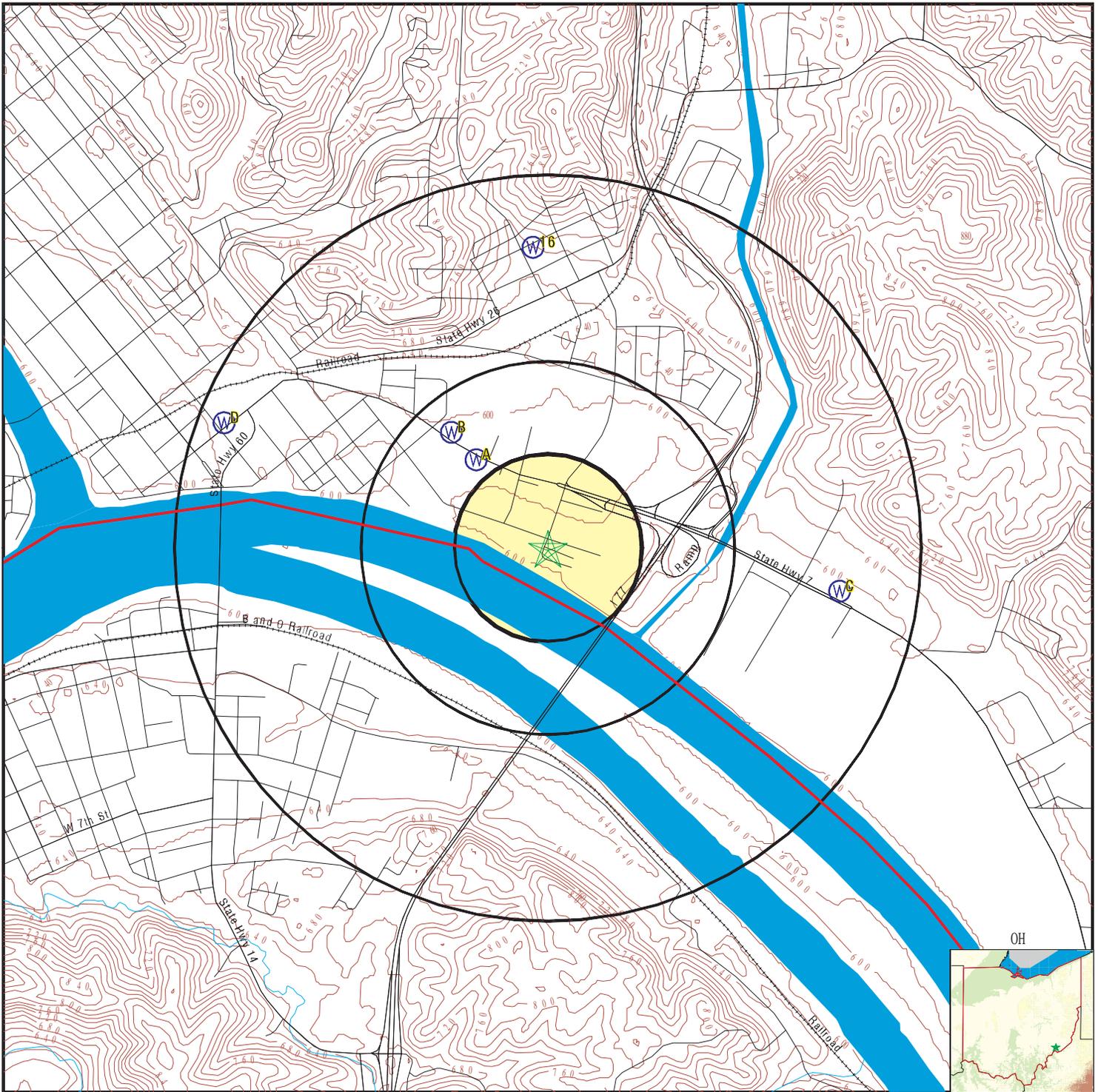
| <u>MAP ID</u> | <u>WELL ID</u>  | <u>LOCATION FROM TP</u> |
|---------------|-----------------|-------------------------|
| A1            | OHD500000804207 | 1/4 - 1/2 Mile NW       |
| A2            | OHD500000804208 | 1/4 - 1/2 Mile NW       |
| A3            | OHD500000795445 | 1/4 - 1/2 Mile NW       |
| A4            | OHD500000795444 | 1/4 - 1/2 Mile NW       |
| A5            | OHD500000802218 | 1/4 - 1/2 Mile NW       |

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### STATE DATABASE WELL INFORMATION

| MAP ID | WELL ID         | LOCATION<br>FROM TP |
|--------|-----------------|---------------------|
| A6     | OHD500000802217 | 1/4 - 1/2 Mile NW   |
| A7     | OHD500000798402 | 1/4 - 1/2 Mile NW   |
| A8     | OHD500000802310 | 1/4 - 1/2 Mile NW   |
| B9     | OHD500000646743 | 1/4 - 1/2 Mile NW   |
| B10    | OHD500000646742 | 1/4 - 1/2 Mile NW   |
| B11    | OHD500000646740 | 1/4 - 1/2 Mile NW   |
| C12    | OHD500000768417 | 1/2 - 1 Mile East   |
| C13    | OHD500000768413 | 1/2 - 1 Mile East   |
| C14    | OHD500000768414 | 1/2 - 1 Mile East   |
| C15    | OHD500000768416 | 1/2 - 1 Mile East   |
| 16     | OHD500000629754 | 1/2 - 1 Mile North  |
| D17    | OHD500000579565 | 1/2 - 1 Mile WNW    |
| D18    | OHD500000579564 | 1/2 - 1 Mile WNW    |
| D19    | OHD500000579567 | 1/2 - 1 Mile WNW    |
| D20    | OHD500000579566 | 1/2 - 1 Mile WNW    |

# PHYSICAL SETTING SOURCE MAP - 3067385.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location

SITE NAME: Marietta, OH Sect. 14  
 ADDRESS: 25 Pierce Street  
 Marietta OH 45750  
 LAT/LONG: 39.4085 / 81.4317

CLIENT: U.S. Army Corps of Engineers  
 CONTACT: Janet Wolfe  
 INQUIRY #: 3067385.2s  
 DATE: May 13, 2011 11:06 am

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**A1**  
**NW**  
**1/4 - 1/2 Mile**  
**Lower**

**OH WELLS      OHD500000804207**

|             |              |             |                  |
|-------------|--------------|-------------|------------------|
| Well log n: | 999879       |             |                  |
| Well type : | W            |             |                  |
| End user i: | 1602         |             |                  |
| Cnty code:  | 167          | Twp code:   | 1655             |
| Orig owner: | Not Reported | Orig own 1: | GIANT EAGLE CORP |
| Drill type: | Not Reported | Test type : | Not Reported     |
| Well use c: | M            | Aquifer ty: | Not Reported     |
| Loc map ye: | Not Reported | Loc area:   | Not Reported     |
| Loc no:     | 0            |             |                  |
| Sub name:   | Not Reported | Sub map ye: | Not Reported     |
| Sub no:     | Not Reported | Permit no:  | Not Reported     |
| Sec owner : | Not Reported | Lot no:     | Not Reported     |
| Sect no:    | 0            |             |                  |
| St dir cod: | Not Reported |             |                  |
| St no:      | 331          |             |                  |
| St name:    | PIKE         | St type co: | ST               |
| Sec add:    | Not Reported |             |                  |
| Sec add no: | 0            |             |                  |
| City:       | MARIETTA     | State code: | OH               |
| Zip:        | 45750        |             |                  |
| Zone code:  | Not Reported |             |                  |
| Horiz x:    | 0            |             |                  |
| Horiz y:    | 0            |             |                  |
| Horiz datu: | Not Reported |             |                  |
| Horiz acc : | 0            |             |                  |
| Horiz acc1: | 0            |             |                  |
| Horiz ac 1: | Not Reported |             |                  |
| Vert loc:   | 0            |             |                  |
| Vert acc:   | 0            |             |                  |
| Vert acc u: | Not Reported |             |                  |
| Latitude:   | 39.41172     |             |                  |
| Longitude:  | -81.43519    |             |                  |
| Source of : | Not Reported | Flowing we: | Not Reported     |
| Test rate:  | 0            |             |                  |
| Draw down:  | 0            |             |                  |
| S water le: | 0            |             |                  |
| S water me: | Not Reported | S water 1:  | Not Reported     |
| Cas ht:     | 0            |             |                  |
| Screen len: | 15           |             |                  |
| Total dept: | 18           |             |                  |
| Date of co: | 02/24/2009   | Located in: | Not Reported     |
| Assoc rpt : | Not Reported |             |                  |
| Depth to b: | 0            |             |                  |
| Drill year: | Not Reported |             |                  |
| Well seal : | 0            |             |                  |
| Screen slo: | .02          |             |                  |
| Screened i: | 3            |             |                  |
| Screened 1: | 18           |             |                  |

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

|             |                 |             |              |
|-------------|-----------------|-------------|--------------|
| Sustained : | 0               |             |              |
| Attatch st: | Not Reported    |             |              |
| Screen dia: | 0               |             |              |
| Screen typ: | Not Reported    | Screen mat: | Not Reported |
| Pump type:  | Not Reported    |             |              |
| Pump capac: | 0               |             |              |
| Pump set a: | 0               |             |              |
| Pitless ty: | Not Reported    | Pump inst : | Not Reported |
| Elev sourc: | Not Reported    |             |              |
| Water leve: | 0               |             |              |
| Well drill: | Not Reported    | Subcon odh: | Not Reported |
| Site id:    | OHD500000804207 |             |              |

**A2  
NW  
1/4 - 1/2 Mile  
Lower**

**OH WELLS    OHD500000804208**

|             |              |             |                  |
|-------------|--------------|-------------|------------------|
| Well log n: | 999880       |             |                  |
| Well type : | W            |             |                  |
| End user i: | 1602         |             |                  |
| Cnty code:  | 167          | Twp code:   | 1655             |
| Orig owner: | Not Reported | Orig own 1: | GIANT EAGLE CORP |
| Drill type: | Not Reported | Test type : | Not Reported     |
| Well use c: | M            | Aquifer ty: | Not Reported     |
| Loc map ye: | Not Reported | Loc area:   | Not Reported     |
| Loc no:     | 0            |             |                  |
| Sub name:   | Not Reported | Sub map ye: | Not Reported     |
| Sub no:     | Not Reported | Permit no:  | Not Reported     |
| Sec owner : | Not Reported | Lot no:     | Not Reported     |
| Sect no:    | 0            |             |                  |
| St dir cod: | Not Reported |             |                  |
| St no:      | 331          |             |                  |
| St name:    | PIKE         | St type co: | ST               |
| Sec add:    | Not Reported |             |                  |
| Sec add no: | 0            |             |                  |
| City:       | MARIETTA     | State code: | OH               |
| Zip:        | 45750        |             |                  |
| Zone code:  | Not Reported |             |                  |
| Horiz x:    | 0            |             |                  |
| Horiz y:    | 0            |             |                  |
| Horiz datu: | Not Reported |             |                  |
| Horiz acc : | 0            |             |                  |
| Horiz acc1: | 0            |             |                  |
| Horiz ac 1: | Not Reported |             |                  |
| Vert loc:   | 0            |             |                  |
| Vert acc:   | 0            |             |                  |
| Vert acc u: | Not Reported |             |                  |
| Latitude:   | 39.41172     |             |                  |
| Longitude:  | -81.43519    |             |                  |
| Source of : | Not Reported | Flowing we: | Not Reported     |
| Test rate:  | 0            |             |                  |
| Draw down:  | 0            |             |                  |
| S water le: | 0            |             |                  |
| S water me: | Not Reported | S water 1:  | Not Reported     |
| Cas ht:     | 0            |             |                  |
| Screen len: | 15           |             |                  |

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

|             |                 |             |              |
|-------------|-----------------|-------------|--------------|
| Total dept: | 18              | Located in: | Not Reported |
| Date of co: | 02/25/2009      |             |              |
| Assoc rpt : | Not Reported    |             |              |
| Depth to b: | 0               |             |              |
| Drill year: | Not Reported    |             |              |
| Well seal : | 0               |             |              |
| Screen slo: | .02             |             |              |
| Screened i: | 3               |             |              |
| Screened 1: | 18              |             |              |
| Sustained : | 0               |             |              |
| Attatch st: | Not Reported    |             |              |
| Screen dia: | 0               |             |              |
| Screen typ: | Not Reported    | Screen mat: | Not Reported |
| Pump type:  | Not Reported    |             |              |
| Pump capac: | 0               |             |              |
| Pump set a: | 0               |             |              |
| Pitless ty: | Not Reported    | Pump inst : | Not Reported |
| Elev sourc: | Not Reported    |             |              |
| Water leve: | 0               |             |              |
| Well drill: | Not Reported    | Subcon odh: | Not Reported |
| Site id:    | OHD500000804208 |             |              |

**A3  
NW  
1/4 - 1/2 Mile  
Lower**

**OH WELLS    OHD500000795445**

|             |              |             |                 |
|-------------|--------------|-------------|-----------------|
| Well log n: | 2024586      |             |                 |
| Well type : | W            |             |                 |
| End user i: | 4221         |             |                 |
| Cnty code:  | 167          | Twp code:   | 1655            |
| Orig owner: | Not Reported | Orig own 1: | GIANT EAGLE INC |
| Drill type: | A            | Test type : | Not Reported    |
| Well use c: | M            | Aquifer ty: | CLA             |
| Loc map ye: | Not Reported | Loc area:   | Not Reported    |
| Loc no:     | 0            |             |                 |
| Sub name:   | Not Reported | Sub map ye: | Not Reported    |
| Sub no:     | Not Reported | Permit no:  | Not Reported    |
| Sec owner : | Not Reported | Lot no:     | Not Reported    |
| Sect no:    | 0            |             |                 |
| St dir cod: | Not Reported |             |                 |
| St no:      | 331          |             |                 |
| St name:    | PIKE         | St type co: | ST              |
| Sec add:    | Not Reported |             |                 |
| Sec add no: | 0            |             |                 |
| City:       | MARIETTA     | State code: | OH              |
| Zip:        | 45750        |             |                 |
| Zone code:  | Not Reported |             |                 |
| Horiz x:    | 0            |             |                 |
| Horiz y:    | 0            |             |                 |
| Horiz datu: | NAD83        |             |                 |
| Horiz acc : | 0            |             |                 |
| Horiz acc1: | 0            |             |                 |
| Horiz ac 1: | Not Reported |             |                 |
| Vert loc:   | 648          |             |                 |
| Vert acc:   | 0            |             |                 |

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

|             |                        |             |              |
|-------------|------------------------|-------------|--------------|
| Vert acc u: | Not Reported           |             |              |
| Latitude:   | 39.41179               |             |              |
| Longitude:  | -81.43507              |             |              |
| Source of : | MAP-OTHERS             | Flowing we: | N            |
| Test rate:  | 0                      |             |              |
| Draw down:  | 0                      |             |              |
| S water le: | 0                      |             |              |
| S water me: | Not Reported           | S water 1:  | Not Reported |
| Cas ht:     | 0                      |             |              |
| Screen len: | 15                     |             |              |
| Total dept: | 18                     |             |              |
| Date of co: | 09/28/2009             | Located in: | Not Reported |
| Assoc rpt : | N                      |             |              |
| Depth to b: | 0                      |             |              |
| Drill year: | Not Reported           |             |              |
| Well seal : | 0                      |             |              |
| Screen slo: | .01                    |             |              |
| Screened i: | 18                     |             |              |
| Screened 1: | 3                      |             |              |
| Sustained : | 0                      |             |              |
| Attatch st: | Not Reported           |             |              |
| Screen dia: | 2                      |             |              |
| Screen typ: | MACHINE SLOTTED        | Screen mat: | PVC          |
| Pump type:  | Not Reported           |             |              |
| Pump capac: | 0                      |             |              |
| Pump set a: | 0                      |             |              |
| Pitless ty: | Not Reported           | Pump inst : | Not Reported |
| Elev sourc: | GLOBAL POSITION SYSTEM |             |              |
| Water leve: | 0                      |             |              |
| Well drill: | Not Reported           | Subcon odh: | Not Reported |
| Site id:    | OHD500000795445        |             |              |

**A4  
NW  
1/4 - 1/2 Mile  
Lower**

**OH WELLS      OHD500000795444**

|             |              |             |                  |
|-------------|--------------|-------------|------------------|
| Well log n: | 2024585      |             |                  |
| Well type : | W            |             |                  |
| End user i: | 4221         |             |                  |
| Cnty code:  | 167          | Twp code:   | 1655             |
| Orig owner: | Not Reported | Orig own 1: | GIANT EAGLE INC. |
| Drill type: | A            | Test type : | Not Reported     |
| Well use c: | M            | Aquifer ty: | CLA              |
| Loc map ye: | Not Reported | Loc area:   | Not Reported     |
| Loc no:     | 0            |             |                  |
| Sub name:   | Not Reported | Sub map ye: | Not Reported     |
| Sub no:     | Not Reported | Permit no:  | Not Reported     |
| Sec owner : | Not Reported | Lot no:     | Not Reported     |
| Sect no:    | 0            |             |                  |
| St dir cod: | Not Reported |             |                  |
| St no:      | 331          |             |                  |
| St name:    | PIKE         | St type co: | ST               |
| Sec add:    | Not Reported |             |                  |
| Sec add no: | 0            |             |                  |
| City:       | MARIETTA     | State code: | OH               |
| Zip:        | 45750        |             |                  |

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

|             |                        |             |              |
|-------------|------------------------|-------------|--------------|
| Zone code:  | Not Reported           |             |              |
| Horiz x:    | 0                      |             |              |
| Horiz y:    | 0                      |             |              |
| Horiz datu: | NAD83                  |             |              |
| Horiz acc : | 0                      |             |              |
| Horiz acc1: | 0                      |             |              |
| Horiz ac 1: | Not Reported           |             |              |
| Vert loc:   | 649                    |             |              |
| Vert acc:   | 0                      |             |              |
| Vert acc u: | Not Reported           |             |              |
| Latitude:   | 39.41179               |             |              |
| Longitude:  | -81.43507              |             |              |
| Source of : | MAP-OTHERS             | Flowing we: | N            |
| Test rate:  | 0                      |             |              |
| Draw down:  | 0                      |             |              |
| S water le: | 0                      |             |              |
| S water me: | Not Reported           | S water 1:  | Not Reported |
| Cas ht:     | 0                      |             |              |
| Screen len: | 13                     |             |              |
| Total dept: | 17                     |             |              |
| Date of co: | 09/28/2009             | Located in: | Not Reported |
| Assoc rpt : | N                      |             |              |
| Depth to b: | 0                      |             |              |
| Drill year: | Not Reported           |             |              |
| Well seal : | 0                      |             |              |
| Screen slo: | .01                    |             |              |
| Screened i: | 17                     |             |              |
| Screened 1: | 4                      |             |              |
| Sustained : | 0                      |             |              |
| Attatch st: | Not Reported           |             |              |
| Screen dia: | 2                      |             |              |
| Screen typ: | MACHINE SLOTTED        | Screen mat: | PVC          |
| Pump type:  | Not Reported           |             |              |
| Pump capac: | 0                      |             |              |
| Pump set a: | 0                      |             |              |
| Pitless ty: | Not Reported           | Pump inst : | Not Reported |
| Elev sourc: | GLOBAL POSITION SYSTEM |             |              |
| Water leve: | 0                      |             |              |
| Well drill: | Not Reported           | Subcon odh: | Not Reported |
| Site id:    | OHD500000795444        |             |              |

**A5  
NW  
1/4 - 1/2 Mile  
Lower**

**OH WELLS      OHD500000802218**

|             |              |             |                 |
|-------------|--------------|-------------|-----------------|
| Well log n: | 2024588      |             |                 |
| Well type : | W            |             |                 |
| End user i: | 4221         |             |                 |
| Cnty code:  | 167          | Twp code:   | 1655            |
| Orig owner: | Not Reported | Orig own 1: | GIANT EAGLE INC |
| Drill type: | A            | Test type : | Not Reported    |
| Well use c: | M            | Aquifer ty: | CLA             |
| Loc map ye: | Not Reported | Loc area:   | Not Reported    |
| Loc no:     | 0            |             |                 |
| Sub name:   | Not Reported | Sub map ye: | Not Reported    |

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

|             |                        |             |              |
|-------------|------------------------|-------------|--------------|
| Sub no:     | Not Reported           | Permit no:  | Not Reported |
| Sec owner : | Not Reported           | Lot no:     | Not Reported |
| Sect no:    | 0                      |             |              |
| St dir cod: | Not Reported           |             |              |
| St no:      | 331                    |             |              |
| St name:    | PIKE                   | St type co: | ST           |
| Sec add:    | Not Reported           |             |              |
| Sec add no: | 0                      |             |              |
| City:       | MARIETTA               | State code: | OH           |
| Zip:        | 45750                  |             |              |
| Zone code:  | Not Reported           |             |              |
| Horiz x:    | 0                      |             |              |
| Horiz y:    | 0                      |             |              |
| Horiz datu: | NAD83                  |             |              |
| Horiz acc : | 0                      |             |              |
| Horiz acc1: | 0                      |             |              |
| Horiz ac 1: | Not Reported           |             |              |
| Vert loc:   | 638                    |             |              |
| Vert acc:   | 0                      |             |              |
| Vert acc u: | Not Reported           |             |              |
| Latitude:   | 39.41179               |             |              |
| Longitude:  | -81.43507              |             |              |
| Source of : | MAP-OTHERS             | Flowing we: | N            |
| Test rate:  | 0                      |             |              |
| Draw down:  | 0                      |             |              |
| S water le: | 0                      |             |              |
| S water me: | Not Reported           | S water 1:  | Not Reported |
| Cas ht:     | 0                      |             |              |
| Screen len: | 15                     |             |              |
| Total dept: | 18                     |             |              |
| Date of co: | 09/29/2009             | Located in: | Not Reported |
| Assoc rpt : | N                      |             |              |
| Depth to b: | 0                      |             |              |
| Drill year: | Not Reported           |             |              |
| Well seal : | 0                      |             |              |
| Screen slo: | .01                    |             |              |
| Screened i: | 18                     |             |              |
| Screened 1: | 3                      |             |              |
| Sustained : | 0                      |             |              |
| Attatch st: | Not Reported           |             |              |
| Screen dia: | 2                      |             |              |
| Screen typ: | MACHINE SLOTTED        | Screen mat: | PVC          |
| Pump type:  | Not Reported           |             |              |
| Pump capac: | 0                      |             |              |
| Pump set a: | 0                      |             |              |
| Pitless ty: | Not Reported           | Pump inst : | Not Reported |
| Elev sourc: | GLOBAL POSITION SYSTEM |             |              |
| Water leve: | 0                      |             |              |
| Well drill: | Not Reported           | Subcon odh: | Not Reported |
| Site id:    | OHD500000802218        |             |              |

**A6  
NW  
1/4 - 1/2 Mile  
Lower**

**OH WELLS    OHD500000802217**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

|             |                        |             |                 |
|-------------|------------------------|-------------|-----------------|
| Well log n: | 2024587                |             |                 |
| Well type : | W                      |             |                 |
| End user i: | 4221                   |             |                 |
| Cnty code:  | 167                    | Twp code:   | 1655            |
| Orig owner: | Not Reported           | Orig own 1: | GIANT EAGLE INC |
| Drill type: | A                      | Test type : | Not Reported    |
| Well use c: | M                      | Aquifer ty: | CLA             |
| Loc map ye: | Not Reported           | Loc area:   | Not Reported    |
| Loc no:     | 0                      |             |                 |
| Sub name:   | Not Reported           | Sub map ye: | Not Reported    |
| Sub no:     | Not Reported           | Permit no:  | Not Reported    |
| Sec owner : | Not Reported           | Lot no:     | Not Reported    |
| Sect no:    | 0                      |             |                 |
| St dir cod: | Not Reported           |             |                 |
| St no:      | 331                    |             |                 |
| St name:    | PIKE                   | St type co: | ST              |
| Sec add:    | Not Reported           |             |                 |
| Sec add no: | 0                      |             |                 |
| City:       | MARIETTA               | State code: | OH              |
| Zip:        | 45750                  |             |                 |
| Zone code:  | Not Reported           |             |                 |
| Horiz x:    | 0                      |             |                 |
| Horiz y:    | 0                      |             |                 |
| Horiz datu: | NAD83                  |             |                 |
| Horiz acc : | 0                      |             |                 |
| Horiz acc1: | 0                      |             |                 |
| Horiz ac 1: | Not Reported           |             |                 |
| Vert loc:   | 640                    |             |                 |
| Vert acc:   | 0                      |             |                 |
| Vert acc u: | Not Reported           |             |                 |
| Latitude:   | 39.41179               |             |                 |
| Longitude:  | -81.43507              |             |                 |
| Source of : | MAP-OTHERS             | Flowing we: | N               |
| Test rate:  | 0                      |             |                 |
| Draw down:  | 0                      |             |                 |
| S water le: | 0                      |             |                 |
| S water me: | Not Reported           | S water 1:  | Not Reported    |
| Cas ht:     | 0                      |             |                 |
| Screen len: | 16                     |             |                 |
| Total dept: | 20                     |             |                 |
| Date of co: | 09/28/2009             | Located in: | Not Reported    |
| Assoc rpt : | N                      |             |                 |
| Depth to b: | 0                      |             |                 |
| Drill year: | Not Reported           |             |                 |
| Well seal : | 0                      |             |                 |
| Screen slo: | .01                    |             |                 |
| Screened i: | 16                     |             |                 |
| Screened 1: | 4                      |             |                 |
| Sustained : | 0                      |             |                 |
| Attatch st: | Not Reported           |             |                 |
| Screen dia: | 2                      |             |                 |
| Screen typ: | MACHINE SLOTTED        | Screen mat: | PVC             |
| Pump type:  | Not Reported           |             |                 |
| Pump capac: | 0                      |             |                 |
| Pump set a: | 0                      |             |                 |
| Pitless ty: | Not Reported           | Pump inst : | Not Reported    |
| Elev sourc: | GLOBAL POSITION SYSTEM |             |                 |
| Water leve: | 0                      |             |                 |

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well drill: Not Reported                      Subcon odh: Not Reported  
 Site id: OHD500000802217

**A7  
 NW  
 1/4 - 1/2 Mile  
 Lower**

**OH WELLS      OHD500000798402**

|             |              |             |                 |
|-------------|--------------|-------------|-----------------|
| Well log n: | 2023941      |             |                 |
| Well type : | W            |             |                 |
| End user i: | 4221         |             |                 |
| Cnty code:  | 167          | Twp code:   | 1655            |
| Orig owner: | Not Reported | Orig own 1: | GIANT EAGLE INC |
| Drill type: | A            | Test type : | Not Reported    |
| Well use c: | M            | Aquifer ty: | SLC             |
| Loc map ye: | Not Reported | Loc area:   | Not Reported    |
| Loc no:     | 0            |             |                 |
| Sub name:   | Not Reported | Sub map ye: | Not Reported    |
| Sub no:     | Not Reported | Permit no:  | Not Reported    |
| Sec owner : | Not Reported | Lot no:     | Not Reported    |
| Sect no:    | 0            |             |                 |
| St dir cod: | Not Reported |             |                 |
| St no:      | 331          | St type co: | ST              |
| St name:    | PIKE         |             |                 |
| Sec add:    | Not Reported |             |                 |
| Sec add no: | 0            | State code: | OH              |
| City:       | MARIETTA     |             |                 |
| Zip:        | 45750        |             |                 |
| Zone code:  | Not Reported |             |                 |
| Horiz x:    | 0            |             |                 |
| Horiz y:    | 0            |             |                 |
| Horiz datu: | NAD83        |             |                 |
| Horiz acc : | 0            |             |                 |
| Horiz acc1: | 0            |             |                 |
| Horiz ac 1: | Not Reported |             |                 |
| Vert loc:   | 0            |             |                 |
| Vert acc:   | 0            |             |                 |
| Vert acc u: | Not Reported |             |                 |
| Latitude:   | 39.412332    |             |                 |
| Longitude:  | -81.435968   |             |                 |
| Source of : | MAP-OTHERS   | Flowing we: | N               |
| Test rate:  | 0            |             |                 |
| Draw down:  | 0            |             |                 |
| S water le: | 0            |             |                 |
| S water me: | Not Reported | S water 1:  | Not Reported    |
| Cas ht:     | 0            |             |                 |
| Screen len: | 16           |             |                 |
| Total dept: | 20           |             |                 |
| Date of co: | 08/17/2009   | Located in: | Not Reported    |
| Assoc rpt : | N            |             |                 |
| Depth to b: | 0            |             |                 |
| Drill year: | Not Reported |             |                 |
| Well seal : | 0            |             |                 |
| Screen slo: | .01          |             |                 |
| Screened i: | 20           |             |                 |
| Screened 1: | 4            |             |                 |

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

|             |                 |             |              |
|-------------|-----------------|-------------|--------------|
| Sustained : | 0               |             |              |
| Attatch st: | Not Reported    |             |              |
| Screen dia: | 2               |             |              |
| Screen typ: | MACHINE SLOTTED | Screen mat: | PVC          |
| Pump type:  | Not Reported    |             |              |
| Pump capac: | 0               |             |              |
| Pump set a: | 0               |             |              |
| Pitless ty: | Not Reported    | Pump inst : | Not Reported |
| Elev sourc: | Not Reported    |             |              |
| Water leve: | 0               |             |              |
| Well drill: | Not Reported    | Subcon odh: | Not Reported |
| Site id:    | OHD500000798402 |             |              |

**A8  
NW  
1/4 - 1/2 Mile  
Lower**

**OH WELLS      OHD500000802310**

|             |              |             |                  |
|-------------|--------------|-------------|------------------|
| Well log n: | 2023942      |             |                  |
| Well type : | W            |             |                  |
| End user i: | 4221         |             |                  |
| Cnty code:  | 167          | Twp code:   | 1655             |
| Orig owner: | Not Reported | Orig own 1: | GIANT EAGLE INC. |
| Drill type: | A            | Test type : | Not Reported     |
| Well use c: | M            | Aquifer ty: | SLC              |
| Loc map ye: | Not Reported | Loc area:   | Not Reported     |
| Loc no:     | 0            |             |                  |
| Sub name:   | Not Reported | Sub map ye: | Not Reported     |
| Sub no:     | Not Reported | Permit no:  | Not Reported     |
| Sec owner : | Not Reported | Lot no:     | Not Reported     |
| Sect no:    | 0            |             |                  |
| St dir cod: | Not Reported |             |                  |
| St no:      | 331          |             |                  |
| St name:    | PIKE         | St type co: | ST               |
| Sec add:    | Not Reported |             |                  |
| Sec add no: | 0            |             |                  |
| City:       | MARIETTA     | State code: | OH               |
| Zip:        | 45750        |             |                  |
| Zone code:  | Not Reported |             |                  |
| Horiz x:    | 0            |             |                  |
| Horiz y:    | 0            |             |                  |
| Horiz datu: | NAD83        |             |                  |
| Horiz acc : | 0            |             |                  |
| Horiz acc1: | 0            |             |                  |
| Horiz ac 1: | Not Reported |             |                  |
| Vert loc:   | 0            |             |                  |
| Vert acc:   | 0            |             |                  |
| Vert acc u: | Not Reported |             |                  |
| Latitude:   | 39.412332    |             |                  |
| Longitude:  | -81.435968   |             |                  |
| Source of : | MAP-OTHERS   | Flowing we: | N                |
| Test rate:  | 0            |             |                  |
| Draw down:  | 0            |             |                  |
| S water le: | 0            |             |                  |
| S water me: | Not Reported | S water 1:  | Not Reported     |
| Cas ht:     | 0            |             |                  |
| Screen len: | 16           |             |                  |

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

|             |                 |             |              |
|-------------|-----------------|-------------|--------------|
| Total dept: | 20              | Located in: | Not Reported |
| Date of co: | 08/18/2009      |             |              |
| Assoc rpt : | N               |             |              |
| Depth to b: | 0               |             |              |
| Drill year: | Not Reported    |             |              |
| Well seal : | 0               |             |              |
| Screen slo: | .01             |             |              |
| Screened i: | 20              |             |              |
| Screened 1: | 3.5             |             |              |
| Sustained : | 0               |             |              |
| Attatch st: | Not Reported    |             |              |
| Screen dia: | 2               |             |              |
| Screen typ: | MACHINE SLOTTED | Screen mat: | PVC          |
| Pump type:  | Not Reported    |             |              |
| Pump capac: | 0               |             |              |
| Pump set a: | 0               |             |              |
| Pitless ty: | Not Reported    | Pump inst : | Not Reported |
| Elev sourc: | Not Reported    |             |              |
| Water leve: | 0               |             |              |
| Well drill: | Not Reported    | Subcon odh: | Not Reported |
| Site id:    | OHD500000802310 |             |              |

**B9  
NW  
1/4 - 1/2 Mile  
Lower**

**OH WELLS    OHD500000646743**

|             |              |             |                   |
|-------------|--------------|-------------|-------------------|
| Well log n: | 920165       |             |                   |
| Well type : | W            |             |                   |
| End user i: | 1411         |             |                   |
| Cnty code:  | 167          | Twp code:   | 1655              |
| Orig owner: | Not Reported | Orig own 1: | PAR MAR STORE # 9 |
| Drill type: | A            | Test type : | Not Reported      |
| Well use c: | M            | Aquifer ty: | UNK               |
| Loc map ye: | Not Reported | Loc area:   | Not Reported      |
| Loc no:     | 0            |             |                   |
| Sub name:   | Not Reported | Sub map ye: | Not Reported      |
| Sub no:     | Not Reported | Permit no:  | Not Reported      |
| Sec owner : | Not Reported | Lot no:     | Not Reported      |
| Sect no:    | 0            |             |                   |
| St dir cod: | Not Reported |             |                   |
| St no:      | 328          |             |                   |
| St name:    | PIKE         | St type co: | ST                |
| Sec add:    | Not Reported |             |                   |
| Sec add no: | 0            |             |                   |
| City:       | MARIETTA     | State code: | OH                |
| Zip:        | 45750        |             |                   |
| Zone code:  | Not Reported |             |                   |
| Horiz x:    | 0            |             |                   |
| Horiz y:    | 0            |             |                   |
| Horiz datu: | NAD27        |             |                   |
| Horiz acc : | 0            |             |                   |
| Horiz acc1: | 0            |             |                   |
| Horiz ac 1: | Not Reported |             |                   |
| Vert loc:   | 0            |             |                   |
| Vert acc:   | 0            |             |                   |

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

|             |                 |             |              |
|-------------|-----------------|-------------|--------------|
| Vert acc u: | Not Reported    |             |              |
| Latitude:   | 39.41292        |             |              |
| Longitude:  | -81.43668       |             |              |
| Source of : | GEOCODE         | Flowing we: | Not Reported |
| Test rate:  | 0               |             |              |
| Draw down:  | 0               |             |              |
| S water le: | 0               |             |              |
| S water me: | Not Reported    | S water 1:  | Not Reported |
| Cas ht:     | 0               |             |              |
| Screen len: | 22              |             |              |
| Total dept: | 24              |             |              |
| Date of co: | 08/17/2000      | Located in: | Not Reported |
| Assoc rpt : | Not Reported    |             |              |
| Depth to b: | 0               |             |              |
| Drill year: | Not Reported    |             |              |
| Comments:   | MW-7            |             |              |
| Well seal : | 0               |             |              |
| Screen slo: | .01             |             |              |
| Screened i: | 2               |             |              |
| Screened 1: | 24              |             |              |
| Sustained : | 0               |             |              |
| Attatch st: | Not Reported    |             |              |
| Screen dia: | 0               |             |              |
| Screen typ: | Not Reported    | Screen mat: | Not Reported |
| Pump type:  | Not Reported    |             |              |
| Pump capac: | 0               |             |              |
| Pump set a: | 0               |             |              |
| Pitless ty: | Not Reported    | Pump inst : | Not Reported |
| Elev sourc: | Not Reported    |             |              |
| Water leve: | 0               |             |              |
| Well drill: | Not Reported    | Subcon odh: | Not Reported |
| Site id:    | OHD500000646743 |             |              |

**B10  
NW  
1/4 - 1/2 Mile  
Lower**

**OH WELLS    OHD500000646742**

|             |              |             |                   |
|-------------|--------------|-------------|-------------------|
| Well log n: | 920164       |             |                   |
| Well type : | W            |             |                   |
| End user i: | 1411         |             |                   |
| Cnty code:  | 167          | Twp code:   | 1655              |
| Orig owner: | Not Reported | Orig own 1: | PAR MAR STORE # 9 |
| Drill type: | A            | Test type : | Not Reported      |
| Well use c: | M            | Aquifer ty: | UNK               |
| Loc map ye: | Not Reported | Loc area:   | Not Reported      |
| Loc no:     | 0            |             |                   |
| Sub name:   | Not Reported | Sub map ye: | Not Reported      |
| Sub no:     | Not Reported | Permit no:  | Not Reported      |
| Sec owner : | Not Reported | Lot no:     | Not Reported      |
| Sect no:    | 0            |             |                   |
| St dir cod: | Not Reported |             |                   |
| St no:      | 328          |             |                   |
| St name:    | PIKE         | St type co: | ST                |
| Sec add:    | Not Reported |             |                   |
| Sec add no: | 0            |             |                   |
| City:       | MARIETTA     | State code: | OH                |
| Zip:        | 45750        |             |                   |

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

|             |                 |             |              |
|-------------|-----------------|-------------|--------------|
| Zone code:  | Not Reported    |             |              |
| Horiz x:    | 0               |             |              |
| Horiz y:    | 0               |             |              |
| Horiz datu: | NAD27           |             |              |
| Horiz acc : | 0               |             |              |
| Horiz acc1: | 0               |             |              |
| Horiz ac 1: | Not Reported    |             |              |
| Vert loc:   | 0               |             |              |
| Vert acc:   | 0               |             |              |
| Vert acc u: | Not Reported    |             |              |
| Latitude:   | 39.41292        |             |              |
| Longitude:  | -81.43668       |             |              |
| Source of : | GEOCODE         | Flowing we: | Not Reported |
| Test rate:  | 0               |             |              |
| Draw down:  | 0               |             |              |
| S water le: | 0               |             |              |
| S water me: | Not Reported    | S water 1:  | Not Reported |
| Cas ht:     | 0               |             |              |
| Screen len: | 20              |             |              |
| Total dept: | 23              |             |              |
| Date of co: | 08/18/2000      | Located in: | Not Reported |
| Assoc rpt : | Not Reported    |             |              |
| Depth to b: | 0               |             |              |
| Drill year: | Not Reported    |             |              |
| Comments:   | MW-6            |             |              |
| Well seal : | 0               |             |              |
| Screen slo: | .01             |             |              |
| Screened i: | 3               |             |              |
| Screened 1: | 23              |             |              |
| Sustained : | 0               |             |              |
| Attatch st: | Not Reported    |             |              |
| Screen dia: | 0               |             |              |
| Screen typ: | Not Reported    | Screen mat: | Not Reported |
| Pump type:  | Not Reported    |             |              |
| Pump capac: | 0               |             |              |
| Pump set a: | 0               |             |              |
| Pitless ty: | Not Reported    | Pump inst : | Not Reported |
| Elev sourc: | Not Reported    |             |              |
| Water leve: | 0               |             |              |
| Well drill: | Not Reported    | Subcon odh: | Not Reported |
| Site id:    | OHD500000646742 |             |              |

**B11  
NW  
1/4 - 1/2 Mile  
Lower**

**OH WELLS    OHD500000646740**

|             |              |             |                   |
|-------------|--------------|-------------|-------------------|
| Well log n: | 920163       |             |                   |
| Well type : | W            |             |                   |
| End user i: | 1411         |             |                   |
| Cnty code:  | 167          | Twp code:   | 1655              |
| Orig owner: | Not Reported | Orig own 1: | PAR MAR STORE # 9 |
| Drill type: | A            | Test type : | Not Reported      |
| Well use c: | M            | Aquifer ty: | UNK               |
| Loc map ye: | Not Reported | Loc area:   | Not Reported      |
| Loc no:     | 0            |             |                   |
| Sub name:   | Not Reported | Sub map ye: | Not Reported      |

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

|             |                 |             |              |
|-------------|-----------------|-------------|--------------|
| Sub no:     | Not Reported    | Permit no:  | Not Reported |
| Sec owner : | Not Reported    | Lot no:     | Not Reported |
| Sect no:    | 0               |             |              |
| St dir cod: | Not Reported    |             |              |
| St no:      | 328             |             |              |
| St name:    | PIKE            | St type co: | ST           |
| Sec add:    | Not Reported    |             |              |
| Sec add no: | 0               |             |              |
| City:       | MARIETTA        | State code: | OH           |
| Zip:        | 45750           |             |              |
| Zone code:  | Not Reported    |             |              |
| Horiz x:    | 0               |             |              |
| Horiz y:    | 0               |             |              |
| Horiz datu: | NAD27           |             |              |
| Horiz acc : | 0               |             |              |
| Horiz acc1: | 0               |             |              |
| Horiz ac 1: | Not Reported    |             |              |
| Vert loc:   | 0               |             |              |
| Vert acc:   | 0               |             |              |
| Vert acc u: | Not Reported    |             |              |
| Latitude:   | 39.41292        |             |              |
| Longitude:  | -81.43668       |             |              |
| Source of : | GEOCODE         | Flowing we: | Not Reported |
| Test rate:  | 0               |             |              |
| Draw down:  | 0               |             |              |
| S water le: | 0               |             |              |
| S water me: | Not Reported    | S water 1:  | Not Reported |
| Cas ht:     | 0               |             |              |
| Screen len: | 20              |             |              |
| Total dept: | 24              |             |              |
| Date of co: | 08/17/2000      | Located in: | Not Reported |
| Assoc rpt : | Not Reported    |             |              |
| Depth to b: | 0               |             |              |
| Drill year: | Not Reported    |             |              |
| Comments:   | MW-5            |             |              |
| Well seal : | 0               |             |              |
| Screen slo: | .01             |             |              |
| Screened i: | 3               |             |              |
| Screened 1: | 20              |             |              |
| Sustained : | 0               |             |              |
| Attatch st: | Not Reported    |             |              |
| Screen dia: | 0               |             |              |
| Screen typ: | Not Reported    | Screen mat: | Not Reported |
| Pump type:  | Not Reported    |             |              |
| Pump capac: | 0               |             |              |
| Pump set a: | 0               |             |              |
| Pitless ty: | Not Reported    | Pump inst : | Not Reported |
| Elev sourc: | Not Reported    |             |              |
| Water leve: | 0               |             |              |
| Well drill: | Not Reported    | Subcon odh: | Not Reported |
| Site id:    | OHD500000646740 |             |              |

**C12  
East  
1/2 - 1 Mile  
Higher**

**OH WELLS    OHD500000768417**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

|             |                        |             |                     |
|-------------|------------------------|-------------|---------------------|
| Well log n: | 2007292                |             |                     |
| Well type : | W                      |             |                     |
| End user i: | 1407                   |             |                     |
| Cnty code:  | 167                    | Twp code:   | 1655                |
| Orig owner: | Not Reported           | Orig own 1: | SUPER AMERICA #3743 |
| Drill type: | A                      | Test type : | Not Reported        |
| Well use c: | M                      | Aquifer ty: | CLA                 |
| Loc map ye: | Not Reported           | Loc area:   | Not Reported        |
| Loc no:     | 0                      |             |                     |
| Sub name:   | Not Reported           | Sub map ye: | Not Reported        |
| Sub no:     | Not Reported           | Permit no:  | Not Reported        |
| Sec owner : | Not Reported           | Lot no:     | Not Reported        |
| Sect no:    | 0                      |             |                     |
| St dir cod: | Not Reported           |             |                     |
| St no:      | 903                    |             |                     |
| St name:    | PIKE                   | St type co: | ST                  |
| Sec add:    | Not Reported           |             |                     |
| Sec add no: | 0                      |             |                     |
| City:       | MARRIETTA              | State code: | OH                  |
| Zip:        | Not Reported           |             |                     |
| Zone code:  | Not Reported           |             |                     |
| Horiz x:    | 0                      |             |                     |
| Horiz y:    | 0                      |             |                     |
| Horiz datu: | Not Reported           |             |                     |
| Horiz acc : | 0                      |             |                     |
| Horiz acc1: | 0                      |             |                     |
| Horiz ac 1: | Not Reported           |             |                     |
| Vert loc:   | 0                      |             |                     |
| Vert acc:   | 0                      |             |                     |
| Vert acc u: | Not Reported           |             |                     |
| Latitude:   | 39.406683              |             |                     |
| Longitude:  | -81.417481             |             |                     |
| Source of : | GLOBAL POSITION SYSTEM | Flowing we: | N                   |
| Test rate:  | 0                      |             |                     |
| Draw down:  | 0                      |             |                     |
| S water le: | 12                     |             |                     |
| S water me: | Not Reported           | S water 1:  | 11/30/2006          |
| Cas ht:     | 0                      |             |                     |
| Screen len: | 8                      |             |                     |
| Total dept: | 12                     |             |                     |
| Date of co: | 11/30/2006             | Located in: | Not Reported        |
| Assoc rpt : | N                      |             |                     |
| Depth to b: | 0                      |             |                     |
| Drill year: | Not Reported           |             |                     |
| Well seal : | 0                      |             |                     |
| Screen slo: | .01                    |             |                     |
| Screened i: | 12                     |             |                     |
| Screened 1: | 4                      |             |                     |
| Sustained : | 0                      |             |                     |
| Attatch st: | Not Reported           |             |                     |
| Screen dia: | 2                      |             |                     |
| Screen typ: | MACHINE SLOTTED        | Screen mat: | PVC                 |
| Pump type:  | Not Reported           |             |                     |
| Pump capac: | 0                      |             |                     |
| Pump set a: | 0                      |             |                     |
| Pitless ty: | Not Reported           | Pump inst : | Not Reported        |
| Elev sourc: | Not Reported           |             |                     |
| Water leve: | 0                      |             |                     |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well drill: Not Reported                      Subcon odh: Not Reported  
 Site id: OHD500000768417

**C13  
 East  
 1/2 - 1 Mile  
 Higher**

**OH WELLS      OHD500000768413**

|             |                        |             |                     |
|-------------|------------------------|-------------|---------------------|
| Well log n: | 2007288                |             |                     |
| Well type : | W                      |             |                     |
| End user i: | 1407                   |             |                     |
| Cnty code:  | 167                    | Twp code:   | 1655                |
| Orig owner: | Not Reported           | Orig own 1: | SUPER AMERICA #3743 |
| Drill type: | A                      | Test type : | Not Reported        |
| Well use c: | M                      | Aquifer ty: | CLA                 |
| Loc map ye: | Not Reported           | Loc area:   | Not Reported        |
| Loc no:     | 0                      |             |                     |
| Sub name:   | Not Reported           | Sub map ye: | Not Reported        |
| Sub no:     | Not Reported           | Permit no:  | Not Reported        |
| Sec owner : | Not Reported           | Lot no:     | Not Reported        |
| Sect no:    | 0                      |             |                     |
| St dir cod: | Not Reported           |             |                     |
| St no:      | 903                    |             |                     |
| St name:    | PIKE                   | St type co: | ST                  |
| Sec add:    | Not Reported           |             |                     |
| Sec add no: | 0                      |             |                     |
| City:       | MARIETTA               | State code: | OH                  |
| Zip:        | Not Reported           |             |                     |
| Zone code:  | Not Reported           |             |                     |
| Horiz x:    | 0                      |             |                     |
| Horiz y:    | 0                      |             |                     |
| Horiz datu: | Not Reported           |             |                     |
| Horiz acc : | 0                      |             |                     |
| Horiz acc1: | 0                      |             |                     |
| Horiz ac 1: | Not Reported           |             |                     |
| Vert loc:   | 0                      |             |                     |
| Vert acc:   | 0                      |             |                     |
| Vert acc u: | Not Reported           |             |                     |
| Latitude:   | 39.406706              |             |                     |
| Longitude:  | -81.417361             |             |                     |
| Source of : | GLOBAL POSITION SYSTEM | Flowing we: | N                   |
| Test rate:  | 0                      |             |                     |
| Draw down:  | 0                      |             |                     |
| S water le: | 12                     |             |                     |
| S water me: | Not Reported           | S water 1:  | 11/29/2006          |
| Cas ht:     | 0                      |             |                     |
| Screen len: | 8                      |             |                     |
| Total dept: | 12                     |             |                     |
| Date of co: | 11/29/2006             | Located in: | Not Reported        |
| Assoc rpt : | N                      |             |                     |
| Depth to b: | 0                      |             |                     |
| Drill year: | Not Reported           |             |                     |
| Well seal : | 0                      |             |                     |
| Screen slo: | .01                    |             |                     |
| Screened i: | 12                     |             |                     |
| Screened 1: | 4                      |             |                     |

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

|             |                 |             |              |
|-------------|-----------------|-------------|--------------|
| Sustained : | 0               |             |              |
| Attatch st: | Not Reported    |             |              |
| Screen dia: | 2               |             |              |
| Screen typ: | MACHINE SLOTTED | Screen mat: | PVC          |
| Pump type:  | Not Reported    |             |              |
| Pump capac: | 0               |             |              |
| Pump set a: | 0               |             |              |
| Pitless ty: | Not Reported    | Pump inst : | Not Reported |
| Elev sourc: | Not Reported    |             |              |
| Water leve: | 0               |             |              |
| Well drill: | Not Reported    | Subcon odh: | Not Reported |
| Site id:    | OHD500000768413 |             |              |

**C14  
East  
1/2 - 1 Mile  
Higher**

**OH WELLS    OHD500000768414**

|             |                        |             |                     |
|-------------|------------------------|-------------|---------------------|
| Well log n: | 2007289                |             |                     |
| Well type : | W                      |             |                     |
| End user i: | 1407                   |             |                     |
| Cnty code:  | 167                    | Twp code:   | 1655                |
| Orig owner: | Not Reported           | Orig own 1: | SUPER AMERICA #3743 |
| Drill type: | A                      | Test type : | Not Reported        |
| Well use c: | M                      | Aquifer ty: | CLA                 |
| Loc map ye: | Not Reported           | Loc area:   | Not Reported        |
| Loc no:     | 0                      |             |                     |
| Sub name:   | Not Reported           | Sub map ye: | Not Reported        |
| Sub no:     | Not Reported           | Permit no:  | Not Reported        |
| Sec owner : | Not Reported           | Lot no:     | Not Reported        |
| Sect no:    | 0                      |             |                     |
| St dir cod: | Not Reported           |             |                     |
| St no:      | 903                    |             |                     |
| St name:    | PIKE                   | St type co: | ST                  |
| Sec add:    | Not Reported           |             |                     |
| Sec add no: | 0                      |             |                     |
| City:       | MARIETTA               | State code: | OH                  |
| Zip:        | Not Reported           |             |                     |
| Zone code:  | Not Reported           |             |                     |
| Horiz x:    | 0                      |             |                     |
| Horiz y:    | 0                      |             |                     |
| Horiz datu: | Not Reported           |             |                     |
| Horiz acc : | 0                      |             |                     |
| Horiz acc1: | 0                      |             |                     |
| Horiz ac 1: | Not Reported           |             |                     |
| Vert loc:   | 0                      |             |                     |
| Vert acc:   | 0                      |             |                     |
| Vert acc u: | Not Reported           |             |                     |
| Latitude:   | 39.406717              |             |                     |
| Longitude:  | -81.417122             |             |                     |
| Source of : | GLOBAL POSITION SYSTEM | Flowing we: | N                   |
| Test rate:  | 0                      |             |                     |
| Draw down:  | 0                      |             |                     |
| S water le: | 12                     |             |                     |
| S water me: | Not Reported           | S water 1:  | 11/29/2006          |
| Cas ht:     | 0                      |             |                     |
| Screen len: | 8                      |             |                     |

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

|             |                 |             |              |
|-------------|-----------------|-------------|--------------|
| Total dept: | 12              | Located in: | Not Reported |
| Date of co: | 11/29/2006      |             |              |
| Assoc rpt : | N               |             |              |
| Depth to b: | 0               |             |              |
| Drill year: | Not Reported    |             |              |
| Well seal : | 0               |             |              |
| Screen slo: | .01             |             |              |
| Screened i: | 12              |             |              |
| Screened 1: | 4               |             |              |
| Sustained : | 0               |             |              |
| Attatch st: | Not Reported    |             |              |
| Screen dia: | 2               |             |              |
| Screen typ: | MACHINE SLOTTED | Screen mat: | PVC          |
| Pump type:  | Not Reported    |             |              |
| Pump capac: | 0               |             |              |
| Pump set a: | 0               |             |              |
| Pitless ty: | Not Reported    | Pump inst : | Not Reported |
| Elev sourc: | Not Reported    |             |              |
| Water leve: | 0               |             |              |
| Well drill: | Not Reported    | Subcon odh: | Not Reported |
| Site id:    | OHD500000768414 |             |              |

**C15  
East  
1/2 - 1 Mile  
Higher**

**OH WELLS    OHD500000768416**

|             |              |             |                     |
|-------------|--------------|-------------|---------------------|
| Well log n: | 2007291      |             |                     |
| Well type : | W            |             |                     |
| End user i: | 1407         |             |                     |
| Cnty code:  | 167          | Twp code:   | 1655                |
| Orig owner: | Not Reported | Orig own 1: | SUPER AMERICA #3743 |
| Drill type: | A            | Test type : | Not Reported        |
| Well use c: | M            | Aquifer ty: | CLA                 |
| Loc map ye: | Not Reported | Loc area:   | Not Reported        |
| Loc no:     | 0            |             |                     |
| Sub name:   | Not Reported | Sub map ye: | Not Reported        |
| Sub no:     | Not Reported | Permit no:  | Not Reported        |
| Sec owner : | Not Reported | Lot no:     | Not Reported        |
| Sect no:    | 0            |             |                     |
| St dir cod: | Not Reported |             |                     |
| St no:      | 903          |             |                     |
| St name:    | PIKE         | St type co: | ST                  |
| Sec add:    | Not Reported |             |                     |
| Sec add no: | 0            |             |                     |
| City:       | MARIETTA     | State code: | OH                  |
| Zip:        | Not Reported |             |                     |
| Zone code:  | Not Reported |             |                     |
| Horiz x:    | 0            |             |                     |
| Horiz y:    | 0            |             |                     |
| Horiz datu: | Not Reported |             |                     |
| Horiz acc : | 0            |             |                     |
| Horiz acc1: | 0            |             |                     |
| Horiz ac 1: | Not Reported |             |                     |
| Vert loc:   | 0            |             |                     |
| Vert acc:   | 0            |             |                     |

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

|             |                        |             |              |
|-------------|------------------------|-------------|--------------|
| Vert acc u: | Not Reported           |             |              |
| Latitude:   | 39.406869              |             |              |
| Longitude:  | -81.417042             |             |              |
| Source of : | GLOBAL POSITION SYSTEM | Flowing we: | N            |
| Test rate:  | 0                      |             |              |
| Draw down:  | 0                      |             |              |
| S water le: | 12                     |             |              |
| S water me: | Not Reported           | S water 1:  | 11/29/2006   |
| Cas ht:     | 0                      |             |              |
| Screen len: | 8                      |             |              |
| Total dept: | 12                     |             |              |
| Date of co: | 11/29/2006             | Located in: | Not Reported |
| Assoc rpt : | N                      |             |              |
| Depth to b: | 0                      |             |              |
| Drill year: | Not Reported           |             |              |
| Well seal : | 0                      |             |              |
| Screen slo: | .01                    |             |              |
| Screened i: | 12                     |             |              |
| Screened 1: | 4                      |             |              |
| Sustained : | 0                      |             |              |
| Attatch st: | Not Reported           |             |              |
| Screen dia: | 2                      |             |              |
| Screen typ: | MACHINE SLOTTED        | Screen mat: | PVC          |
| Pump type:  | Not Reported           |             |              |
| Pump capac: | 0                      |             |              |
| Pump set a: | 0                      |             |              |
| Pitless ty: | Not Reported           | Pump inst : | Not Reported |
| Elev sourc: | Not Reported           |             |              |
| Water leve: | 0                      |             |              |
| Well drill: | Not Reported           | Subcon odh: | Not Reported |
| Site id:    | OHD500000768416        |             |              |

**16  
North  
1/2 - 1 Mile  
Higher**

**OH WELLS      OHD500000629754**

|             |              |             |              |
|-------------|--------------|-------------|--------------|
| Well log n: | 919601       |             |              |
| Well type : | W            |             |              |
| End user i: | 849          |             |              |
| Cnty code:  | 167          | Twp code:   | 1465         |
| Orig owner: | MIKE         | Orig own 1: | HAUGHT       |
| Drill type: | CT           | Test type : | B            |
| Well use c: | D            | Aquifer ty: | SHA          |
| Loc map ye: | Not Reported | Loc area:   | Not Reported |
| Loc no:     | 0            |             |              |
| Sub name:   | Not Reported | Sub map ye: | Not Reported |
| Sub no:     | Not Reported | Permit no:  | 1319         |
| Sec owner : | Not Reported | Lot no:     | Not Reported |
| Sect no:    | 0            |             |              |
| St dir cod: | E            |             |              |
| St no:      | 211          |             |              |
| St name:    | SPRING       | St type co: | ST           |
| Sec add:    | Not Reported |             |              |
| Sec add no: | 0            |             |              |
| City:       | MARIETTA     | State code: | OH           |
| Zip:        | 45750        |             |              |

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

|             |                 |             |              |
|-------------|-----------------|-------------|--------------|
| Zone code:  | Not Reported    |             |              |
| Horiz x:    | 0               |             |              |
| Horiz y:    | 0               |             |              |
| Horiz datu: | NAD27           |             |              |
| Horiz acc : | 0               |             |              |
| Horiz acc1: | 0               |             |              |
| Horiz ac 1: | Not Reported    |             |              |
| Vert loc:   | 0               |             |              |
| Vert acc:   | 0               |             |              |
| Vert acc u: | Not Reported    |             |              |
| Latitude:   | 39.42011        |             |              |
| Longitude:  | -81.4326        |             |              |
| Source of : | GEOCODE         | Flowing we: | Not Reported |
| Test rate:  | 2               |             |              |
| Draw down:  | 100             |             |              |
| S water le: | 40              |             |              |
| S water me: | T               | S water 1:  | 04/15/2001   |
| Cas ht:     | 2               |             |              |
| Screen len: | 0               |             |              |
| Total dept: | 103             |             |              |
| Date of co: | 03/15/2000      | Located in: | Not Reported |
| Assoc rpt : | Not Reported    |             |              |
| Depth to b: | 0               |             |              |
| Drill year: | Not Reported    |             |              |
| Well seal : | 0               |             |              |
| Screen slo: | 0               |             |              |
| Screened i: | 0               |             |              |
| Screened 1: | 0               |             |              |
| Sustained : | 0               |             |              |
| Attatch st: | Not Reported    |             |              |
| Screen dia: | 0               |             |              |
| Screen typ: | Not Reported    | Screen mat: | Not Reported |
| Pump type:  | Not Reported    |             |              |
| Pump capac: | 0               |             |              |
| Pump set a: | 0               |             |              |
| Pitless ty: | Not Reported    | Pump inst : | Not Reported |
| Elev sourc: | Not Reported    |             |              |
| Water leve: | 0               |             |              |
| Well drill: | Not Reported    | Subcon odh: | Not Reported |
| Site id:    | OHD500000629754 |             |              |

**D17  
WNW  
1/2 - 1 Mile  
Lower**

**OH WELLS    OHD500000579565**

|             |              |             |                  |
|-------------|--------------|-------------|------------------|
| Well log n: | 863455       |             |                  |
| Well type : | W            |             |                  |
| End user i: | 2756         |             |                  |
| Cnty code:  | 167          | Twp code:   | 1655             |
| Orig owner: | Not Reported | Orig own 1: | RICH OIL STATION |
| Drill type: | A            | Test type : | Not Reported     |
| Well use c: | M            | Aquifer ty: | SND              |
| Loc map ye: | Not Reported | Loc area:   | Not Reported     |
| Loc no:     | 0            |             |                  |
| Sub name:   | Not Reported | Sub map ye: | Not Reported     |

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

|             |                 |             |              |
|-------------|-----------------|-------------|--------------|
| Sub no:     | Not Reported    | Permit no:  | Not Reported |
| Sec owner : | Not Reported    | Lot no:     | Not Reported |
| Sect no:    | 0               |             |              |
| St dir cod: | Not Reported    |             |              |
| St no:      | 400             |             |              |
| St name:    | GREENE          | St type co: | ST           |
| Sec add:    | Not Reported    |             |              |
| Sec add no: | 0               |             |              |
| City:       | MARIETTA        | State code: | OH           |
| Zip:        | 45640           |             |              |
| Zone code:  | Not Reported    |             |              |
| Horiz x:    | 0               |             |              |
| Horiz y:    | 0               |             |              |
| Horiz datu: | NAD27           |             |              |
| Horiz acc : | 0               |             |              |
| Horiz acc1: | 0               |             |              |
| Horiz ac 1: | Not Reported    |             |              |
| Vert loc:   | 0               |             |              |
| Vert acc:   | 0               |             |              |
| Vert acc u: | Not Reported    |             |              |
| Latitude:   | 39.41329        |             |              |
| Longitude:  | -81.44806       |             |              |
| Source of : | GEOCODE         | Flowing we: | Not Reported |
| Test rate:  | 0               |             |              |
| Draw down:  | 0               |             |              |
| S water le: | 0               |             |              |
| S water me: | Not Reported    | S water 1:  | Not Reported |
| Cas ht:     | 0               |             |              |
| Screen len: | 15              |             |              |
| Total dept: | 30              |             |              |
| Date of co: | 11/19/1997      | Located in: | Not Reported |
| Assoc rpt : | Not Reported    |             |              |
| Depth to b: | 0               |             |              |
| Drill year: | Not Reported    |             |              |
| Well seal : | 0               |             |              |
| Screen slo: | 0               |             |              |
| Screened i: | 0               |             |              |
| Screened 1: | 0               |             |              |
| Sustained : | 0               |             |              |
| Attatch st: | Not Reported    |             |              |
| Screen dia: | 0               |             |              |
| Screen typ: | Not Reported    | Screen mat: | Not Reported |
| Pump type:  | Not Reported    |             |              |
| Pump capac: | 0               |             |              |
| Pump set a: | 0               |             |              |
| Pitless ty: | Not Reported    | Pump inst : | Not Reported |
| Elev sourc: | Not Reported    |             |              |
| Water leve: | 0               |             |              |
| Well drill: | Not Reported    | Subcon odh: | Not Reported |
| Site id:    | OHD500000579565 |             |              |

D18  
WNW  
1/2 - 1 Mile  
Lower

OH WELLS    OHD500000579564

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

|             |              |             |                  |
|-------------|--------------|-------------|------------------|
| Well log n: | 863452       |             |                  |
| Well type : | W            |             |                  |
| End user i: | 2756         |             |                  |
| Cnty code:  | 167          | Twp code:   | 1655             |
| Orig owner: | Not Reported | Orig own 1: | RICH OIL STATION |
| Drill type: | A            | Test type : | Not Reported     |
| Well use c: | M            | Aquifer ty: | SND              |
| Loc map ye: | Not Reported | Loc area:   | Not Reported     |
| Loc no:     | 0            |             |                  |
| Sub name:   | Not Reported | Sub map ye: | Not Reported     |
| Sub no:     | Not Reported | Permit no:  | Not Reported     |
| Sec owner : | Not Reported | Lot no:     | Not Reported     |
| Sect no:    | 0            |             |                  |
| St dir cod: | Not Reported |             |                  |
| St no:      | 400          |             |                  |
| St name:    | GREENE       | St type co: | ST               |
| Sec add:    | Not Reported |             |                  |
| Sec add no: | 0            |             |                  |
| City:       | MARIETTA     | State code: | OH               |
| Zip:        | 45640        |             |                  |
| Zone code:  | Not Reported |             |                  |
| Horiz x:    | 0            |             |                  |
| Horiz y:    | 0            |             |                  |
| Horiz datu: | NAD27        |             |                  |
| Horiz acc : | 0            |             |                  |
| Horiz acc1: | 0            |             |                  |
| Horiz ac 1: | Not Reported |             |                  |
| Vert loc:   | 0            |             |                  |
| Vert acc:   | 0            |             |                  |
| Vert acc u: | Not Reported |             |                  |
| Latitude:   | 39.41329     |             |                  |
| Longitude:  | -81.44806    |             |                  |
| Source of : | GEOCODE      | Flowing we: | Not Reported     |
| Test rate:  | 0            |             |                  |
| Draw down:  | 0            |             |                  |
| S water le: | 0            |             |                  |
| S water me: | Not Reported | S water 1:  | Not Reported     |
| Cas ht:     | 0            |             |                  |
| Screen len: | 15           |             |                  |
| Total dept: | 30           |             |                  |
| Date of co: | 11/19/1997   | Located in: | Not Reported     |
| Assoc rpt : | Not Reported |             |                  |
| Depth to b: | 0            |             |                  |
| Drill year: | Not Reported |             |                  |
| Well seal : | 0            |             |                  |
| Screen slo: | 0            |             |                  |
| Screened i: | 0            |             |                  |
| Screened 1: | 0            |             |                  |
| Sustained : | 0            |             |                  |
| Attatch st: | Not Reported |             |                  |
| Screen dia: | 0            |             |                  |
| Screen typ: | Not Reported | Screen mat: | Not Reported     |
| Pump type:  | Not Reported |             |                  |
| Pump capac: | 0            |             |                  |
| Pump set a: | 0            |             |                  |
| Pitless ty: | Not Reported | Pump inst : | Not Reported     |
| Elev sourc: | Not Reported |             |                  |
| Water leve: | 0            |             |                  |



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

|             |                 |             |              |
|-------------|-----------------|-------------|--------------|
| Sustained : | 0               |             |              |
| Attatch st: | Not Reported    |             |              |
| Screen dia: | 0               |             |              |
| Screen typ: | Not Reported    | Screen mat: | Not Reported |
| Pump type:  | Not Reported    |             |              |
| Pump capac: | 0               |             |              |
| Pump set a: | 0               |             |              |
| Pitless ty: | Not Reported    | Pump inst : | Not Reported |
| Elev sourc: | Not Reported    |             |              |
| Water leve: | 0               |             |              |
| Well drill: | Not Reported    | Subcon odh: | Not Reported |
| Site id:    | OHD500000579567 |             |              |

**D20  
WNW  
1/2 - 1 Mile  
Lower**

**OH WELLS    OHD500000579566**

|             |              |             |                  |
|-------------|--------------|-------------|------------------|
| Well log n: | 863456       |             |                  |
| Well type : | W            |             |                  |
| End user i: | 2756         |             |                  |
| Cnty code:  | 167          | Twp code:   | 1655             |
| Orig owner: | Not Reported | Orig own 1: | RICH OIL STATION |
| Drill type: | A            | Test type : | Not Reported     |
| Well use c: | M            | Aquifer ty: | SND              |
| Loc map ye: | Not Reported | Loc area:   | Not Reported     |
| Loc no:     | 0            |             |                  |
| Sub name:   | Not Reported | Sub map ye: | Not Reported     |
| Sub no:     | Not Reported | Permit no:  | Not Reported     |
| Sec owner : | Not Reported | Lot no:     | Not Reported     |
| Sect no:    | 0            |             |                  |
| St dir cod: | Not Reported |             |                  |
| St no:      | 400          |             |                  |
| St name:    | GREENE       | St type co: | ST               |
| Sec add:    | Not Reported |             |                  |
| Sec add no: | 0            |             |                  |
| City:       | MARIETTA     | State code: | OH               |
| Zip:        | 45640        |             |                  |
| Zone code:  | Not Reported |             |                  |
| Horiz x:    | 0            |             |                  |
| Horiz y:    | 0            |             |                  |
| Horiz datu: | NAD27        |             |                  |
| Horiz acc : | 0            |             |                  |
| Horiz acc1: | 0            |             |                  |
| Horiz ac 1: | Not Reported |             |                  |
| Vert loc:   | 0            |             |                  |
| Vert acc:   | 0            |             |                  |
| Vert acc u: | Not Reported |             |                  |
| Latitude:   | 39.41329     |             |                  |
| Longitude:  | -81.44806    |             |                  |
| Source of : | GEOCODE      | Flowing we: | Not Reported     |
| Test rate:  | 0            |             |                  |
| Draw down:  | 0            |             |                  |
| S water le: | 0            |             |                  |
| S water me: | Not Reported | S water 1:  | Not Reported     |
| Cas ht:     | 0            |             |                  |
| Screen len: | 15           |             |                  |

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

|             |                 |             |              |
|-------------|-----------------|-------------|--------------|
| Total dept: | 30              |             |              |
| Date of co: | 11/19/1997      | Located in: | Not Reported |
| Assoc rpt : | Not Reported    |             |              |
| Depth to b: | 0               |             |              |
| Drill year: | Not Reported    |             |              |
| Well seal : | 0               |             |              |
| Screen slo: | 0               |             |              |
| Screened i: | 0               |             |              |
| Screened 1: | 0               |             |              |
| Sustained : | 0               |             |              |
| Attatch st: | Not Reported    |             |              |
| Screen dia: | 0               |             |              |
| Screen typ: | Not Reported    | Screen mat: | Not Reported |
| Pump type:  | Not Reported    |             |              |
| Pump capac: | 0               |             |              |
| Pump set a: | 0               |             |              |
| Pitless ty: | Not Reported    | Pump inst : | Not Reported |
| Elev sourc: | Not Reported    |             |              |
| Water leve: | 0               |             |              |
| Well drill: | Not Reported    | Subcon odh: | Not Reported |
| Site id:    | OHD500000579566 |             |              |

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

State Database: OH Radon

### Radon Test Results

| Zipcode | Num Tests | Maximum | Minimum | Avg Mean | Geo Mean |
|---------|-----------|---------|---------|----------|----------|
| 45750   | 369       | 91.9    | 0       | 5.65     | 2.85     |

Federal EPA Radon Zone for WASHINGTON 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 Zip Code: 45750

Number of sites tested: 5

| Area                    | Average Activity | % <4 pCi/L   | % 4-20 pCi/L | % >20 pCi/L  |
|-------------------------|------------------|--------------|--------------|--------------|
| Living Area - 1st Floor | 1.100 pCi/L      | 100%         | 0%           | 0%           |
| Living Area - 2nd Floor | Not Reported     | Not Reported | Not Reported | Not Reported |
| Basement                | 19.380 pCi/L     | 80%          | 0%           | 20%          |

# 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.

## 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: 614-265-1044

## HYDROGEOLOGIC INFORMATION

### AQUIFLOW<sup>R</sup> 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

#### Public Water System Data

Source: Ohio Environmental Protection Agency

Telephone: 614-644-2752

The database includes community, transient noncommunity and nontransient noncommunity water wells; and source treatment unit locations.

#### Water Well Database

Source: Department of Natural Resources

Telephone: 614-265-6740

## OTHER STATE DATABASE INFORMATION

### RADON

#### State Database: OH Radon

Source: Department of Health

Telephone: 614-644-2727

Radon Statistics for Zip Code Areas

#### 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.

### 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

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

### STREET AND ADDRESS INFORMATION

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**APPENDIX E**  
**QUALITY CONTROL PLAN**

Quality Control Review Certification

Project: Marietta, OH Section 14 Streambank Protection Project

Project Title: Limited Phase I Hazardous, Toxic, and Radioactive Waste (HTRW) Investigation.

Date: August 1, 2011

Product: Limited Phase I HTRW Investigation Report, dated July 2011

Lead Environmental Professional: Janet K. Wolfe

In accordance with the Huntington District ISO Procedure 3.36, independent review for the identified product has been completed and all comments are resolved. The following ITRT members certify completion of the review and resolution of comments:

| NAME      | DISCIPLINE       | INITIALS   |
|-----------|------------------|------------|
| Dan Stark | <u>Geologist</u> | <u>D S</u> |
| _____     | _____            | _____      |
| _____     | _____            | _____      |

(See 01 August 2011 memorandum from Janet Wolfe (CELRH-EC-CE) to Dan Stark (CELRH-EC-CE) addressing QC comments prepared by Mr. Stark.)

Lead Environmental Professional:

Janet Wolfe  
(Signature)

8/1/11  
(Date)

Project: Marietta, OH Section 14 Streambank Protection Project, Limited Phase I Hazardous, Toxic, and Radioactive Waste Investigation Report, dated August 2011.

QC Reviewer: 

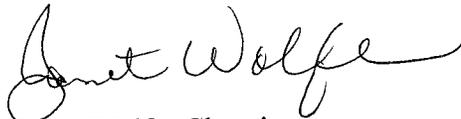
The following checklist is provided for QC review. Response "Y", "N", or "NA" should be marked in the space provided as applicable.

- A. Introduction/Executive Summary Y
  
- B. Site Description
  - 1. Background and Site History Y
  - 2. USGS Topographic Map Y
  - 3. Site Vicinity Map Y
  - 4. Site Map Y
  
- C. Assessment Methodology
  - 1. Environmental Screening Y
  - 2. Deed Search NA
  - 3. Aerial Photo's Y
  - 4. Site Reconnaissance Y
  - 5. Site Photo's Y
  - 6. Ascertainable/Standard Sources Y
  - 7. Safety Plan Y
  - 8. Interviews Y
  - 9. Data Review Y
  - 10. Conformance to ASTM Standards Y
  
- D. Summary of Findings Y
  
- E. Conclusions Y
  
- F. Exposure Assessment NA
  
- G. Recommendations
  - 1. Other Actions NA
  
- H. Appendices
  - 1. Site Maps Y
  - 2. Interview Records Y
  - 3. Photo documentation Y
  - 4. Environmental Screening Data Y

MEMORANDUM FOR CELRH-EC-CE, ATTN: Dan Stark

SUBJECT: Response to Comments on Draft Limited Phase I HTRW Investigation Report,  
Marietta Section 14 Streambank Protection Project, Marietta, OH, July 2011

1. The following are responses to comments on the above referenced report.
2. Executive Summary, Section I, first paragraph, first sentence. Remove “failed” between “and” and “soil erosion”.  
**Response:** Concur. The word “failed” has been removed.
3. Executive Summary, Section I, first paragraph, second sentence. Remove “slack” before “Belleville Navigation pool” or explain what the term is.  
**Response:** Concur. The word “slack” has been removed.
4. Section 1.0, first paragraph, second sentence. See Comment 2.  
**Response:** Concur. The word “failed” has been removed.
5. Section 1.0, second paragraph, first sentence. See Comment 3.  
**Response:** Concur. The word “slack” has been removed.
6. If you have any questions, let me know.



Janet Wolfe, Chemist  
Environmental and Remediation Section

MEMORANDUM FOR CELRH-EC-CE, ATTN: Janet Wolfe

SUBJECT: Comments on Draft Limited Phase I HTRW Investigation Report, Marietta Section 14 Streambank Protection Project, Marietta, OH, July 2011

1. The following are comments to the above referenced report.
2. Executive Summary, Section I, first paragraph, first sentence. Remove “failed” between “and” and “soil erosion”.
3. Executive Summary, Section I, first paragraph, second sentence. Remove “slack” before “Belleville Navigation pool” or explain what the term is.
4. Section 1.0, first paragraph, second sentence. See Comment 2.
5. Section 1.0, second paragraph, first sentence. See Comment 3.
6. If you have any questions, let me know.

A handwritten signature in black ink, appearing to read "Daniel F. Stark". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Daniel F. Stark, Geologist  
Environmental and Remediation Section

**Project Specific Quality Control Plan  
Marietta, OH Section 14 Project  
Marietta, OH**

**Limited Phase I Hazardous, Toxic, and Radioactive Waste (HTRW)  
Site Investigation  
July 2011**

**I. Purpose.** This Quality Control Plan (QCP) presents the policy and specific actions that are being implemented by CELRH-EC-CE to ensure that high quality products are produced on time and within budget. It defines the responsibilities and roles of the Independent Quality Control Team. This QCP covers the review of the Limited Phase I HTRW Investigation Report for the Duck Creek Flood Warning System Project, prepared by the Environmental & Remediation Section (CELRH-EC-CE).

**II. References.**

A. ER 1110-1-2 Engineering and Design Quality Management, 1 June 1993.

B. CELRDC-5-1-1, Quality Management Plan.

C. CELRHR-5-2-5, Quality Management Plan.

D. Work Instruction 3.36.2, Huntington District ISO standard for conducting Phase I Environmental Site Assessments, 28 March 2003.

E. EM 385-1-1, Safety and Health Requirements Manual, 15 September 2008.

F. ASTM E 1527(05) and E 1528(05), ASTM Standards on Environmental Site Assessments for Commercial Real Estate.

G. ER 1110-2-1150, Engineering and Design - Engineering and Design for Civil Works Projects, 31 August 1999.

**III. General.**

A. Type of Project. U.S. Army Corps of Engineers, Section 14 Streambank Protection Project.

B. Location. The Marietta, OH, Section 14 Streambank Protection Project is located in Marietta, OH, along the right descending bank of the Ohio River at approximate River Mile 171.

C. Customer/Sponsor. U.S. Army Corps of Engineers, Huntington District, Planning Division.

D. Project Description.

Authority for the project is Section 14 of the Flood Control Act of 1946, as amended. Heavy precipitation and flood events from 2001 to present have caused bank failure and failed soil erosion along a reach approximately 1,050 linear feet in length, endangering a 36-inch diameter sewer line.

A preliminary evaluation of alternatives has been conducted indicating that construction of a continuous longitudinal dike to be placed above the landwater contact at the slack Belleville Navigation pool will be the least costly alternative for stabilizing the right descending bank of the Ohio River and protecting the erosion endangered sewer collection line near Marietta, OH.

#### **IV. Quality Control Plan.**

An effective Quality Control Plan (QCP) is important to the undertaking of this program due to the potential risks that HTRW poses to human health and the environment. An effective QCP will ensure that a high quality technical product will be produced that will require little or no revision prior to a quality assurance review.

A qualified environmental professional from CELRH-EC-CE is responsible for compiling the Quality Control Plan. A QCP review team shall review this document.

#### **V. Quality Control Process.**

The Phase I HTRW Investigation shall be conducted by a functional team of qualified environmental professionals from CELRH-EC-CE with full communication between team members. The Lead Environmental Professional shall be responsible for

coordination of the Phase I investigation and the development of the final report in accordance with standard practices, policies, and guidelines. The functional team will be responsible for ensuring a quality product is produced through internal checks, review and interaction with the Independent Quality Control Team (IQCT) members assigned to monitor project Quality.

The QCP shall apply to all tasks/activities and products (SSHP and Draft/Final reports) associated with this project. The Quality Control Plan was prepared according to ER 1110-1-12 Quality Management, 1 June 1993; CEORDR 1110-1-9, Quality Control and Quality Assurance, 3 March 1995; CEORH 1110-2-4, Quality Management Plan, 11 May 1996; and the applicable ISO processes developed for this type of work.

The QCP addresses all work information and activities required for the SSHP and Phase I HTRW Investigation. The plan addresses the responsibilities and roles of each member on the Independent QC Team (IQCT), along with those preparing or performing the tasks/activities for this project. Quality control shall be managed in compliance with required ISO procedures for quality control.

USACE guidance documents and links to the ISO 9000 process can be found on the internet at the following address:  
<https://myco.lrh.usace.army.mil/org/ec/ecmq/iso/index.cfm?>

The draft and final versions of the Phase I HTRW Report shall include a separate QC appendix that includes an activity review checklist (appropriate checks on those activities that were performed/reviewed) for the specific product along with a signed sheet which designates the name, date and official work title of the those persons performing/conducting the following activities: performance of activities/investigation, independent review of documents/reports, and approval of all work necessary to complete these activities. All comments and responses from USACE's QC review of the draft SSHP, QCP, and Phase I HTRW Report shall be included in the QC appendix of the final plans and reports.

## **VI. IQCT Review Team.**

An IQCT will be assembled and will consist of experienced professionals knowledgeable of the technical requirements,

customer needs, and schedule. Reviewers will be independent of the Functional Team. Members of the Environmental and Remediation Section or other district elements may serve as reviewers if they have not participated in report preparation.

Only quality products will be released from the IQCT review team. All members of the review team will sign a quality certification sheet.

**VII. Quality Assurance.** A quality assurance (QA) review of the Phase I HTRW Investigation executed by CELRH-EC-CE will be conducted by the designated Quality Assurance team member.

Phase I HTRW Investigation Reports that are prepared by CELRH-EC-CE will be kept on file in the district office. Reports that contain questionable findings or recommendations for Phase II will be sent to the CELRN Environmental Restoration Design Center (ERDC) for QA review.

**VIII. Resolution and Documentation.**

The reviewers will provide a written record of comments for resolution. The functional team will respond to all comments and incorporate appropriate changes. Review comments and responses form an important record that completes the final product. Documentation of the independent review will be consistent, accurate, and a permanent part of the record.

**IX. Checklist.**

A checklist is included in Section XII of this plan and is intended to serve as a guide in checking or reviewing the Phase I HTRW Investigation Report. The checklist shall not substitute for sound judgment by reviewers.

**X. QC Certification**

The QC Certification Document shown in Section XIII of this plan will be completed.

## **XI. Project Schedule**

The Environmental & Remediation Section will follow the schedules as set by the Planning Division.

**XII. QC Review Checklist**

Project: Marietta, OH, Section 14 Project, Limited Phase I HTRW Investigation.

QC Reviewer:

The following checklist is provided for QC review. Response "Y", "N", or "NA" should be marked in the space provided.

- A. Introduction / Executive Summary \_\_\_\_\_
  
- B. Site Description
  - 1. Background and Site History \_\_\_\_\_
  - 2. USGS Topographic Map \_\_\_\_\_
  - 3. Site Vicinity Map \_\_\_\_\_
  - 4. Site Map \_\_\_\_\_
  
- C. Assessment Methodology
  - 1. Environmental Screening \_\_\_\_\_
  - 2. Deed Search \_\_\_\_\_
  - 3. Aerial Photo's \_\_\_\_\_
  - 4. Site Reconnaissance \_\_\_\_\_
  - 5. Site Photo's \_\_\_\_\_
  - 6. Ascertainable/Standard Sources \_\_\_\_\_
  - 7. Safety Plan \_\_\_\_\_
  - 8. Interviews \_\_\_\_\_
  - 9. Data Review \_\_\_\_\_
  - 10. Conformance to ASTM Standards \_\_\_\_\_
  
- D. Summary of Findings \_\_\_\_\_
  
- E. Conclusions \_\_\_\_\_
  
- F. Exposure Assessment \_\_\_\_\_
  
- G. Recommendations
  - 1. Other Actions \_\_\_\_\_
  
- H. Appendices
  - 1. Site Maps \_\_\_\_\_
  - 2. Interview Records \_\_\_\_\_
  - 3. Photo documentation \_\_\_\_\_
  - 4. Environmental Screening Data \_\_\_\_\_

**XIII. Quality Certification Document**

This is to certify that the Lead Environmental Professional and the IQCT members have reviewed the attached document in accordance with the Quality Control Plan. All comments resulting from the various reviews have been resolved and incorporated.

**Internal Quality Control Team**

| NAME  | SIGNATURE      | DATE |
|-------|----------------|------|
| LEP:  | Janet K. Wolfe |      |
| IQCT: | Dan Stark      |      |

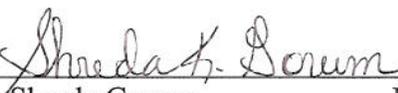
**APPENDIX F**  
**SITE SAFETY AND HEALTH PLAN**

**GENERIC  
SITE SAFETY AND HEALTH PLAN  
FOR  
PHASE I HTRW ENVIRONMENTAL SITE ASSESSMENTS**

Prepared by:  
U.S. Army Corps of Engineers  
Huntington District  
502 8th Street  
Huntington, West Virginia 25701-2070

Prepared by:  6/2/2010  
Nickolas McHenry, EI Date  
Environmental Engineer  
Environmental and Remediation Section

Reviewed by:  10/19/10  
Wyatt Kmen Date  
Chief  
Environmental and Remediation Section

Approved by:  10/19/10  
Shreda Gorum Date  
Safety & Occupational Specialist  
Safety Office

## **1.0 INTRODUCTION**

1.1 Purpose. The purpose of this Site Safety and Health Plan (SSHP) is to establish personnel protection standards, mandatory safety practices, and procedures for all work conducted in the execution of Phase I HTRW Environmental Site Assessments (ESAs) and Asbestos Inspections. The plan assigns responsibilities, establishes standard operating procedures, and provides emergency procedures while operations are being conducted during these field activities. This SSHP is designed to comply with the USACE Safety and Health Requirements Manual, EM 385-1-1, 15 September 2008.

1.2 Policy. The provisions set forth in this SSHP are mandatory for all personnel who perform or assist in the conduct of this work. All personnel must become familiarized with the requirements of this SSHP prior to performance of any Phase I HTRW ESAs and Asbestos inspections. The SSHP shall be amended to be site specific, i.e., show local hospital route, site locations, etc., prior to each new field activity.

## **2.0 SITE DESCRIPTION AND CONTAMINATION CHARACTERISTICS**

2.1 General. Sites to be investigated will include residential or commercial properties, civil works sites, former manufacturing facilities, military sites, or work for others sites.

2.2 Contamination Characteristics. Investigations and inspections at sites other than typical residential or commercial (non-industrial) shall be performed with extreme caution due to the unknown nature of the contaminants. Contamination may range from minor petroleum contamination (fuel spills, motor oil) or improperly disposed household wastes, to more toxic wastes such as PCBs, heavy metals, dioxins, volatiles, and ordnance. Prior to the site visit, the inspection team shall assess the hazardous and toxic contamination potential for the site and amend this SSHP, as appropriate. It is noted that intrusive sampling, other than sampling for asbestos containing materials (ACM), is beyond the scope of Phase I HTRW ESAs.

Each site shall be thoroughly inspected for any evidence of HTRW contamination, in accordance with the requirements of ASTM E 1528-05. Structures shall be inspected for potential ACM and samples taken and analyzed in accordance with USEPA guidance for this work. The site shall be thoroughly walked over and inspected for any signs of contamination, such as distressed vegetation, partially buried drums, excavation or fill activities, underground storage tanks, soil staining, etc.

## **3.0 HAZARD/RISK ANALYSIS**

3.1 Chemical Hazards. Inspectors could be exposed to a variety of contaminants; however, due to the non-intrusive nature of a Phase I investigation, the likelihood for exposure is very minimal. Inspectors shall not open any drums or underground storage tanks (USTs), nor disturb any other areas of suspect contamination. If a hazardous or toxic condition is evident or suspected, the team shall immediately cease the investigation and notify the Chief, Environmental and Remediation Section. Re-entry to the site shall not be permitted until the

situation has been thoroughly investigated.

ACM inspectors shall reduce the risk of exposure to these materials with the use of safe sampling procedures. Inspectors shall wear appropriate respiratory protection if the suspect material appears to be friable. Friable sampling areas shall be wetted prior to sampling and immediately sealed with a clear lacquer or other encapsulating material following the sampling activity.

3.2 Accident Prevention. The most significant hazards while performing these investigations will be slip, trips, falls, and cuts. These hazards are prevalent due to uneven terrain, weather conditions (rain or snow), dilapidated structures, unstable refuse piles, etc. Inspectors must remain aware of these hazards at all times and shall employ use of the "buddy system" when performing these inspections to reduce the possibility of injury. Inspectors shall also use sound judgment when inspecting a site and shall cease the inspection immediately when human health and safety is jeopardized. Obviously hazardous areas, such as structures with rotten floors, open tanks and drums, confined space entry, etc., will be avoided.

Execution of these field activities will be conducted during both hot and cold temperatures, as well as inclement weather. Investigators shall take such precautions as wearing rain suits, layering clothing for cold weather, or wearing loose-fitting clothing during hot weather. Since these activities are not particularly physically taxing, workers should not experience heat or cold stress. Frequent breaks in the shade or in a warm vehicle will be possible, as well as replenishing oneself with cold or warm fluids as applicable.

Other hazards to be aware of are biological hazards, such as bees, ticks, snakes, poison ivy/poison oak, etc., as well as vicious animals. Fieldwork shall be abandoned when any of these hazards are present and shall not resume until safe site entry can be made.

3.3 Vehicle Operation. Field personnel may require the use of a motor vehicle. All vehicles shall be operated in accordance with EM 385-1-1, 18.C. Key points from the Corps safety manual are:

1. Operators shall possess a valid state driver's license and be current in mandatory defensive driving training (refresher required at 4-year intervals). Operators shall complete a Travel Risk Plan (TRIPS) prior to traveling outside the local area on initial trips to new locations.
2. Seat belts shall be worn by all occupants.
3. The operator shall have the vehicle under control at all times.
4. Vehicles shall be driven at speeds not greater than the posted legal speed limit, weather permitting.
5. Vehicles shall not be left unattended until the motor has been shut off and the key removed from the ignition.
6. Headlights shall be used from sunset until sunrise and during times of adverse weather or sight conditions.
7. All equipment shall be properly secured.
8. Vehicle shall be maintained in good working order.

9. Personnel shall be clear of traffic when exiting the vehicle.
10. While driving, operators shall not participate in any activity with the potential of creating a distraction, i.e., cell phones, food consumption, electronic devices, etc.

#### **4.0 STAFF ORGANIZATION, QUALIFICATIONS AND RESPONSIBILITIES**

4.1 Staff Organization. The Corps inspection team shall consist of two field workers, environmental engineers or engineering technicians. If ACM sampling is required, one team member shall be certified to conduct this work. Each individual shall be responsible as a site safety and health officer due to the minimal hazards associated with this work. Key personnel for this work include:

|                                    |                                      |
|------------------------------------|--------------------------------------|
| Chief, Environmental & Remediation | Wyatt Kmen                           |
| Environmental Engineers            | Frank Albert, P.E.<br>Lisa Humphreys |
| Chemist                            | Janet Wolfe                          |
| Industrial Hygienist               | Jean Read                            |
| Geologists                         | Daniel Stark, P.G.<br>Jason Smithson |
| Engineering Technician             | Jo Huff (Asbestos)                   |

Additional personnel may be essential to these work activities, as approved by the Chief, Environmental and Remediation Section.

4.1.1 Section Chief's Responsibilities. For job-related injuries which require medical treatment, the Section chief or his designee shall accompany the injured employee to the medical treatment facility and explain the employee's regular duties and the availability of "Light Duty" so that the injured employee can return to work as soon as medically possible.

4.1.2 Employee's Responsibilities. Employees shall be required to read this SSHP and comply with all aspects contained herein. Employees shall not endeavor to conduct these investigations without use of the "buddy system". Employees shall immediately notify the Chief, Environmental and Remediation Section, of any hazardous or potentially hazardous incident or working situation. Employees shall comply with all property owners' security or clearance requirements. Finally, employees shall comply with a property owner's request to vacate the premises, if so directed, and shall immediately apprise the Section Chief, Environmental and Remediation Section, of this situation.

4.1.3 Reporting and Investigation. All accidents shall be reported as soon as possible to the Section Chief. A Preliminary Accident Notification (PAN) shall be entered into ENGLink within 24 hours. The Branch Collateral Duty Safety Officer shall investigate the accident and

recommend any corrective actions on ENG Form 3394, furnished to the Safety Office within 2 working days following the accident. All serious accidents as defined in EM 385-1-1, Section 01.D.02 shall be reported to the Safety & Occupational Health Office immediately.

4.2 Training. All investigators have been trained for HTRW work in accordance with 29 CFR 1910.120(e) and receive an annual eight-hour refresher course in hazardous waste site operations. This training meets the requirements of EM 385-1-1, 28.D. All personnel have received Red Cross-sponsored first aid and CPR training and are qualified to administer minor first aid treatment, which is considered adequate for these investigations. Appendix C contains the certifications for both the HAZWOPER and Red Cross training. Training documentation is on file at the District office. Additionally, all personnel have received site-specific training as required in EM 385-1-1, 28.D.03. Asbestos inspectors shall also receive an annual training refresher and license renewal.

## **5.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)**

5.1 General. All personnel have been issued their own PPE and received training in the proper use of this equipment. Regular inspections of this equipment are the individual's responsibility. Any defective equipment shall be reported immediately to the Section Chief so that a replacement can be issued. All PPE meets or exceeds the appropriate ANSI standard.

5.2 Protection Requirements. The level of protection for these investigations should be Level D. No personnel shall enter a site or situation that requires protection above this level. The minimum requirements for Level D protection are sleeved (long or short) shirts, long trouser pants, and steel-toed safety shoes or boots. Personnel may be required to wear safety glasses with side shields, a hard hat, or protective gloves depending on the work situation (sampling asbestos, entering crawl spaces, etc.). If working near roadways, ANSI Class 2 High Visibility Reflective vests must be worn. All employees receive regular medical exams to assure that they are physically fit to conduct hazardous waste site investigations in accordance with EM 385-1-1, 05.G. and 29 CFR 1910.120.

## **6.0 MEDICAL SURVEILLANCE**

6.1 General. All employees engaged in HTRW activities are required to enter the District's medical surveillance program, which is executed by the Safety and Occupational Health Office. The program is conducted in accordance with EM 385-1-1, Section 28.E and 29 CFR 1910.120 and its appendices. The Safety Office contracts with licensed Occupational Health physicians who are knowledgeable of the physical requirements for hazardous waste site workers. Appendix D contains the log of the Environmental Remediation Section employees participating in the medical surveillance program.

A baseline physical exam and assessment is conducted to assure that the employee is physically fit to perform the duties required in hazardous waste site operations. This initial exam includes a complete physical examination of major vital organs, chest x-ray, EKG, complete blood workup, audiogram and pulmonary function tests. The examining physician then furnishes the Safety Office a certification of the employee's ability to perform this work or any restrictions that

should be imposed.

Annual exams are then conducted which consist of the physical exam, blood work, audiogram, and pulmonary function tests. A chest x-ray and EKG are conducted every third year, or at the discretion of the Safety Office or examining physician. The District Safety Office maintains the medical files for all hazardous waste site workers for a period of 30 years following employment with the Government.. Additional, non-scheduled examinations shall be conducted, given the following conditions:

1. After an employee has been subjected to a known acute exposure of a hazardous or toxic material.
2. After an employee has been subjected to a potential acute exposure of a hazardous or toxic material.
3. At the request of an employee who feels that he has the symptoms of an acute exposure.
4. Prior to an employee's return to work following extended absence due to work-related injury or illness.

All known or suspected exposures to hazardous or toxic materials must be reported to the Safety & Occupational Health Office and be documented in the employee's medical file.

## **7.0 MONITORING**

7.1 Air Monitoring. Due to the non-intrusive nature of these investigations, air monitoring should not be required. Employees shall avoid areas that may be suspect for collection of toxic vapors such as manholes, confined spaces, etc. Sampling for ACM shall be conducted in a controlled manner to eliminate air borne particulates. Employees shall use a respirator as required to conduct this work and shall not allow unprotected field personnel or the public within any exposure areas.

7.2 Heat/Cold Stress Monitoring. Due to the short term nature of these field investigations, heat or cold stress related problems should not occur. Employees should be able to perform their limited field activities and then seek comfort within a heated or air conditioned vehicle, in shady areas, in a nearby building, etc.

## **8.0 STANDARD SAFETY PROCEDURES**

Standard safety procedures for these HTRW/ACM activities include the following:

1. Employees shall always use the "buddy system".
2. Employees shall never open or tamper with drums, containers, underground storage tanks (USTs), or any other potential sources of hazardous and toxic substances.
3. Employees shall use sound judgment when entering potentially dangerous situations, i.e., dilapidated structures, properties with vicious dogs, etc. If any of these situations arise, the investigation shall cease until safe site entry can be made.

## **9.0 SITE CONTROL**

These investigations will be conducted on private, public, and Government property. Site control will not be under the control of the field personnel on public or private property. Personnel shall be required to maintain control within the vicinity of ACM sampling activities, however, to protect other field workers and the public.

## **10.0 PERSONAL HYGIENE AND DECONTAMINATION**

Personnel shall adhere to the standard safety procedures noted in Section 8.0 and avoid contact with any potentially hazardous or toxic substances. If contact is made with minor contaminants, such as petroleum products, normal washing with soap and water should be adequate. Should contact be made with caustic or acidic substances, the exposed area shall be flushed with water for 15 minutes and the injured worker rushed to the local hospital or other medical facility.

Workers involved with sampling of ACM shall take care to avoid contact with any particulates. If exposure occurs, the affected area shall be washed with soap and water to remove any contamination.

Workers shall always practice good hygiene and be sure to wash their hands prior to eating, drinking, or smoking. They shall also thoroughly wash their face, hands, and any other exposed areas following the conduct of daily field activities.

## **11.0 EQUIPMENT DECONTAMINATION**

The equipment necessary to conduct these field activities includes a camera and asbestos sampling tools. Decontamination of the asbestos sampling tools shall be accomplished by wiping the tool clean after each sampling activity to avoid any cross-contamination between samples. Wiping cloths shall be double-bagged and disposed of in a sanitary landfill.

## **12.0 EMERGENCY EQUIPMENT AND FIRST AID**

All employees engaged in these activities have received Red Cross-sponsored training in minor first aid and CPR. Since the "buddy system" shall be employed during these activities, the requirement in EM 385-1-1 to have two employees on the site certified in first aid and CPR shall be met. The Government vehicle shall be equipped with a first aid kit to treat minor injuries. The first aid kit shall be restocked prior to each field investigation and checked to assure that the contents have remained sterile.

## **13.0 EMERGENCY RESPONSE**

13.1 General. If an emergency arises that involves a major personal injury, fire, or other threat to the surrounding area, local emergency responders shall be contacted. Since these activities may be conducted in remote locations, employees must become familiar with the location of the closest medical facility and the most direct route to that facility.

### 13.2 Directions to Hospital:

Route to Marietta Memorial Hospital. The nearest hospital is located at 401 Matthew Street in Marietta, OH. Driving directions are included in Appendix B, along with maps of the area.

### 13.3 Emergency Response Contacts:

Marietta, OH emergency contacts are included below:

Marietta Memorial Hospital: (740) 374-1400

Fire Department: 911

Police Department (emergency): (740) 373-4141

***APPENDIX A***  
***JOB HAZARD ANALYSIS***

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**JOB HAZARD ANALYSIS  
FOR  
PHASE I HTRW ENVIRONMENTAL SITE ASSESSMENTS & ASBESTOS INSPECTIONS**

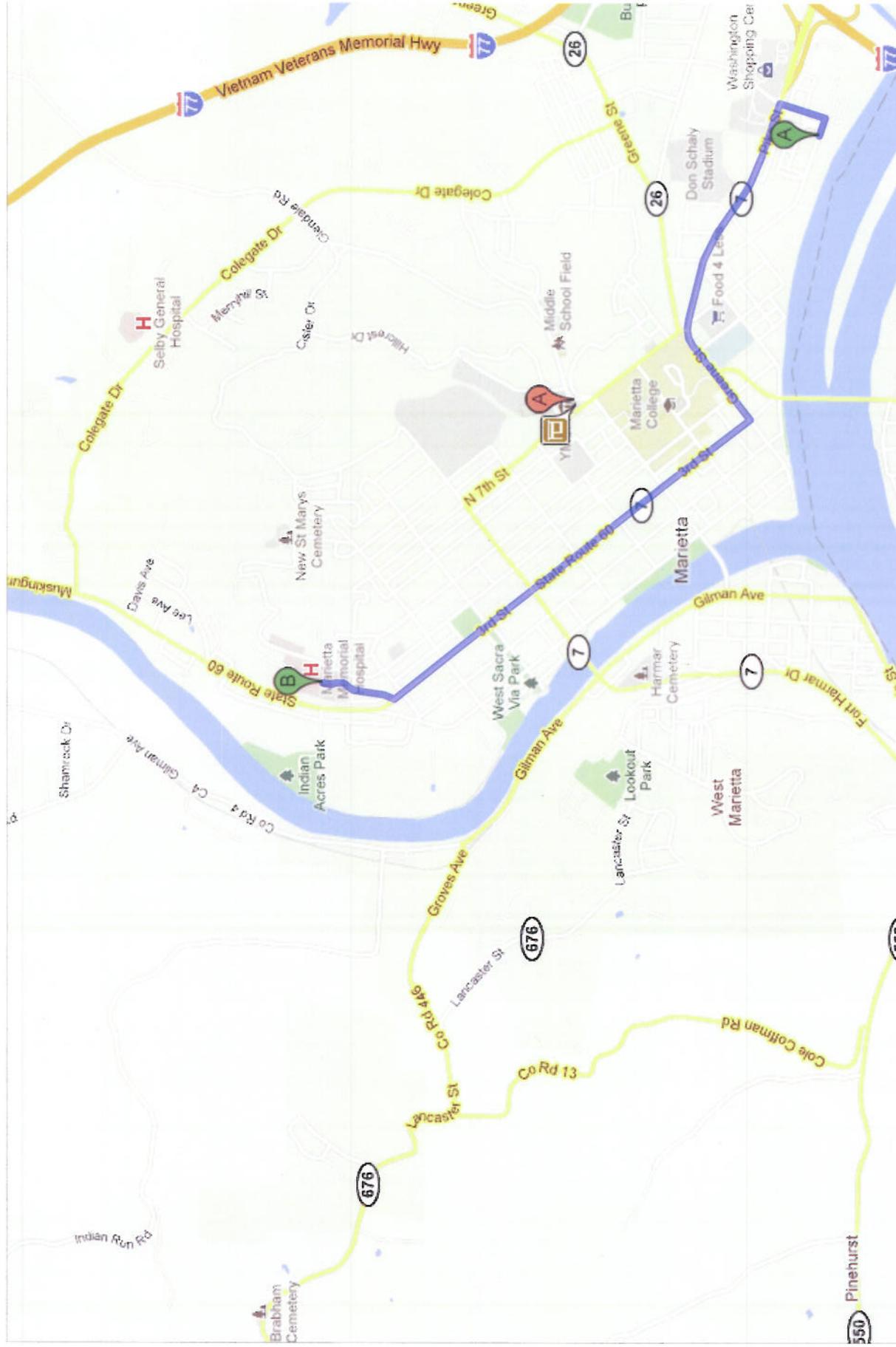
| <b>ACTIVITY</b>                | <b>HAZARD</b>                                                                                                                                                                    | <b>REMEDY</b>                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Vehicle operation</i>       | <ol style="list-style-type: none"> <li>1. Inclement weather or visibility hazards.</li> <li>2. Medication or other drowsiness.</li> <li>3. Other drivers and traffic.</li> </ol> | <ol style="list-style-type: none"> <li>1. Always wear seat belts; use headlights from dusk to dawn or in fog; obey posted speed limit; slow down as appropriate; apply 2 second rule.</li> <li>2. Never operate a vehicle if medication causes drowsiness; never drive if you are sleepy or otherwise impaired.</li> <li>3. Use defensive driving techniques; park your vehicle clear from traffic.</li> </ol> |
| <i>Phase I HTRW Inspection</i> | <ol style="list-style-type: none"> <li>1. Slip, trip and fall</li> <li>2. Unknown HTRW</li> <li>3. Confined spaces</li> <li>4. Biological and physical hazards</li> </ol>        | <ol style="list-style-type: none"> <li>1. Assure firm footing; do not climb unstable slopes; wear protective footwear.</li> <li>2. Never open drums, containers or underground storage tanks for these investigations.</li> <li>3. Never enter confined spaces for these investigations.</li> <li>4. Use tick or insect repellent; do not enter sites with vicious animals.</li> </ol>                         |
| <i>Asbestos sampling</i>       | <ol style="list-style-type: none"> <li>1. Airborne particulates.</li> <li>2. Cuts or abrasions.</li> <li>3. Sample cross-contamination.</li> </ol>                               | <ol style="list-style-type: none"> <li>1. Adequately wet the sample area prior to sampling; wear respiratory protection as required.</li> <li>2. Wear protective leather gloves; always use a sharp sampling tool.</li> <li>3. Thoroughly wipe sampling tools after each sampling activity.</li> </ol>                                                                                                         |

***APPENDIX B  
HOSPITAL MAP***

---

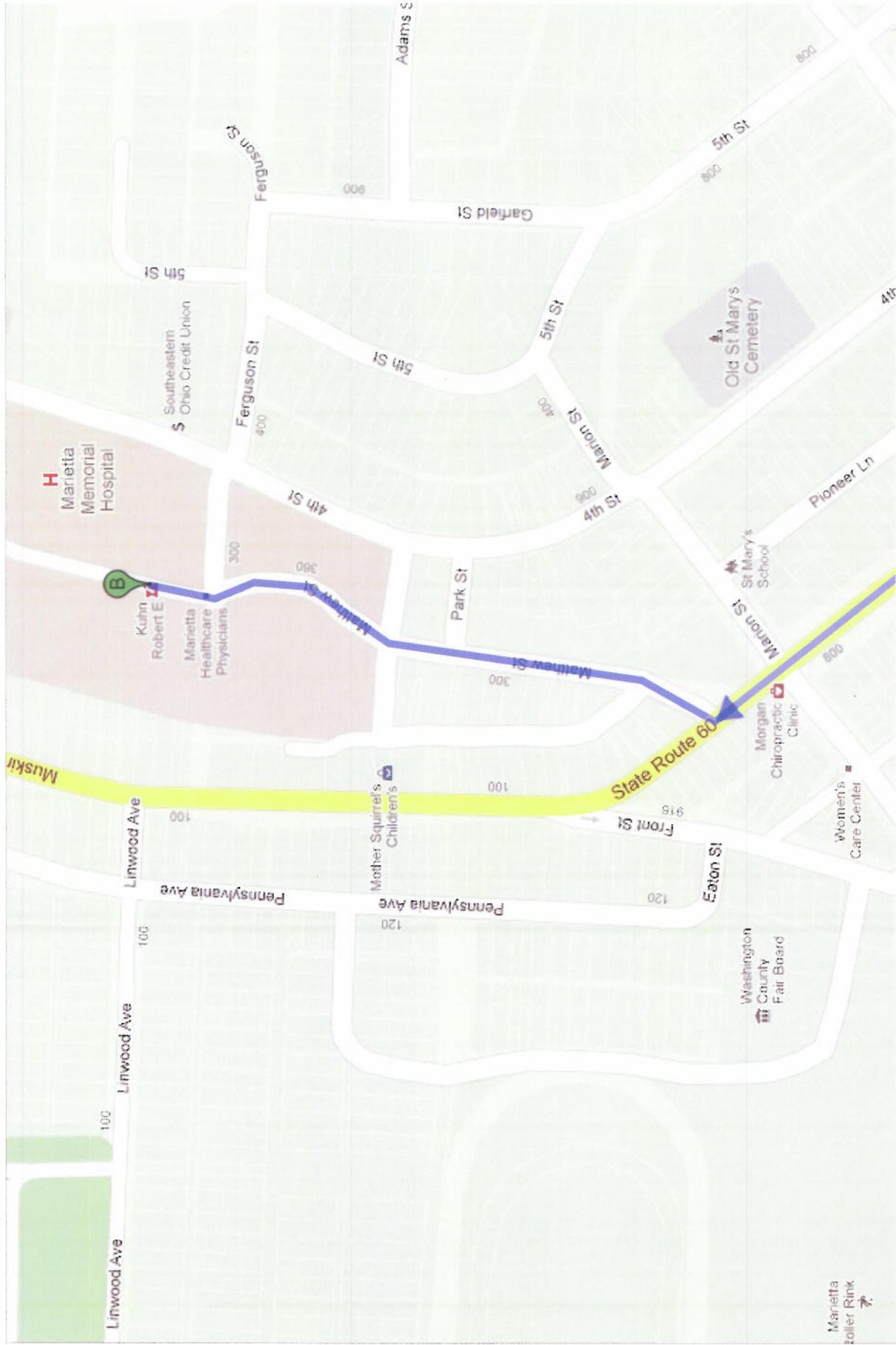


To see all the details that are visible on the screen, use the "Print" link next to the map.





To see all the details that are visible on the screen, use the "Print" link next to the map.





Directions to 401 Matthew St, Marietta, OH 45750  
3.0 mi -- about 9 mins



**A** 440 E 8th St, Marietta, OH 45750

1. Head east on E 8th St toward Jefferson St

go 312 ft  
total 312 ft

2. Take the 1st left onto Jefferson St  
About 1 min

go 0.1 mi  
total 0.2 mi

3. Take the 2nd left onto Pike St  
About 2 mins

go 0.8 mi  
total 1.0 mi

4. Continue straight onto Greene St  
About 1 min

go 0.3 mi  
total 1.3 mi

5. Turn right onto State Route 60 N  
About 3 mins

go 1.4 mi  
total 2.7 mi

6. Turn right onto Matthew St  
Destination will be on the left  
About 1 min

go 0.2 mi  
total 3.0 mi

**B** 401 Matthew St, Marietta, OH 45750

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Map data ©2011 Google

Directions weren't right? Please find your route on maps.google.com and click "Report a problem" at the bottom left.



***CERTIFICATIONS***

---

This is to certify that

**JANET K. WOLFE**

has met the attendance requirements and successfully completed the

**8-Hour HAZWOPER Refresher Course**

(Hazardous Waste Operations and Emergency Response)

in accordance with OSHA 29 CFR 1910.120



TMG SERVICES, INC.  
240 OLIVER STREET, SUITE 1  
SAINT ALBANS, WEST VIRGINIA 25177  
(304) 722 6015  
[www.tmg-services.com](http://www.tmg-services.com)

*Matthew J. [Signature]*  
Instructor

*6/11*  
Date

## 2011 8-Hour HAZWOPER Refresher Course



**TMG Services, Inc.**

240 Oliver St., Suite 1

St. Albans, West Virginia 25177

Phone: (304) 722-6015

Fax: (304) 722-6017

Website: [www.tmgservicesusa.net](http://www.tmgservicesusa.net)

**American  
Red Cross**



**This recognizes that  
Janet Wolfe  
has completed the requirements for  
CPR/AED-Adult**

**conducted by  
Central WV Chapter**

**09/17/10**

**Date Completed**

**The American Red Cross recognizes this certificate  
as valid for 1 year(s) from completion date.**

www.RedCross.org

Instructor's Signature  
Rebecca Rowsey

Chapter  
Central West Virginia Chapter

Holder's Signature

Stock No. 653998 (Rev. 5/08)

**APPENDIX D**  
**MEDICAL SURVEILLANCE LOG**

---

**CELRH-EC-CE Medical Surveillance Log**

| <b>Name</b>       | <b>Date of Exam</b> | <b>Examining Physician</b> |
|-------------------|---------------------|----------------------------|
| Albert, Frank     | 5/24/2010           | Dr. Cindy Pinson           |
| Huff, Jo          | 10/1/2009           | Dr. Cindy Pinson           |
| Humphreys, Lisa   | 5/10/2010           | Dr. Cindy Pinson           |
| Kmen, Wyatt       |                     |                            |
| McHenry, Nickolas | 3/30/2009           | Dr. Cindy Pinson           |
| Read, Jean        | 9/1/2009            | Dr. Cindy Pinson           |
| Smithson, Jason   | 5/24/2010           | Dr. Cindy Pinson           |
| Stark, Dan        | 5/10/2010           | Dr. Cindy Pinson           |
| Wolfe, Janet      | 5/24/2010           | Dr. Cindy Pinson           |

**APPENDIX G**  
**E-MAIL LOGS**

**From:** [Steve Elliott](mailto:Steve.Elliott@cityofmariettaoh.net)  
**To:** [Wolfe, Janet K LRH](mailto:Janet.K.LRH@cityofmariettaoh.net)  
**Cc:** [Steve Elliott](mailto:Steve.Elliott@cityofmariettaoh.net)  
**Subject:** FW: unmarked piping/outfall (UNCLASSIFIED)  
**Date:** Monday, June 27, 2011 10:08:24 AM

---

Some additional information that may be of interest to you.

Stephen Elliott  
Wastewater Superintendent  
City of Marietta WWTP  
440 East Eighth Street  
Marietta, OH 45750  
740-373-3858 Extension 2  
740-373-8214

-----Original Message-----

From: Davis, Kathy - Marietta, OH [<mailto:Kathy.Davis@oh.nacdn.net>]  
Sent: Friday, June 24, 2011 2:36 PM  
To: Steve Elliott  
Subject: RE: unmarked piping/outfall (UNCLASSIFIED)

Some of the homes in the Eighth, Jefferson, Pierce area drain down to the Jefferson "loop around" and to the Ohio through the County property to the river to the "other" outfall that they found that was recently repaired by Sts & others. But the end of eighth does discharge to the gravel parking lot behind Knights INN.

Kathy Davis

-----Original Message-----

From: Steve Elliott [<mailto:steveelliott@mariettaoh.net>]  
Sent: Friday, June 24, 2011 2:05 PM  
To: Wolfe, Janet K LRH  
Cc: Steve Elliott; Joe Tucker; rbadger@wcgov.org; Davis, Kathy - Marietta, OH  
Subject: FW: unmarked piping/outfall (UNCLASSIFIED)

I just had a return call from Frank Christy. He has identified the pipe. It is an active, main drainage line that drains about 12 acres from the Jefferson Street to Pike Street area and may possibly include the houses in that area as well. Therefore it is storm drainage from Hampton Inn, Microtell Inn, Kmart, McDonald's and Bob Evans. He did mention they had filed a corps of engineer permit in the early 1980"s. It is an active drainage line and the flapper valve was installed to prevent high river water from backing up into the drainage system. Therefore we need to be sure this line and system remains functional. Mr. Christy is going to contact his engineering firm in Columbus and see if they have additional information that he may forward on to us.

Stephen Elliott  
Wastewater Superintendent  
City of Marietta WWTP  
440 East Eighth Street  
Marietta, OH 45750  
740-373-3858 Extension 2  
740-373-8214

-----Original Message-----

From: Steve Elliott  
Sent: Friday, June 24, 2011 1:41 PM  
To: Frank Christy

Cc: Steve Elliott  
Subject: FW: unmarked piping/outfall (UNCLASSIFIED)

Mr. Christy,

According to the USACOE you are one of the property owners of riverbank between the City's WWTP and I-77 bridge that the Corps of Engineers is going to be stabilizing. On a visit yesterday they found a pipe from the bank to the river that to date no one is sure what it is from or for, if it is live or plugged off, etc. Do you have any idea of what the pipe is. I have forwarded the pictures from the USACE for you to look at in the attachments. Any information you have would be appreciated. I do not have any information on it or more knowledge other than we have verified it is not one of the "duckbills" the City recently installed on storm sewers owned by the City. It is possible it may be an interstate drain or storm sewer line. We just don't know at this point what it is. Thanks for any insight you may be able to offer.

Stephen Elliott  
Wastewater Superintendent  
City of Marietta WWTP  
440 East Eighth Street  
Marietta, OH 45750  
740-373-3858 Extension 2  
740-373-8214

-----Original Message-----

From: Steve Elliott  
Sent: Friday, June 24, 2011 6:30 AM  
To: rbadger@wccgov.org  
Cc: Steve Elliott  
Subject: FW: unmarked piping/outfall (UNCLASSIFIED)

The USACOE is working on a river bank stabilization project between the I-77 bridge and the WWTP including the area of the cinder storage pile. Do you know what the pipe in the pictures is or have any idea what it is for?

Stephen Elliott  
Wastewater Superintendent  
City of Marietta WWTP  
440 East Eighth Street  
Marietta, OH 45750  
740-373-3858 Extension 2  
740-373-8214

-----Original Message-----

From: Wolfe, Janet K LRH [<mailto:Janet.K.Wolfe@usace.army.mil>]  
Sent: Thursday, June 23, 2011 4:29 PM  
To: Steve Elliott  
Cc: Joe Tucker  
Subject: unmarked piping/outfall (UNCLASSIFIED)

Stephen Elliott  
Wastewater Superintendent  
City of Marietta WWTP  
440 East Eighth Street  
Marietta, OH 45750  
740-373-3858 Extension 2  
740-373-8214

-----Original Message-----

From: Wolfe, Janet K LRH [<mailto:Janet.K.Wolfe@usace.army.mil>]

Sent: Thursday, June 23, 2011 4:29 PM

To: Steve Elliott

Cc: Joe Tucker

Subject: unmarked piping/outfall (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Steve,

Here are the photos of the piping I was talking about earlier today which we saw when we were inspecting the streambank yesterday, upstream of the WWTP. This was seen upstream of the Marietta WWTP and the junkyard, but downstream of the I-77 bridge. There did not appear to be any signs related to this. I've also included a drawing showing the approximate area where this was found.

Could this be an emergency overflow for the WWTP or an old outfall of the WWTP? Or could this be a barge off-loading site? Or an outfall for a current/former chemical plant?

Thanks,

Janet Wolfe  
Huntington District Corps of Engineers  
Environmental & Remediation Section  
Phone: (304) 399-5327

Classification: UNCLASSIFIED

Caveats: NONE

This message may contain confidential and/or proprietary information and is intended for the person/entity to whom it was originally addressed. Any use by others is strictly prohibited. This message was scanned for virus infections by a Barracuda Networks SPAM/VIRUS filter. This message and its attachments were scanned prior to leaving the City of Marietta's e-mail system. If this scanning notification is not present on an e-mail received from a City of Marietta, Ohio e-mail address, then the message did not come from a City of Marietta, Ohio e-mail account.

**From:** [Steve Elliott](#)  
**To:** [Wolfe, Janet K LRH](#)  
**Cc:** [Steve Elliott](#); [Joe Tucker](#); [rbadger@wcgov.org](mailto:rbadger@wcgov.org); [Davis, Kathy - Marietta, OH](#)  
**Subject:** FW: unmarked piping/outfall (UNCLASSIFIED)  
**Date:** Friday, June 24, 2011 2:11:17 PM  
**Attachments:** [cwl\\_jun\\_2011.pdf](#)  
[photo1.JPG](#)  
[photo10.JPG](#)  
[photo8.JPG](#)

---

I just had a return call from Frank Christy. He has identified the pipe. It is an active, main drainage line that drains about 12 acres from the Jefferson Street to Pike Street area and may possibly include the houses in that area as well. Therefore it is storm drainage from Hampton Inn, Microtell Inn, Kmart, McDonald's and Bob Evans. He did mention they had filed a corps of engineer permit in the early 1980"s. It is an active drainage line and the flapper valve was installed to prevent high river water from backing up into the drainage system. Therefore we need to be sure this line and system remains functional. Mr. Christy is going to contact his engineering firm in Columbus and see if they have additional information that he may forward on to us.

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740-373-3858 Extension 2  
740-373-8214

-----Original Message-----

From: Steve Elliott  
Sent: Friday, June 24, 2011 6:30 AM  
To: [rbadger@wcgov.org](mailto:rbadger@wcgov.org)

Cc: Steve Elliott  
Subject: FW: unmarked piping/outfall (UNCLASSIFIED)

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Stephen Elliott  
Wastewater Superintendent  
City of Marietta WWTP  
440 East Eighth Street  
Marietta, OH 45750  
740-373-3858 Extension 2  
740-373-8214

-----Original Message-----

From: Wolfe, Janet K LRH [<mailto:Janet.K.Wolfe@usace.army.mil>]  
Sent: Thursday, June 23, 2011 4:29 PM  
To: Steve Elliott  
Cc: Joe Tucker  
Subject: unmarked piping/outfall (UNCLASSIFIED)

Stephen Elliott  
Wastewater Superintendent  
City of Marietta WWTP  
440 East Eighth Street  
Marietta, OH 45750  
740-373-3858 Extension 2  
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-----Original Message-----

From: Wolfe, Janet K LRH [<mailto:Janet.K.Wolfe@usace.army.mil>]  
Sent: Thursday, June 23, 2011 4:29 PM  
To: Steve Elliott  
Cc: Joe Tucker  
Subject: unmarked piping/outfall (UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

Steve,

Here are the photos of the piping I was talking about earlier today which we saw when we were inspecting the streambank yesterday, upstream of the WWTP. This was seen upstream of the Marietta WWTP and the junkyard, but downstream of the I-77 bridge. There did not appear to be any signs related to this. I've also included a drawing showing the approximate area where this was found.

Could this be an emergency overflow for the WWTP or an old outfall of the WWTP? Or could this be a barge off-loading site? Or an outfall for a current/former chemical plant?

Thanks,

Janet Wolfe  
Huntington District Corps of Engineers  
Environmental & Remediation Section  
Phone: (304) 399-5327

Classification: UNCLASSIFIED  
Caveats: NONE

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**From:** [Steve Elliott](#)  
**To:** [Wolfe, Janet K LRH](#)  
**Cc:** [Joe Tucker](#); [Steve Elliott](#)  
**Subject:** RE: unmarked piping/outfall (UNCLASSIFIED)  
**Date:** Friday, June 24, 2011 6:29:09 AM

---

I have forwarded this on to a couple of folks who may be able to help on this. I am unaware of any old bypass pipes in that area for the WWTP. The old outfall for the WWTP was at the upper Ohio River end of the WWTP and all known bypasses were eliminated in the 1987 upgrade to secondary treatment. In the early to mid 1950's the City installed interceptors along the Ohio and Muskingum Rivers to remove all sewer lines from the river discharges and connect them to the sanitary sewer system that was being installed during that time period. Do you know who the property owner is there?

Stephen Elliott  
Wastewater Superintendent  
City of Marietta WWTP  
440 East Eighth Street  
Marietta, OH 45750  
740-373-3858 Extension 2  
740-373-8214

-----Original Message-----

From: Wolfe, Janet K LRH [<mailto:Janet.K.Wolfe@usace.army.mil>]  
Sent: Thursday, June 23, 2011 4:29 PM  
To: Steve Elliott  
Cc: Joe Tucker  
Subject: unmarked piping/outfall (UNCLASSIFIED)

Stephen Elliott  
Wastewater Superintendent  
City of Marietta WWTP  
440 East Eighth Street  
Marietta, OH 45750  
740-373-3858 Extension 2  
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Sent: Thursday, June 23, 2011 4:29 PM  
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Subject: unmarked piping/outfall (UNCLASSIFIED)

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barge off-loading site? Or an outfall for a current/former chemical plant?

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Janet Wolfe  
Huntington District Corps of Engineers  
Environmental & Remediation Section  
Phone: (304) 399-5327

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**From:** [Steve Elliott](#)  
**To:** [Wolfe, Janet K LRH](#)  
**Cc:** [Steve Elliott](#)  
**Subject:** FW: Ohio River  
**Date:** Monday, June 27, 2011 10:10:58 AM  
**Attachments:** [frank0001.pdf](#)

---

Janet,

Here are the drawings from the 1980's regarding the lines in question.

Stephen Elliott

Wastewater Superintendent

City of Marietta WWTP

440 East Eighth Street

Marietta, OH 45750

740-373-3858 Extension 2

740-373-8214

From: Frank Christy [[mailto:frank\\_christy@yahoo.com](mailto:frank_christy@yahoo.com)]  
Sent: Friday, June 24, 2011 3:31 PM  
To: Steve Elliott  
Subject: Fw: Ohio River

Dear Steve--

This is all my engineer in Columbus could find in his files....but I hope it will help...as you know this was a long time ago.

Kindest regards,

Frank Christy

--- On Fri, 6/24/11, Mark Hazel <[mhazel@ameritech.net](mailto:mhazel@ameritech.net)> wrote:

From: Mark Hazel <[mhazel@ameritech.net](mailto:mhazel@ameritech.net)>  
Subject: Ohio River  
To: "Frank Christy" <[frank\\_christy@yahoo.com](mailto:frank_christy@yahoo.com)>  
Date: Friday, June 24, 2011, 3:27 PM

Frank, I believe you sent in for a Permit, I found a scratch copy in the file and I think you may have sent it in directly. Here is the plan.

Mark Hazel

Site Engineering, Inc.

Ph: 614-759-9900, Fax 614-759-9902

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Appendix F  
Cost Estimate

**Marietta, Ohio**  
Section 14 Project

Planning Design Analysis  
**APPENDIX F –Cost Estimate**

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## 1 Project Scope

The purpose of this Section 14 project is to protect critical infrastructure of the City of Marietta, Ohio from slope failure along the banks of the Ohio River. The scope of construction includes placing a 6-ft high berm of 15” top-size stone riprap along the waterline of the river’s normal pool and below the toe of the riverbank. The stone is estimated to be delivered and placed by land based crews (truck delivered material, hydraulic excavator, dozer, etc). Clearing and grubbing of brush, light trees, and other miscellaneous debris is also anticipated. For more information see the Planning Design Analysis main report and Appendix A Exhibits.

## 2 Cost Methodology

### 2.1 General

The feasibility cost estimate for the preferred plan has been prepared using MCACES 2<sup>nd</sup> Generation MII Version 4.1. The preparation of the cost estimate is in accordance with guidelines and policies included in: “ER 1110-1-1300 - Cost Engineering Policy and General Requirements, (26 March 1993)”; “ER 1110-2-1302 - Civil Works Cost Engineering, (15 Sept 2008)”; “EI 01D010, Construction Cost Estimates (1 Sept 1997)”; “EM 1110-1-8, Construction Equipment Ownership and Operating Expense Schedule, Region II, (July 2007)”; and “EM 1110-2-1304, Civil Works Construction Cost Index System (CWCCIS), (30 September 2010)”; “ETL 1110-2-573, Construction Cost Estimating Guide for Civil Works, (30 Sept 2008).” The estimate was completed using the latest guidance from OCE concerning implementation of the Civil Works Breakdown Structure (CWBS) and Chart of Accounts. MII estimate software was used to apply unique crews to detailed work items and obtaining material and supply quotes from prospective vendors/contractors where possible for significant cost items.

### 2.2 Direct Costs

Direct costs are based on anticipated equipment, labor and materials necessary to construct this project. Direct costs have been calculated independent of the contractor assigned to perform the tasks. Following formulation of the direct cost, a determination is made as to whether the work would be performed by the prime contractor or a subcontractor.

#### 2.2.1 Quantities

The estimate is based on detailed quantity take-offs prepared from the drawings as used as the basis of the estimate and augmented by spot checks performed by re-taking-off the original drawings.

#### 2.2.2 IDIQ Rates for Labor and Equipment

The estimate assumes project will be implemented as a work order with one of Huntington District’s current IDIQ contracts. These IDIQ labor and equipment rates are pre-negotiated to include all appropriate contractor markups (PTI, WCI, overhead, and profit).

### 2.2.3 Vendor Quotes

Vendor quotes have been acquired and documented for the key material prices associated with significant features of work. These key material item in this estimate is 15” top size stone riprap.

### 2.2.4 Crews

Project specific crews have been developed for use in estimating the direct costs for items not estimated using job quotes or historical cost information. Crew members consist of selected components of labor classifications and equipment pieces assembled to perform specific tasks. Productivity has been assigned to each crew reflective of the expected output per unit of measure for the specific activities listed in the cost estimate. Foremen have also been considered in the crews.

### 2.2.5 Work Schedules/Overtime

The estimate assumes a 4 day/week 10 hr/day standard work schedule to optimize production of mobilized equipment.

### 2.2.6 Productivity

A crew show-up time and general productivity loss factor has been applied in the MII estimate on labor hours assuming a loss of 20 minutes per 10 hour shift (9.8 HRS / 10 hrs = 98% productive) .

### 2.2.7 Sales Tax

Sales tax for the state of Ohio is 7.5% and applied to bare material costs in the MII estimate.

## **2.3 Indirect Costs**

### 2.3.1 IDIQ Prime Contractor

The construction contract is planned to be let as a task order with one of Huntington District’s current IDIQ contractors. IDIQ labor and equipment rates are fully burdened with all appropriate indirect markups. A general markup of 11% is applied to remaining material and sub-quotes, when applicable to the estimate.

### 2.3.2 Bond

Bond added as 1% as a contractor markup for the prime contractor applied as a running percentage to prime’s own work.

### 2.3.3 Subcontractors – No subcontractors assumed for this project.

## 2.4 Project Feature Accounts

The Marietta Section 14 Project baseline cost estimate was prepared and organized according to the Civil Works Breakdown Structure (CWBS). As such, the estimate includes the following feature accounts:

### 2.4.1 (16) Bank Stabilization

This feature account includes the cost for the construction contract. Key items of work include: environmental protection, light clearing and grubbing of brush and small trees along the river bank, land-based placement of stone riprap at the waterline of the bench just below the toe of the embankment.

### 2.4.2 (30) Planning, Engineering, and Design

The work covered under this account includes project management, project planning, preliminary design, final design, preparation of plans, preparation of specifications, engineering during construction, advertisement, opening of bids, and contract award. The cost for this account is estimated as 5% of the construction contract value.

### 2.4.3 (31) Supervision and Administration

The work covered under this account includes contract supervision, contract administration, construction administration, technical management activities, and District office supervision and administration costs. The cost for this account is estimated as 7.5% of the construction contract value

## 2.5 Risk-Based Contingency Development

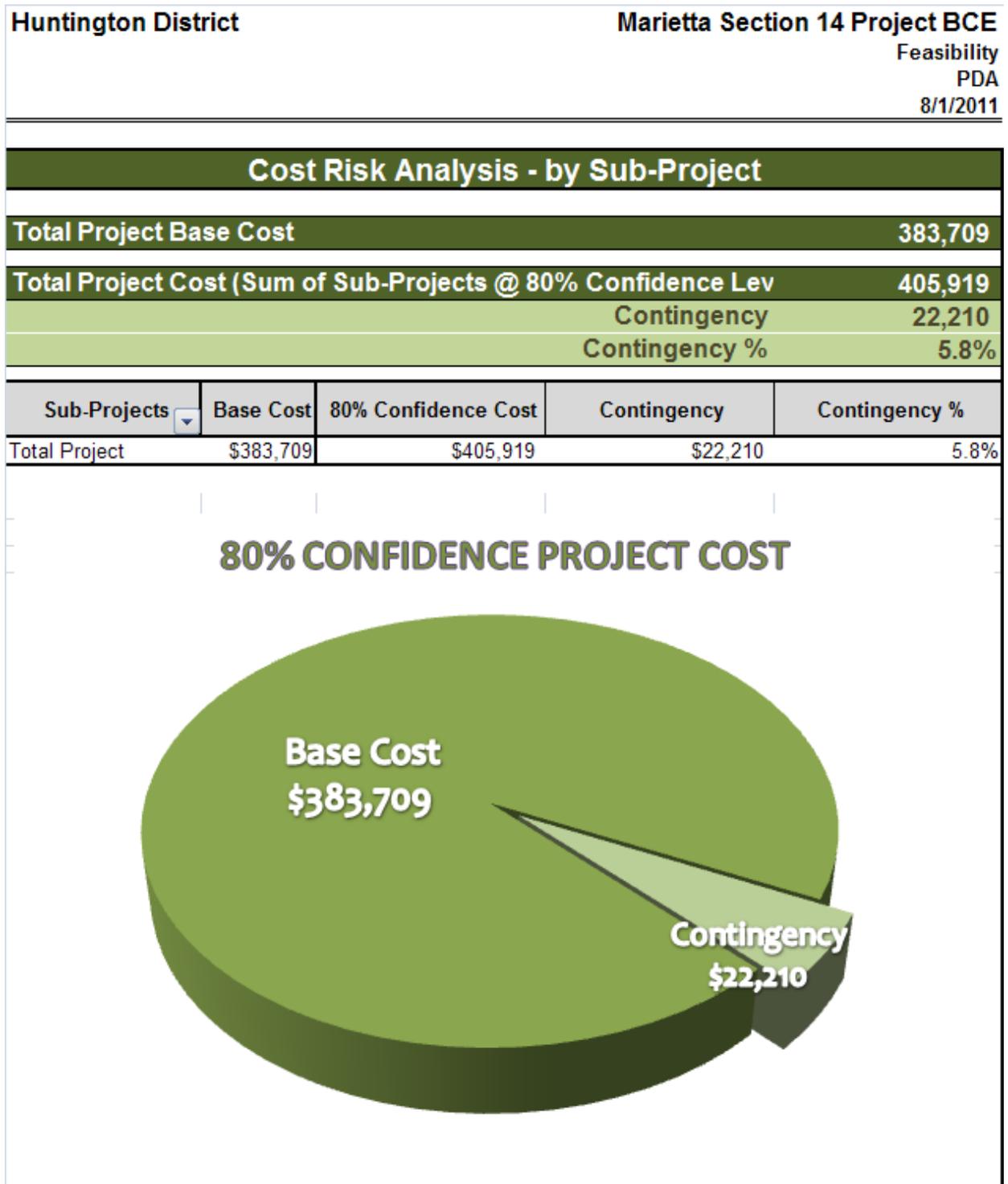
A Cost and Schedule Risk Analysis (CSRA) was performed on this project to identify the 80% confidence level project cost and schedule duration. Table 1 presents the summary results of the CSRA. Further detail is included in the Risk Analysis Development section of volume.

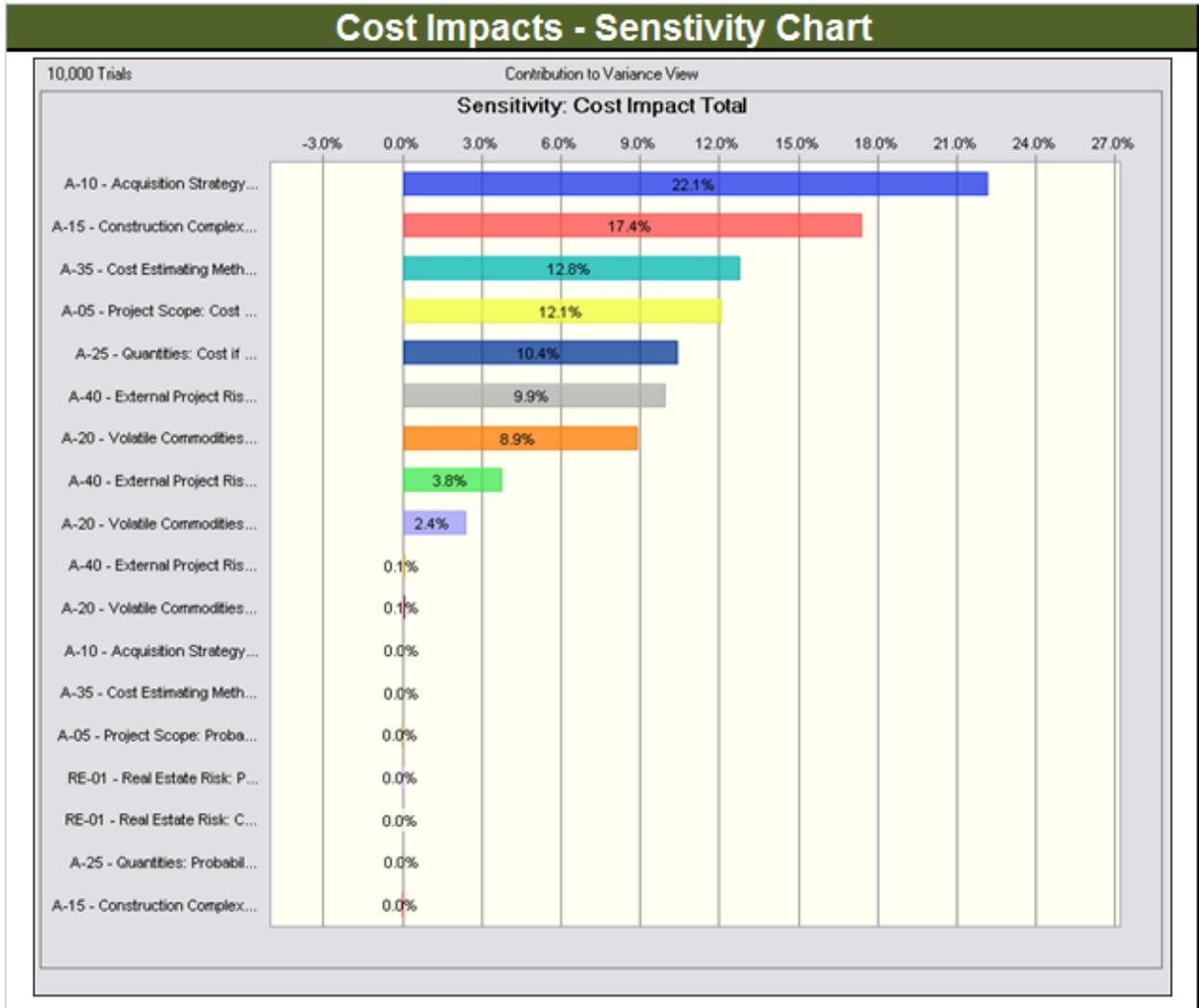
## 2.6 Key Risk Items Identified by Cost and Schedule Risk Analysis

The CSRA identified the following factors as major impacts for both the cost and schedule.

- A-15 - Construction Complexity  
Over two dozen very similar projects have been designed and constructed by the current design team in the past ten years. Marine work does require some specialization, yet very common to the project area. Competition for capable contractors, labor, and equipment could be reduced possibly impacting contract proposal amounts.
- A-20 - Volatile Commodities  
The construction cost is very sensitive to the stone material and delivery costs. Stone material prices have experienced modest volatility in recent history and are related to delivery/fuel costs that have been very volatile.
- A-25 – Quantities  
Key quantities are stone and clearing acreage. Estimate quantity variance is expected, however, construction quantities are well defined and are conservative as estimated. The project reach is constrained by the linear footage of shoreline bench as described in the NEPA compliance documents. The height and section of the stone berm is also defined by the stone size and existing site conditions.
- A-10 - Acquisition Strategy  
The Acquisition strategy has a significant influence on the TPC of any project. The current strategy to complete work through an existing IDIQ contractor is fairly certain. However, if the construction contract were awarded in an emergency type situation with little to no competition or time for negotiation, contract amount could be at a premium.
- A-05 – Project Scope  
Designers are confident project scope is fairly well defined to the intent of bank/slope protection. Level of design early, yet adequate for the simple detail required to clearly communicate site conditions. Risk remains however, that additional stabilization measures could be required to protect infrastructure.

Table 1. Cost and Schedule Risk Analysis Result Summary





**Figure A.** Key Risks Contributing to Project Uncertainty

2.7 ESTIMATED COST

The PDT developed a project implementation schedule for project that supports the development of the fully funded cost estimates. The baseline cost estimate at PL 1 August 2011 is \$406,000 as shown in Tables 2 through 4.

**Table 2. Total Project Cost, PL-1 August 2011**

| <b>Feature Account</b>            | <b>Cost</b>      |
|-----------------------------------|------------------|
| 01 Lands and Damages              | \$10,000         |
| 16 Bank Stabilization             | \$354,000        |
| 30 Engineering and Design         | \$16,000         |
| 31 Supervision and Administration | \$25,000         |
| <b>Grand Total</b>                | <b>\$406,000</b> |

**Table 3. Project Detail - Marietta Section 14 Project.**

| <b>Feature Account</b>              | <b>Cost to Owner</b> | <b>Contingency</b> | <b>Contingency%</b> | <b>Project Cost (PL AUG-11)</b> |
|-------------------------------------|----------------------|--------------------|---------------------|---------------------------------|
| 01 Lands and Damages                | \$9,840              | \$510              | 5.18%               | \$10,350                        |
| 16 Bank Stabilization               | \$334,369            | \$19,407           | 5.80%               | \$353,775                       |
| 30 Engineering and Design           | \$15,500             | \$900              | 5.80%               | \$16,400                        |
| 31 Supervision and Administration   | \$24,000             | \$1,393            | 5.80%               | \$25,393                        |
| <b>Project Cost Thru Completion</b> | <b>\$383,709</b>     | <b>\$22,209</b>    | <b>5.79%</b>        | <b>\$405,918</b>                |

**Table 4. Non-Fully Funded (8/1/2011) Distributed Project Costs - Marietta Section 14 Project BCE.**

| <b>FeatureAccount</b>             | <b>FY12</b>      | <b>Grand Total</b> |
|-----------------------------------|------------------|--------------------|
| 01 Lands and Damages              | \$10,350         | \$10,350           |
| 16 Bank Stabilization             | \$353,775        | \$353,775          |
| 30 Engineering and Design         | \$16,400         | \$16,400           |
| 31 Supervision and Administration | \$25,393         | \$25,393           |
| <b>Grand Total</b>                | <b>\$405,918</b> | <b>\$405,918</b>   |

2.8 FULLY FUNDED COST ESTIMATE

The fully funded cost estimate including inflation to the mid-point of construction is \$411,000 as shown in the Total Project Cost Summary and Table 5. The fully funded table distributes the base level cost estimate across the appropriate years according to the schedule. Each feature account is inflated to the mid-point of expenditure activity using CWCCIS factors. These inflated feature account totals are summed to yield a total fully funded project cost. Figure B illustrates the distribution of Fully Funded Project Cost over the implementation schedule.

**Table 5. Project Summary - Marietta Section 14 Project.**

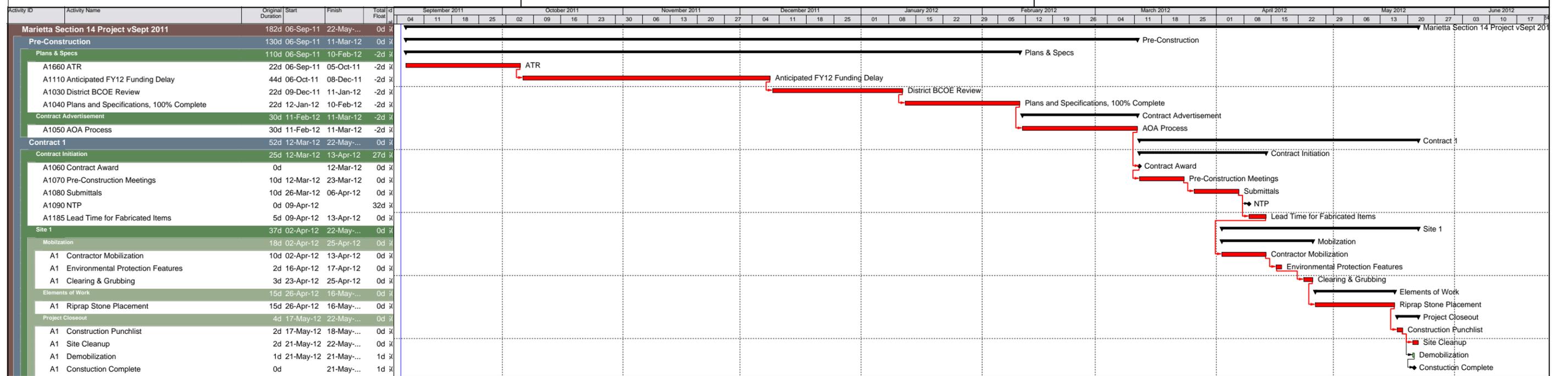
| Feature Account                     |                                | Cost to Owner    | Contingency     | Contingency% | Project Cost<br>(PL AUG-11) | Escalation     | Escalation% | Fully Funded Cost |
|-------------------------------------|--------------------------------|------------------|-----------------|--------------|-----------------------------|----------------|-------------|-------------------|
| 01                                  | Lands and Damages              | \$9,840          | \$510           | 5.2%         | \$10,350                    | \$91           | 0.9%        | \$10,441          |
| 16                                  | Bank Stabilization             | \$334,369        | \$19,407        | 5.8%         | \$353,775                   | \$4,543        | 1.3%        | \$358,318         |
| 30                                  | Engineering and Design         | \$15,500         | \$900           | 5.8%         | \$16,400                    | \$259          | 1.6%        | \$16,658          |
| 31                                  | Supervision and Administration | \$24,000         | \$1,393         | 5.8%         | \$25,393                    | \$400          | 1.6%        | \$25,793          |
| <b>Project Cost Thru Completion</b> |                                | <b>\$383,709</b> | <b>\$22,209</b> | <b>5.8%</b>  | <b>\$405,918</b>            | <b>\$5,293</b> | <b>1.3%</b> | <b>\$411,211</b>  |

### 3 PROJECT IMPLEMENTATION SCHEDULE

Table 6 presents distribution percentages by feature account and year. The total project schedule was developed from the current project implementation schedule developed by the PDT and managed by the Project Manager and expanding the construction schedule based on the significant construction activities and durations from the MII cost estimate. The construction schedule calendars include major holidays and non-work weather days.

**Table 6. Implementation Schedule - Marietta Section 14 Project BCE.**

| <b>FeatureAccount</b>              | <b>FY12</b> | <b>Grand Total</b> |
|------------------------------------|-------------|--------------------|
| ☐01 Lands and Damages              | 100.0%      | 100.0%             |
| ☐16 Bank Stabilization             | 100.0%      | 100.0%             |
| ☐30 Engineering and Design         | 100.0%      | 100.0%             |
| ☐31 Supervision and Administration | 100.0%      | 100.0%             |



█ Remaining Level of Effort   
 █ Remaining Work   
 ◆ Milestone  
█ Actual Work   
 █ Critical Remaining Work   
 ▼ Summary

## **4 RISK ANALYSIS DEVELOPMENT**

### **4.1 Cost and Schedule Risk Analysis Development**

A Cost and Schedule Risk Analysis (CSRA) was performed on this project to more accurately identify risk and potential impacts to the project. This analysis required participation by entire PDT to identify the 80% confidence level project cost and contingencies.

### **4.2 CSRA Methodology**

In coordination with the PDT, a risk register was developed to identify and document the various risks associated with the project. Low risk impacts to cost and/or schedule were not carried forward for further study. The final risk register is included in this volume.

Upon completion of the risk register, the cost and schedule risk models were developed using Crystal Ball risk software. Each risk item was studied to categorize the type of risk (internal/external, event, etc.) and then quantify the probability of occurrence for event risks and the high and low impacts from the most likely estimate and schedule.

A distribution curve was selected to best model how the impacts might occur. The majority of risk items were modeled using a triangular distribution, while the uniform and max extreme distributions were also used as well.

Correlations have been established between risk items where impacts from one are expected to strongly influence the impacts of another. For example, if a risk item “Variance of Project Scope Definition” were to cause a positive cost impact (presumably due to scope), the impacts to another risk item “Engineering & Design Costs” is more likely to react similarly to fund the engineering and design behind the increase costs/scope, and vice versa.

From the risk analysis results, various reports were generated summarizing contingencies based on the 80% confidence project costs, durations, and identification of the project components causing the most variation in project costs and schedule.

### **4.3 Risk Results**

Results of the cost and schedule risk analysis are shown in Table 7. Key risks contributing to the overall project contingency are presented in Figure A.

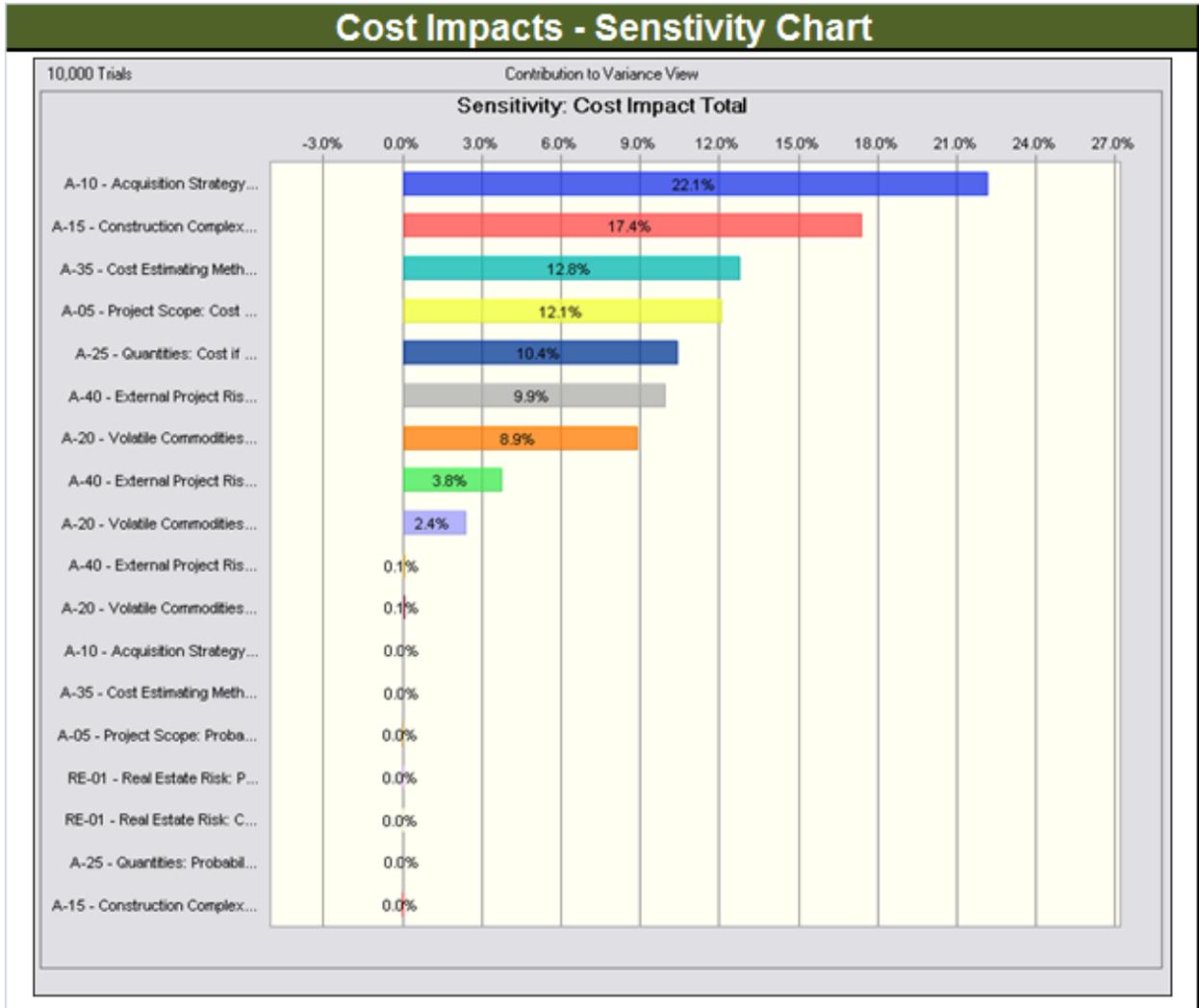
**Table 7.** 80% Confidence Results for Contingency Amounts

| <b>Huntington District</b>                                          |           | <b>Marietta Section 14 Project BCE</b> |             |               |
|---------------------------------------------------------------------|-----------|----------------------------------------|-------------|---------------|
|                                                                     |           | Feasibility<br>PDA<br>8/1/2011         |             |               |
| <b>Cost Risk Analysis - by Sub-Project</b>                          |           |                                        |             |               |
| <b>Total Project Base Cost</b>                                      |           | <b>383,709</b>                         |             |               |
| <b>Total Project Cost (Sum of Sub-Projects @ 80% Confidence Lev</b> |           | <b>405,919</b>                         |             |               |
|                                                                     |           | Contingency 22,210                     |             |               |
|                                                                     |           | Contingency % 5.8%                     |             |               |
| Sub-Projects                                                        | Base Cost | 80% Confidence Cost                    | Contingency | Contingency % |
| Total Project                                                       | \$383,709 | \$405,919                              | \$22,210    | 5.8%          |

**80% CONFIDENCE PROJECT COST**

The pie chart illustrates the 80% confidence project cost. It is divided into two segments: a large green segment representing the Base Cost of \$383,709, and a smaller, exploded green segment representing the Contingency of \$22,210.



**Figure A.** Key Risks Contributing to Project Uncertainty

#### 4.4 Risk register

## Risk Meetings &amp; Discussion with Project Delivery Team

## Risk Register Meeting #1

Friday, June 24, 2011

## Risk Register Attendees

| <u>Team Member</u> | <u>Section</u> | <u>Title</u>                             |
|--------------------|----------------|------------------------------------------|
| Mike Spoor         | CELRH-EC       | ≡ / Geotechnical Engineer / Construction |
| Alex Neal          | CELRH-EC-GS    | Technical Lead                           |
| Andrew Loudermilk  | CELRH-EC-TC    | Cost Engineer                            |
| Derek Maxey        | CELRH-EC-TC    | Cost Engineer                            |

## Agenda for Meeting

Develop Risk Register

## Notes from Discussion

Risk register developed with PDT input.

**Risk Meetings & Discussion with Project Delivery Team***PDA  
Feasibility***Risk Register Meeting #2**

Monday, July 18, 2011

**Risk Register Attendees**

| <u>Team Member</u> | <u>Section</u> | <u>Title</u>  |
|--------------------|----------------|---------------|
| Alex Neal          | EC-GS          | CELRH-EC-GS   |
| Andrew Loudermilk  | EC-TC          | Cost Engineer |
| Derek Maxey        | EC-TC          | Cost Engineer |

**Agenda for Meeting**

Discuss construction methodology changes due to shallow draft at river bank.

**Notes from Discussion**

Alex Neal discussed the inability to place stone from marine plant due to the shallow draft extending 100'+ out from the river bank. Construction must be performed with land based equipment and trucked stone delivery.

## Risk Register

| Risk ID | Description | Concern | PDT Discussion & Conclusions | Likelihood | COST   |            | SCHEDULE |            | Variance Distribution | Responsibility/ POC | Affected Components |
|---------|-------------|---------|------------------------------|------------|--------|------------|----------|------------|-----------------------|---------------------|---------------------|
|         |             |         |                              |            | Impact | Risk Level | Impact   | Risk Level |                       |                     |                     |

Estimate WBS Title: *Total Project*

Project Cost w/o Contingency: *\$383,708.58*

### Construction

|      |                         |                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |         |          |          |            |          |            |                  |                          |
|------|-------------------------|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|----------|------------|----------|------------|------------------|--------------------------|
| A-15 | Construction Complexity | Is the project constructible? Unique methods of construction? Special construction equipment? | Over two dozen very similar projects have been designed and constructed by the current design leads over the past ten years.                                                                                                                                                                                                                                                                                                                                                                 | Certain | Marginal | Moderate | Marginal   | Moderate | Triangular | Technical Lead   | Contract Cost & Schedule |
| A-20 | Volatile Commodities    | Materials or equipment subject to fluctuation?                                                | The construction cost is very sensitive to the stone material and delivery costs. Stone material prices have experienced modest volatility in recent history and are related to delivery/fuel costs that have been very volatile. The current fuel pricing applied in the base estimate is based on trucked delivery and is probably at a high peak, and therefore conservative with some opportunity for cost reduction to the project (e.g. barged delivery, fuel pricing decreases, etc). | Likely  | Marginal | Moderate | Negligible | Low      | Triangular | Cost Engineering | Contract Cost & Schedule |

### Contract Acquisition

|      |                      |                                                                                                                                                                               |                                                                                                                                                  |         |          |          |            |     |            |                 |                         |
|------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|----------|------------|-----|------------|-----------------|-------------------------|
| A-10 | Acquisition Strategy | Is the established contracting plan - unclear? Accelerated schedule or harsh weather schedule? 8a - Small Business contractor likely? Affect on subcontracting? Design-build? | The contract strategy to accomplish work as an IDIQ task order is well defined and agreed upon. Construction schedule is not overly constrained. | Certain | Marginal | Moderate | Negligible | Low | Triangular | Project Manager | Project Cost & Schedule |
|------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------|----------|------------|-----|------------|-----------------|-------------------------|

### Lands & Damages

|       |                  |                                                 |                                                                                                                                   |         |             |      |            |     |            |             |              |
|-------|------------------|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|---------|-------------|------|------------|-----|------------|-------------|--------------|
| RE-01 | Real Estate Risk | Incorporate Real Estate contingency per RE Plan | The Real Estate Plan prepared and reviewed by the Real Estate COP for the project includes a 25% contingency on all acquisitions. | Certain | Significant | High | Negligible | Low | Triangular | Real Estate | Project Cost |
|-------|------------------|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|---------|-------------|------|------------|-----|------------|-------------|--------------|

### Programmatic

|      |                        |                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |          |      |          |      |            |                 |                         |
|------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|------|----------|------|------------|-----------------|-------------------------|
| A-40 | External Project Risks | Political influences and affect on project? Adverse weather affect project? What can impact project schedule? Changes to project schedule affect quality? | Political influences on funding have the potential for significant impact. Current assumptions are that funding is available within the next fiscal year. However, current political climate against Congressional Ads may hinder this funding. Adverse weather that could impact construction would be high water events and daily shutdown events (storms etc.). Overall weather impacts are less likely due to the short construction duration. | Likely | Critical | High | Critical | High | Triangular | Project Manager | Project Cost & Schedule |
|------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|------|----------|------|------------|-----------------|-------------------------|

Risk Register

| Risk ID                                 | Description            | Concern                                                                                                                                                                                                                                                 | PDT Discussion & Conclusions                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Likelihood | COST     |            | SCHEDULE |            | Variance Distribution | Responsibility/ POC | Affected Components      |
|-----------------------------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------|------------|----------|------------|-----------------------|---------------------|--------------------------|
|                                         |                        |                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            | Impact   | Risk Level | Impact   | Risk Level |                       |                     |                          |
| <b>Project &amp; Program Management</b> |                        |                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |          |            |          |            |                       |                     |                          |
| A-35                                    | Cost Estimating Method | Reliability of quotes or Cost Book? Assumptions made and affect on cost estimate? Confidence of crews and production rates? Site accessibility, delays? Prime & Subcontractors appropriately identified? Markups reasonable?                            | Riprap is key material item. Multiple vendor quotes were received and track well when compared to historic bid information. Crew composition for material placement from land based equipment from similar recent projects. The Contractor's actual production rates may vary, but are likely to be improved over those assumed in the base estimate. Little risk in contractor markups for the assumed acquisition strategy of pre-negotiated IDIQ labor and equipment rates. | Certain    | Marginal | Moderate   | Marginal | Moderate   | Triangular            | Cost Engineering    | Project Cost & Schedule  |
| <b>Technical Design</b>                 |                        |                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |          |            |          |            |                       |                     |                          |
| A-05                                    | Project Scope          | Does scope accomplish Project intent? Level of detail in design? Investigations remain to finalize design? Designer confidence in scope of work? What are assumptions made? Opportunities for scope to change (materials, details, etc.) during design? | Designers are confident project scope is fairly well defined to the intent of bank/slope protection. Level of design early, yet adequate for the simple detail required to clearly communicate site conditions.                                                                                                                                                                                                                                                                | Certain    | Marginal | Moderate   | Marginal | Moderate   | Triangular            | Technical Lead      | Project Cost & Schedule  |
| A-25                                    | Quantities             | Level of confidence in the quantities? Possibility for increase in quantities? Appropriate method used to calculate quantities? Enough information to calculate the quantities? Calculated quantities check between designer and cost estimator?        | Construction quantities are well defined and are conservative as estimated. The project reach is constrained by the linear footage of shoreline bench as described in the NEPA compliance documents. The height and section of the stone berm is also defined by the stone size and existing site conditions. However, some variation could be encountered in site clearing and final placed stone.                                                                            | Certain    | Marginal | Moderate   | Marginal | Moderate   | Triangular            | Cost Engineering    | Contract Cost & Schedule |

Details of Event: A-05

**Project Scope**

**Risk Identification**

|                           |                                                                                                                                                                                                                                                         |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Risk Type</b>          | Technical Design                                                                                                                                                                                                                                        |
| <b>Responsibility/POC</b> | Technical Lead                                                                                                                                                                                                                                          |
| <b>Affected Component</b> | Project Cost & Schedule                                                                                                                                                                                                                                 |
| <b>Distribution</b>       | Triangular                                                                                                                                                                                                                                              |
| <b>Concern</b>            | Does scope accomplish Project intent? Level of detail in design? Investigations remain to finalize design? Designer confidence in scope of work? What are assumptions made? Opportunities for scope to change (materials, details, etc.) during design? |

**PDT Discussion & Conclusion**

Designers are confident project scope is fairly well defined to the intent of bank/slope protection. Level of design early, yet adequate for the simple detail required to clearly communicate site conditions.

**Risk Analysis**

Considering the likelihood...

**Likelihood** Certain

And impact to...

**Cost** Marginal

The corresponding risks would be...

**Cost** Moderate

|                          |               | Risk Level                           |          |             |          |        |
|--------------------------|---------------|--------------------------------------|----------|-------------|----------|--------|
|                          |               | Low                                  | Moderate | High        | High     | High   |
| Likelihood of Occurrence | Very Likely   | Low                                  | Moderate | High        | High     | High   |
|                          | Likely        | Low                                  | Moderate | High        | High     | High   |
|                          | Unlikely      | Low                                  | Low      | Moderate    | Moderate | High   |
|                          | Very Unlikely | Low                                  | Low      | Low         | Low      | High   |
|                          |               | Negligible                           | Marginal | Significant | Critical | Crisis |
|                          |               | Impact or Consequences of Occurrence |          |             |          |        |

**Correlation**

*Details of Event: A-05*

**Project Scope**

**Effect on Estimate**

*Project scope uncertainty could cause some additional stabilization measures to be required to protect infrastructure.*

**Best Case**

*Reduce current scope for clearing, filter fabric, and stone placement by 15%. Reduce E&D by 10%*

**Most Likely**

*No change from base estimate.*

**Worst Case**

*Increase current scope for clearing and stone placement by 5%. Increase E&D by 5%*

|                     | Best Case            | Most Likely   | Worst Case         |
|---------------------|----------------------|---------------|--------------------|
| <b>Cost Impacts</b> | <b>(\$52,827.94)</b> | <b>\$0.00</b> | <b>\$17,867.65</b> |

Details of Event: A-10

**Acquisition Strategy**

**Risk Identification**

|                           |                                                                                                                                                                               |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Risk Type</b>          | Contract Acquisition                                                                                                                                                          |
| <b>Responsibility/POC</b> | Project Manager                                                                                                                                                               |
| <b>Affected Component</b> | Project Cost & Schedule                                                                                                                                                       |
| <b>Distribution</b>       | Triangular                                                                                                                                                                    |
| <b>Concern</b>            | Is the established contracting plan - unclear? Accelerated schedule or harsh weather schedule? 8a - Small Business contractor likely? Affect on subcontracting? Design-build? |

**PDT Discussion & Conclusion**

The contract strategy to accomplish work as an IDIQ task order is well defined and agreed upon. Construction schedule is not overly constrained.

**Risk Analysis**

Considering the likelihood...

Likelihood **Certain**

And impact to...

Cost **Marginal**

The corresponding risks would be...

Cost **Moderate**

|                                      |               | Risk Level |          |             |          |        |
|--------------------------------------|---------------|------------|----------|-------------|----------|--------|
|                                      |               | Low        | Moderate | High        | High     | High   |
| Likelihood of Occurrence             | Very Likely   | Low        | Moderate | High        | High     | High   |
|                                      | Likely        | Low        | Moderate | High        | High     | High   |
|                                      | Unlikely      | Low        | Low      | Moderate    | Moderate | High   |
|                                      | Very Unlikely | Low        | Low      | Low         | Low      | High   |
|                                      |               | Negligible | Marginal | Significant | Critical | Crisis |
| Impact or Consequences of Occurrence |               |            |          |             |          |        |

**Correlation**

*Details of Event: A-10*

**Acquisition Strategy**

**Effect on Estimate**

*The Acquisition strategy has a significant influence on the TPC of any project. The current strategy to complete work through an existing IDIQ contractor is fairly certain. The strategy may also be on the higher conservative assumption to the TPC.*

**Best Case**

*If project completed in single contract, yet competitively bid through RFP to multiple IDIQ contractors may be able to achieve a lower contract cost than estimated. Assume best case 20% reduction.*

**Most Likely**

*No change from base estimate.*

**Worst Case**

*If construction contract were awarded in an emergency type situation with little to no competition or time for negotiation, construction cost could be at a premium. However, the base estimate assumption considers this likelihood to an extent. Worst case, increase construction cost by 5%.*

|                     | Best Case            | Most Likely   | Worst Case         |
|---------------------|----------------------|---------------|--------------------|
| <b>Cost Impacts</b> | <b>(\$71,675.25)</b> | <b>\$0.00</b> | <b>\$17,918.81</b> |

Details of Event: A-15

**Construction Complexity**

**Risk Identification**

**Risk Type**

**Responsibility/POC**

**Affected Component**

**Distribution**

**Concern**

**PDT Discussion & Conclusion**

Over two dozen very similar projects have been designed and constructed by the current design leads over the past ten years.

**Risk Analysis**

Considering the likelihood...

**Likelihood**

And impact to...

**Cost**

The corresponding risks would be...

**Cost**

|                                      |               | Risk Level |          |             |          |        |
|--------------------------------------|---------------|------------|----------|-------------|----------|--------|
|                                      |               | Low        | Moderate | High        | High     | High   |
| Likelihood of Occurrence             | Very Likely   | Low        | Moderate | High        | High     | High   |
|                                      | Likely        | Low        | Moderate | High        | High     | High   |
|                                      | Unlikely      | Low        | Low      | Moderate    | Moderate | High   |
|                                      | Very Unlikely | Low        | Low      | Low         | Low      | High   |
|                                      |               | Negligible | Marginal | Significant | Critical | Crisis |
| Impact or Consequences of Occurrence |               |            |          |             |          |        |

**Correlation**

*Details of Event: A-15*

**Construction Complexity**

**Effect on Estimate**

*Marine construction makes this project somewhat more complex and unique. Competition for capable contractors, labor, and equipment are reduced. General conditions and clearing tasks not affected by this risk.*

**Best Case**

*Opportunity for improved overall efficiency due to experienced capable contractor and labor members assigned to the construction. Reduce estimate by 15% for best case.*

**Most Likely**

*No change from base estimate.*

**Worst Case**

*Risk of reduced overall efficiency due to experienced capable contractor and labor members assigned to the construction. Increase marine construction by 10% for best case.*

|                     | Best Case            | Most Likely   | Worst Case         |
|---------------------|----------------------|---------------|--------------------|
| <b>Cost Impacts</b> | <b>(\$50,602.34)</b> | <b>\$0.00</b> | <b>\$33,734.89</b> |

Details of Event: A-20

**Volatile Commodities**

**Risk Identification**

**Risk Type**

**Responsibility/POC**

**Affected Component**

**Distribution**

**Concern**

**PDT Discussion & Conclusion**

The construction cost is very sensitive to the stone material and delivery costs. Stone material prices have experienced modest volatility in recent history and are related to delivery/fuel costs that have been very volatile. The current fuel pricing applied in the base estimate is based on trucked delivery and is probably at a high peak, and therefore conservative with some opportunity for cost reduction to the project (e.g. barged delivery, fuel pricing decreases, etc).

**Risk Analysis**

Considering the likelihood...  
**Likelihood**

And impact to...  
**Cost**

The corresponding risks would be...  
**Cost**

|                          |               | Risk Level                           |          |             |          |        |
|--------------------------|---------------|--------------------------------------|----------|-------------|----------|--------|
|                          |               | Low                                  | Moderate | High        | High     | High   |
| Likelihood of Occurrence | Very Likely   | Low                                  | Moderate | High        | High     | High   |
|                          | Likely        | Low                                  | Moderate | High        | High     | High   |
|                          | Unlikely      | Low                                  | Low      | Moderate    | Moderate | High   |
|                          | Very Unlikely | Low                                  | Low      | Low         | Low      | High   |
|                          |               | Negligible                           | Marginal | Significant | Critical | Crisis |
|                          |               | Impact or Consequences of Occurrence |          |             |          |        |

**Correlation**

*Details of Event: A-20*

**Volatile Commodities**

**Effect on Estimate**

*Stone material and delivery costs is the key construction material.*

**Best Case**

*Stone material and delivery costs may be a little high over historic average due to recently high fuel pricing. Stone material cost could reduce by 10% in best case. Filter Fabric could reduce by 2%*

**Most Likely**

*No change from base estimate.*

**Worst Case**

*Stone material and delivery costs may be a little high over historic average due to recently high fuel pricing. However, fuel pricing increases or other stone production costs could further increase. Material cost could increase by 20% in worst case. Filter fabric could increase by 20%*

|                     | Best Case            | Most Likely   | Worst Case         |
|---------------------|----------------------|---------------|--------------------|
| <b>Cost Impacts</b> | <b>(\$32,205.66)</b> | <b>\$0.00</b> | <b>\$67,501.06</b> |

Details of Event: A-25

**Quantities**

**Risk Identification**

**Risk Type**

**Responsibility/POC**

**Affected Component**

**Distribution**

**Concern**

**PDT Discussion & Conclusion**

Construction quantities are well defined and are conservative as estimated. The project reach is constrained by the linear footage of shoreline bench as described in the NEPA compliance documents. The height and section of the stone berm is also defined by the stone size and existing site conditions. However, some variation could be encountered in site clearing and final placed stone.

**Risk Analysis**

Considering the likelihood...

**Likelihood**

And impact to...

**Cost**

The corresponding risks would be...

**Cost**

|                          |               | Risk Level                           |          |             |          |        |
|--------------------------|---------------|--------------------------------------|----------|-------------|----------|--------|
|                          |               | Low                                  | Moderate | High        | High     | High   |
| Likelihood of Occurrence | Very Likely   | Low                                  | Moderate | High        | High     | High   |
|                          | Likely        | Low                                  | Moderate | High        | High     | High   |
|                          | Unlikely      | Low                                  | Low      | Moderate    | Moderate | High   |
|                          | Very Unlikely | Low                                  | Low      | Low         | Low      | High   |
|                          |               | Negligible                           | Marginal | Significant | Critical | Crisis |
|                          |               | Impact or Consequences of Occurrence |          |             |          |        |

**Correlation**

*Details of Event: A-25*

**Quantities**

**Effect on Estimate**

*Estimate quantity variance is expected. Key quantities are stone and clearing acreage.*

**Best Case**

*Best case, reduce stone and acreage by 10%*

**Most Likely**

*No change from base estimate.*

**Worst Case**

*Worst case, increase stone by 10% and acreage by 10%. Filter Fabric by 5%*

|                     | Best Case            | Most Likely   | Worst Case         |
|---------------------|----------------------|---------------|--------------------|
| <b>Cost Impacts</b> | <b>(\$34,086.77)</b> | <b>\$0.00</b> | <b>\$32,211.95</b> |

Details of Event: A-35

**Cost Estimating Method**

**Risk Identification**

**Risk Type**

**Responsibility/POC**

**Affected Component**

**Distribution**

**Concern**

**PDT Discussion & Conclusion**

Riprap is key material item. Multiple vendor quotes were received and track well when compared to historic bid information. Crew composition for material placement from land based equipment from similar recent projects. The Contractor's actual production rates may vary, but are likely to be improved over those assumed in the base estimate. Little risk in contractor markups for the assumed acquisition strategy of pre-negotiated IDIQ labor and equipment rates.

**Risk Analysis**

Considering the likelihood...

**Likelihood**

And impact to...

**Cost**

The corresponding risks would be...

**Cost**

|                          |               | Risk Level |          |             |          |        |
|--------------------------|---------------|------------|----------|-------------|----------|--------|
|                          |               | Negligible | Marginal | Significant | Critical | Crisis |
| Likelihood of Occurrence | Very Likely   | Low        | Moderate | High        | High     | High   |
|                          | Likely        | Low        | Moderate | High        | High     | High   |
|                          | Unlikely      | Low        | Low      | Moderate    | Moderate | High   |
|                          | Very Unlikely | Low        | Low      | Low         | Low      | High   |

**Correlation**

*Details of Event: A-35*

**Cost Estimating Method**

**Effect on Estimate**

*Method of estimation including crews, productions, overtime, and productivity assumptions can vary from the estimator's assumptions. USACE costs for E&D can also vary from the method of calc. S&A probably well defined.*

**Best Case**

*Decrease construction costs by 10%. Decrease E&D by 15%*

**Most Likely**

*No change from base estimate.*

**Worst Case**

*Increase construction costs by 7.5%. Increase E&D by 10%*

|                     | Best Case            | Most Likely   | Worst Case         |
|---------------------|----------------------|---------------|--------------------|
| <b>Cost Impacts</b> | <b>(\$39,714.10)</b> | <b>\$0.00</b> | <b>\$29,591.82</b> |

Details of Event: **A-40**

**External Project Risks**

**Risk Identification**

|                           |                                                                                                                                                           |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Risk Type</b>          | Programmatic                                                                                                                                              |
| <b>Responsibility/POC</b> | Project Manager                                                                                                                                           |
| <b>Affected Component</b> | Project Cost & Schedule                                                                                                                                   |
| <b>Distribution</b>       | Triangular                                                                                                                                                |
| <b>Concern</b>            | Political influences and affect on project? Adverse weather affect project? What can impact project schedule? Changes to project schedule affect quality? |

**PDT Discussion & Conclusion**

Political influences on funding have the potential for significant impact. Current assumptions are that funding is available within the next fiscal year. However, current political climate against Congressional Ads may hinder this funding. Adverse weather that could impact construction would be high water events and daily shutdown events (storms etc.). Overall weather impacts are less likely due to the short construction duration.

**Risk Analysis**

Considering the likelihood...

**Likelihood**

And impact to...

**Cost**

The corresponding risks would be...

**Cost**

|                          |               | Risk Level                           |          |             |          |        |
|--------------------------|---------------|--------------------------------------|----------|-------------|----------|--------|
|                          |               | Low                                  | Moderate | High        | High     | High   |
| Likelihood of Occurrence | Very Likely   | Low                                  | Moderate | High        | High     | High   |
|                          | Likely        | Low                                  | Moderate | High        | High     | High   |
|                          | Unlikely      | Low                                  | Low      | Moderate    | Moderate | High   |
|                          | Very Unlikely | Low                                  | Low      | Low         | Low      | High   |
|                          |               | Negligible                           | Marginal | Significant | Critical | Crisis |
|                          |               | Impact or Consequences of Occurrence |          |             |          |        |

**Correlation**

*Details of Event: A-40*

**External Project Risks**

**Effect on Estimate**

*External events could shift construction into the future or cause scope adjustments. Weather could have some cost impacts to construction but minimal risk to USACE.*

**Best Case**

*No change from base estimate.*

**Most Likely**

*Increase construction by 5% E&D by 10%*

**Worst Case**

*Increase construction by 15% and E&D by 25%*

|                     | Best Case | Most Likely | Worst Case  |
|---------------------|-----------|-------------|-------------|
| <b>Cost Impacts</b> | \$0.00    | \$20,244.55 | \$59,958.64 |

Details of Event: RE-01

**Real Estate Risk**

**Risk Identification**

|                           |                                                 |
|---------------------------|-------------------------------------------------|
| <b>Risk Type</b>          | Lands & Damages                                 |
| <b>Responsibility/POC</b> | Real Estate                                     |
| <b>Affected Component</b> | Project Cost                                    |
| <b>Distribution</b>       | Triangular                                      |
| <b>Concern</b>            | Incorporate Real Estate contingency per RE Plan |

**PDT Discussion & Conclusion**

The Real Estate Plan prepared and reviewed by the Real Estate COP for the project includes a 25% contingency on all acquisitions.

**Risk Analysis**

Considering the likelihood...

**Likelihood** Certain

And impact to...

**Cost** Significant

The corresponding risks would be...

**Cost** High

|                                      |               | Risk Level |          |             |          |        |
|--------------------------------------|---------------|------------|----------|-------------|----------|--------|
|                                      |               | Low        | Moderate | High        | High     | High   |
| Likelihood of Occurrence             | Very Likely   | Low        | Moderate | High        | High     | High   |
|                                      | Likely        | Low        | Moderate | High        | High     | High   |
|                                      | Unlikely      | Low        | Low      | Moderate    | Moderate | High   |
|                                      | Very Unlikely | Low        | Low      | Low         | Low      | High   |
|                                      |               | Negligible | Marginal | Significant | Critical | Crisis |
| Impact or Consequences of Occurrence |               |            |          |             |          |        |

**Correlation**

*Details of Event: RE-01*

**Real Estate Risk**

Effect on Estimate

*Best Case*

*Most Likely*

*Worst Case*

|                     | Best Case | Most Likely | Worst Case |
|---------------------|-----------|-------------|------------|
| <b>Cost Impacts</b> | \$509.80  | \$510.00    | \$510.20   |

## 5 DETAILED MII REPORTS

### MII Cost Estimate Report – Definition of Terms

#### *Bare Costs*

Bare costs are defined as project costs that have no markups included. Bare cost excludes direct cost markups for productivity, overtime, and any tax adjustments, along with payroll, taxes and insurance (PTI), contractor markups, special markups, or owner cost markups.

#### *Direct Costs*

Direct costs are defined as bare costs which are marked up for productivity adjustments, overtime, taxes and/or other miscellaneous adjustments.

#### *Cost to Prime*

Cost to prime is defined as direct costs with markups applied for PTI and any allowances such as small tools for the subcontractor work. The subcontractor markup for job office overhead (JOOH), home office overhead (HOOM), profit, bond and excise tax and/or any miscellaneous adjustment is also included. This is in effect the cost to the performing contractor. Any special markups are included in this cost but are not passed on to the owner's markup cost. Therefore, the special markups are not compounded but are treated as an additional cost.

#### *Contract Cost (Cost To Owner)*

Contract Cost (sometimes referred to as "cost to owner") takes the cost to prime and then adds to that the cost for the contractor's PTI as well as any allowance, such as small tools, for the contractor's work. Then the contractor's own markups for JOOH, HOOM, profit, bond, and excise tax and/or any miscellaneous adjustments are included. Any special markups are included in the cost but are not passed on to the owner's markup cost. Therefore, the special markups are not compounded but are treated as an additional cost.

#### *Project Cost*

The project cost takes the contract cost and then adds any escalation, contingencies, SIOH (supervision, inspection and overhead) and/or any miscellaneous owner costs. It should be noted that escalation factors are applied in Figure 1 spreadsheet calculations and not using escalation functions in the MII cost estimating software.

Marietta Section 14 Project BCE

Risk-Based Contingency: A risk based contingency has been calculated by selecting the 80% confidence total project cost from the CSRA. This contingency is a 6.10% markup above the Contract Cost as defined by MII.

Acquisition Strategy: The PDT anticipates this project to be constructed as a task order to an existing IDIQ contractor. The estimate assumes Amherst/Madison as the model contractor.

Overtime/Work Schedule: The estimate assumes a 4 day/week 10 hr/day work schedule to optimize production for the onsite marine equipment billed to the construction.

Productivity: A crew show-up time and general productivity loss factor has been applied in the MII estimate on labor hours assuming a loss of 20 minutes per 10 hour shift (9.8 HRS / 10 hrs = 98% productive).

Estimated by EC-TC (A. Loudermilk & D. Maxey)  
Designed by EC-G (A. Neal / M. Spoor)  
Prepared by A. Loudermilk

Preparation Date 9/21/2011  
Effective Date of Pricing 8/1/2011  
Estimated Construction Time 180 Days

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Designed by  
EC-G (A. Neal / M. Spoor)  
Estimated by  
EC-TC (A. Loudermilk & D. Maxey)  
Prepared by  
A. Loudermilk

Design Document PDA  
Document Date 9/1/2011  
District Huntington District  
Contact Andrew Loudermilk (304)399-3407  
Budget Year 2012  
UOM System Original

**Direct Costs**

LaborCost  
EQCost  
MatlCost  
SubBidCost  
Allowance

**Timeline/Currency**

Preparation Date 9/21/2011  
Escalation Date 8/1/2011  
Eff. Pricing Date 8/1/2011  
Estimated Duration 180 Day(s)  
  
Currency US dollars  
Exchange Rate 1.000000

**Labor : IDIQ Labor Rates**

**Note: IDIQ Rates applied for FY11 rates. Tab = Option Year 1; Prus = Option Year 1; Madison = Option Year 2**

**Labor Rates**

<BLANK>  
Madison  
TAB  
PRUS

**Equipment IDIQ: IDIQ**

**applied appropriate to FY11 construction. Amherst/Madison selected as the model contractor. Rates entered as Non-EP rental. IDIQ rates include all contractor markups and profit**

**02 MIDEAST**

|                             |       |
|-----------------------------|-------|
| Sales Tax                   | 5.40  |
| Working Hours per Year      | 1,450 |
| Labor Adjustment Factor     | 1.07  |
| Cost of Money               | 5.25  |
| Cost of Money Discount      | 25.00 |
| Tire Recap Cost Factor      | 1.50  |
| Tire Recap Wear Factor      | 1.80  |
| Tire Repair Factor          | 0.15  |
| Equipment Cost Factor       | 1.00  |
| Standby Depreciation Factor | 0.50  |

**Fuel**

|                 |       |
|-----------------|-------|
| Electricity     | 0.089 |
| Gas             | 3.030 |
| Diesel Off-Road | 2.260 |
| Diesel On-Road  | 2.760 |

**Shipping Rates**

|              |      |
|--------------|------|
| Over 0 CWT   | 7.31 |
| Over 240 CWT | 7.32 |
| Over 300 CWT | 6.32 |
| Over 400 CWT | 5.97 |
| Over 500 CWT | 3.56 |
| Over 700 CWT | 3.56 |
| Over 800 CWT | 4.88 |

**Direct Cost Markups**

|                  | <b>Category</b>  |                    |                   | <b>Method</b>     |                     |                  |
|------------------|------------------|--------------------|-------------------|-------------------|---------------------|------------------|
| Productivity     | Productivity     |                    |                   | Productivity      |                     |                  |
| Overtime         | Overtime         |                    |                   | Overtime          |                     |                  |
|                  | <i>Days/Week</i> | <i>Hours/Shift</i> | <i>Shifts/Day</i> | <i>1st Shift</i>  | <i>2nd Shift</i>    | <i>3rd Shift</i> |
| <i>Standard</i>  | 4.00             | 10.00              | 1.00              | 10.00             | 0.00                | 0.00             |
| <i>Actual</i>    | 4.00             | 10.00              | 1.00              | 10.00             | 0.00                | 0.00             |
| <i>Day</i>       | <i>OT Factor</i> | <i>Working</i>     |                   | <i>OT Percent</i> | <i>FCCM Percent</i> |                  |
| <i>Monday</i>    | 1.50             | Yes                |                   | 0.00              | 0.00                |                  |
| <i>Tuesday</i>   | 1.50             | Yes                |                   |                   |                     |                  |
| <i>Wednesday</i> | 1.50             | Yes                |                   |                   |                     |                  |
| <i>Thursday</i>  | 1.50             | Yes                |                   |                   |                     |                  |
| <i>Friday</i>    | 1.50             | No                 |                   |                   |                     |                  |
| <i>Saturday</i>  | 1.50             | No                 |                   |                   |                     |                  |
| <i>Sunday</i>    | 2.00             | No                 |                   |                   |                     |                  |

Sales Tax TaxAdj Running % on Selected Costs  
 MatlCost

IDIQ Matl & SubBid Markup MiscDirect Running % on Selected Costs  
 MatlCost  
 SubBidCost

**Contractor Markups**

|                               | <b>Category</b> |  | <b>Method</b>              |                   |
|-------------------------------|-----------------|--|----------------------------|-------------------|
| JOOH                          | JOOH            |  | Running %                  |                   |
| JOOH Calcd (Small Tools)      | JOOH            |  | Amount                     |                   |
| JOOH Calcd                    | JOOH            |  | JOOH (Calculated)          |                   |
| HOOH                          | HOOH            |  | Running %                  |                   |
| Profit                        | Profit          |  | Profit Weighted Guidelines |                   |
| <i>Guideline</i>              | <i>Value</i>    |  | <i>Weight</i>              | <i>Percentage</i> |
| <i>Risk</i>                   | 0.100           |  | 20                         | 2.00              |
| <i>Difficulty</i>             | 0.090           |  | 15                         | 1.35              |
| <i>Size</i>                   | 0.070           |  | 15                         | 1.05              |
| <i>Period</i>                 | 0.070           |  | 15                         | 1.05              |
| <i>Invest (Contractor's)</i>  | 0.080           |  | 5                          | 0.40              |
| <i>Assist (Assistance by)</i> | 0.080           |  | 5                          | 0.40              |
| <i>SubContracting</i>         | 0.070           |  | 25                         | 1.75              |
| <i>Total</i>                  |                 |  | 100                        | 8.00              |

B&O Tax Excise Running %  
 Bond Bond Running %

**Owner Markups**

|            | <b>Category</b>  |                   |                | <b>Method</b>   |                   |
|------------|------------------|-------------------|----------------|-----------------|-------------------|
| Escalation | Escalation       |                   |                | Escalation      |                   |
|            | <i>StartDate</i> | <i>StartIndex</i> | <i>EndDate</i> | <i>EndIndex</i> | <i>Escalation</i> |

Contingency  
SIOH

Contingency  
SIOH

Running %  
Running %

| <u>Description</u>     | <u>Quantity</u> | <u>UOM</u> | <u>ContractCost</u> | <u>Contingency</u> | <u>Escalation</u> | <u>ProjectCost</u> |
|------------------------|-----------------|------------|---------------------|--------------------|-------------------|--------------------|
| <b>Project Summary</b> |                 |            | <b>383,709</b>      | <b>22,209</b>      | <b>0</b>          | <b>405,918</b>     |
| <b>Total Project</b>   | <b>1.00</b>     | <b>LS</b>  | <b>383,709</b>      | <b>22,209</b>      | <b>0</b>          | <b>405,918</b>     |

| <u>Description</u>                         | <u>Quantity</u> | <u>UOM</u> | <u>ContractCost</u> | <u>Contingency</u> | <u>Escalation</u> | <u>ProjectCost</u> |
|--------------------------------------------|-----------------|------------|---------------------|--------------------|-------------------|--------------------|
| <b>Owner Costs</b>                         |                 |            | <b>383,709</b>      | <b>22,209</b>      | <b>0</b>          | <b>405,918</b>     |
| <b>Total Project</b>                       | <b>1.00</b>     | <b>LS</b>  | <b>383,709</b>      | <b>22,209</b>      | <b>0</b>          | <b>405,918</b>     |
| <b>01 Lands and Damages</b>                | <b>1.00</b>     | <b>EA</b>  | <b>9,840</b>        | <b>510</b>         | <b>0</b>          | <b>10,350</b>      |
| <b>16 Bank Stabilization</b>               | <b>1.00</b>     | <b>EA</b>  | <b>334,369</b>      | <b>19,407</b>      | <b>0</b>          | <b>353,775</b>     |
| <b>30 Engineering &amp; Design</b>         | <b>1.00</b>     | <b>EA</b>  | <b>15,500</b>       | <b>900</b>         | <b>0</b>          | <b>16,400</b>      |
| <b>31 Supervision &amp; Administration</b> | <b>1.00</b>     | <b>EA</b>  | <b>24,000</b>       | <b>1,393</b>       | <b>0</b>          | <b>25,393</b>      |

| <u>Description</u>                         | <u>Quantity</u> | <u>UOM</u> | <u>DirectCost</u> | <u>SubCMU</u> | <u>CostToPrime</u> | <u>PrimeCMU</u> | <u>ContractCost</u> |
|--------------------------------------------|-----------------|------------|-------------------|---------------|--------------------|-----------------|---------------------|
| <b>Indirect Costs</b>                      |                 |            | <b>373,907</b>    | <b>0</b>      | <b>373,907</b>     | <b>9,802</b>    | <b>383,709</b>      |
| <b>Total Project</b>                       | <b>1.00</b>     | <b>LS</b>  | <b>373,907</b>    | <b>0</b>      | <b>373,907</b>     | <b>9,802</b>    | <b>383,709</b>      |
| <b>01 Lands and Damages</b>                | <b>1.00</b>     | <b>EA</b>  | <b>9,840</b>      | <b>0</b>      | <b>9,840</b>       | <b>0</b>        | <b>9,840</b>        |
| <b>16 Bank Stabilization</b>               | <b>1.00</b>     | <b>EA</b>  | <b>324,567</b>    | <b>0</b>      | <b>324,567</b>     | <b>9,802</b>    | <b>334,369</b>      |
| <b>30 Engineering &amp; Design</b>         | <b>1.00</b>     | <b>EA</b>  | <b>15,500</b>     | <b>0</b>      | <b>15,500</b>      | <b>0</b>        | <b>15,500</b>       |
| <b>31 Supervision &amp; Administration</b> | <b>1.00</b>     | <b>EA</b>  | <b>24,000</b>     | <b>0</b>      | <b>24,000</b>      | <b>0</b>        | <b>24,000</b>       |

| Description                                                                                                                                                                                                                                                                                                                   | Quantity    | UOM        | CrewTag | Duration      | DirectLabor   | DirectEQ      | DirectMatl     | DirectSubBid   | DirectCost     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------|---------|---------------|---------------|---------------|----------------|----------------|----------------|
| <b>Direct Costs</b>                                                                                                                                                                                                                                                                                                           |             |            |         | <b>396.67</b> | <b>56,889</b> | <b>21,300</b> | <b>189,434</b> | <b>106,283</b> | <b>373,907</b> |
| <b>Total Project</b>                                                                                                                                                                                                                                                                                                          | <b>1.00</b> | <b>LS</b>  |         | <b>396.67</b> | <b>56,889</b> | <b>21,300</b> | <b>189,434</b> | <b>106,283</b> | <b>373,907</b> |
|                                                                                                                                                                                                                                                                                                                               |             |            |         | 0.00          | 0.00          | 0.00          | 0.00           | 9,840.00       | 9,840.00       |
| <b>01 Lands and Damages</b>                                                                                                                                                                                                                                                                                                   | <b>1.00</b> | <b>EA</b>  |         | <b>0.00</b>   | <b>0</b>      | <b>0</b>      | <b>0</b>       | <b>9,840</b>   | <b>9,840</b>   |
|                                                                                                                                                                                                                                                                                                                               |             |            |         | 0.00          | 0.00          | 0.00          | 0.00           | 2,040.00       | 2,040.00       |
| <b>Non-Federal Sponsor Costs</b>                                                                                                                                                                                                                                                                                              | <b>1.00</b> | <b>EA</b>  |         | <b>0.00</b>   | <b>0</b>      | <b>0</b>      | <b>0</b>       | <b>2,040</b>   | <b>2,040</b>   |
|                                                                                                                                                                                                                                                                                                                               |             |            |         | 0.00          | 0.00          | 0.00          | 0.00           | 1,000.00       | 1,000.00       |
| USR Streambank Protection Easement                                                                                                                                                                                                                                                                                            | 1.21        | ACR        |         | 0.00          | 0             | 0             | 0              | 1,210          | 1,210          |
|                                                                                                                                                                                                                                                                                                                               |             |            |         | 0.00          | 0.00          | 0.00          | 0.00           | 1,000.00       | 1,000.00       |
| USR Temporary Work Easements                                                                                                                                                                                                                                                                                                  | 0.83        | ACR        |         | 0.00          | 0             | 0             | 0              | 830            | 830            |
|                                                                                                                                                                                                                                                                                                                               |             |            |         | 0.00          | 0.00          | 0.00          | 0.00           | 7,800.00       | 7,800.00       |
| <b>Administrative Costs</b>                                                                                                                                                                                                                                                                                                   | <b>1.00</b> | <b>EA</b>  |         | <b>0.00</b>   | <b>0</b>      | <b>0</b>      | <b>0</b>       | <b>7,800</b>   | <b>7,800</b>   |
|                                                                                                                                                                                                                                                                                                                               |             |            |         | 0.00          | 0             | 0             | 0              | 3,000          | 3,000          |
| USR Federal Admin Costs                                                                                                                                                                                                                                                                                                       | 1.00        | LS         |         | 0.00          | 0             | 0             | 0              | 3,000          | 3,000          |
|                                                                                                                                                                                                                                                                                                                               |             |            |         | 0.00          | 0.00          | 0.00          | 0.00           | 800.00         | 800.00         |
| USR Sponsor Admin Costs                                                                                                                                                                                                                                                                                                       | 6.00        | EA         |         | 0.00          | 0             | 0             | 0              | 4,800          | 4,800          |
| (Note: EA = Tracts)                                                                                                                                                                                                                                                                                                           |             |            |         |               |               |               |                |                |                |
|                                                                                                                                                                                                                                                                                                                               |             |            |         | 396.67        | 56,888.94     | 21,300.33     | 189,434.40     | 56,943.00      | 324,566.67     |
| <b>16 Bank Stabilization</b>                                                                                                                                                                                                                                                                                                  | <b>1.00</b> | <b>EA</b>  |         | <b>396.67</b> | <b>56,889</b> | <b>21,300</b> | <b>189,434</b> | <b>56,943</b>  | <b>324,567</b> |
| <b>General Conditions Items</b>                                                                                                                                                                                                                                                                                               | <b>1.00</b> | <b>LS</b>  |         | <b>100.00</b> | <b>15,000</b> | <b>1,523</b>  | <b>0</b>       | <b>1,332</b>   | <b>17,855</b>  |
|                                                                                                                                                                                                                                                                                                                               |             |            |         | 0.00          | 0             | 1,523         | 0              | 0              | 1,523          |
| USR Land Equipment Mobilization/Demobilization                                                                                                                                                                                                                                                                                | 1.00        | LS         |         | 0.00          | 0             | 1,523         | 0              | 0              | 1,523          |
| (Note: Mobilization developed from IDIQ rates for each item of equipment priced per EA mobilization with a PER MILE premium adjustment. Assume 200 mile mob distance. IDIQ rates entered as USR equipment items DO NOT represent per hour rates. They represent per EA mob and per MILE rates and should be handled as such.) |             |            |         |               |               |               |                |                |                |
|                                                                                                                                                                                                                                                                                                                               |             |            |         | 1.00          | 150.00        | 0.00          | 0.00           | 0.00           | 150.00         |
| USR Site Survey                                                                                                                                                                                                                                                                                                               | 100.00      | HR         | SURVC   | 100.00        | 15,000        | 0             | 0              | 0              | 15,000         |
| (Note: Initial site survey and continued support through construction.)                                                                                                                                                                                                                                                       |             |            |         |               |               |               |                |                |                |
|                                                                                                                                                                                                                                                                                                                               |             |            |         | 0.00          | 0.00          | 0.00          | 0.00           | 1,110.00       | 1,110.00       |
| USR Environmental Protection                                                                                                                                                                                                                                                                                                  | 1.20        | ACR        |         | 0.00          | 0             | 0             | 0              | 1,332          | 1,332          |
| (Note: Minimal environmental protection expected. Allow \$1000 per acre for environmental protection measures such as placing silt fencing, straw bale dikes, etc.)                                                                                                                                                           |             |            |         |               |               |               |                |                |                |
|                                                                                                                                                                                                                                                                                                                               |             |            |         | 283.91        | 40,205.27     | 19,458.49     | 175,264.56     | 55,056.00      | 289,984.32     |
| <b>Typical Construction Items</b>                                                                                                                                                                                                                                                                                             | <b>1.00</b> | <b>EA</b>  |         | <b>283.91</b> | <b>40,205</b> | <b>19,458</b> | <b>175,265</b> | <b>55,056</b>  | <b>289,984</b> |
|                                                                                                                                                                                                                                                                                                                               |             |            |         | 12.76         | 1,900.51      | 25.51         | 0.00           | 0.00           | 1,926.02       |
| <b>Clearing and Debirs Removal</b>                                                                                                                                                                                                                                                                                            | <b>2.03</b> | <b>ACR</b> |         | <b>25.89</b>  | <b>3,858</b>  | <b>52</b>     | <b>0</b>       | <b>0</b>       | <b>3,910</b>   |
|                                                                                                                                                                                                                                                                                                                               |             |            |         | 12.76         | 1,900.51      | 25.51         | 0.00           | 0.00           | 1,926.02       |
| USR Clearing & Grubbing - Light                                                                                                                                                                                                                                                                                               | 2.03        | ACR        | CGL     | 25.89         | 3,858         | 52            | 0              | 0              | 3,910          |

| <u>Description</u>                                                                                                                                                                                                                                                                                    | <u>Quantity</u> | <u>UOM</u> | <u>CrewTag</u> | <u>Duration</u> | <u>DirectLabor</u> | <u>DirectEQ</u> | <u>DirectMatl</u> | <u>DirectSubBid</u> | <u>DirectCost</u> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------|----------------|-----------------|--------------------|-----------------|-------------------|---------------------|-------------------|
| <b>(Note: Includes cutting brush and handling rubbish and drift debris. Debris to remain onsite.)</b>                                                                                                                                                                                                 |                 |            |                |                 |                    |                 |                   |                     |                   |
| <b>Tire Disposal</b>                                                                                                                                                                                                                                                                                  | <b>200.00</b>   | <b>EA</b>  |                | <b>20.41</b>    | <b>976</b>         | <b>347</b>      | <b>0</b>          | <b>3,108</b>        | <b>4,430</b>      |
|                                                                                                                                                                                                                                                                                                       |                 |            |                | 0.10            | 4.88               | 1.73            | 0.00              | 15.54               | 22.15             |
| USR Load Debris                                                                                                                                                                                                                                                                                       | 8.00            | EA         | LDG--010       | 4.08            | 241                | 20              | 0                 | 0                   | 261               |
|                                                                                                                                                                                                                                                                                                       |                 |            |                | 0.51            | 30.10              | 2.55            | 0.00              | 0.00                | 32.65             |
| (Note: EA = 1 truck load (round trip cycle). Allow 0.5 HR to load each truck load. Assume 25 tires loaded per truck.)                                                                                                                                                                                 |                 |            |                |                 |                    |                 |                   |                     |                   |
| USR Haul and Disposal of Hazardous Debris                                                                                                                                                                                                                                                             | 8.00            | EA         | HAUL-05        | 16.33           | 735                | 327             | 0                 | 3,108               | 4,169             |
|                                                                                                                                                                                                                                                                                                       |                 |            |                | 2.04            | 91.84              | 40.82           | 0.00              | 388.50              | 521.15            |
| (Note: EA = 1 truck load (round trip cycle). Assume 12 LCY capacity trucks loaded @ 10 LCY/load. Use \$100 / truck disposal fee. Assume 20 mile round trip haul @ average speed of 15 mph (city commute) = 1.3 hrs + 0.2 hr dump + 0.5 hr loading = 2 hrs/ea load. Assume 25 tires loaded per truck.) |                 |            |                |                 |                    |                 |                   |                     |                   |
| <b>Misc Debris Removal</b>                                                                                                                                                                                                                                                                            | <b>200.00</b>   | <b>CY</b>  |                | <b>51.02</b>    | <b>2,439</b>       | <b>867</b>      | <b>0</b>          | <b>2,220</b>        | <b>5,526</b>      |
|                                                                                                                                                                                                                                                                                                       |                 |            |                | 0.26            | 12.19              | 4.34            | 0.00              | 11.10               | 27.63             |
| USR Load Debris                                                                                                                                                                                                                                                                                       | 20.00           | EA         | LDG--010       | 10.20           | 602                | 51              | 0                 | 0                   | 653               |
|                                                                                                                                                                                                                                                                                                       |                 |            |                | 0.51            | 30.10              | 2.55            | 0.00              | 0.00                | 32.65             |
| (Note: EA = 1 truck load (round trip cycle). Allow 0.5 HR to load each truck load. Assume 10 CY payload per truck.)                                                                                                                                                                                   |                 |            |                |                 |                    |                 |                   |                     |                   |
| USR Haul and Disposal of Debris                                                                                                                                                                                                                                                                       | 20.00           | EA         | HAUL-05        | 40.82           | 1,837              | 816             | 0                 | 2,220               | 4,873             |
|                                                                                                                                                                                                                                                                                                       |                 |            |                | 2.04            | 91.84              | 40.82           | 0.00              | 111.00              | 243.65            |
| (Note: EA = 1 truck load (round trip cycle). Assume 12 LCY capacity trucks loaded @ 10 LCY/load. Use \$100 / truck disposal fee. Assume 20 mile round trip haul @ average speed of 15 mph (city commute) = 1.3 hrs + 0.2 hr dump + 0.5 hr loading = 2 hrs/ea load.)                                   |                 |            |                |                 |                    |                 |                   |                     |                   |
| <b>Stone / Aggregate</b>                                                                                                                                                                                                                                                                              | <b>6,400.00</b> | <b>TON</b> |                | <b>186.59</b>   | <b>32,933</b>      | <b>18,192</b>   | <b>175,265</b>    | <b>49,728</b>       | <b>276,118</b>    |
|                                                                                                                                                                                                                                                                                                       |                 |            |                | 0.03            | 5.15               | 2.84            | 27.39             | 7.77                | 43.14             |
| USR Riprap, 15" COE - Material Only                                                                                                                                                                                                                                                                   | 6,400.00        | TON        |                | 0.00            | 0                  | 0               | 175,265           | 49,728              | 224,993           |
|                                                                                                                                                                                                                                                                                                       |                 |            |                | 0.00            | 0.00               | 0.00            | 27.39             | 7.77                | 35.16             |
| (Note: Includes delivery. Assume delivery includes dumping @ footprint of dike for dozer and excavator to place.)                                                                                                                                                                                     |                 |            |                |                 |                    |                 |                   |                     |                   |
| USR Placing Stone Land Based                                                                                                                                                                                                                                                                          | 6,400.00        | TON        | ROCK-01        | 186.59          | 32,933             | 18,192          | 0                 | 0                   | 51,125            |
|                                                                                                                                                                                                                                                                                                       |                 |            |                | 0.03            | 5.15               | 2.84            | 0.00              | 0.00                | 7.99              |
| (Note: Production rate is based on Tab (40 ton/hour, winner) and Prus (22 ton/hour) made to Massillon Levee Project in July of 2011. Assumed 35 ton/hour.)                                                                                                                                            |                 |            |                |                 |                    |                 |                   |                     |                   |
| <b>Earthwork</b>                                                                                                                                                                                                                                                                                      | <b>1.00</b>     | <b>EA</b>  |                | <b>12.76</b>    | <b>1,684</b>       | <b>319</b>      | <b>14,170</b>     | <b>555</b>          | <b>16,727</b>     |
|                                                                                                                                                                                                                                                                                                       |                 |            |                | 12.76           | 1,683.67           | 318.88          | 14,169.84         | 555.00              | 16,727.39         |
| USR Geo-Fabric (HP665)                                                                                                                                                                                                                                                                                | 2,500.00        | SY         | FF-1           | 12.76           | 1,684              | 319             | 14,170            | 555                 | 16,727            |
|                                                                                                                                                                                                                                                                                                       |                 |            |                | 0.01            | 0.67               | 0.13            | 5.67              | 0.22                | 6.69              |
| (Note: EA = 1 EA of fabric)                                                                                                                                                                                                                                                                           |                 |            |                |                 |                    |                 |                   |                     |                   |
| <b>30 Engineering &amp; Design</b>                                                                                                                                                                                                                                                                    | <b>1.00</b>     | <b>EA</b>  |                | <b>0.00</b>     | <b>0</b>           | <b>0</b>        | <b>0</b>          | <b>15,500</b>       | <b>15,500</b>     |
|                                                                                                                                                                                                                                                                                                       |                 |            |                | 0.00            | 0.00               | 0.00            | 0.00              | 15,500.00           | 15,500.00         |
| USR Engineering & Design (5% of construction)                                                                                                                                                                                                                                                         | 1.00            | LS         |                | 0.00            | 0                  | 0               | 0                 | 15,500              | 15,500            |

| <u>Description</u>                                                                                | <u>Quantity</u> | <u>UOM</u> | <u>CrewTag</u> | <u>Duration</u> | <u>DirectLabor</u> | <u>DirectEQ</u> | <u>DirectMatl</u> | <u>DirectSubBid</u> | <u>DirectCost</u> |
|---------------------------------------------------------------------------------------------------|-----------------|------------|----------------|-----------------|--------------------|-----------------|-------------------|---------------------|-------------------|
| <b>(Note: Includes EA, Scope Development, Contracting, &amp; Engineering During Construction)</b> |                 |            |                |                 |                    |                 |                   |                     |                   |
|                                                                                                   |                 |            |                | 0.00            | 0.00               | 0.00            | 0.00              | 24,000.00           | 24,000.00         |
| <b>31 Supervision &amp; Administration</b>                                                        | <b>1.00</b>     | <b>EA</b>  |                | <b>0.00</b>     | <b>0</b>           | <b>0</b>        | <b>0</b>          | <b>24,000</b>       | <b>24,000</b>     |
| USR Supervision & Administration (7.5% of construction)                                           | 1.00            | LS         |                | 0.00            | 0                  | 0               | 0                 | 24,000              | 24,000            |

| <u>Description</u>                                                                                                               | <u>ManHours</u> | <u>EQHours</u> | <u>CrewHours</u> | <u>CrewCost</u> |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|------------------|-----------------|
| <b>Crew Summary</b>                                                                                                              |                 |                |                  |                 |
| USR CGL Clearing and Grubbing - Light                                                                                            | 3.0000          | 1.0000         |                  | 151.0000        |
| MIL X-EQOP2 Outside Equip. Operators, Group 2 - Asphalt paver, bobcat loader, dozer, loader, traffic light equipment             | 77.6786         | 25.8929        | 25.8929          | 3,909.82        |
| MIL X-LAB1 Outside Laborers, Group 1 - Asphalt, carpenter tender, guardrail/fence install, landscaping, flagperson, diver tender | 1.0000          |                |                  |                 |
| MIL X-LAB1 Outside Laborers, Group 1 - Asphalt, carpenter tender, guardrail/fence install, landscaping, flagperson, diver tender | 1.0000          |                |                  |                 |
| USR CS1 Chainsaw                                                                                                                 |                 | 1.0000         |                  |                 |
| USR FF-1 Geo Fabric                                                                                                              | 3.0000          | 1.0000         |                  | 157.0000        |
| MIL X-LAB1 Outside Laborers, Group 1 - Asphalt, carpenter tender, guardrail/fence install, landscaping, flagperson, diver tender | 38.2653         | 12.7551        | 12.7551          | 2,002.55        |
| USR TR11 Flatbed Truck, 2 TON                                                                                                    | 3.0000          |                |                  |                 |
| USR HAUL-05 Single Truck Hauling Crew                                                                                            | 1.0000          | 1.0000         |                  | 65.0000         |
| MIL X-TEAM2 Outside Truck Drivers, Group 2 - Tandem                                                                              | 57.1429         | 57.1429        | 57.1429          | 3,714.29        |
| USR TR2 Tandem Axle Dump                                                                                                         | 1.0000          |                |                  |                 |
| USR LDG--010 Small Loading Crew                                                                                                  | 1.0000          | 1.0000         |                  | 64.0000         |
| MIL X-EQOP2 Outside Equip. Operators, Group 2 - Asphalt paver, bobcat loader, dozer, loader, traffic light equipment             | 14.2857         | 14.2857        | 14.2857          | 914.29          |
| USR EL7 Endloader, Rubber Tired, 36HP, 0.5CY                                                                                     | 1.0000          |                |                  |                 |
| USR L-MOB05 Land Equipment Mob                                                                                                   | 0.0000          | 3.0000         |                  | 950.0000        |
| USR MOB-DZ2 Dozer, 140HP                                                                                                         | 0.0000          | 4.5918         | 1.5306           | 1,454.08        |
| USR MOB-EX1 Excavator, Crawler 125HP to 140HP                                                                                    |                 | 1.0000         |                  |                 |
| USR MOB-TRKFL Flatbed Truck, 2 TON                                                                                               |                 | 1.0000         |                  |                 |
| USR L-MOB10 Land Equipment Mob - Per Mile                                                                                        | 0.0000          | 3.0000         |                  | 4.5000          |
| USR MLG-DZ2 Dozer, 140HP                                                                                                         | 0.0000          | 45.9184        | 15.3061          | 68.88           |
| USR MLG-TRKFL Flatbed Truck, 2 TON                                                                                               |                 | 1.0000         |                  |                 |
| USR MLG-EX1 Excavator, Crawler 125HP to 140HP                                                                                    |                 | 1.0000         |                  |                 |
| USR ROCK-01 Land Based Crew                                                                                                      | 3.5000          | 1.5000         |                  | 274.0000        |
| MIL X-EQOP2 Outside Equip. Operators, Group 2 - Asphalt paver, bobcat loader, dozer, loader, traffic light equipment             | 653.0612        | 279.8834       | 186.5889         | 51,125.36       |
| MIL X-LAB1 Outside Laborers, Group 1 - Asphalt, carpenter tender, guardrail/fence install, landscaping, flagperson, diver tender | 1.5000          |                |                  |                 |
| USR DZ2 Dozer, 140HP                                                                                                             | 2.0000          |                |                  |                 |
| USR EX1 Excavator, Crawler 125HP to 140HP                                                                                        |                 | 0.5000         |                  |                 |
|                                                                                                                                  |                 | 1.0000         |                  |                 |
| USR SURVC Site Survey Crew                                                                                                       | 1.0000          | 0.0000         |                  | 150.0000        |
| MIL X-SURV Surveying Crew with Equipment                                                                                         | 100.0000        | 0.0000         | 100.0000         | 15,000.00       |
|                                                                                                                                  | 1.0000          |                |                  |                 |

| <b>Description</b>                            | <b>ConditionType</b> | <b>EQHours</b>  | <b>Total</b>                |
|-----------------------------------------------|----------------------|-----------------|-----------------------------|
| <b>Equipment Rates</b>                        |                      | <b>440.4701</b> | <b>21,300.33</b>            |
| USR CS1 Chainsaw                              | Average              | 25.8929         | <i>2.0000</i><br>51.79      |
| USR DZ2 Dozer, 140HP                          | Average              | 93.2945         | <i>65.0000</i><br>6,064.14  |
| USR EL7 Endloader, Rubber Tired, 36HP, 0.5CY  | Average              | 14.2857         | <i>5.0000</i><br>71.43      |
| USR EX1 Excavator, Crawler 125HP to 140HP     | Average              | 186.5889        | <i>65.0000</i><br>12,128.28 |
| USR MLG-DZ2 Dozer, 140HP                      | Average              | 15.3061         | <i>1.2500</i><br>19.13      |
| USR MLG-EX1 Excavator, Crawler 125HP to 140HP | Average              | 15.3061         | <i>1.2500</i><br>19.13      |
| USR MLG-TRKFL Flatbed Truck, 2 TON            | Average              | 15.3061         | <i>2.0000</i><br>30.61      |
| USR MOB-DZ2 Dozer, 140HP                      | Average              | 1.5306          | <i>275.0000</i><br>420.92   |
| USR MOB-EX1 Excavator, Crawler 125HP to 140HP | Average              | 1.5306          | <i>275.0000</i><br>420.92   |
| USR MOB-TRKFL Flatbed Truck, 2 TON            | Average              | 1.5306          | <i>400.0000</i><br>612.24   |
| USR TR11 Flatbed Truck, 2 TON                 | Standby              | 12.7551         | <i>25.0000</i><br>318.88    |
| USR TR2 Tandem Axle Dump                      | Average              | 57.1429         | <i>20.0000</i><br>1,142.86  |

| <u>Description</u>                                                                                                                     | <u>ManHours</u> | <u>BaseWage</u>       | <u>TaxableFringe</u> | <u>Payroll</u> | <u>WCI</u> | <u>NonTaxFringe</u> | <u>Subsistence</u> | <u>Total</u>          | <u>LaborType</u> |
|----------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------|----------------------|----------------|------------|---------------------|--------------------|-----------------------|------------------|
| <b>Labor Rates</b>                                                                                                                     |                 |                       |                      |                |            |                     |                    |                       |                  |
| MIL X-EQOP2 Outside Equip. Operators, Group 2 -<br>Asphalt paver, bobcat loader, dozer, loader, traffic light<br>equipment             | 320.0620        | 59.0000<br>18,883.66  | 0.0000<br>0.00       | 0.00           | 0.00       | 0.0000<br>0.00      | 0.0000<br>0.00     | 59.0000<br>18,883.66  | Journeyman       |
| MIL X-LAB1 Outside Laborers, Group 1 - Asphalt,<br>carpenter tender, guardrail/fence install, landscaping,<br>flagperson, diver tender | 437.3360        | 44.0000<br>19,242.78  | 0.0000<br>0.00       | 0.00           | 0.00       | 0.0000<br>0.00      | 0.0000<br>0.00     | 44.0000<br>19,242.78  | Journeyman       |
| MIL X-LAB1 Outside Laborers, Group 1 - Asphalt,<br>carpenter tender, guardrail/fence install, landscaping,<br>flagperson, diver tender | 25.8929         | 46.0000<br>1,191.07   | 0.0000<br>0.00       | 0.00           | 0.00       | 0.0000<br>0.00      | 0.0000<br>0.00     | 46.0000<br>1,191.07   | Foreman          |
| MIL X-SURV Surveying Crew with Equipment                                                                                               | 100.0000        | 150.0000<br>15,000.00 | 0.0000<br>0.00       | 0.00           | 0.00       | 0.0000<br>0.00      | 0.0000<br>0.00     | 150.0000<br>15,000.00 | Journeyman       |
| MIL X-TEAM2 Outside Truck Drivers, Group 2 - Tandem                                                                                    | 57.1429         | 45.0000<br>2,571.43   | 0.0000<br>0.00       | 0.00           | 0.00       | 0.0000<br>0.00      | 0.0000<br>0.00     | 45.0000<br>2,571.43   | Journeyman       |

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## Appendix G

U.S. Fish and Wildlife Service

Habitat and Mussel Community Assessment

Ohio River, Marietta Section 14 LPP  
Habitat and Mussel Community Assessment  
August 22 – 24, 2011

From August 22 to 24, 2011, Biologists Patricia Morrison and Craig Zievis of the USFWS, Ohio River Islands NWR conducted a bathymetry recon, and diving to assess underwater habitat and mussel assemblages in the proposed work zone of the Marietta Section 14 LPP. The first phase was a diving recon from the downstream to upstream limit, following the closest nearshore extent of the 9' contour. The second phase was diving transects parallel to flow at the proposed offshore work limit (130 to 140' offshore). Habitat was described, and mussels were searched for visually and by feel. A total of 10.4 diver-hours were spent underwater. Water temperature was 82 degrees F. and visibility was 4' most of the time, deteriorating to 2' at the end of Tuesday. A total of 427 individuals representing 17 species of mussels were collected alive, including the endangered fanshell, candidate sheepsnose, and rare salamander mussel (see Table 1). All specimens were handled and identified underwater, 2 were brought to the surface to photograph, and all were returned to the substrate by hand.

**Table 1. Marietta Section 14 LPP Project - Habitat and Mussel Community Assessment - August 22-24, 2011**

| Depth Range | Species Name                    | Common Name          | Number Alive | Comments                                                   |
|-------------|---------------------------------|----------------------|--------------|------------------------------------------------------------|
| 9 - 11'     | <i>Amblema plicata</i>          | three ridge          | 125          |                                                            |
|             | <i>Potamilus alatus</i>         | pink heelsplitter    | 56           |                                                            |
|             | <i>Obliquaria reflexa</i>       | three-horn wartyback | 23           |                                                            |
|             | <i>Quadrula pustulosa</i>       | pimpleback           | 57           |                                                            |
|             | <i>Quadrula metanevra</i>       | monkeyface           | 23           |                                                            |
|             | <i>Lampsilis siliquoidea</i>    | fatmucket            | 7            |                                                            |
|             | <i>Megaloniaias nervosa</i>     | washboard            | 46           | young found                                                |
|             | <i>Pleurobema cordatum</i>      | Ohio pigtoe          | 30           |                                                            |
|             | <i>Lampsilis cardium</i>        | plain pocketbook     | 21           | young found                                                |
|             | <i>Actinoniaias ligamentina</i> | mucket               | 9            |                                                            |
|             | <i>Ligumia recta</i>            | black sandshell      | 8            | young found                                                |
|             | <i>Ellipsaria lineolata</i>     | butterfly            | 8            |                                                            |
|             | <i>Fusconaia flava</i>          | Wabash pigtoe        | 1            |                                                            |
|             | <i>Pyganodon grandis</i>        | giant floater        | 2            |                                                            |
|             | <i>Cyprogenia stegaria</i>      | fanshell             | 1            | Endangered; 44 mm, ~7 yrs                                  |
|             | <i>Simpsoniaias ambigua</i>     | salamander mussel    | 9            | S1 in WV; 1 measured 35 mm, ~6 yrs. Under large flat rocks |
|             | <i>Plethobasus cyphus</i>       | sheepsnose           | 1            | Candidate; proposed endangered                             |
|             | 17 species total alive          |                      | <b>427</b>   |                                                            |

The bottom habitat is a mix of cobble, sand, gravel, occasional boulders, large woody debris, and some man-made debris (tires, concrete, metal) overlain by various depths (range 0 to 4") of silt and silty sand with some clay. We suspect that some of the silty sediment is

temporal in nature, as it is underlain with a mix of cobble/gravel/sand and occupied by a wide variety of mussels. Mussel community diversity is at least 17 species, and it is likely there are others present since we were still adding new species at the end of Day 3.

The bathymetry of the area reveals a nearshore dropoff to a relatively flat expanse of 9 to 10' as far offshore as 150' and only 11' deep in places at 200' offshore. The following figure shows the actual water's edge as mapped during the surveys (yellow line); the track of the 9' depth contour by divers (yellow dots); the 100-m transect parallel to flow at the outer work area (line between green dots); and the locations where species of interest were detected.



On August 24, 1022, Biologist Morrison notified the USFWS Endangered Species Specialists Angela Boyer and Barbara Douglas, WVDNR biologists Janet Clayton and Craig Stihler, and the Huntington Corps (Ashley Ostrow, Andy Johnson, and Alex Neal) of the endangered and candidate species occurrences. Upon notifying the Corps of the depths and

mussel community, Ashley Ostrow sent an email indicating that the project would now be built from the land. For this reason, the remaining transects that were planned will not be searched further. Photos of the fanshell and one of the salamander mussels follow. The complete data by sub-site are contained in a separate Excel file.



*Cyprogenia stegaria* collected 8/24/2011



*Simpsonaias ambigua*, one of 9 collected 8/24/2011.