

51876-3-17

**PHASE I
ENVIRONMENTAL SITE ASSESSMENT
FORMER CAMP MANISTIQUE
401 MAPLE STREET, MANISTIQUE
SCHOOLCRAFT COUNTY, MICHIGAN**



U.P. ENGINEERS & ARCHITECTS, Inc.

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Appendix A	Photographs
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Appendix D	Environmental Site Assessment Client Questionnaire and Site Review and X3.
Appendix E	Historical Site Sampling Data

1.0 SUMMARY

U.P. Engineers & Architects, Inc. (UPEA) was retained by AKT Peerless Environmental Services (AKT) on behalf of the Schoolcraft County Brownfield Authority, Schoolcraft County, Michigan to perform a Phase I Environmental Site Assessment (ESA) for one city parcel of land approximately 920 feet north-south by 1400 feet east-west (~30 acres) located at 401 North Maple Street in the City of Manistique, Michigan. The site, the former Camp Manistique Property is herein referred to as the subject property. The subject property was owned by the State of Michigan and operated as a correctional facility. The property is currently vacant. The intent of the completion of this Phase I ESA was to identify the presence or likely presence of any hazardous materials or petroleum products on the property that may indicate a release, past release, material threat of a release, or potential release on the property, adjacent properties, or properties within specified radii. Based on the results of the Phase I ESA, there were multiple "Recognized Environmental Conditions" (RECs). The RECs were divided into low, medium, and high probabilities of concern in connection with this site.

A Phase I environmental site assessment (ESA) was conducted in conformance with ASTM E1527-05, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process", for land located at 401 North Maple Street, Manistique, Michigan. The scope of the Phase I ESA of the project comprised a records review, a site reconnaissance, and interviews of persons with historical knowledge of previous site uses with respect to recognized environmental conditions that may suggest an existing release, a past release or the material threat of a release. The scope of services provided was in conformance with requirements established by the US EPA "All Appropriate Inquiry" rule that became effective on November 1, 2006. Exceptions to the ASTM guidance are noted in Section 11.

2.0 INTRODUCTION

2.1 Purpose

U.P. Engineers & Architects, Inc. (UPEA) has performed a Phase I environmental site assessment (ESA) of a parcel of property in the City of Manistique, Michigan. The Schoolcraft County Brownfield Authority anticipates that the property, located adjacent to the county's and the city's industrial parks, may be in a favorable location for ownership transition and redevelopment. Currently, no specific land uses have been proposed.

The purpose of this Phase I ESA was to identify "Recognized Environmental Conditions" (RECs) in connection with the subject property. For purposes of this Phase I ESA, a "Recognized Environmental Condition" is defined in ASTM E 1527-05 "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" as:

"The presence or likely presence of any hazardous substance or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the grounds, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that

generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis are not recognized environmental conditions.”

A Phase I ESA may be used to constitute appropriate inquiries with respect to an innocent landowner defense as it relates to the Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended, however it is not restricted to this purpose. Performance of this Phase I ESA is intended to reduce, but not eliminate, uncertainty regarding the potential for Recognized Environmental Conditions in connection with the subject property, recognizing reasonable limits of time and cost.

2.2 Detailed Scope of Services

UPEA completed this Phase I ESA in conformance with ASTM E1527-05. The scope of services comprised reviewing, obtaining, and updating information regarding site history, site reconnaissance, existing environmental information, including but not limited to state and federal environmental databases of known environmentally impacted sites. It also includes interviews with persons familiar with the subject property and with operations of government, business, and/or industry on the subject property and with adjacent and nearby properties. The scope included an environmental lien search for the property parcel.

2.3 Significant Assumptions

UPEA assumes that all information obtained from the Client's designated contact person and the current owners designated contact person for the subject property is correct and complete. UPEA also assumes that the Client provided UPEA with all reasonably ascertainable prior environmental reports concerning the subject property. In addition, UPEA assumes that this report will be read as a whole by the intended user.

There were no other significant assumptions made for completion of this Phase I ESA.

2.4 Limitations and Exceptions

The findings made and conclusions drawn are based on observations and information gathered within the scope of services provided to our client, AKT and Schoolcraft County Brownfield Redevelopment Authority. Limitations on performing the work included, but were not limited to, the availability of data and other records including property records and environmental lien information, and the transient nature of environmental conditions. Visual observations of the ground surface during the site reconnaissance were limited by wetlands. Furthermore, the conclusions drawn represent our opinions based upon information that existed and was available at the time our conclusions were formulated. Conclusions regarding the condition of the subject property do not represent a warranty that all data collected in the study are of the same quality.

This Phase I ESA report has been prepared for AKT, Schoolcraft County Brownfield Redevelopment Authority, and authorized parties only. Environmental conditions and regulations are continually evolving and subject to change and interpretation. Do not assume that current conditions and/or regulatory positions will remain constant. Furthermore, because data within this Phase I ESA report are subject to professional interpretation, other professionals may reach differing conclusions.

At the time of this report, no potential purchasers were recognized, therefore the X3 User Questionnaire from ASTM Standard E 1527-05 could not be completed for this report.

2.5 Special Terms and Conditions

No special conditions warrant discussion.

2.6 User Reliance

This report was prepared for the use of AKT, the Schoolcraft County Brownfield Authority, and authorized parties and should not be reproduced or disseminated to other parties without the written permission of AKT, the Schoolcraft County Brownfield Authority, and U.P. Engineers & Architects, Inc. A copy of this report has been retained by U.P. Engineers & Architects, Inc. No changes to this report are authorized without the written consent of U.P. Engineers & Architects, Inc. Use of this report by parties other than AKT, the Schoolcraft County Brownfield Authority, or its authorized agent(s) is prohibited.

The recommendations and conclusions discussed herein are based solely and in reliance upon information collected as a result of the activities detailed above in the scope of services. U.P. Engineers & Architects, Inc. is not responsible for the accuracy or completeness of the statements of the individuals interviewed, available governmental records, environmental reports conducted by other consultants, analytical results, or the database search results provided by any database contractor.

The knowledge relating to the subject properties in this report are based on a site reconnaissance, a historical data search, personal interviews, and information provided by the current property owner representative. Based on reasonably ascertainable information, there appears to be no significant conflicting information or data for the subject properties.

3.0 PROPERTY DESCRIPTION AND HISTORY

3.1 Location and Legal Description

The subject property includes one parcel located in the City of Manistique, Michigan. The site is located at 401 Maple Street, Part of the Northeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 12, T41N, R16W and Part of the Northwest $\frac{1}{4}$ of the Northwest $\frac{1}{4}$ of Section 7, T41N, R16W in the City of Manistique. Figure 1 is a Site Location Map, Figure 2 is the Site Map and Figure 3 is a Site Survey Map. The property description as provided by the Schoolcraft County Economic Development Corporation (Appendix B) is as follows:

A parcel of land being part of the Northeast $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 12, Township 41 North, Range 16 West and part of the Northwest $\frac{1}{4}$ of the Northwest $\frac{1}{4}$ of Section 7, Township 41 North, Range 15 West, City of Manistique, Schoolcraft County, Michigan described as:

Commencing at the Northwest corner of Section 7; thence S00°22'09" West, 15.58 feet to the South right-of-way line of the Wisconsin Central Railroad; thence S88°22'52" East, 547.40 feet along the South Railroad right-of-way line; thence S00°22'09" West, 894.43 feet; thence N89°36'54" West, 547.27 feet to the found concrete monument on the West line of Section 7; thence N89°05'11"

West, 449.78 feet to the found concrete monument; thence S02 °29'48" West, 0.01 feet to the found concrete monument; thence N89 °03'52" West, 422.66 feet to the East right-of-way line of Maple Avenue; thence N02 °24'01" East 104.30 feet along the East right-of-way line of Maple Avenue, to the North right-of-way line of Pine Street; thence N78 °15'15" West, 31.60 feet along the North right-of-way line of Pine Street; thence N03 °17'44" East, 867.11 feet to the South right-of-way line of the Wisconsin Central Railroad; thence S88 °22'52" East, 857.85 feet along the South Railroad right-of-way line to the Point of Beginning containing 30.297 acres and subject to restrictions, reservations, rights-of-way, and easements of record.

There is a 100-foot wide power line easement that goes through the eastern part of the property. It is fully described in the addendum of the property description.

The property ID number for the subject property is 0-51-700-412-00. A copy of the recent property tax map provided by the Schoolcraft County Economic Development Corporation is included in Appendix C.

3.2 Site and Vicinity Characteristics

A site reconnaissance of the subject property was conducted on June 18 and 25, 2008. The site elevation is approximately 610 feet above mean sea level (amsl) according to the USGS Manistique East 7.5' topography map published in 1972. The property is relatively flat with a slight rise to the north of the existing building and a drop from the building toward a lowland wetland area on the east side of the property. A berm was located on the south side of the property south of a parking area. The site is bounded to the north by Wisconsin Central Railroad followed by city and state owned vacant land, to the east by Schoolcraft County Road Commission Property (County Garage), south by Veterans of Foreign Wars, Edison Electric Company and Schoolcraft County (County Industrial Park), and west by the City of Manistique (City Industrial Park).

The subject property included the Prison Building, a Firewood Storage Canopy, and a Prisoner Visitation Building all located within the fenced in prison yard. A storage lean-to, a gasoline storage shed and a maintenance building were located outside and east the fenced in Camp Manistique prison yard. Parking lots (bituminous) were located in front (south), to the side (east) of the building/fenced area, and within the fenced in area. A compost and concrete dumping area was located east of the prison yard adjacent to the wetland. The site was not mowed or recently maintained at the time of the site reconnaissance. Based on the "Live Search Maps" aerial photo for the site, the areas not covered with parking areas or roads were grass covered and mowed. The fencing around the perimeter of the prison extends up to four feet below the ground surface and was topped with razor wire.

The Schoolcraft County Soil Survey includes four soil types on the area of the subject property including the Proper sand, Ensley muck, Ruse mucky loam, and Shuberts-Manistique complex. The open land including the former prison area is composed mainly of the Shuberts-Manistique complex. The Shuberts-Manistique complex, Ensley muck, and Ruse mucky loam contain muck or mucky loam to a depth of up to 7 inches below the ground surface. Below the muck is a sandy loam or sand and bedrock is described from 15 to 80 inches below the ground surface. The Proper sand is located along the east edge of the property. From the ground surface to two inches below the ground surface is decomposed plant material followed by sand to a depth of 80 inches below the ground surface.

The bedrock geology beneath the subject property consists of the Manistique Group Unit of the Manistique Group which is part of the Niagaran Series (dolomite/limestone) of the Silurian Period of the Paleozoic Era. The depth to bedrock on the subject property is unknown, however, bedrock is located at the ground surface on the property to the south and as shallow as three feet below the ground surface on the property to the west of the site. A large piece of concrete, likely building debris was exposed near the northwest corner of the property.

3.3 Current Use of the Property

Current use of the subject property is based on site reconnaissance with Lynn Olson of the Michigan Department of Corrections and an interview with Edson Forrester, the State of Michigan representative for the former Camp Manistique. The subject property currently contains six buildings which were no longer in use. No materials were stored on the property with the exception for the following:

Prison Building:

- 1 275-gallon fuel oil tank for the backup generator, secondary containment was present in the generator room.

- 1 fuel oil fill port located on the west side of the building outside of the generator room

- 1 diesel generator with 2 batteries for starting the engine

- A reported kitchen grease trap

- 1 transformer located west of the building

- 1 liquid petroleum tank located outside of the fence east of the building

- 4 Exterior air conditioning units

Firewood Storage Canopy:

- Remnant firewood

Gasoline Storage Shed:

- 1 to 5 gallon gas cans and 1 quart or smaller containers containing bar and chain oil, and 2 cycle oil

Storage Lean-to:

- Selective wood harvest hand tools

- 10 50-lb bags of Thaw Master Ice Melt

- 1 cabinet with "flammables" labeled on the outside but the cabinet was locked preventing a review of the contents.

Maintenance Building:

- Two cabinets containing corrosives and flammables, mainly paints, degreasers, acetone, liquid wrench, WD-40, putty compounds, tar, glues, oils, cleaners, bleach, and window cleaners and other materials

- Cases of fluorescent ballasts

- Cases of fluorescent bulbs, metal halide bulbs, and sodium bulbs

- Miscellaneous hand and power tools

- Two MSDS binders, one for corrosives and one for flammables

Two dump areas were identified on the subject property. The first appeared to be composed of old railroad ties and located at the north end and east side of the access road which runs along the east prison fence line. The second dumping area was located east of the gasoline storage shed and appeared to be composed of garden compost from the prison and concrete, this dumping area may have been started prior to the construction of the prison.

Materials identified within the building are documented in the photos included in Appendix A.

3.4 Descriptions of Structures, Roads, Other Improvements on the Site

Details of structures, roads, and other improvements are found in Section 3.2 – Site and Vicinity General Characteristics of this Phase I ESA. The entrances to the property are from Maple Street to the front of the building.

Municipal water and wastewater along with natural gas and electricity supply the subject property. The Prison Building was constructed in approximately 1991 with some exterior buildings constructed after 1991.

Floor drains are located in the mechanical rooms, cleaning supply storage rooms, and the kitchen of the Prison Building and in the main room of the Maintenance Building. The floor drains were reported to run to the City wastewater system.

The buildings are currently heated with a natural gas furnace. Mrs. Olsen reported that previously the buildings and hot water were heated with the wood boiler year round.

3.5 Current Uses of Adjacent Properties

The subject property is bordered to the north by Wisconsin Central Railroad and used as an active railroad; beyond the railroad is property owned by City and State which is vacant land; property east of the subject property is owned by the Schoolcraft County Road Commission and houses the County Garage buildings and a public transportation building; south of the subject property includes the Veterans of Foreign Wars property which utilizes the fenced in site for vehicle and trailer storage; Edison Electric Company property which houses an electrical sub-station; and Schoolcraft County Industrial Park which is vacant; and west of the subject property is the City of Manistique Industrial Park which is vacant adjacent to the prison property. Photos of adjacent properties are included in Appendix A.

4.0 USER PROVIDED INFORMATION

4.1 Property Records

The State of Michigan Department of Corrections is the current owner of the subject property. Property records are included in Appendix C.

4.2 Environmental Liens or Activity and Use Limitations

The interview with Mr. Edson Forrester, revealed there are no known environmental liens or activity and use limitations associated with the subject property that were filed or recorded under federal, tribal, state, or local law. Based on the interview with the current property owner representative, there are no known liens or restrictions on the property. In addition, the subject property was not identified on the most recent list of State Environmental Lien list dated February 4, 2008.

4.3 Specialized Knowledge

There was no specialized knowledge of the subject property provided for this Phase I ESA by Mr. Edson Forrester, the property owner representative or Mrs. Sheila Aldrich, the City of Manistique Manager.

4.4 Commonly Known or Reasonable Ascertainable Information

There was no commonly known or reasonably ascertainable information on the subject property provided for this Phase I ESA by the user.

4.5 Valuation Reduction for Environmental Issues

The City Manager, Mrs. Sheila Aldrich, had no knowledge of environmental issues relating to the subject property that would affect valuation of the property.

4.6 Owner, Property Manager, Occupant Information

The subject property is currently owned by the State of Michigan. A questionnaire for the subject property was submitted to Mr. Edson Forrester prior to the site reconnaissance and was returned prior to the completion of this report.

During a phone interview with Mr. Forrester, the occupants of the site were unknown other than Camp Manistique starting in 1992. One 275-gallon AST containing diesel fuel for the backup generator is currently located in the Generator Room of the main building and one 500-gallon LP tank is located east of the building. A grease trap was also reported to be present for the kitchen of the main building.

4.7 Reason for Performing Phase I ESA

This Phase I ESA was performed to identify any Recognized Environmental Conditions in connection with the subject property in anticipation of re-use of the property.

5.0 RECORDS REVIEW

5.1 Standard Environmental Record Sources

A review of environmental records for this site was conducted for compliance with ASTM Standard E1527-05, through a review of EPA and Michigan environmental databases. The following sections discuss the specific findings of the environmental database record review. Copies of the state and federal environmental databases are included in Appendix B.

National Priority List (NPL)

The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. The results of the search completed by EDR did not identify any NPL sites within a 1 mile radius (Appendix B).

Comprehensive Environmental Response Compensation and Liability Information List (CERCLIS)

CERCLIS contains data on potentially hazardous waste sites that have been reported to the US Environmental Protection Agency by states, municipalities, private companies, and private persons. Results of the search did not identify any CERCLIS sites within a 0.5 mile radius of the subject property.

Resource Conservation and Recovery Act (RCRA)

The Resource Conservation and Recovery Information System (RCRIS) database includes information on sites that generate, transport, store, treat, and/or dispose of hazardous wastes, as defined by RCRA. No RCRA sites were identified within ½ mile of the subject property except for the following. Five RCRA Small Quantity Generator (SQG) sites were identified within ½ mile of the subject property. The referenced document is included in Appendix B.

- a) Emerald City Gas and Carwash, 201 Deer Street, Manistique, Michigan, #1 – RCRA-SQG – The site is located southwest of the subject property at an elevation lower than the subject property and on the opposite side of the Manistique River.
- b) Fannin Oil Company, 192 River Street, Manistique Michigan, #2 – RCRA-SQG – The site is located southwest of the subject property at an elevation less than the subject property.
- c) Lakehead Pipeline Company, Inc, 340 E. Elm Street, Manistique Michigan, #3 – RCRA-SQG – The site is located southeast and adjacent to the subject property at an elevation equal to the subject property.
- d) Warshawsky Iron and Metal, 202 Main Street, Manistique Michigan, #4 – RCRA-SQG – The site is located southwest of the subject property at an elevation less than the subject property.
- e) MI Dept. of Corrections, 401 N. Maple Street, Manistique, Michigan, #5 – RCRA – Air Release – The site is the subject property.

Federal Institutional Control/Engineering Control

The subject property is not reported as a state or federal institutional control/engineering control site.

Emergency Response Notification System (ERNS)

The subject property and adjoining properties are not reported as ERNS sites.

Solid Waste Disposal Site List

No solid waste disposal sites within ½ mile of the subject property are listed in the EDR report.

Part 201 (Environmental Remediation) of Michigan's Natural Resources and Environmental Protection Act (NREPA), Public Act 451 of 1994, as Amended

Michigan's Department of Environmental Quality (MDEQ) Remediation and Redevelopment Division has developed a list of all environmental contamination facilities (i.e., state hazardous waste sites) in Michigan, which are not leaking underground storage tanks (LUST) facilities. There were four sites identified within one mile of the subject property. The sites are listed below and in the EDR Report. The referenced list is included in Appendix B.

- a) Manistique Industrial Park, Pine Street, Manistique, Michigan, #6 – SHWS – The site is located west and adjacent to the subject property at an elevation equal to or greater than the subject property. Pollutants include benzene, ethylbenzene, naphthalene, toluene, xylenes and metals.
- b) Old Wood Bulk Plant, 191 River Street, Manistique, Michigan, #7 – SHWS – The site is located southwest of the subject property at an elevation less than the subject property.
- c) Former Standard Oil Bulk Plant, 300 New Delta Avenue, Manistique, Michigan, #8 – SHWS – The site is located west of the subject property at an elevation equal to or greater than the subject property and on the west side of the Manistique River.

Michigan Underground Storage Tank Regulations (Part 211 of Act 451 of 1994, as Amended)

MDEQ's Waste and Hazardous Materials Division regulates active Underground Storage Tank (UST) facilities with registered USTs and Aboveground Storage Tanks (ASTs) present on their property. It also publishes a list of all UST sites, which are not LUST facilities. There are no registered USTs located on the subject property. There are no registered active or closed Part 211 UST facilities within 0.25 miles of the subject property except for the following two sites listed. There were no registered AST sites identified by EDR within 0.25 miles of the subject property (Appendix B).

- a) DPW – Public Safety, 301 N. Maple Street, Manistique, Michigan, #9 – four closed USTs – The site is located south of the subject property at an elevation less than the subject property.
- b) Manistique Armory, 345 Elm Street, Manistique, Michigan, #10 – closed UST, – The site is located south of the subject property and at an elevation less than the subject property.

Leaking Underground Storage Tank (LUST) Facilities (Part 213 of Act 451 of 1994, as Amended)

The MDEQ's Remediation and Redevelopment Division regulates all Leaking Underground Storage Tank (LUST) Part 213 facilities in Michigan and has developed a list of open and closed LUST sites. A search by EDR of this database and the state database identified three LUST sites within a ½ mile of the subject property identified as #1.

- a) DPW – Public Safety, 301 N. Maple Street, Manistique, Michigan, #9 – open LUST – The site is located south of the subject property at an elevation less than the subject property.
- b) Fannin Oil Company, 192 River Street, Manistique, Michigan, #2 – open LUST and closed LUST – The site is located north of the subject property and at an elevation greater than the subject property.
- c) Emerald City Car Wash, 201 Deer Street, Manistique, Michigan, #1 – open LUST – The site is located southwest of the subject property and at an elevation less than the subject property and the property is located on the opposite side of the Manistique River.

State Voluntary Cleanup Sites

No known state voluntary cleanup sites are located within ½ mile of the subject property.

Brownfield and BEA Sites

No Brownfield or BEA sites are registered with the State of Michigan within ½ mile of the subject property except for the following 10 sites. (Appendix B)

- a) Old Woods Bulk Plant, 191 River Street, Manistique, Michigan #7 – Brownfield - The site is located southwest of the subject property and at an elevation less than the subject property.
- b) Emerald City Car Wash, 201 Deer Street, Manistique, #1 – Brownfield - The site is located southwest of the subject property and at an elevation equal to or greater than the subject property and on the west side of the Manistique River.
- c) Fannin Oil Station, 192 River Street, Manistique, Michigan EDR # 2 – Brownfield - The site is located southwest of the subject property and at an elevation less than the subject property.
- d) Former Manistique Armory, 345 Elm Street, Manistique, Michigan #10 – Brownfield - The site is located south of the subject property and at an elevation less than the subject property.

- e) Manistique Industrial Park, Pine Street, Manistique, Michigan, # 6 – Brownfield - The site is located adjacent and west of the subject property and at an elevation equal to or greater than the subject property.
- f) Warshawsky Iron and Metal, 202 Main Street, Manistique, Michigan, #3 - The site is located southwest of the subject property and at an elevation lower than the subject property.
- g) Schoolcraft County Industrial Park, Elm Street, Manistique, Michigan, #11 – The site is located adjacent and south of the subject property at an elevation greater than and equal to the subject property.
- h) Former Go Kart Track, North Cedar Street, Manistique, Michigan #12 – The site is located north of the subject property at an elevation equal to or greater than the subject property.
- i) Lot 11 of the City Industrial Park, Pine Street, Manistique, Michigan #13 – The site is located west of the subject property at an elevation equal to or greater than the subject property.
- j) Pine Street Expansion, 401 N. Maple Street, Manistique, Michigan #14 – The site is part of the subject property and is located along the south end of the property.

Manufactured Gas Plants

There were no manufactured gas plants identified within one mile of the subject property (Appendix B).

5.2 Additional Environmental Record Sources/Documents

No additional environmental record sources were utilized for this Phase I ESA beyond the interviews discussed further in Section 7.0 except for the following reports by AKT Peerless Environmental Services; The Phase I Environmental Site Assessment, Pine Street Expansion Project, 401 North Maple Street, Manistique, Michigan; The Phase I Environmental Site Assessment, Manistique Industrial Park, North Cedar Street, Manistique, Michigan; The Phase I Environmental Site Assessment Former Go-Kart Track, North Cedar Street, Manistique, Michigan 49854; The Phase I Environmental Site Assessment, County Industrial Park, 340 Elm Street, Manistique, Michigan; and the Manistique City Industrial Park investigation results reported on January 17, 2008. Each of these reports were available at the Manistique County EDC office. A FOIA review of documents related to the prison property was conducted at the MDEQ office in Gwinn, Michigan.

5.3 Physical Setting Sources

One United States Geological Survey (USGS) topographic map Manistique East, Michigan, 7.5 Minute Series, 1972 was utilized for physical setting information, and as a Site Location Map (Figure 1) and Site Map (Figure 2). This topographic map shows the subject property at an approximate elevation of 610-615 feet with the area relatively flat and slightly sloping to the east, south and west from the site. The topography map shows the subject property to be located northwest of the intersection of Maple and Pine Streets up to the railroad tracks.

5.4 Historical Use Information of the Property

UPEA researched past uses of the subject property including review of a historic land use document for the Manistique City Industrial Park. Environmental Data Resources, Inc (EDR) documents reviewed were limited to aerial photos and Sanborn Fire Insurance map coverage; in

addition, interviews with people familiar with the site and government officials were conducted. Polk directories were not available for the subject property.

The subject property historically was part of the operations which occurred on the adjacent property to the west, now referred to as the City Industrial Park. The subject property contains remnant slag piles and brick foundations from the former charcoal kilns.

The adjacent property, City Industrial Park, and subject property were in operation from the early 1870's through approximately 1923. Operations included the Chicago Lumbering Company of Michigan, Weston Lumbering Company, Burrell Chemical Company, and Lake Superior Iron and Chemical Company, and Charcoal Iron Company of America which produced wood alcohol, acetate of lime, acetone, charcoal, tars, pig iron, and slag. From approximately 1923 through 1991 the site was un-used but abandoned buildings or other structures were present for a portion of that time. From 1923 to the 1950's the site was demolished and scraped. The City Industrial Park was then used by the City for storage and a snow dump area. from the 1950's through approximately the early 1990s. In 1991 the construction of Camp Manistique was underway. Camp Manistique was active through 2007 when the camp was closed. No activities have occurred on the grounds since the camp was closed.

Included in Appendix C are copies of aerial photos from 1953, 1964, 1998 and 2007. Aerial photos from earlier than 1953 were not available. The aerial photos from 1953 and 1964 show the property to be vacant with only remnant railroad spurs and drainages.

An aerial photo of the subject property from 1998 was obtained from Terra Server (Appendix C). The 1998 aerial photo shows the subject property as it appeared during the site reconnaissance conducted for this report.

Sanborn Fire Insurance map coverage for the western portion of the subject property includes the following years: 1890, 1985, 1900, 1907, 1914, 1920, and 1950. The Sanborn maps show the subject property contained an alcohol refinery, six rows of charcoal kilns, coolers with iron and asbestos lining, 2½", 4", 5", and 7" water pipes, below ground wood smoke ducts, railroad trestles, cinder pits, and approximately 18 railroad spurs.

The City Polk Directories were not available for this report.

5.5 Historical Use Information on Adjacent Properties

UPEA researched past uses of the adjacent properties, including review of historical documents such as Sanborn Fire Insurance map coverage and aerial photography coverage obtained through Environmental Data Resources, Inc. In addition interviews with people familiar with the site and area were conducted.

Included in Appendix C are copies of aerial photos from 1953, 1964, 1998 and 2007. Aerial photos prior to 1953 were not available. The aerial photo of the subject property from 1998 was obtained from Terra Server and the 2007 aerial photo was from www.maps.live.com (Appendix C).

NORTH

The use of the property to the north of the subject property was the railroad operated by Soo Line and Central Wisconsin. The tracks were still in use at the time of this report.

EAST

The historic use of the property to the east prior to the County Garage is unknown. Currently, there is a public transportation building adjacent to the subject property and before the County Garage. Historically, a tannery was reported to be located on the current County Garage property. A 100 foot utility easement is also located on the east side of the subject property

SOUTH

The property to the south of the property includes three parcels of land. The western most parcel is the VFW property, east of the VFW property is the County Industrial Park, and further east going to the east property line of the subject property is the Edison Electric Company – substation. The County Industrial Park historical use goes back to 1863. From 1863 to 1872, the property was operated as Chicago Lumbering Company of Michigan. In 1872, the property was sold to White Marble Lime Company which operated until 1924. The property was then sold to Manistique Lime and Stone Company which operated the site until 1928. The property ownership then went to Inland Lime and Stone Company until 1937. Lakehead Pipe Company purchased and operated the property from 1937 to 1991. The actual operations of Lakehead Pipe Company were in the southwest corner of the property which was carved out and is now the Harbor Enterprises building. After the property sat idle, it reverted back to the county. The initial property parcel included land south of Elm Street and beyond the former limestone quarry. The area currently called the County Industrial Park was determined to contain chemicals exceeding Part 201 Cleanup Criteria in a report completed by the MDEQ in October 2005 with Sunny Krajcovic as the team leader.

WEST

The historical use of the property to the west was the same as the subject property since the area from the Manistique River to just beyond the east side of the Camp Manistique fenced in area was used for the manufacturing of acetone, charcoal, tars, creosote, pig iron, wood alcohol, and acetate of lime with by products of slag. The chemical processing facility was in operation until 1923. The property was dismantled leaving the machine shop which the City of Manistique used for salt storage along with at least one above ground storage tank which contained road tar from approximately the 1950's through the 1980's. The history of the adjacent property is described in further detail in section 5.4 of this report as both the adjacent property to the west and the subject property were part of the same operation through 1923. The property was vacant from the 1980's through 2004 when On-Line Engineering built their building for manufacturing. The berm located immediately west of the subject property is remnant soils removed from the site for the construction of the On-line Engineering Building. Multiple environmental investigations have been completed on the property to the west identified as the City Industrial Park.

6.0 SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

UPEA visited the subject property in the City of Manistique, Michigan on June 18 and 25, 2008 to conduct a site reconnaissance. In addition, research of historical records and interviews with local regulatory officials were attempted in person and via telephone. The following research and field observation methodologies were utilized during performance of this Phase I ESA.

- Observations were recorded of the subject property for visual indication of contamination from activities relating to potential storage tanks, waste disposal, nearby water bodies, and electrical service equipment. The entire site was walked for all observations with the exception of a portion of the wetland located on the east side of the subject property.
- A review of surrounding land use was conducted to identify the potential risk of contamination emanating from any off-site sources.
- Interviews were conducted with a City of Manistique representative who was familiar with the subject property and with the history of the area.
- Environmental databases from the MDEQ and US EPA were reviewed.
- ESA reports for adjacent properties were reviewed.
- Discussions were held with agents of local regulatory agencies regarding existing or potential environmental liabilities on the subject property.
- Discussions were held with people local to the area regarding historical use of the subject property and surrounding properties.

No warranty can be made that conditions observed at the site were representative of all areas of the subject property. Data collected for this Phase I ESA were obtained for the purpose stated and should not be used for reasons other than those intended. The conditions reported herein apply only to those specific locations and the limiting conditions when work was completed. Conclusions made in the Phase I ESA are based on reasonably ascertainable information and data and represent UPEA's professional judgment and data interpretation.

Limiting conditions included the exact location of the grease trap for the kitchen of the main building which is unknown.

6.2 General Site Setting

The site setting and layout for the subject property was previously described in Section 3.2. Site photographs are included in this report (Appendix A). The parcel was located in the City of Manistique, Michigan. The subject property was located at the northeast corner of Maple and Pine Streets. The property was relatively flat with pavement located north, east and south of the Prison Building. A cyclone fence with razor wire encompassed the Camp Manistique grounds. Wetland areas were located east of the eastern most fence line/access road to the east property line. Water, sewer, electricity (3-phase) and natural gas were supplied to the site through underground utilities lines. A total of six buildings were located on the subject property including the prison building, a gasoline storage shed, maintenance building, storage lean-to, firewood storage canopy, and a prisoner visitation building.

6.3 Exterior Observations

Access to the property is from Maple Street. Four locked gates were observed to enter the fenced in area of the site. Located on the subject property, there were six buildings and a prison area perimeter fence. The prison building, a prisoner visitation building, and a firewood storage canopy all located within the fenced in area. A maintenance building, a storage lean-to, and a sixth gasoline storage shed which contained flammables such as gasoline and oil used for chain saws, mowers, and snow blowers was located east of the fenced in area on the east end of the access road. An asphalt parking area south of the prison building and asphalt game area within the fenced in yard were located on the property. A garden area was located south of the prison building and within the fenced in area. One ground mounted electrical transformer

was located on the west side of the building. The transformer had a sticker stating that it was a "Non PCB" unit with less than 50 ppm PCBs. One 500-gallon LP fuel tank was located east of the fenced in area. Within the fenced in area along the north side of the property (railroad side), former kiln foundations were observed along with a small mound of slag with wood chuck holes exposing the slag.

A small area east of the fenced in area and east of the flammables shed was used as a compost and concrete dump area. A small pile of railroad ties were located in the wetland near the railroad tracks across the access road from the prison fence. An old overgrown road grade leading to the east-southeast through the wetland was also present.

A berm with small trees was located south of the prison parking area. A previous Phase I ESA was completed for the berm area and referred to as the Pine Street Extension project. It was also reported that the berm was constructed to block the prisoners view shortly after the prison was constructed. The material and source of material composing the berm were unknown.

Remnants of an old railroad grade are located southeast of the prison property. This railroad spur also shows up on the historic aerial photos and leads from the railroad tracks on the north side of the property.

6.4 Interior Observations

Six buildings were located on the subject property. The buildings have been vacant since Camp Manistique was shut down in 2007. Some equipment was present in the buildings during the site reconnaissance.

Maintenance Building

The Maintenance Building contained basic repair inventory and a full set of hand tools. Two cabinets of corrosives and flammables contained paints, primers, urethanes, degreasers, bleach, tar, washing fluids, liquid wrench, WD-40, acetone, propane, glue, caulk, belt dressing, and oils. The cabinets were in good repair, clean and contained binders with MSDS sheets. The MSDS sheets were not included with this report since each binder was approximately 3 inches thick. Multiple cases of new and used fluorescent bulbs, metal halide bulbs, sodium bulbs, and light fixture ballasts were located in the building. The inventory and equipment was well organized and clean. A floor drain was located in the main room. All floor drains are reported to drain to city sewer service.

Prison Building:

The main prison building contained one 275-gallon above ground storage tank (AST) containing diesel fuel for the backup generator. Secondary containment was present in the generator room and the floor looked to be in good condition with no oil staining or visible cracks in the floor. Two 12 volt batteries for the generator appeared to be in good condition with no evidence of leaking. The fuel oil fill port located on the west side of the building outside the generator room appeared to be clean and the vegetation below and around the fill pipe was not stressed. The entire generator room had secondary containment for the generator and AST.

The boiler room and water supply room had water staining on the floor leading towards the floor drains. These drains were reported to drain to the city sewer system. The water sources appeared to be tank drains and boiler blow off valves associated with the boilers. Exterior ground mounted air conditioning units were located on the south side of the building. One 500-gallon LP fuel tank was located on the east side of the building and outside of the perimeter

fence. A kitchen grease trap was reported but not located during the walk through. It was reported that the grease trap was located on the north side of the building between the two doors. Leaking water was identified at two locations in the building east of the kitchen area. Staining was present on the floor in a room reported to formerly contain laundry detergents. The staining was not large in extent and did not lead to any drains.

Firewood Storage Canopy:

Remnant firewood was located at the north end of the shed. No concerns were identified in association with the shed.

Gasoline Storage Shed:

A small gasoline, fuel, and oil storage shed was located east of the fenced in prison area and near the edge of the wetland area. Multiple containers including 1 to 5 gallon gas cans, bar and chain oil, and 2 cycle oil with contents were present. Floor staining was present on the concrete floor within the cabinet in the shed. The stained area was under and around the gasoline cans. The cabinet did not have a floor, rather the 5-gallon gasoline cans were on the concrete floor. The vegetation surrounding the shed did not appear to be stressed.

Storage Lean-to:

One area of the lean-to was locked and contained selective wood harvest tools. No materials of environmental concern were observed with possible exception of an ice melting compound. The unlocked area of the lean-to contained one pallet with ten 50-lb bags of Thaw Master Ice Melt, miscellaneous items, and one cabinet with "flammables" labeled on the outside. The "flammables" cabinet was locked preventing a review of the contents, however, there were no odors from items such as gasoline coming from between the cabinet and the concrete floor around the cabinet did not show evidence of staining.

Prisoner Visitation Building

The Prisoner Visitation Building did not contain any items. All materials were removed following water damage due to a burst pipe. The carpet was bagged in garbage bags and located outside of the building at the north entrance.

7.0 INTERVIEWS

7.1 Interview with Property Owner

An interview with the current property representative, Mr. Edson Forrester, was completed prior to the site visit and the questionnaire was completed and returned prior to the completion of this report (Appendix D).

Over a phone conversation, Mr. Forrester did state that there was a 275-gallon fuel tank with secondary containment in the generator room and a grease trap was present in the kitchen with access for grease removal located on the exterior of the north side of the building between the two doors. Mr. Forrester was not aware of any spills or waste piles on the subject property.

7.2 Interview with Site Manager

Refer to Section 7.1.

7.3 Interview with Occupants

Refer to Section 7.1; the site is currently not occupied.

7.4 Interview with Local Government Officials

An interview with Mr. Rick Pawley of the MDEQ was conducted. Mr. Pawley reported that no environmental concerns were present to his knowledge other than the relation of the site with the former pig iron, charcoal and acetone operations which occurred at the turn of the century and closed in the early 1920's. Mr. Pawley did not have any specific site information. Mr. Pawley provided the name of a local resident for additional site specific information. An interview with Kikumi Smith of the MDEQ was conducted. Ms. Smith did not have any documentation on record related to Camp Manistique specifically. However, she did state the site was part of the City Industrial Park where significant documentation of environmental concerns was present and recommended Mr. Steve Harrington for additional information.

An interview with Mr. Steve Harrington of the MDEQ was conducted. Mr. Harrington stated that the site was originally part of the adjacent property to the west which had significant industrial activities and remnant soil and groundwater contamination. Mr. Harrington also stated the soil sampling was conducted on the adjacent property in the late 1980's or early 1990's. The documents were reviewed at the MDEQ office in Gwinn, Michigan. A copy of a map by STS Consultants and a copy of a map by Sundberg, Carlson and Associates, Inc. with the test pit locations and the test pit excavation logs are included in Appendix E. No samples from the subject property were collected for laboratory analysis during the investigation by the MDEQ which include 40 test pits on the subject property.

An STS Consultants January 26, 1990 letter report, Contamination Assessment Performed at the proposed prison camp in Manistique found no contamination on the property, however, they did recommend a minimum of 3 groundwater monitoring wells for groundwater testing and to determine the direction of groundwater flow. The test pits completed by STS were located near the middle of the north side of the property in the area of the former kilns and reported slag piles.

An interview with Mrs. Jennifer Hubble of the LMAS County Health Department was conducted. Mrs. Hubble stated that to the best of her knowledge, no environmental concerns were reported for the subject property and the use of the subject property was most recently Camp Manistique.

An interview was conducted with Mr. Ken Golat, Fire Chief of the City of Manistique Fire Department. Mr. Golat was not aware of any environmental concerns or releases associated with the subject property. However the property may have been in association with the former kilns located on the adjacent property to the west. The fire department was called to the prison on a couple different occasions for small fires related to the laundry room.

An interview was conducted with Cory Barr of the Water and Waste Water Superintendent. Cory Barr stated that the floor drains were connected to the sanitary sewer.

An interview was conducted with Mr. Jim Barr with the City of Manistique. Mr. Barr was not aware of any heavy contamination on the subject property, however significant contamination of the property to the west is present. Mr. Barr also recommended that an interview with Mr. George Bosanic be conducted since he grew up close to the subject property and was around when the kilns were in operation.

7.5 Interview with Local Residents

An interview with Mr. George Bosanic and Mr. Joe Bosanic who grew up in the area and were familiar with the operations on the subject property and adjacent property to the west was conducted. According to the Bosanics, the kilns were located along the railroad tracks and ran across the prison property. There were five or six rows of kilns with wood railroad trestles used to dump the wood into the kilns. The rows of kilns started on the adjacent property to the west and nearly across the open area of the subject property. There were multiple rail spurs located on the subject property for the kiln, and iron ore operations. An acetate plant, and furnace for processing iron ore were located on the adjacent property to the west (City Industrial Park). The acetate was produced for use in World War I. The charcoal was produced for processing iron ore. Initially, coal was brought in to get the operation underway and as a backup fuel source until enough charcoal could be produced on site. Once the charcoal operation was underway, no coal was needed.

Cinders and slag from the iron ore processing were used for building roads and were also piled in three to four hills running east west on the subject property. The hills were 30-40 feet high and mainly contained slag. The slag was recovered after the operations were closed for making glass insulation. Not all the slag was recovered since some of it was in the mucky areas of the site and it was determined that the material was too dirty for use as glass insulation. It took approximately three months to remove all the slag and haul it away using the railroad. In the 1960s, the site was leveled by the National Guard.

When asked about an alcohol processing building shown on the 1900 Sanborn Map and located on the subject property near the end of the kilns, neither George or Joe had any recollection of the building or the cooling building shown on the Sanborn Fire Insurance Maps. Based on later Sanborn Maps, the buildings were removed and replaced with more kilns.

8.0 FINDINGS

Use of the subject property has included charcoal kilns, wood alcohol processing, slag and cinder dumping, multiple railroad spurs, and buried wooden smoke flues running from the kilns to the condenser location on the adjacent property to the west. Two buildings, one for alcohol processing and the second containing charcoal retorts and iron coolers, were present on the property. The iron coolers were lined with iron and asbestos. The operation occurred from the late 1870's through 1923 when the operation closed. The site was vacant with only the recovery of the slag and leveling of the site from approximately the end of the operation until 1991 when the prison was constructed. Some material including the brick from the old kilns were used for walkways and borders in the prison yard. The prison operated until 2007 and the subject property has been vacant since then.

Fourteen sites were identified in the EPA and Michigan environmental databases as being within the search radii specified in ASTM Standard E1527-05, these sites were identified to be potential "Recognized Environmental Conditions" (RECs) and listed in detail in Section 5.1. One site may be included twice if the site is listed twice, such as both a UST site and a LUST site. The subject property is listed as one of the sites. Four sites listed are adjacent to the subject property.

On-site, the following items were determined to be potential RECs:

- 1) Slag and cinders from former industrial activities.
- 2) Charcoal kiln remnants from former industrial activities.
- 3) Wood alcohol refinery activities from former industrial activities.
- 4) Asbestos insulation related to an iron cooler which was lined with asbestos and iron.
- 5) Wood smoke flues from the former kilns to the former condensers on the adjacent property to the west which may have contained creosote.
- 6) Former rail road tracks and spurs associated with the former industrial activities on the site and the rail that went through the subject property to the south.
- 7) A gasoline storage shed containing cans of gasoline, 2-cycle oil, bar oil, and engine oil with a stained concrete floor. The shed is located outside of the fenced perimeter of the prison yard.
- 8) A "Flammable Materials" cabinet located in the Storage Lean-to within the fenced prison yard. There were no visible stains on the floor associated with the cabinet, however, the contents are unknown and locked.
- 9) Caustic and flammable materials located in locked cabinets in the maintenance building.
- 10) Fluorescent bulbs and ballasts, metal halide and sodium vapor bulbs stored in the maintenance building.
- 11) Floor drains located in the maintenance building and prison building, it is unlikely that this is of significant concern since it was stated that all the drains are tied in with the city sanitary sewer.
- 12) One 275-gallon AST containing diesel fuels in the prison building generator room. The AST and generator room had secondary containment and no staining was present on the floor surface.
- 13) A reported grease trap located in the kitchen of the prison building.
- 14) Floor staining in the mechanical and boiler rooms of the prison building. The floor staining appears to be iron staining as a result of water overflow from the heating units or holding tanks and leads to the floor drains.
- 15) One electrical transformer with a PCB concentration of less than 50 ppm located outside and west of the prison building.
- 16) Four air conditioners located outside and south of the prison building.
- 17) Walk in coolers located in the kitchen area of the prison building.

9.0 OPINIONS

It is the opinion of UPEA, based on the Phase I data, that there are multiple RECs associated with the subject property based on the historical use of the subject property and adjoining properties to the north, south and west. These RECs are each assigned a probability for concern ranging from low to high.

It is the opinion of UPEA that the items listed as potential RECs are RECs with the following concern rating based on site information. This opinion is based on the following site observations, site conditions, documents, and interview information. For each of the three levels of concern on-site concerns are listed first followed by off-site concerns.

Since RECs were identified in this Phase I ESA, further investigation and assessment of the subject property is recommended to determine the nature, extent and magnitude for the RECs with a high probability of concern at a minimum.

RECs with a high probability of concern for actual environmental impact include the following:

- The historical use of the property including charcoal kilns, buried wood smoke flues (which, if still present, may contain creosote), wood alcohol processing, slag piles, former railroad tracks with unknown ballast, and potential leaks or spills of hazardous materials or petroleum products associated with the former on-site railroad tracks all represent a potential environmental impact.
- Prior investigations were conducted on the subject property including the completion of 40 test pits which were part of the 82 test pits completed by the City of Manistique and Mr. Mark Petrie of the MDEQ in 1989. No soil samples from the Prison Property were collected for laboratory analysis, however, the test pits were logged. Two test pits were of concern for the presence of black material near the surface. Multiple test pit logs show the presence of slag to a depth of 3 feet. While samples were not collected for analysis, there is the potential of environmental impacts due to the black material and slag identified in the logs. A later investigation by STS Consultants found no contamination on the northern portion of the site where sampling and selected laboratory analysis was conducted.
- Potential contamination associated with the filled area of the wetland east of the maintenance building and potential releases to the wetland and former creek on the subject property. These areas appear to have been filled when the site was leveled by the National Guard in the 1960's and represents a potential environmental impact.
- Manistique Industrial Park, #6, the site is located adjacent and west of the subject property at an elevation equal to or greater than the subject property. The site is listed as a brownfield site and included on the SHWS list. Lot 11 of the Manistique Industrial Park is also designated as a brownfield site. Based on MDEQ file information and direct knowledge of the site, multiple groundwater wells have been found to contain VOCs and/or SVOCs which exceed GSI and/or Drinking Water criteria. Metals such as cadmium, chromium, barium, copper, lead, silver, and zinc have been detected above GSI criteria in a monitoring well. USTs are present on the site along with buried tar vats, buried wood smoke flues containing creosote, creosote on the ground surface, and grossly contaminated soil and groundwater are present. The berms located on the east side of the Manistique Industrial Park and adjacent to the subject property contain contaminated soil which was removed from the On-line Engineering site. While the identified contamination of the site is located towards the middle and west side of the site, the contamination of the adjacent site represents a potential environmental impact.
- The railroad located north of the subject property and the former railroad spurs located on the subject property including the spur which is shown on the historic aerial photos are of concern since ballast, historic releases or spills of hazardous materials or petroleum products may have occurred along the railroad and migrated onto the subject property which represents a potential environmental impact.
- The Pine Street Expansion, #14, is part of the subject property and is part of the brownfield property. This area was also part of the historic industrial activities where charcoal, pig iron, acetone, and other byproducts were produced. RECs identified in the Phase I ESA, Pine Street Expansion Project, 401 North Maple Street, Manistique, Michigan 49855 by AKT Peerless Environmental Services on October 2, 2006 include the following:
 - 1) A railroad line and potentially a portion of an industrial building were on the site or a portion of the site before 1964. The concerns with the railroad include the fill materials as ballast and leaks or spills of hazardous materials or petroleum products;

2) A portion of a small creek was located on the eastern portion of the property approximately between 1953 and 1964 when it was filled in with material from an unknown source. Based on an interview for Prison Property Phase I ESA, the source was likely slag and charcoal waste piles located on the Prison Property which was leveled by the National Guard.

- The gasoline storage shed located east of the prison fence is considered a high priority since staining on the concrete floor was present during the site walk through

RECs with a moderate probability of concern for actual environmental impact include the following:

- The subject property was listed as a RCRA site with an air release which is likely related to the wood boiler used to heat the building and hot water for the site and represents a potential environmental impact.
- The property located adjacent and south of the subject property was downgradient of the subject property and listed twice in the database search, first as the Schoolcraft County Industrial Park, #11, as a brownfield site where multiple contaminants including: lithium, lead, fluoranthene, cobalt, and selenium in surface soil samples; lead, lithium, strontium, selenium, in soil boring samples; and aluminum, iron, lead, manganese, and vanadium in groundwater samples were identified to exceed applicable Part 201 Generic Cleanup Criteria were identified on the site. A second listing for the site was the Lakehead Pipeline Company site, #3, as a RCRA –SQG. Both listings represent a potential environmental impact on the subject property.

RECs with a low probability of concern for actual environmental impact due to distance from the subject property, elevation relative to the subject property, and/or contamination of concern include the following:

- Existing inventory identified in the Maintenance Building including a flammables and a corrosives cabinet, light fixture ballasts and bulbs, and miscellaneous inventory which represents a potential environmental impact.
- Existing underground cooking grease trap and floor staining located within the prison building represents potential environmental impact.
- Existing 500-gallon LP tank and electrical transformer located on the subject property represent potential environmental impacts.
- The Emerald City Gas Station, #1, the site is located southwest, across the Manistique River, and at an elevation less than the subject property and listed as a RCRA – SQG, brownfield site, and an open LUST site which represent a potential environmental impact.
- Fannin Oil Company, #2, The site is located southwest of the subject property at an elevation less than the subject property and is listed as a RCRA-SQG, brownfield and an open LUST site which represent a potential environmental impact.
- Warshawsky Iron and Metal, EDR #4, the site is located west of the subject property at an elevation less than the subject property and is listed as a RCRA – SQG, brownfield and brownfield site which represents a potential environmental impact.
- DPW – Public Safety, #9, the site is located south of the subject property at an elevation less than the subject property and is listed as an open LUST site which represents a potential impact.
- Old Woods Bulk Plant, EDR #7, the site is located southwest of the subject property at an elevation less than the subject property and is listed as a SHWS and a brownfield site which represents a potential environmental impact.

- Former Manistique Armory, #10, the site is located south of the subject property at an elevation less than the subject property and is listed as a brownfield site which represents a potential environmental impact.
- Schoolcraft County Industrial Park, #11, the site is located adjacent and to the south of the subject property at an elevation less than the subject property and is listed as a brownfield site which represents a potential environmental impact.
- Former Go Kart Track, #12, the site is located north of the subject property at an elevation equal to or greater than the subject property.

10.0 CONCLUSIONS

The evaluation and conclusions presented in this report have been made to assist in making a reasonable assessment of risk with respect to the possible presence of toxic or hazardous substances on the subject parcel. The results of this study are based primarily on a limited review of available records, a site visit, and personal interviews. As with all assessments, the level and quality of information obtained is a function of time and budgetary constraints imposed by the client. Therefore, our findings should in no way be considered as absolute certainties but rather as probabilities based on our professional judgment regarding limited data collected during the course of this assessment. We cannot offer any form of warranty or guarantee that the subject property contains no toxic or hazardous material beyond that identified as part of this study.

UPEA has performed a Phase I ESA in conformance with the scope and limitations of ASTM Standard E 1527-05 for the subject property known as the Former Camp Manistique property in the City of Manistique, Michigan. Any exceptions to, or deletions from, this practice are described in Sections 2.2, 2.4, and 11.0 of this report. This assessment has revealed evidence of multiple Recognized Environmental Conditions with low to high probability for concern in connection with the property. The specific RECs are listed in Section 9.0 of this report.

11.0 DEVIATIONS AND ADDITIONAL SERVICES

UPEA has performed this Phase I ESA in conformance with the scope and limitations of ASTM Standard E 1527-05. During the completion of this Phase I ESA, UPEA conducted a site reconnaissance, interviews with those familiar with the subject property, a historical records review, and environmental database review. There were no deviations, exceptions to, or deletions from the referenced ASTM Standard E 1527-05.

12.0 REFERENCES

Environmental Data Resources, Inc. (EDR)
440 Wheelers Farm Road
Milford, CT 06460
(203)783-0300

Interim Soil Survey of Schoolcraft County, Michigan
U.S. Department of Agriculture,
National Resources Conservation Service,
2006

Phase I Environmental Site Assessment – Former Go-Kart Track , North Cedar Street, Manistique, Michigan 49854, November 1, 2006, AKT Peerless Environmental Services, 115 West Allegan, Suite 900, Lansing, Michigan 48901

Phase I Environmental Site Assessment – Manistique Industrial Park , North Cedar Street, Manistique, Michigan 49854, September 26, 2006, AKT Peerless Environmental Services, 115 West Allegan, Suite 900, Lansing, Michigan 48901

Phase I Environmental Site Assessment – County Industrial Park, 430 Elm Street, Manistique, Michigan 49854, October, 2006, AKT Peerless Environmental Services, 115 West Allegan, Suite 900, Lansing, Michigan 48901

Phase I Environmental Site Assessment – Former Pine Street Expansion Project ,401 North Maple Street, Manistique, Michigan 49854, November 1, 2006, AKT Peerless Environmental Services, 115 West Allegan, Suite 900, Lansing, Michigan 48901

Brownfield Redevelopment Assessment Report For Schoolcraft Industrial Park, Manistique, Michigan, October 20, 2005, Michigan Department of Environmental Quality – RRD – Superfund Section Site Evaluation Unit.

Manistique City Industrial Park, Site Investigation Deliverable, January 17, 2008 (letter report to Weston Solutions of Michigan, Inc.), AKT Peerless Environmental Services, 115 West Allegan, Suite 900, Lansing, Michigan 48901

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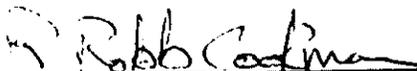
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420 – 5th Street,
Gwinn, Michigan 49841
(906) 346-8510

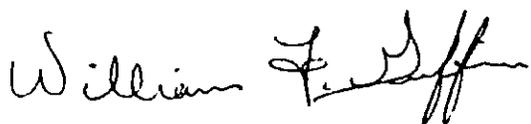
13.0 IDENTIFICATION OF AUTHORS

This Phase I Environmental Site Assessment for the subject property was completed on July 21, 2007. The person with primary responsibility for data collection, interpretation, evaluation, site reconnaissance, interviews, technical conclusions, and report preparation was R. Robb Cookman, P.E. The person with primary responsibility for review and overall project management was Bill Griffin, PhD, P.E.



R. Robb Cookman, P.E., Geo-environmental Engineer

7/21/08
Date

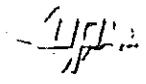


William F. Griffin, PhD, P.E., Project Manager

7/21/08
Date

14.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

The authors of this report, both employees of U.P. Engineers & Architects, Inc., declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in 312.10 of 40 CFR 312. The authors have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. The following pages contain the resumes of the environmental professionals that completed this Phase I ESA.



R. Robb Cookman, P.E.
Geo-Environmental Engineer

PROFESSIONAL DATA:

Registered: Professional Engineer, Michigan
Education: Michigan Technological University
M.S., Geological Engineering, B.S. Geo-environmental
Engineering; Western Michigan University, B.S. Geology
Training/Certification: Hazardous Materials Certification
(OSHA - 40 Hour Training); Michigan Wetland
Delineation; Troxler Certified; Michigan Lead
Inspector/Lead Risk Assessor/EBL Investigator
Memberships: American Society of Civil Engineers;
Hiawatha Water Trail; Marquette Astronomical Society

QUALIFICATIONS:

As a member of the UPEA's environmental engineering team, Robb's experience and responsibilities include hydrogeology, water chemistry, soil investigations, lead paint investigations, environmental site assessments, wetland determination and delineations, waste water system design and civil engineering construction oversight. His expertise also includes contaminated groundwater investigations, remediation system design (as well as installation and operation), hazardous material evaluations, surface water investigation, wellhead protection projects, preparation of USACE/MDEQ Joint Permit Applications, and completing reports per MDEQ, National Park Service and Michigan Department of Community Health guidelines.

UPEA EXPERIENCE:

Environmental Site Assessments:

Prepare Phase I and II Environmental Site Assessments, and Category "N" and "S" Baseline Environmental Assessments associated with property transactions. Clients include commercial and public property transactions, such as gas stations, heavy equipment dealerships, ski resort, elementary schools, Keweenaw National Historical Park property and buildings, Conservation Fund timber and land transaction sites, and brownfield sites.

Lead-based Paint Evaluations:

Conduct Lead Inspections, Risk Assessments and Clearances for residential and commercial housing per MDCH and HUD guidelines. Clients include: home owners, rental units and Housing Commissions.

Perform paint sampling, air monitoring and reporting for lead and cadmium in renovation projects per MIOSHA guidelines.

Waste and Hazardous Materials Characterization:

Plan and conduct characterization for disposal of waste materials such as contaminated groundwater, soils and demolition debris. Projects include containers with unknown contents, contaminated soils, fuel releases in wetland areas and pond sediment in a recreation area.

Wetland Delineations:

Conduct wetland determinations and delineations for sites that will potentially be developed for commercial or public use or impacted by the construction of utilities or roads. Site locations range from Marquette to Sault Ste. Marie to Manistique. A recent project included completing a USACE/MDEQ Joint Permit Application, constructing a boardwalk and walking path through a wetland and across Cox Pond at Robert McQuisten Park.

Wellhead Protection Areas:

Perform wellhead groundwater capture zone modeling, groundwater mapping, Wellhead Protection Area environmental site assessments, and final reporting for sites in Skandia and Powell Township, Michigan.

Underground and Aboveground Storage Tank Site Investigations:

Perform field and office activities for evaluating soil, groundwater, and surface water conditions associated with ASTs and USTs. Complete reports per MDEQ guidelines and obtain closure in accordance with State of Michigan underground storage tank laws. Projects include releases associated with abandoned and active sites such as gas stations, commercial sites, a marina,

a lighthouse, and ASTs at Isle Royale National Park.

Wastewater

Team member in the design of pressurized and mounded wastewater systems for residential and commercial establishments.

Groundwater and Soil Remediation

Design and operate remediation systems associated with fuel oil and gasoline releases including both passive and active remediation systems.

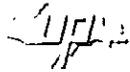
OTHER EXPERIENCE:

Committee member of the Hiawatha Water Trail, Hiawathawatertrail.org

Watershed/Stream investigation: Performed and supervised field mapping, hydrologic discharge, water chemistry, and suspended sediment load investigation and year-around data collection including during spring snowmelt runoff. Performed water discharge and chemical discharge flux evaluations.

PRESENTATION & PUBLICATION:

"A comparison of Hydrologic and chemical outputs from 3 watersheds of the Keweenaw Peninsula and 4 U.S.G.S monitored watersheds in the Lake Superior basin," AGU 1997 and M.S. Thesis, Michigan Technological University, 2000.



William F. (Bill) Griffin, Ph.D., P.E.
Principal

PROFESSIONAL DATA:

Registered Engineer: Michigan, Wisconsin
Registered Geologist: Minnesota
Education: Michigan Technological University
B.S. Geological Engineering; M.S. Civil Engineering
University of Wyoming, Ph.D. Civil Engineering
Certificates: OSHA 40 Hour Hazardous Waste
Operations Certified; Risk Based Corrective Action (RBCA);
Certified Underground Storage Tank Professional (CP)
MDEQ Treatment Facility Operator B3-b
Member: National Ground Water Association,
Association of Ground Water Scientists & Engineers,
American Society of Civil Engineers

QUALIFICATIONS:

Bill has consulting experience in hydrogeology, geotechnology and environmental engineering since 1983. In addition, he has three years petroleum production and open pit mining experience and three years of teaching hydrogeology and geotechnical engineering at the university senior and graduate levels. He has provided expertise on projects of municipal groundwater supply, hydrogeologic studies and investigations of contaminated soil and groundwater, and for landfill siting, design and closure.

UPEA RESPONSIBILITIES:

Environmental Engineering Project Management: Responsible for project management and engineering of site assessments (Phase I & II, BEA, NEPA EA), health and safety compliance (asbestos management plans, lead-based paint inspection, risk assessment, respiratory protection plans, right-to-know), hazardous materials identification, brownfields, remedial investigations and feasibility studies (RI/FS). Utilize GIS data base systems to manage and present data. Management of these projects includes proposal preparation, work plan and budget development, supervision and direct involvement in the work, reporting to the client, state agencies and departments, and client liaison throughout the project.

Hydrogeologist: Provide technical expertise on wellhead protection, groundwater contamination, municipal drinking water source exploration, landfill siting and groundwater quality studies.

Geotechnical Engineer: Provide geotechnical expertise relating to foundation investigations and building siting. Direct soil boring and monitoring well installation projects.

UPEA EXPERIENCE:

Environmental Engineering Project Management: Develop and manage environmental health and safety compliance projects for universities, hospitals, factories and residential clients. Projects include asbestos management plans, lead-based paint inspection/risk assessment, respiratory protection plans, worker right-to-know, and hazardous materials identification, Phase 1 and 2 environmental site assessments, and baseline, and NEPA environmental assessments.

Hydrogeologic Studies: Plan and perform hydrogeologic investigations related to a metal recycling facility, wood treatment plants, leaking underground storage tank sites, and landfill siting, management and expansion. Plan, design and supervise installation of soil borings and groundwater monitoring wells, coordinate geophysical studies and perform field testing and analysis to define hydrogeologic conditions and determine aquifer characteristics. Statistical evaluation of groundwater quality analytical data.

Underground Storage Tanks: Manage and perform investigation, reporting, remedial action and closure of many UST sites under the State of Michigan's underground storage tank laws.

Geotechnical Foundation Investigations: Direct drill crews and provide technical expertise for geotechnical foundation investigations and building site selection based on geotechnical criteria. Projects successfully completed include radio and cellular phone transmission towers, apartments and housing units, salt storage facilities and site evaluations for two new hospitals.

Landfill Siting & Closures: Lead hydrogeologic investigation of a fast-track landfill siting project culminating in the client receiving a construction permit. Direct drill crews in the installation of gas vents and monitoring wells at 19 landfill sites. Documentation of the hydrogeologic conditions encountered was prepared and submitted to the Waste Management Division of the Michigan Department of Environmental Quality.

Municipal Water Supply Development and Protection: Provide geological engineering expertise for water supply exploration, new well field development and wellhead protection projects. Develop conceptual models, map groundwater flow, coordinate geophysical studies, conduct aquifer pump tests and report to the Water Division of the Michigan Department of Environmental Quality.

OTHER EXPERIENCE:

Adjunct Assistant Professor, Department of Geological & Mining Engineering and Sciences, Michigan Technological University, Houghton, MI.

Environmental Engineer, Hydrogeologist and Project Engineer, Laramie, WY and Eau Claire, WI (8 years).

PUBLICATIONS:

"Determination of Landfill Liner and Cap Hydraulic Conductivity Using Compaction Tests", (with Thomas J. Pascoe), Proc. of the Tenth Annual Madison Waste Conference, Sept. 29-30, 1987, Dept. of Engineering Professional Development, Univ. Wisconsin - Madison.

FIGURES

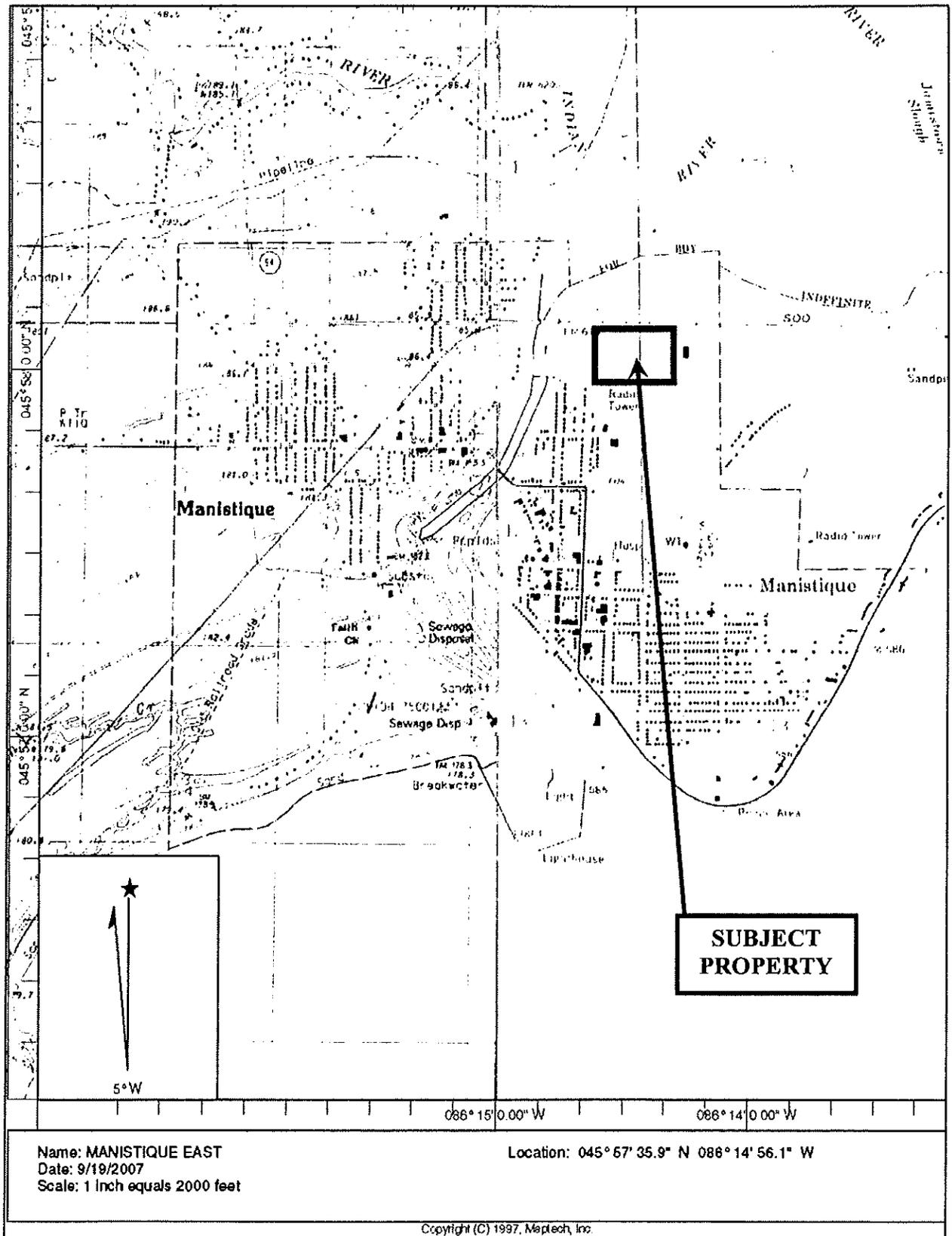


Figure 1
 Site Location Map
 Former Camp Manistique—Phase I Environmental Site Assessment

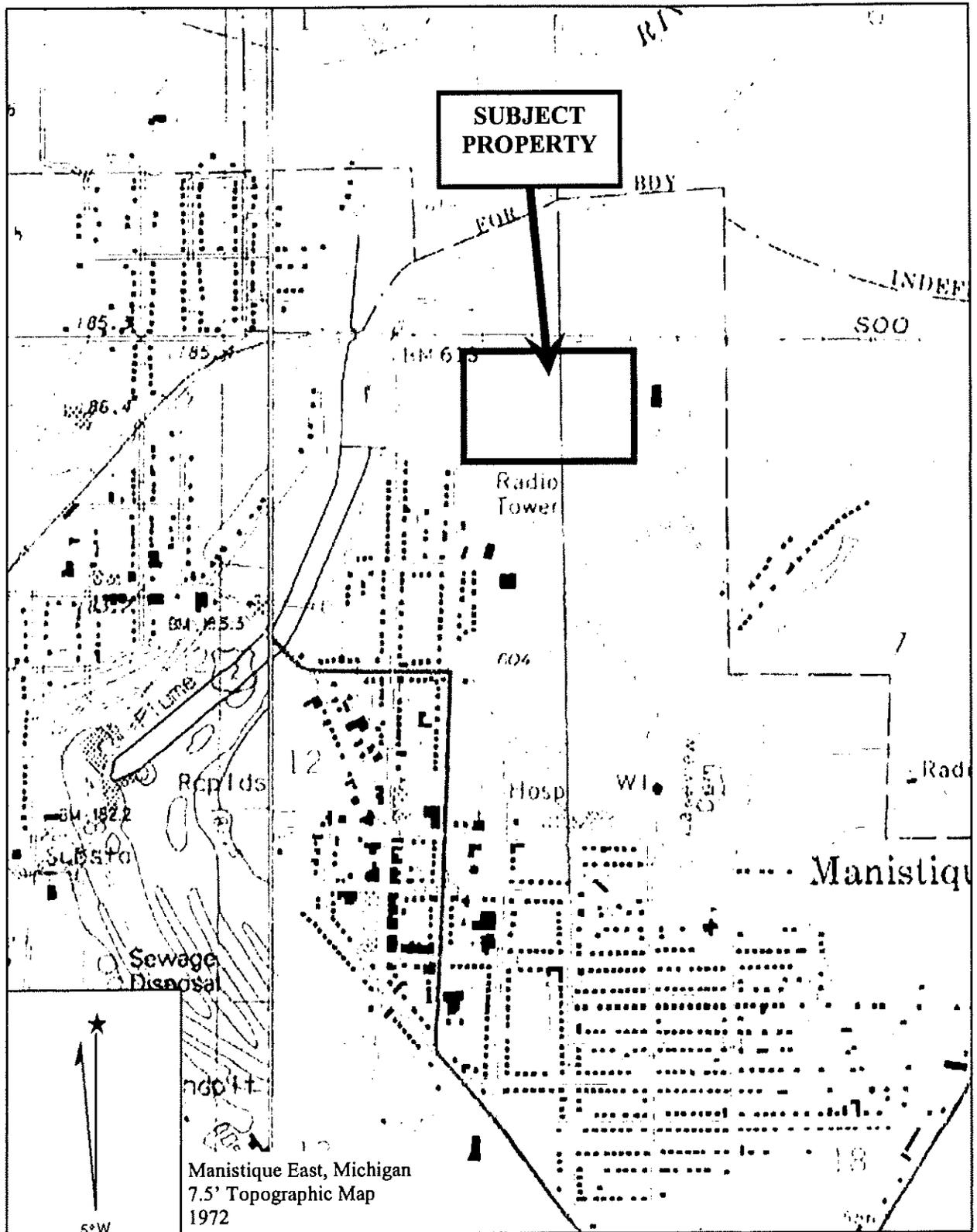


Figure 2
 Site Map
 Former Camp Manistique—Phase I Environmental Site Assessment

