



PHASE I ENVIRONMENTAL SITE ASSESSMENT

Parcel ID: 44-013-018-010-19, Marathon Township, Michigan

PREPARED FOR Lapeer County Land Bank Authority
255 Clay Street
Lapeer, Michigan 48446

PROJECT # 14474s-1-17

DATE September 20, 2019

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PHASE I ENVIRONMENTAL SITE ASSESSMENT

Parcel ID: 44-013-018-010-19, Marathon Township, Michigan

AKT Peerless Project No. 14474s-1-17

Executive Summary

AKT Peerless Environmental Services (AKT Peerless) conducted a Phase I Environmental Site Assessment (ESA) of the subject property as described below in accordance with United States Environmental Protection Agency (USEPA) Standards and Practices for All Appropriate Inquiries [(AAI), 40 CFR Part 312] and the ASTM International Standard Practice E 1527-13 (ASTM Practice E 1527). This Phase I ESA was performed for Lapeer County Land Bank Authority (Client) in connection with an evaluation of the subject property.

Subject Property Description

Address	None Associated
Land Area	49 Acres
Parcel ID Number(s)	44-013-018-010-19
Number of Building(s)	1
Date(s) of Construction	Approximately constructed between 1978 and 1982
Building Square Footage	2,400
Current Use	Unused
Current Occupants	Unoccupied
Past Use	Industrial – Crude oil exploration and agricultural chemical manufacturing
Adjoining Property Uses	North: Residential and vacant wooded land East: Residential and vacant wooded land South: Residential and vacant wooded land West: Residential and vacant wooded land
Inferred Groundwater Flow Direction	Southwest
Approximate Groundwater Depth	65-70' bgs

Recognized Environmental Conditions (RECs)

This assessment has revealed no evidence of known RECs in connection with the subject property, except for the following:

REC 1 - The subject property operated for industrial purposes from approximately the 1971 to at least 1990, specifically for oil production with the use of an on-site oil well, bulk petroleum storage, and gasoline sweetening. Operations have included the use of electrical machinery containing oils and coolants, drums, floor drains, septic systems, above ground transfer piping, and large bulk fuel storage ASTs with unknown waste disposal practices. Waste is known to have

accumulated as a result of these activities at the subject property that prompted numerous cleanup activities; however, no subsurface investigations have occurred to evaluate the effectiveness of these activities. In AKT Peerless' opinion, past industrial use of the subject property represents a REC. Further, the possibility exists that petroleum products or hazardous substances have impacted subsurface conditions of the subject property.

REC 2 - The subject property operated for industrial purposes from approximately 1990 to at least 2010, specifically for the purpose of fertilizer manufacturing for agricultural purposes. Operations would likely have included the use of machinery containing oils and coolants, floor drains and septic systems, large ASTs, and aboveground transfer piping with unknown waste disposal practices. In AKT Peerless' opinion, past industrial use of the subject property represents a REC. Further, the possibility exists that hazardous substances have impacted subsurface conditions of the subject property.

REC 3 - From at least 1978 to approximately 1999, there are various land disturbances in the southern portion of the subject property. The land disturbance appears to be associated with the operation of oil production and storage. In AKT Peerless opinion, the land disturbances represent a REC. Further, the possibility exists that hazardous substances have impacted subsurface conditions of the subject property.

REC 4 - During AKT Peerless site reconnaissance, AKT Peerless staff observed the presence of oily liquids present within a pump house on the subject property. The soil surrounding the pump house was visibly stained. The purpose of the pump house was not readily ascertainable. Further, the possibility exists that hazardous substances have impacted subsurface conditions of the subject property.

REC 5 - In 1991, waste removal activities were planned at the subject property due to waste Sulphur piles, twenty, 55-gallon drums of spent carbon and seventeen, 55-gallon drums of waste engine oil and tank bottoms. These contents were removed from the property following the identification of these contents. No verification samples following the removal of the contents were documented. Further, the possibility exists that hazardous substances have impacted subsurface conditions of the subject property.

REC 6 - In 2010, a site investigation occurred on the subject property in response to a Pollution Emergency Altering System (PEAS) complaint, regarding the improper storage, handling, and disposal of hazardous substances associated with the subject property. The investigation revealed the property contained existing debris piles, hazardous waste drums, three abandoned ASTs and their associated piping, with the property existing in a state of disrepair. While this waste was removed, no documentation of removal was identified. Further, the possibility exists that hazardous substances have impacted subsurface conditions of the subject property.

Further investigation and/or assessment is warranted in order to evaluate the nature, extent, magnitude, and materiality of the RECs identified above. In addition, the subject property meets the definition of a facility, as defined in Part 201 of the NREPA, Michigan PA 451 of 1994, as amended. AKT Peerless recommends any future owner(s)/operator(s) prepare a Baseline Environmental Assessment (BEA). Section 26(1)(c) of Part 201 provides certain liability protections to a person who becomes an owner or operator of a *facility* on, or after June 5, 1995, if they comply with both of the following, or unless other defenses apply: a BEA is conducted prior to or within 45 days after the earlier of the date of purchase,

occupancy, or foreclosure, and the owner or operator discloses the results of the BEA to EGLE and subsequent purchaser or transferee.

Since the property meets the definition of a “facility,” the property owner is required to comply with due care obligations. Due Care obligations include:

- Undertaking measures to prevent exacerbation of existing contamination.
- Exercising due care by undertaking response activities to mitigate unacceptable exposure to hazardous substances, mitigate fire and explosion hazards due to hazardous substances, and allow for the intended use of the subject property in a manner that protects health and safety.
- Taking reasonable precautions against the reasonably foreseeable acts or omissions of a third party and the consequences that could result from those acts or omissions.
- Provide notifications to the EGLE and others in regard to mitigating fire and explosions hazards, discarded or abandoned containers, contamination migrating beyond property boundaries, as applicable.
- Comply with any land use or resource use restrictions established or relied on in connection with the response activities at the facility.
- Not impede the effectiveness or integrity of any land use or resource restriction employed at the facility in connection with response activities.

Controlled Recognized Environmental Conditions (CRECs)

This assessment has revealed no evidence of known CRECs in connection with the subject property.

Historical Recognized Environmental Conditions (HRECs)

This assessment has revealed no evidence of known HRECs in connection with the subject property.

The Executive Summary above is an overview of the opinions and conclusions of this Phase I ESA and shall not be considered apart from the entire report, which contains the rationale and qualifications used by AKT Peerless in making the opinions and conclusions presented herein. Furthermore, non-ASTM scope considerations, if any, are reported in Section 6.4 and other notable environmental considerations, if any, are reported in Section 7.5. These conditions are not included in this Executive Summary.

1.0 Introduction

AKT Peerless Environmental Services (AKT Peerless) conducted a Phase I Environmental Site Assessment (ESA) of Parcel ID: 44-013-018-010-19 in Marathon Township, Lapeer County, Michigan (subject property) on behalf of the Lapeer County Land Bank Authority. This Phase I ESA was funded by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Brownfield Redevelopment Unit (BRU), Brownfield Redevelopment Grant Tracking Code #2019-2401. This Phase I ESA was conducted in accordance with: (1) the United States Environmental Protection Agency (USEPA) Standards and Practices for All Appropriate Inquiries [(AAI), 40 CFR Part 312] and (2) guidelines established by ASTM International in the *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process / Designation E 1527-13* (ASTM International Practice E 1527).

For the purpose of this Phase I ESA, the Client is the party that retained AKT Peerless to complete this Phase I ESA. AKT Peerless has not made an independent determination if its Client is also a *User* that intends to rely on this Phase I ESA to qualify for Landowner Liability Protection (LLP) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980. In accordance with ASTM Practice E 1527, a *User* is the party seeking to use ASTM Practice E 1527 to complete an environmental site assessment of the subject property. A *User* may include, without limitation, a potential purchaser of property, a potential tenant of property, an owner of property, a lender, or a property manager. Furthermore, a *User* seeking to qualify for a LLP under CERCLA has specific obligations for completing a successful application of this practice. AKT Peerless' scope of work does not include an evaluation or completion of these specific user obligations under ASTM Practice E 1527, unless otherwise noted.

1.1 Purpose

The purpose of this Phase I ESA was to evaluate the current and historical conditions of the subject property in an effort to identify *recognized environmental conditions* (RECs)¹, *historical recognized environmental conditions* (HRECs)², *controlled recognized environmental conditions* (CRECs)³, and *de minimis conditions*⁴ in connection with the subject property. Moreover, this practice may permit certain users of this Phase I ESA to satisfy environmental due diligence requirements to qualify for the bona fide prospective purchaser, contiguous landowner, or innocent landowner limitations under CERCLA, the Superfund Amendments and Reauthorization Act (SARA) of 1986, and the Small Business Liability and Brownfield Revitalization Act (Brownfield Amendments) of 2002. This Phase I ESA is intended to reduce, but not eliminate, uncertainty regarding the potential for environmental conditions in connection with the subject property.

¹ ASTM Standard Practice E 1527-13 defines the term REC as the presence or likely presence of any hazardous substance or petroleum product in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

² ASTM Standard Practice E 1527-13 defines the term HREC as a past release of any hazardous substance or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted residential use criteria established by a regulatory authority, without subjecting the property to any required controls.

³ ASTM Standard Practice E 1527-13 defines the term CREC as a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

⁴ ASTM Standard Practice E 1527-13 defines the term de minimis condition as a condition that generally does not present a threat to human health or the environment and that generally would not be subject to an enforcement action if brought to the attention of appropriate government agencies.

1.2 Scope of Services

AKT Peerless' scope-of-services is based on the Brownfield Grant Agreement between the Michigan Department of Environment, Great Lakes, and Energy (EGLE) and Lapeer County Land Bank Authority, authorized July 26, 2019, and the terms and conditions of that agreement. This Phase I ESA included the following:

- An inquiry of environmental conditions by an Environmental Professional.
- A review of specialized knowledge reported by the Client.
- A review of relevant public and historical records, including those maintained by federal, state, tribal, and local government agencies.
- Interviews with relevant regulatory officials and personnel associated or knowledgeable with the subject property, including as appropriate past and present owners, or neighbors if the subject property is abandoned.
- A reconnaissance of the subject property. The adjoining properties were observed from the subject property and from readily accessible public rights-of-way.

1.3 Limiting Conditions and Exceptions

A list of general limitations and exceptions typically encountered when completing Phase I ESAs is provided in **Appendix A**. In certain instances, limiting conditions, data failures, or data gaps, as defined by ASTM International, may prevent adherence to all aspects of ASTM International Practice E 1527. In such cases, the limiting conditions, data gaps, or data failures are discussed in the appropriate sections of this report.

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

1.4 Special Terms and Conditions

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

1.5 Reliance

AKT Peerless performed this Phase I ESA for the benefit of its Client, Lapeer County Land Bank Authority. AKT Peerless acknowledges that this party may rely on the contents and conclusions presented in this report. Unless stated otherwise in writing, AKT Peerless makes no other warranty, representation, or extension of reliance upon the findings of this report to any other entity or third party.

2.0 User and/or Client Provided Information

In order to qualify for one of the LLPs offered by the Small Business Liability Relief and the Brownfields Amendments, a *User* must conduct certain inquiries as described in 40 CFR 312. If the Client intends to use ASTM International Practice E 1527 to qualify for an LLP under CERCLA, then AAI requires that certain tasks be performed by - or on behalf of - that party. As appropriate, these inquiries must also be conducted by USEPA Brownfield Assessment and Characterization grantees. While such information is not required to be provided to the Environmental Professional, AKT Peerless often requests this

information from its Client in the form of a Questionnaire, Document Request Form, and Interviews as such information can assist the Environmental Professional in identifying environmental conditions.

AKT Peerless conducted an interview with Ms. Dana Miller of the Lapeer County Land Bank Authority. The following subsections summarize the information and responses provided by the Client.

2.1 Environmental Liens or Activity and Use Limitations

ASTM International Practice E 1527 Section 6.2 and AAI (40 CFR 312.20, 25, and 26) require that Users search recorded title and judicial records for registered Environmental Liens or/and Activity and Use Limitations (AULs). The results of the User's search should be communicated to the Environmental Professional. This search is in addition to the review of environmental liens and AULs conducted by the Environmental Professional (refer to Section 4.3.2 of this Phase I ESA).

The Client did not report any: (1) environmental cleanup liens against the subject property that are filed or recorded under federal, tribal, state, or local law; (2) AULs, such as engineering controls, land use restrictions or institutional controls, that are in place at the subject property and/or have been filed or recorded in a registry under federal, tribal, state, or local law; or (3) recorded land title or judicial records.

2.2 Specialized Knowledge or Experience of the User

ASTM International Practice E 1527 Section 6.3 and AAI (40 CFR 312.28) require that the User take into account their specialized knowledge to identify conditions indicative of releases or threatened releases associated with the subject property, and suggests this information be communicated to the Environmental Professional before the site reconnaissance.

The Client did not report any specialized knowledge or experience regarding the environmental condition of the subject property, except that the subject property is a listed Part 201 Facility (Identification Number 44000044).

2.3 Actual Knowledge of the User

ASTM International Practice E 1527 Section 6.4 suggests that the User communicate actual knowledge of any environmental lien or AULs associated with the subject property to the Environmental Professional.

The Client did not report any actual knowledge of environmental liens or AULs associated with the subject property.

2.4 Value Reduction Due to Contamination

For transactions involving the purchase of commercial real estate, ASTM International Practice E 1527 Section 6.5 and AAI (40 CFR 312.29) require the User consider the relationship of the purchase price to the fair market value of the subject property as an indicator of potential contamination and make a written record of that explanation.

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

2.5 Commonly Known or Reasonably Ascertainable Information

ASTM International Practice E 1527 Section 6.6 and AAI (40 CFR 312.30) require the User to take into account commonly known or reasonably ascertainable information within the local community about the subject property.

The Client did not report any such commonly known or reasonably ascertainable information, except that the property has previously operated for industrial purposes including agricultural chemical production, followed by bulk petroleum storage.

2.6 Presence or Likely Presence of Contamination

ASTM International Practice E 1527 Section 6.7 and AAI (40 CFR 312.31) require the User to consider the degree of obviousness of the presence or likely presence of contamination at the subject property, and the ability to detect the contamination by appropriate investigation.

The Client did not report on the degree of obviousness of the presence or likely presence of contamination at the subject property or the ability to detect the contamination by appropriate investigations, except that the subject property is a listed Part 201 Facility (Identification Number 44000044).

2.7 Reason for Performing this Phase I ESA

ASTM International Practice E 1527 requires that the User provide the Environmental Professional with the reason for performing the Phase I ESA.

The Client reported that this Phase I ESA was conducted as part of environmental due diligence related to an evaluation of the subject property.

3.0 Subject Property Description

3.1 Location and Legal Description

The subject property is located in the northern ½ of Section 18 in Marathon Township (T.9N. /R.9E.), Lapeer County, Michigan. The subject property is located on the northeast corner of the Farrand Road and Washburn Road intersection. See the following table for additional subject property details:

Subject Property Identifiers

Address	Tax Identification Number	Owner of Record	Approximate Acreage
None associated	44-013-018-010-19	Lapeer County Land Bank Authority	49

The subject property has historically been associated with the addresses 13000 and 13020 Washburn Road. The subject property previous contained two distinct parcels of land; however, in 2019 the subject property was reassigned with the tax identification number, as presented above.

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

3.2 Subject Property and Vicinity Characteristics

The subject property is currently zoned for industrial purposes and is located in an area of Marathon Township that is characterized by residential properties, surface roadways, private sewer and water, as well as electrical and gas utilities.

3.3 Description of Structures and Other Improvements

General information regarding the on-site building is presented in the following table:

Subject Building: (Pole Barn)

General Construction	One-story, flat roof, steel frame, metal exterior, concrete slab on grade foundation, no basement
Predominant Interior Finish	Concrete floors, paint, wood, metal, glass
Square Footage (floor plan)	2,400
Construction and Other Improvement Dates	Constructed between 1978 and 1982
Interior Areas	Open warehouse area

The subject building is located on the western portion of the subject property. The remaining portions of the subject property consists of structurally vacant, wooded and grassy land. A trail traverses from Washburn Road from the west to the eastern portion of the subject property where former industrial structures were located. The eastern portion of the subject property consists of former building foundations, concrete block stand structures, a former truck scale, a former pump house, and underground piping protruding through the ground. The subject property’s topography is generally rolling from the west to the east. Lowland/marsh areas are located on the northwestern and central portions of the subject property.

3.4 Current Use of the Subject Property

The subject property is not used for any discernable purpose.

3.5 Utilities and Municipal Services

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

Subject Property Utility Data

Utility / Service	Type	Utility Company or Municipality	Comments/Historical Services
Heat	Natural Gas	Consumers Energy	Natural gas is available to the subject property. A natural gas line was connected to the subject property in 1996. The line connected to a T & S Meter Station, located on the western portion of the subject property. The record indicated that the owner/operator of the subject property at the time of connection was Kerley Ag. Products. The existing subject building is not heated.
Potable water	Private	Private	The subject property is serviced by a private water well.
Electricity	Electric lines/transformer	Consumers Energy	Electricity is available to the subject property.
Sewage disposal	Private septic	Private	Private septic was likely used at the subject property; however, no evidence of a septic system was identified.
Storm water	County	Lapeer County	Storm water utilities are available to the subject property.

AKT Peerless reviewed the EGLE Scanned Water Well Record Retrieval System which identified two well logs for the subject property, both of which were installed in 1981 and owned by Crystal Oil Company. AKT Peerless could not definitively determine which well log, if any, corresponds with the existing drinking water well.

The possibility exists that septic systems were used by previous occupants of the subject property.

The existing subject property did not appear to be connected to a heating fuel source. Further, AKT Peerless' research did not identify former heating fuel sources for the former on-site structures. The possibility exists that alternative heating fuel (i.e. fuel oil, coal, wood, propane, etc.) were previously used on-site.

3.6 Current Uses of the Adjoining Properties

The following table describes the current uses and/or occupants of the adjoining properties, as identified during this Phase I ESA:

Adjoining Property Data

Direction	Address	Current Use / Occupant
North	Not determined	Residential and vacant wooded land
East	Not determined	Residential and vacant wooded land
South	Not determined	Residential and vacant wooded land
West	Not determined	Residential and vacant wooded land

4.0 Records Review

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

4.1 Physical Setting Sources

AKT Peerless reviewed various available physical setting sources about the geologic, hydrogeologic, hydrologic, and topographic characteristics that may affect potential contaminant migration to the subject property, or within or from the subject property. The results of AKT Peerless' review are presented in the following table:

Physical Setting Data

General Topography and Hydrogeology		
Physical Setting Information		Data Sources
Subject Property Elevation	876 feet above the National Geodetic Vertical Datum	United States Geological Survey (USGS) Topographic Map of Columbiaville, Michigan Quadrangle (photo revised 2017)
Topographic Gradient	Rolling from the west to the east	
Closest Surface Water	Sister Lakes located approximately 0.40 miles southwest of subject property.	
General Soil and Geology		
Bedrock	Michigan Formation in the Grand Rapids group, which is included in the Meramecian series within the Mississippian system of the Paleozoic Era.	Michigan Department of Natural Resources (MDNR) Geological Survey Division's <i>Bedrock Geology of Southern Michigan</i> (1987)
Quaternary Soil Description	Medium-textured glacial till, described as gray, grayish brown or reddish brown, nonsorted glacial debris; matrix is dominantly loam and silt loam texture, with variable amounts of cobbles and boulders. These soils occur as ground moraine, till plain, or undifferentiated ground moraine-end moraine complexes and include small areas of coarser or finer-textured tills, as well as small areas of outwash. The thickness is highly variable locally, from less than 30 feet to as much as 60-90 feet.	Michigan Geological Survey Division's publication, <i>Quaternary Geology of Southern Michigan</i> (1982)
County Soil Survey Description	According to the United States Department of Agriculture, <i>Soil Survey of Lapeer County, Michigan</i> , the soils in the area are classified as the McBride-Marlette association. These soils are described as " <i>gently sloping to strongly sloping, well drained ad moderately well drained soils that have a sandy loam to clay loam subsoil; on till plains and moraines.</i> "	United States Department of Agriculture (USDA) Soil Survey of Lapeer County, Michigan (1972)

General Topography and Hydrogeology		
Site-Specific Geology and Hydrogeology		
Soil and bedrock characteristics	Water well log - Clay from ground surface with intermittent gravel layers to approximately 170 feet bgs, followed by layers of shale, sandstone, and limestone to approximately 345 feet bgs. Oil well log – Drift followed by bedrock from 373 feet bgs to 3,172 feet bgs.	Water well logs Oil well log
Groundwater characteristics	Static groundwater from 65 to 70 feet bgs.	Water well logs

Based on the information presented above, AKT Peerless infers that groundwater in the vicinity of the subject property flows toward the southwest, with potential influence from the Sister Lakes. However, local manmade structures (e.g., buildings, roads, sewer systems, and utility service lines) may influence both surface water and groundwater flow. AKT Peerless was unable to precisely document the groundwater flow direction beneath the subject property. To determine the site-specific groundwater flow direction, subsurface information would be necessary.

AKT Peerless did not identify any water supply wells or monitoring wells at the subject property, except for a drinking water well located adjacent to the subject building. Groundwater from the area of the subject property serves as the primary drinking water source for properties in Marathon Township.

4.2 Standard Environmental Record Sources

AKT Peerless retained a third-party vendor to provide current environmental database information compiled by a variety of federal and state regulatory agencies. The purpose of obtaining this data was to evaluate potential environmental risks associated with the subject property, adjoining properties, and nearby sites that are: (1) identified on target lists and (2) within varying distances of up to one mile from the subject property. Refer to the database report included as **Appendix D** for information regarding database descriptions, search radii, and most recent dates the database information was updated by the vendor.

4.2.1 Subject Property Listings

The database report does not identify the subject property on the referenced databases except for the following:

- Hickson Kerley Inc., 13020 Washburn Road is listed on the Facility Registry Service/Facility Index (FINDS/FRS) database. The FINDS/FRS database recognizes properties as facilities, sites, or places subject to environmental regulations. The listing is specific to the subject property’s Toxic Release Inventory listing associated with nitrogenous fertilizer manufacturing.
- Hickson Kerley Inc., 13020 Washburn Road is listed on the State Hazardous Waste Site (SHWS) database. Contaminants of concern were not provided.
- Hickson Kerley Inc., 13020 Washburn Road is listed on the Toxic Release Inventory Program (TRIS) database for the release of ammonia through fugitive air and stack air. A total of eight listings from 1988 to 1994 were associated with the TRIS listings.

Refer to Sections 4.3.2 and 4.3.3 for further details regarding this database listing.

4.2.2 Adjoining Properties

The database report does not identify any adjoining properties on the referenced databases.

4.2.3 Nearby Sites

AKT Peerless' review of the referenced databases also considered the potential or likelihood of contamination from nearby sites. To evaluate which of the nearby sites identified in the database report present an environmental risk to the subject property, AKT Peerless considered the following criteria:

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

Only those nearby sites that are judged to present a potential environmental risk to the subject property are further evaluated by reviewing agency file information. Using the above criteria and based upon a review of readily available information contained within the database report, AKT Peerless did not identify nearby sites that present a potential environmental risk to the subject property.

4.3 Regulatory Agency File and Records Review

4.3.1 Michigan Department of Licensing and Regulatory Affairs (LARA)

AKT Peerless contacted LARA's Bureau of Fire Services to review available records regarding registered storage tanks associated with the subject property.

According to a response received, LARA STD does not have registered storage tank files for the subject property.

4.3.2 EGLE Remediation and Redevelopment Division (RRD)

AKT Peerless reviewed EGLE RRD's Perfected Lien List, dated November 2, 2018, to determine if environmental cleanup liens had been filed against the subject property. According to the Perfected Lien List, EGLE does not have record of environmental cleanup liens filed against the subject property.

In addition, AKT Peerless submitted a request to the EGLE RRD to review available file information regarding underground storage tanks (USTs), leaking underground storage tanks (LUSTs), or other environmental records pertaining to the subject property. The following file information pertaining to the subject property was obtained from the EGLE RRD:

Brownfield Redevelopment Program Grant and Loan Application

The subject property is associated with a brownfield redevelopment grant and loan application. According to the application, Lapeer County acquired the property in 2018 through tax reversion and ownership was then transferred to Lapeer County Land Bank in January 2019. According to the application, the subject property was previously used for agricultural chemical production and bulk

petroleum storage. It is stated that this past use, in conjunction with the unknown environmental state of the property are inhibiting redevelopment.

Furthermore, while in operation as a fertilizer plant, response activities were completed in 1991. These activities include the cleanup of specific waste materials including sulfur, waste carbon, and waste oil drums discovered on-site at the time; however, during operations as a gas/oil company, multiple complaints and inspections regarding the environmental state of the property were completed at the property. However, no subsurface investigations were completed as a result of these inspections.

Due to the high likelihood of contamination existing at the property associated with past use, the grant application was approved in order to complete the following: 1) a Phase I and Phase II Investigation, 2) a Baseline Environmental Assessment (BEA), 3) Due Care Planning, and 4) the Implementation of a Due Care Response Activity.

Compliance Inspection for 13020 Otter Lake Road, Tessenderlo Kerly Inc.

In 1991, waste removal activities were planned at the subject property for a waste Sulphur piles, twenty, 55-gallon drums of spent carbon and seventeen, 55-gallon drums of waste engine oil and tank bottoms. According to correspondence between the EGLE and a representative of Kerley, Inc., the subject property was shutdown mid-1994 at which point Kerley, Inc. sold the property. A letter dated, March 6, 2000, from EGLE, determined that no additional activities regarding these materials were necessary. However, the EGLE expressed no opinion regarding any other contamination beyond that which was removed as identified in 1991.

The EGLE Air Quality Division (AQD) completed an unannounced compliance inspection at the subject property in December 2008. The property was fenced in and upon investigation the property was discovered to be temporarily closed. The property was owned by Sable Industries with MTR Gaming paying the taxes. According to records received by the EGLE inspector, the property was in use as a natural gas facility including the use of a gasoline sweetener.

Further, the EGLE AQD maintained several Permits to Install (PTI) from the early 1980s to the mid-1990s. PTIs dated 1980 and 1982, on behalf of Crystal Exploration Company, identified as a natural gas facility, were reported for the installation of sufinal sweetener process that included caustic scrubbers, a sour gas incinerator, and an energy flare.

PTIs dated 1982, 1984, 1993, and 1995, on behalf of Kerley Industries, identified as a Fertilizer Manufacturer, were reported for the installation of scrubbers, and storage tank flares.

In 2010, EGLE received a letter from the properties legal representation that stated that the property is not legally owned by Excal Corporation but instead holds a mortgage on the property, which was given to Excal by Sabal in consideration for a loan.

In 2010, EGLE conducted a site investigation of the subject property in response to a Pollution Emergency Altering System (PEAS) complaint, at which time the subject property was under the ownership and/or operatorship of Sabal Corporation. The complaint was due to reports of improper storage, handling, and disposal of hazardous substances associated with the subject property. The complaint indicated that there have been releases of a hazardous substance to the environment that has occurred at various areas of the site.

The site inspection revealed that the on-site buildings were in a state of disrepair, with trespassers accessing the site to salvage scrap metal from the buildings and dumping general refuse. Approximately seven 55-gallon drums, two of which were labeled compressor oil, were either full or partially full with some having appeared to have leaked a portion of their contents to the surrounding soil. Other observations included soil staining in the vicinity of the processing/storage areas, three abandoned aboveground storage tanks (ASTs) and associated piping, an assumed pump house with pooled waste fluids with a strong petroleum odor. Furthermore, two 2-inch groundwater monitoring wells were identified on the subject property. The purpose of these wells was not identified during the course of this assessment.

4.3.3 EGLE Materials Management Division (MMD)

AKT Peerless submitted a request to the EGLE MMD to review available file information regarding waste management activities, permits, inspections and violations associated with the subject property.

AKT Peerless also reviewed the EGLE Waste Data System (WDS) for information regarding waste disposal operations at the subject property. The WDS tracks activities at facilities regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste (LIW) programs.

According to the EGLE MMD, no file information exists pertaining to the subject property.

A record was maintained by the EGLE WDS which identified Crystal Exploration at 13000 Washburn Road as a LIW, as of 1970. It should be noted, EGLE uses 1970 as a default date when an actual start date was not provided. No additional information was provided.

4.3.4 EGLE Drinking Water and Environmental Health Division (DWEHD)

AKT Peerless submitted a request to the EGLE DWEHD to review available file information related to non-community water supplies, environmental health, compliance and enforcement, drinking water contamination investigations, and on-site wastewater associated with the subject property. According to the EGLE DWEHD, no file information exists pertaining to the subject property.

4.3.5 EGLE Oil, Gas, and Minerals Division (OGMD)

AKT Peerless reviewed EGLE's GeoWebFace online geologic mapping program for oil and gas well records associated with the subject property. The OGMD provided a drillers log, a well file, and a well report summary. In March 1971, a permit was issued to D and G oil Company to install a 3,172' oil production well. The area of the subject property is located within the Detroit River Group Reservoir in the Marathon-Otter Lake Oil Field. The ownership of the well was transferred several times as of 1980 from D and G Oil Company to Sappington Crude Oil, to Crystal Exploration, to Onyx Oil and Gas Corp. Status of the well is listed as plugged.

4.3.6 EGLE Air Quality Division (AQD)

AKT Peerless contacted the EGLE AQD to review available records regarding environmental information and/or air permits on the subject property. Except as summarized in Section 4.3.2, no EGLE AQD records were provided.

4.4 Additional Environmental Record Sources

4.4.1 Local Health Department

The Lapeer County Health Department indicated that they maintain records pertaining to the subject property; however, the Lapeer County Health Department has yet to make the records available to AKT Peerless. Upon receipt of this records, AKT Peerless will review and amend this Phase I ESA, if the records alter the conclusion of this report.

4.4.2 Local Fire Department

AKT Peerless submitted a request to the Marathon Township Fire Department for any available department records pertaining to the subject property. A response was not received during the course of this assessment.

4.4.3 Previous Environmental Reports

AKT Peerless was not provided with copies of reports that document previous investigations or assessments of the subject property, nor did AKT Peerless identify the existence of such documents during this assessment.

4.5 Historical Use Information

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

Historical Summary – Subject Property

The following table summarizes the general development and use of the subject property, as identified by AKT Peerless based on the referenced data sources:

Subject Property Historical Use Summary

Time Period	Improvements	Use	Owner / Occupant	Data Source(s)
1938-1970	None	None	Unknown	Aerial photographs
1971	Oil well	Oil production	Crystal Exploration	Aerial photographs Previous reports Municipal records
1978-1982	Subject building Former structures Aboveground Tanks	Oil production Bulk fuel storage Gasoline sweetening	Cyrstal Exploration	Aerial photographs City directories Municipal records Previous reports

Time Period	Improvements	Use	Owner / Occupant	Data Source(s)
1990	Subject building Former structures Aboveground Tanks	Agricultural chemical production	Kerley Industries Inc.	Aerial photographs City directories Municipal records Previous reports
2010	Subject building Former structures	None	Unknown	Aerial photographs City directories Municipal records Previous reports
2012-Present	Subject building	None	Lapeer County	Aerial photographs City directories Municipal records Previous reports Interviews Site reconnaissance

Historical Summary – Adjoining Properties

The adjoining properties have included agricultural land, as well as various residential developments since at least 1938.

4.5.1 Aerial Photographs

AKT Peerless obtained aerial photographs for the subject property from a third-party vendor. AKT Peerless’ observations noted during the review of these photographs are summarized in the following table. Photocopies of select aerial photographs are presented as **Appendix E**.

Subject Property Aerial Photography Summary

Photograph Dates	Observations (Subject Property)	Potential Environmental Concerns
1938, 1941, 1954, 1959, 1964	The subject property appears structurally vacant land consisting of wooded and grassy vegetation.	None observed
1978	A driveway is evident entering the subject property from Washburn Road leading to the location of the former oil well. Small structures are evident, as well as exposed surfaces, likely associated with former oil production. Land disturbance activities are visible on the southern portion of the subject property.	Oil well production

Photograph Dates	Observations (Subject Property)	Potential Environmental Concerns
1982	The existing subject building (pole-barn) is evident on the western portion of the subject property. Several small structures and/or exterior stored materials are evident on the western and central portions of the subject property. The eastern portion of the subject property appears developed with several large industrial structures, above ground tanks, and above ground piping. Land disturbance activities are visible on the southern portion of the subject property.	Industrial operations
1993, 1999	No significant changes appear to the subject property with the exception of the removal of the small structure and/or exterior stored materials on the western and central portions of the subject property. Land disturbance activities are visible on the southern portion of the subject property.	Industrial operations
2005, 2009, 2010	At least two of the former structures on the eastern portion of the property appear to be demolished. Footings from the former ASTs are visible on the eastern portion of the property.	Industrial operations
2012, 2014, 2016, 2018	The subject property appears to be developed with the subject building. All of the former structures appear to be demolished, consistent with current conditions. Footings from the former ASTs are visible on the eastern portion of the property.	None observed

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

Adjoining Property Aerial Photography Summary

Photograph Dates	Potential Environmental Concerns (Adjoining Properties)
1938-2018	No obvious evidence or indications of environmental concerns were noted with respect to the adjoining properties and nearby sites during AKT Peerless’ review of the referenced aerial photograph.

4.5.2 Fire Insurance Maps

AKT Peerless’ research did not identify historical fire insurance map coverage of the subject property or adjoining properties.

4.5.3 City Directories

City directory information from various years between 1976 through 2018 were obtained from a third-party vendor. The purpose of this review was to determine the past occupancy of the subject property. Directories were reviewed in approximately 5-year intervals, or as available. Information obtained from the reviewed directories is summarized in the following table:

City Directories Data

Year	Address	Listing
1976-1980	13000/13020 Washburn Road	No listings
1985	13000 Washburn Road	Crystal Exploration
1990	13020 Washburn Road	Kerley Industry Inc
1995	13020 Washburn Road	Kerley Ag Inc
		Lapeer Co&Flr Crp
2001-2018	13020 Washburn Road	No listing

Adjoining property listings consist of various commercial listings over time. No obvious environmental concerns were identified.

4.5.4 Assessing Department Records

AKT Peerless reviewed tax assessment records for the subject property from the Marathon Township Assessing Department. According to the records, as of 2012, all of the structures, except for the existing subject building were demolished.

A memorandum was maintained by the Marathon Township Assessing Department, dated May 2019 regarding the subject property. The memorandum provided dates of relevant information pertaining to the subject property. Relevant information reviewed by AKT Peerless:

- The subject property was a former fertilizer plant.
- The State of Michigan removed “Ammonia Chloride” from the subject property between 1995 and 1998.
- Kerley Agricultural Chemicals Inc. owned and/or operated the subject property as of 1987.
- Tessengerlo Kerley Inc. received a letter from EGLE in 2000 regarding on-site waste materials located on-site in 1991. These materials were reportedly removed from the subject property.
- Legal documents indicated that Sabal was responsible for maintaining the subject property as of 2008.
- As of 2008, the facility was temporarily closed.
- Complaint to EGLE regarding barrels, stained soils, large permanent tanks, unplugged pipes, vandalism, dilapidated buildings, and unauthorized dumping in 2010.
- Demolition of former buildings to occur in 2010.

No additional information that could indicate potential environmental concerns at the subject property was found in the records.

4.5.5 Building Department Records

AKT Peerless reviewed building records for the subject property from the Marathon Township Building Department. The subject property maintained one record that was related to the demolition of the former structures in 2012.

4.5.6 Recorded Land Title Records

Unless otherwise noted, AKT Peerless did not identify or research any recorded land title records for the subject property.

4.5.7 Other Historical Information

AKT Peerless did not identify any other relevant historical information for the subject property.

5.0 Interviews

5.1 Interview with Subject Property Owner

AKT Peerless interviewed Ms. Dana Miller regarding her knowledge of the subject property. According to Ms. Miller, Lapeer County acquired the subject property in 2018 through tax reversion and ownership was then transferred to Lapeer County Land Bank in January 2019. She indicated that the subject property was a listed Part 201 Site, due to former oil production and agricultural chemical production.

5.2 Interview with Key Site Manager

Refer to Section 5.1.

5.3 Interview with Subject Property Occupant(s)

The subject property is not occupied.

5.4 Interview(s) with Others

AKT Peerless did not conduct interviews with others during this assessment because the historical use of the subject property has been identified. Further, interviews with the occupants of adjoining and nearby properties were not conducted because the subject property is not considered abandoned, as referenced by ASTM International.

6.0 Subject Property Reconnaissance

6.1 Methodology and Limiting Conditions

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

Mr. Jeff Carr of AKT Peerless conducted the subject property reconnaissance on September 5, 2019. AKT Peerless encountered the following project specific facts or conditions that limited our ability to access the subject property:

- Visual observation of the subject property's exterior was limited by the presence of densely wooded and grassy vegetation.

6.2 General Subject Property Setting and Operations

The western portion of the subject property is developed with a pole-barn structure, while the remaining portions of the subject property consists of structurally vacant, wooded and grassy land. A trail traverses from Washburn Road from the west to the eastern portion of the subject property where former industrial structures were located. The eastern portion of the subject property consists of former building foundations, concrete block stand structures, a former truck scale, a former pump house, and underground piping protruding through the ground. The subject property’s topography is generally rolling from the west to the east. Lowland/marsh areas are located on the northwestern and central portions of the subject property.

6.3 Observations

6.3.1 Hazardous Substances and Petroleum Products

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

6.3.2 Hazardous and Non-Hazardous Waste

AKT Peerless did not observe hazardous or non-hazardous waste at the subject property, with the exception of scattered general refuse, concrete, wood, and metal throughout the subject property. Further, standing oil was observed within the former pump house. Refer to Section 6.3.13 for further details regarding the pump house.

6.3.3 Storage Tanks

AKT Peerless did not observe evidence of current or former underground storage tank (UST) systems (e.g., vent pipes, fill ports, dispensing pumps, patched pavement, etc.) at the subject property, except for the presence of underground piping protruding through the ground on the western portion of the subject property. AKT Peerless could not determine if these piping structures were associated with any underground storage vessels.

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

6.3.4 Unidentified Substances/Containers

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

6.3.5 Potential Polychlorinated Biphenyl (PCB) Containing Electrical Equipment

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

Potential PCB-Containing Electrical Equipment

Source Description	Source Location	Responsibility	Observations
One pole-mounted transformers	Northwestern portion of subject property exterior	Consumers Energy	No evidence of a release

AKT Peerless observed a pole-mounted transformer on the northwestern portion of the subject property. The transformer is the responsibility of Consumers Energy. In the event of a release incident, Consumers Energy will repair the damaged or leaking electrical unit(s), and return the quality of the affected soil and groundwater, if any, to its pre-release condition. AKT Peerless did not observe evidence or indication of oil stains, leaks, or spills near the transformer.

6.3.6 Interior Staining/Corrosion

AKT Peerless did not observe interior staining or corrosion at the subject property.

6.3.7 Drains and Sumps

AKT Peerless did not observe drains or sumps at the subject property.

6.3.8 Discharge Features

Storm water that falls upon the subject property appears to evaporate, infiltrate directly into the ground.

6.3.9 Waste Pits, Ponds, and Lagoons

AKT Peerless did not observe pits, ponds, or lagoons in connection with waste treatment or waste disposal at the subject property.

6.3.10 Solid Waste Dumping/Landfills

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

6.3.11 Stained Soil, Stressed Vegetation, Stained Pavement

AKT Peerless did not observe any evidence of stained soil, stressed vegetation, or stained pavement at the subject property.

6.3.12 Well and Septic Systems

AKT Peerless did not observe any physical evidence of a drinking water well or septic system at the subject property, except for a drinking water well observed adjacent to the pole-barn structure.

6.3.13 Other Observations

AKT Peerless observed, what appears to be a former pump house on the eastern portion of the subject property. Standing oil was observed within this structure. The former pump house contained a concrete floor and foundation with a wood frame and roof. Plumbing conduits were observed within the pump house; however, the particular former use of this system could not be determined. Oil staining was observed around the periphery of the pump house.

AKT Peerless observed several former building foundations on the western portion of the subject property. Additionally, AKT Peerless observed several concrete block stand structures, likely used as stands for former above ground piping structures.

AKT Peerless observed several used GeoProbe® sample liners on the eastern portion of the subject property. AKT Peerless' research was unable to determine to precise use of these sample liners.

6.3.14 Adjoining Properties

Based on AKT Peerless' visual observations, the current uses of the adjoining properties do not appear to pose an environmental concern to the subject property.

6.4 Non-ASTM International E1527 Scope Considerations

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

Users of this document, who wish to obtain an evaluation of the subject property relative to any of the aforementioned non-ASTM International E1527 scope considerations, may contact AKT Peerless to retain these services.

7.0 Findings, Opinions, and Conclusions

AKT Peerless has performed a Phase I ESA in conformance with the scope and limitations of ASTM International Practice E 1527 of Parcel ID: 44-013-018-010-19, Marathon Township, Lapeer County, Michigan, the subject property. Any exceptions to, or deletions from, this practice are described in Section 8.0 of this report. AKT Peerless' findings and opinions with respect to potential RECs are presented throughout this report, including discussion and analysis of potential RECs that, after further consideration and research, were not determined to be RECs, HRECs, or CRECs. Such findings and opinions are discussed in the appropriate sections of this report.

7.1 Recognized Environmental Conditions

This assessment has revealed no evidence of known RECs in connection with the subject property, except for the following:

REC 1 - The subject property operated for industrial purposes from approximately the 1971 to at least 1990, specifically for oil production with the use of an on-site oil well, bulk petroleum storage, and gasoline sweetening. Operations have included the use of electrical machinery containing oils and coolants, drums, floor drains, septic systems, above ground transfer piping, and large bulk fuel storage ASTs with unknown waste disposal practices. Waste is known to have accumulated as a result of these activities at the subject property that prompted numerous cleanup activities; however, no subsurface investigations have occurred to evaluate the effectiveness of these activities. In AKT Peerless' opinion, past industrial use of the subject property represents a REC. Further, the possibility exists that petroleum products or hazardous substances have impacted subsurface conditions of the subject property.

REC 2 - The subject property operated for industrial purposes from approximately 1990 to at least 2010, specifically for the purpose of fertilizer manufacturing for agricultural purposes. Operations would likely have included the use of machinery containing oils and coolants, floor drains and septic systems, large ASTs, and aboveground transfer piping with unknown waste disposal practices. In AKT Peerless' opinion, past industrial use of the subject property represents a REC. Further, the possibility exists that hazardous substances have impacted subsurface conditions of the subject property.

- REC 3** - From at least 1978 to approximately 1999, there are various land disturbances in the southern portion of the subject property. The land disturbance appears to be associated with the operation of oil production and storage. In AKT Peerless opinion, the land disturbances represent a REC. Further, the possibility exists that hazardous substances have impacted subsurface conditions of the subject property.
- REC 4** - During AKT Peerless site reconnaissance, AKT Peerless staff observed the presence of oily liquids present within a pump house on the subject property. The soil surrounding the pump house was visibly stained. The purpose of the pump house was not readily ascertainable. Further, the possibility exists that hazardous substances have impacted subsurface conditions of the subject property.
- REC 5** - In 1991, waste removal activities were planned at the subject property due to waste Sulphur piles, twenty, 55-gallon drums of spent carbon and seventeen, 55-gallon drums of waste engine oil and tank bottoms. These contents were removed from the property following the identification of these contents. No verification samples following the removal of the contents were documented. Further, the possibility exists that hazardous substances have impacted subsurface conditions of the subject property.
- REC 6** - In 2010, a site investigation occurred on the subject property in response to a Pollution Emergency Altering System (PEAS) complaint, regarding the improper storage, handling, and disposal of hazardous substances associated with the subject property. The investigation revealed the property contained existing debris piles, hazardous waste drums, three abandoned ASTs and their associated piping, with the property existing in a state of disrepair. While this waste was removed, no documentation of removal was identified. Further, the possibility exists that hazardous substances have impacted subsurface conditions of the subject property.

Further investigation and/or assessment is warranted in order to evaluate the nature, extent, magnitude, and materiality of the RECs identified above. In addition, the subject property meets the definition of a facility, as defined in Part 201 of the NREPA, Michigan PA 451 of 1994, as amended. AKT Peerless recommends any future owner(s)/operator(s) prepare a Baseline Environmental Assessment (BEA). Section 26(1)(c) of Part 201 provides certain liability protections to a person who becomes an owner or operator of a *facility* on, or after June 5, 1995 if they comply with both of the following, or unless other defenses apply: a BEA is conducted prior to or within 45 days after the earlier of the date of purchase, occupancy, or foreclosure, and the owner or operator discloses the results of the BEA to EGLE and subsequent purchaser or transferee.

Since the property meets the definition of a “facility,” the property owner is required to comply with due care obligations. Due Care obligations include:

- Undertaking measures to prevent exacerbation of existing contamination.
- Exercising due care by undertaking response activities to mitigate unacceptable exposure to hazardous substances, mitigate fire and explosion hazards due to hazardous substances, and allow for the intended use of the subject property in a manner that protects health and safety.
- Taking reasonable precautions against the reasonably foreseeable acts or omissions of a third party and the consequences that could result from those acts or omissions.
- Provide notifications to the EGLE and others in regard to mitigating fire and explosions hazards, discarded or abandoned containers, contamination migrating beyond property boundaries, as applicable.

- Comply with any land use or resource use restrictions established or relied on in connection with the response activities at the facility.
- Not impede the effectiveness or integrity of any land use or resource restriction employed at the facility in connection with response activities.

7.2 Controlled Recognized Environmental Conditions

This assessment has revealed no evidence of known CRECs in connection with the subject property.

7.3 Historical Recognized Environmental Conditions

This assessment has revealed no evidence of known HRECs in connection with the subject property.

7.4 De Minimis Conditions

During the course of Phase I ESAs, AKT Peerless often encounters conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. These conditions are not considered RECs, HRECs, or CRECs, but are defined by ASTM International Standard E1527 as *de minimis* conditions. In the interest of brevity, AKT Peerless did not develop a full list of *de minimis* conditions in this section, rather evaluated and identified these conditions in the appropriate sections of this report.

7.5 Other Notable Environmental Considerations

AKT Peerless' Phase I ESAs occasionally reveal other notable environmental considerations that may be relevant to the condition of the subject property that do not qualify as RECs, CRECs, HRECs, or *de minimis* conditions. Other notable environmental considerations identified during this assessment include the following:

- AKT Peerless observed one drinking water well on the subject property; however, AKT Peerless' research identified two distinct water well logs for the subject property. It is AKT Peerless' opinion, if any additional drinking water wells are identified or encountered during future development activities, they should be decommissioned, removed, and/or disposed in accordance with applicable federal, state, and local regulations.
- It is likely that septic systems were previously utilized on-site; however, AKT Peerless' research was unable to determine if these systems were abandoned subsequent to the demolition of the former industrial structures. In AKT Peerless' opinion, if any septic systems are identified or encountered during future development activities, they should be decommissioned, removed, and/or disposed in accordance with applicable federal, state, and local regulations. The possibility exists that alternative heating fuels (i.e. fuel oil and/or coal) were used on the subject property overtime. In AKT Peerless' opinion, if any heating oil containers are identified or encountered during future development activities, they should be decommissioned, removed, and/or disposed in accordance with applicable federal, state, and local regulations. Additional action beyond that recommended above may be warranted if evidence of actual or historical heating oil USTs is identified at the subject property in the future.
- As summarized in Section 6.3.13, an oily liquid was observed within the former pump house. AKT Peerless recommends appropriate characterization and disposal of this material in order to prevent a future or on-going release to the subject property's subsurface.

- As summarized in Section 6.3.3, AKT Peerless observed several underground pipes protruding through the ground on the western portion of the subject property. It is unknown if these pipes were for the transfer of chemicals throughout the subject property. Furthermore, it is unknown if these pipes were properly decommissioned upon completion of use. In the event liquid waste is subsequently identified within these pipes, AKT Peerless recommends appropriate characterization and disposal of material in order to prevent a future or on-going release to the subject property's subsurface.

8.0 Deviations

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

9.0 Data Gaps

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

10.0 Project Resources and References

AKT Peerless referred to the following resources between August 23, 2019, and September 20, 2019 to complete its ESA:

- USEPA
- United States Geological Survey (USGS)
- United States Department of Agriculture (USDA)
- Michigan Department of Environment, Great Lakes, and Energy
- Lapeer County Health Department
- Marathon Township Government Sources (e.g., assessing, building, fire, engineering departments, etc.)
- Environmental Risk Information Services (ERIS)
- Interviews and Questionnaire Responses

Other individuals and resources are cited in the appropriate sections of this report.

11.0 Signatures of Environmental Professionals

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



Sean Robinson, CHMM
Group Leader – Sr. Project Manager

AKT Peerless

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The following other consultants contributed to the completion of this report:



Ryan Sullivan
Environmental Consultant

AKT Peerless

Saginaw, Michigan Office

Qualifications

Sean D. Robinson

Leader of Field Services/Project Manager CHMM



Mr. Robinson has over 18 years of experience in environmental due diligence, assessment, environmental response activities, corrective action and regulatory compliance management. Mr. Robinson has conducted hundreds of investigations to evaluate the presence, nature, and extent of environmental impact on soil, groundwater, and air.

PROFESSIONAL EXPERIENCE

Senior Environmental Consultant
AKT Peerless Environmental Services

Environmental Field Technician
Peerless Environmental Services, Inc.

AREAS OF EXPERTISE

- Site investigation activities associated with numerous leaking underground storage tank sites
- Completion of Phase I Environmental Site Assessments to meet or exceed ASTM standards
- Coordinate and conduct historical research, interviews, site reconnaissance, and technical writing
- Direct Phase II Subsurface Investigations to completion
- The completion of Baseline Environmental Assessments
- Maintain direct client and regulatory agency contact
- Responsible for job costing and budgeting
- Interpretation of laboratory analytical results and technical report writing
- Conducted groundwater and soil sampling
- Design, install, operate and maintain specialized remediation systems to address soil and groundwater contamination.
- Directed emergency response activities to mitigate potential environmental impacts

EDUCATION

BS: Biology, 1998
Central Michigan University, Mt. Pleasant, MI

CERTIFICATIONS

ASTM International Risk-Based Corrective Action Training
October 2003

OSHA 29 CFR 1910.120
40 and 8 Hour Refresher HAZWOPER Training

Cardiopulmonary Resuscitation (CPR) and Standard First Aid Training Certification

Certified Hazardous Materials Manager (CHMM) by the Institute of Certified Hazardous Materials Managers (CHMM # 13024)

Certified Storm Water (Industrial and Construction Sites) Management Operator by the Michigan Department of Environmental Quality (Certification # C-13162)

SUMMARY OF SELECTED PROJECTS

Prepared cost estimate for removal of underground storage tanks at commercial fueling facility. Conducted soil and groundwater investigation to determine the extent of impact. Evaluate and implement remediation alternatives. Prepared cost estimate for excavation of impacted soil to meet target cleanup goals.

Conducted excavation oversight and verification sampling to verify the effectiveness of remediation. Completed and submitted required compliance reports to the Michigan Department of Environmental Quality (MDEQ).

Conducted soil and groundwater investigations at a leaking underground storage tank site. Free product was encountered in several monitoring wells during the investigation. Conducted monthly groundwater monitoring and bail down tests to determine the most effective free product recovery method.

Designed, installed and operated a free product recovery program, which utilized both passive and vacuum enhanced recovery techniques. Free product monitoring and groundwater monitoring is on going at the site.

Prepared cost estimate to conduct Phase I ESAs, Phase II ESAs, and Due Care Plans at contaminated sites on behalf of a client. Provided technical oversight during completion assessments at each site. Developed remedial strategies for each contaminated site to aid in future redevelopment.

Prepared a Site Assessment Grant Application for a core community on behalf of a municipal client. Upon award of the grant, completed site assessment activities utilizing MDEQ grant money to quantify environmental concerns to promote the redevelopment of the properties.

Conducted initial response activities to mitigate acute and physical hazards following the release of a substantial quantity of a petroleum product within the interior of a residence. Completed remediation activities to address residual soil and groundwater contamination resulting from the release.

Designed, constructed and operated a pump and treat system which used activated carbon to remove contaminants. Conducted site investigation and monitoring activities to evaluate the extent of contamination and verify the effectiveness of remediation efforts. Completed required reporting documenting all activities completed to successfully obtain unrestricted closure of the release from the MDEQ.

Ryan Sullivan

Environmental Consultant

Mr. Sullivan is an Environmental Consultant, focusing on ASTM Phase I & II Environmental Site Assessments.

EDUCATION

BS: Professional Geology, 2017 / Bloomsburg University of Pennsylvania, Bloomsburg, Pennsylvania

EXPERIENCE

Environmental Consultant

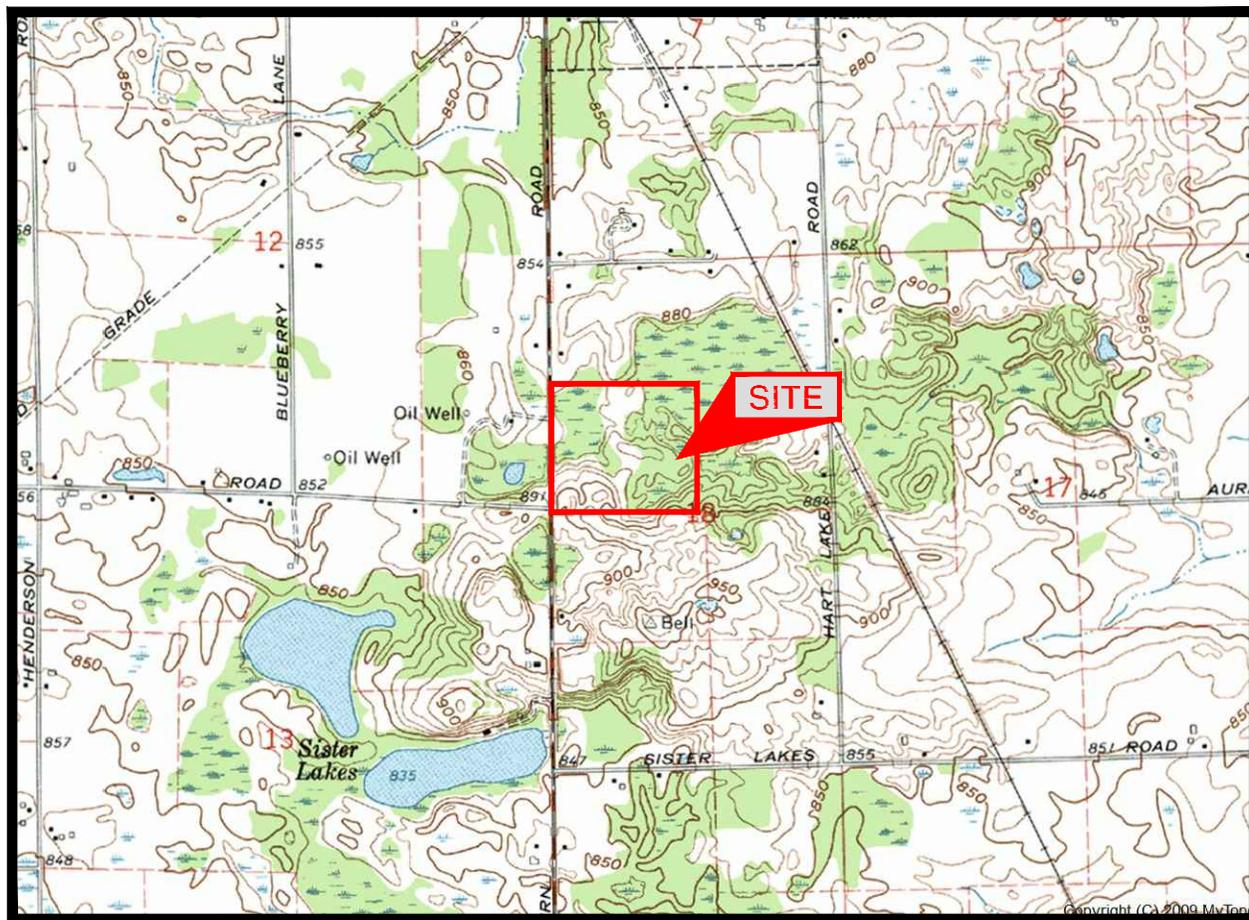
AKT Peerless Environmental and Energy Services

SKILLS

Phase I Environmental Site Assessments to meet or exceed ASTM standards
Site Investigation activities associated with leaking underground storage tank sites
Coordinate and conduct historical research, interviews, site reconnaissance, and technical writing
Maintain direct client and regulatory agency contact
Interpretation of laboratory analytical results and technical report writing
Groundwater and soil sampling

Figures

COLUMBIAVILLE QUADRANGLE
 MICHIGAN - LAPEER COUNTY
 7.5 MINUTE SERIES (TOPOGRAPHIC)



T.9 N.-R.9 E.

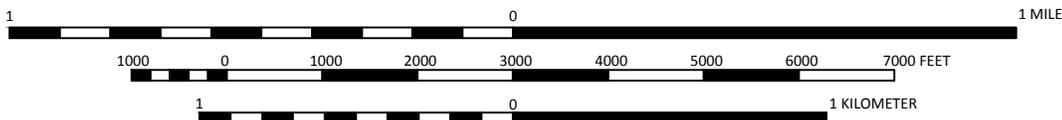
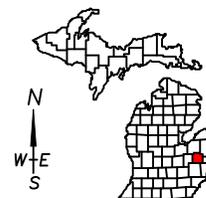


IMAGE TAKEN FROM 1937 U.S.G.S. TOPOGRAPHIC MAP
 PHOTOREVISED 1978

MICHIGAN
 QUADRANGLE LOCATION



AKTPEERLESS

www.aktpeerless.com

TOPOGRAPHIC LOCATION MAP

PARCEL 44-013-018-010-19
 NORTH WASHBURN ROAD
 MARATHON TOWNSHIP, MICHIGAN
 PROJECT NUMBER: 14474s-1-17

DRAWN BY: OGO
 DATE: 09/10/2019

FIGURE 1



www.aktpeerless.com

SUBJECT PROPERTY LOCATION MAP

PARCEL 44-013-018-010-19
 NORTH WASHBURN ROAD
 MARATHON TOWNSHIP, MICHIGAN
 PROJECT NUMBER: 14474s-1-17

LEGEND



DRAWN BY: OGO
 DATE: 09/10/2019

FIGURE 3

Appendix A
General Limitations and Exceptions

General Limitations and Exceptions

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

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

Along with the inherent limitations set forth in various sections of ASTM Standard Practice E 1527-13 (ASTM Practice E 1527), the accuracy and completeness of this report may be limited by the following facts or conditions:

- Due to the poor scale of the historical aerial photographs, the presence or absence of small features (e.g., individual drums, fuel dispensers) could not be discerned reliably.
- The poor resolution and/or illegibility of fire insurance map documentation provided to AKT Peerless may have limited accurate interpretation of the historical uses of the subject and adjoining properties.
- AKT Peerless made reasonable efforts to determine if USTs or related equipment (collectively referred to as UST systems) are or have been present at the subject property. AKT Peerless defines reasonable efforts as obtaining and evaluating information from visual observations of unobstructed areas and from the secondary sources cited in this report. AKT Peerless recognizes, and suggests users of this assessment acknowledge, that the accuracy of our conclusions relative to the on-site presence or use of UST systems may be directly affected by the presence of physical obstructions at the time of the reconnaissance, or affected by our receipt and evaluation of incorrect information.
- AKT Peerless' evaluation of soil and groundwater features at and near the subject property was based only on published maps and other readily available information. AKT Peerless used this information to assess soil types and groundwater flow directions to determine if conditions at any nearby sites present an environmental threat to the subject property.
- Unless specifically noted otherwise, invasive investigation of any kind has not been performed during this Phase I ESA, nor has observation under floors, above ceilings, behind walls, within the surface and subsurface soil, within groundwater, within confined spaces, roof tops, or inaccessible areas been performed.
- AKT Peerless did not conduct sampling or analysis of air, soil, groundwater, soil gas, surface water, or building materials as part of this Phase I ESA, unless specifically noted otherwise.
- This Phase I ESA did not include a physical inspection of the adjoining properties, which AKT Peerless observed from the subject property and from readily accessible public rights-of-way.
- Client understands that in the event AKT Peerless determines a regulatory agency file review is necessary for the subject, adjoining, and nearby properties, and such files are not reasonably ascertainable as defined under ASTM Practice E 1527, that at an additional cost, the Client may elect to retain AKT Peerless for additional tasks to attempt to secure such regulatory agency files or seek information from alternative sources.
- Client understands that a *User* seeking to qualify for an LLP to CERCLA liability has specific obligations for completing a successful application of this Phase I ESA. AKT Peerless' scope of

work does not include an evaluation or completion of these specific user obligations under ASTM Practice E 1527.

- AKT Peerless' scope of services did not include conducting a review of property title documentation. AKT Peerless requested property title documentation and environmental cleanup liens from the Client, but was not provided this information, unless specifically noted otherwise.
- Unless specifically noted, this assessment did not include a review or audit of operational environmental compliance issues, or of any environmental management systems, that may be associated with the subject property. Furthermore, this Phase I ESA does not address requirements of any state or local laws or of any federal laws other than the all appropriate inquiry provisions of the LLPs. Users are cautioned that federal, state, and local laws may impose environmental assessment obligations that are beyond the scope of this Phase I ESA. Users should also be aware that there are likely to be other legal obligations.
- Unless specifically noted, this Phase I ESA did not include any investigation or evaluation of issues not specifically related to petroleum products or hazardous substances as defined in CERCLA (i.e., other areas of potential business environmental risk such as radon, lead in drinking water, etc.).
- The information and opinions contained in the report are given in light of this assignment. The report must be reviewed and relied upon only in conjunction with the terms and conditions expressly agreed-upon by the parties and as limited therein.
- Although AKT Peerless believes the results contained in herein are reliable, AKT Peerless cannot warrant or guarantee that the information provided is exhaustive, or that the information provided by the Client, individuals, regulatory agency representatives, environmental database vendors, third parties, or the secondary information sources cited in this report is complete or accurate.
- AKT Peerless is not in a position to provide an opinion regarding the Fair Market Value of the subject property. Therefore, a comparison of the purchase price of the subject property to other similar real estate transactions was not conducted during this assessment.
- Nothing in this report constitutes a legal opinion or legal advice. Furthermore, AKT Peerless' Phase I ESA is not intended to provide legal advice or guidance to qualify for Landowner Liability Protections (LLPs) to CERCLA liability. AKT Peerless recommends Client seek legal counsel and advice to evaluate and determine the requirements to qualify for an LLP to CERCLA liability.
- AKT Peerless relied upon specific or common knowledge of the Client, or information provided to the Client, to identify environmental liens, institutional controls, activity use limitations, or property valuation issues. As possible within the time frame and cost of this project, AKT Peerless looked for any obvious environmental information regarding these issues made readily available during the course of this ESA.
- Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant in the future, after AKT Peerless has completed the scope of work for this project. Furthermore, because of the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other professionals.
- The information and opinions presented in this report are for the exclusive use of the Client. No distribution to or reliance by other parties may occur without the express written permission of AKT Peerless. AKT Peerless will not distribute this report without written consent from the Client, or as required by law or by a Court order.

- Any third parties to whom the right to rely on the contents of this report have been granted by AKT Peerless, which is explicitly required prior to any third-party release, expressly agrees to be bound by the original terms and conditions entered into by AKT Peerless and the Client.
- Any reports, field data, field notes, laboratory testing, calculations, estimates or other documents prepared by or relied upon by AKT Peerless are the property of AKT Peerless. If any of these documents are released or obtained by a party other than the client, AKT Peerless may not discuss the project with that party unless the original contracted client notifies AKT Peerless of the same and AKT Peerless is authorized to disclose the information and to discuss the project with others. AKT Peerless further states that it disclaims any duty of any kind or nature to any person or entity other than the client in preparing this report, except as otherwise agreed with the Client.

Appendix B
Property Description and Parcel Map

Real Estate Summary Sheet

Information herein deemed reliable but not guaranteed

10/03/2019 11:42 AM

Parcel: 013-018-010-19
Owner's Name: LAPEER COUNTY LAND BANK
Property Address: WASHBURN RD
OTTER LAKE, MI 48464
Liber/Page: 3008/613
Split: / /
Public Impr.: None
Topography: None

Current Class: 703.EXEMPT COUNTY, TWP ETC
Previous Class: 090.EXEMPT
Gov. Unit: 013 MARATHON TOWNSHIP
MAP #
School: 25280 LAKEVILLE
Neighborhood: 301 INDUSTRIAL REAL PROPERTY

Mailing Address:

LAPEER COUNTY LAND BANK
225 CLAY ST STE 303
LAPEER MI 48446

Description:

T9N R9E THE SW 1/4 OF THE NE 1/4 OF SEC 18 EX BEG E 1652.36 FT & N 399.86 FT FROM W1/4 COR FOR P.O.B., TH W 286.89 FT, TH N330 FT, TH E 292.05 FT, TH S 330.04 FT TO P.O.B. 47.088
ALSO
T9N, R9E, SEC 18 BEG E 1652.36 FT& N 399.86 FT FROM W 1/4 COR FOR P.O.B., TH W 286.89 FT, TH N 330 FT, TH E 292.05 FT, TH S 330.04 FT TO P.O.B. 2.192 A

Most Recent Sale Information

Sold on 01/03/2019 for 0 by LAPEER COUNTY TREASURER.

Terms of Sale: INVALID SALE

Liber/Page: 3008/613

Most Recent Permit Information

None Found

Physical Property Characteristics

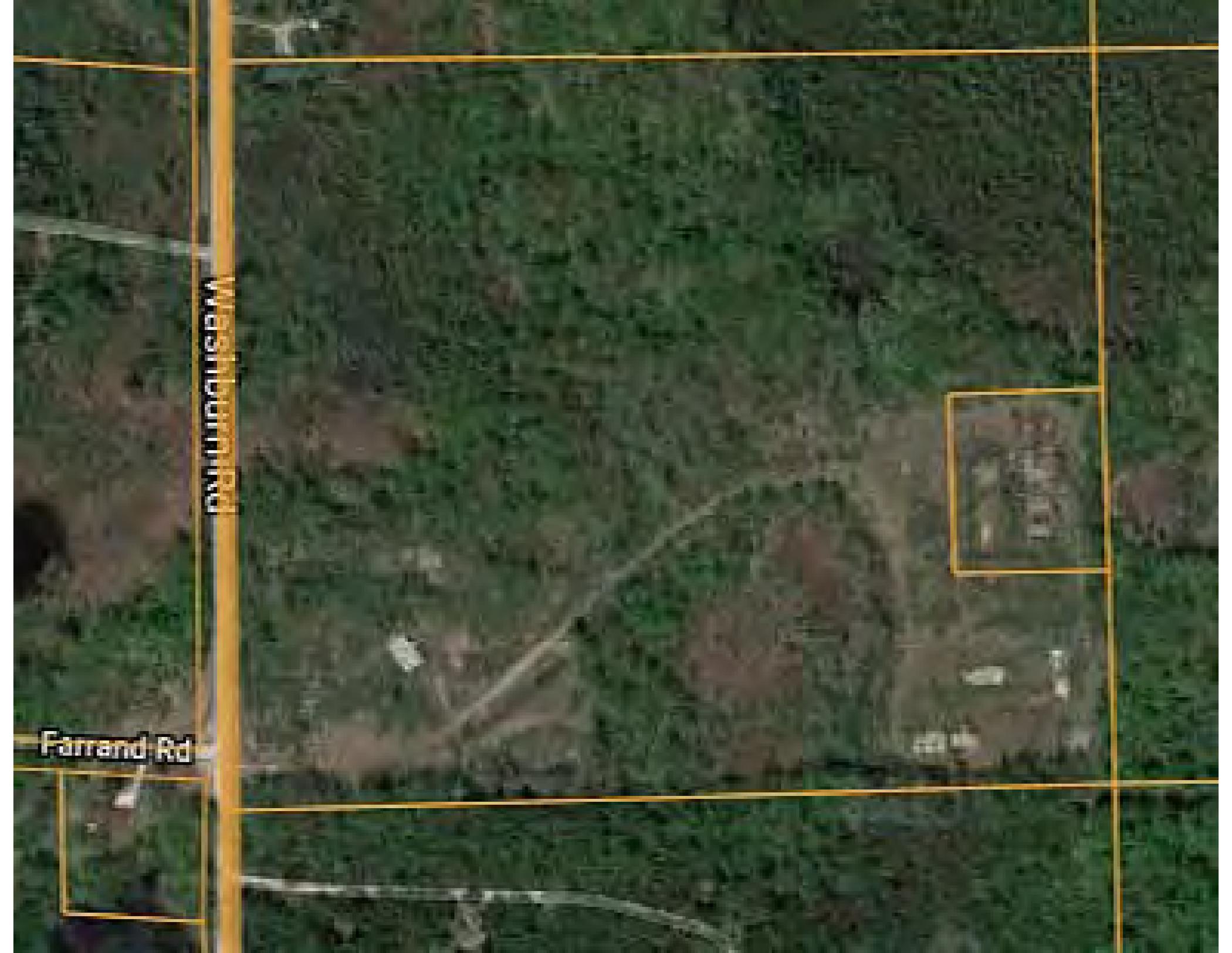
2020 S.E.V.:	Tentative	2020 Taxable:	Tentative	Lot Dimensions:	
2019 S.E.V.:	0	2019 Taxable:	0	Acreage:	49.28
Zoning:	AGRICU (*)	Land Value:	Tentative	Frontage:	0.0
PRE:	0.000	Land Impr. Value:	Tentative	Average Depth:	0.0

Improvement Data

None

Image





Appendix C

Reconnaissance Photographs



VIEW OF SUBJECT PROPERTY ENTRANCE OFF WASHBURN ROAD



VIEW OF SUBJECT BUILDING FACING SOUTHWEST



PROPERTY PHOTOGRAPHS
OTTER LAKE INDUSTRIAL PROPERTY
PARCEL ID : 44-013-018-010-19
MARATHON TOWNSHIP, MICHIGAN

TAKEN BY: JSC
DATE: 9/5/19

PROJECT NUMBER: 14474s



INTERIOR VIEW OF SUBJECT BUILDING



VIEW OF FORMER OIL WELL LOCATION FACING NORTH

AKT PEERLESS

PROPERTY PHOTOGRAPHS
OTTER LAKE INDUSTRIAL PROPERTY
PARCEL ID : 44-013-018-010-19
MARATHON TOWNSHIP, MICHIGAN

TAKEN BY: JSC
DATE: 9/5/19

PROJECT NUMBER: 14474s



VIEW OF FORMER MANUFACTURING PLANT FACING SOUTHEAST



VIEW OF FORMER MANUFACTURING PLANT FACING NORTHEAST



PROPERTY PHOTOGRAPHS
OTTER LAKE INDUSTRIAL PROPERTY
PARCEL ID : 44-013-018-010-19
MARATHON TOWNSHIP, MICHIGAN

TAKEN BY: JSC
DATE: 9/5/19

PROJECT NUMBER: 14474s



REPRESENTATIVE VIEW OF ABOVE GROUND PIPING



REPRESENTATIVE VIEW OF ABOVE GROUND PIPING



VIEW OF FORMER PUMP HOUSE



VIEW OF STANDING OIL WITHIN FORMER PUMP HOUSE



REPRESENTATIVE VIEW OF FORMER BUILDING FOUNDATION FACING EAST



REPRESENTATIVE VIEW OF FOMER BUILDING FOUNDATION FACING WEST



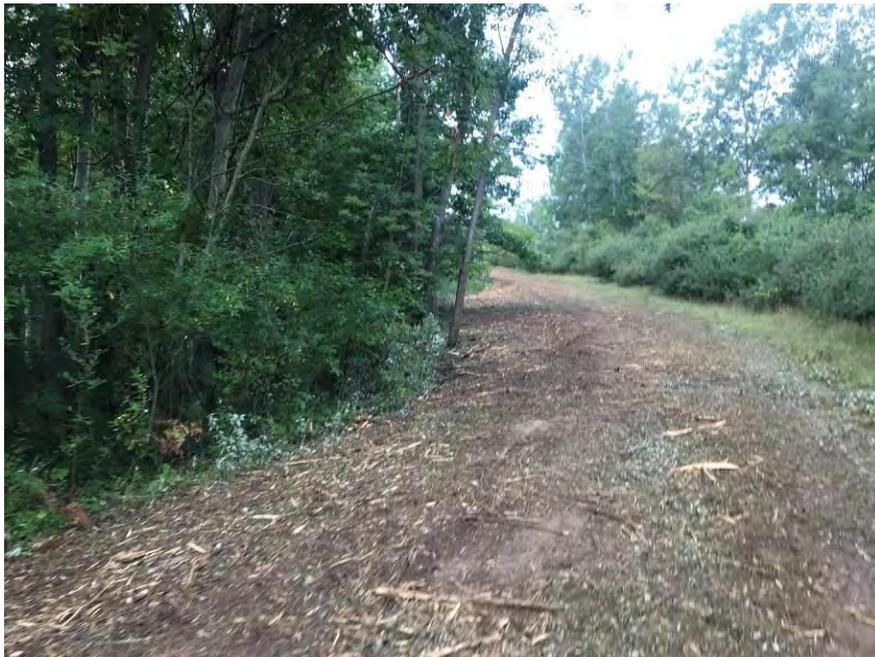
PROPERTY PHOTOGRAPHS
OTTER LAKE INDUSTRIAL PROPERTY
PARCEL ID : 44-013-018-010-19
MARATHON TOWNSHIP, MICHIGAN

TAKEN BY: JSC
DATE: 9/5/19

PROJECT NUMBER: 14474s



VIEW OF FORMER SCALE FACING EAST



VIEW OF DRIVEWAY LEADING FROM FORMER MANUFACTURING PLANT FACING WEST

AKT PEERLESS

PROPERTY PHOTOGRAPHS
OTTER LAKE INDUSTRIAL PROPERTY
PARCEL ID : 44-013-018-010-19
MARATHON TOWNSHIP, MICHIGAN

TAKEN BY: JSC
DATE: 9/5/19

PROJECT NUMBER: 14474s

Appendix D

Standard Environmental Record Database Report



DATABASE REPORT

Project Property: *14474 - Otter Lake
13020 Washburn Rd
Otter Lake MI 48464*

Project No:

Report Type: *Database Report*

Order No: *20190829106*

Requested by: *AKT Peerless*

Date Completed: *September 3, 2019*

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Notice: IMPORTANT LIMITATIONS and YOUR LIABILITY

Reliance on information in Report: This report DOES NOT replace a full Phase I Environmental Site Assessment but is solely intended to be used as database review of environmental records.

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Executive Summary

Property Information:

Project Property: 14474 - Otter Lake
13020 Washburn Rd Otter Lake MI 48464

Project No:

Coordinates:

Latitude: 43.195407
Longitude: -83.456919
UTM Northing: 4,785,445.39
UTM Easting: 300,372.42
UTM Zone: UTM Zone 17T

Elevation: 876 FT

Order Information:

Order No: 20190829106
Date Requested: August 29, 2019
Requested by: AKT Peerless
Report Type: Database Report

Historicals/Products:

Aerial Photographs Historical Aerials Photographs
City Directory Search CD - 1 Street Search
ERIS Xplorer [ERIS Xplorer](#)
Excel Add-On Excel Add-On

Executive Summary: Report Summary

Database	Searched	Search Radius	Project Property	Within 0.12mi	.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
<u>Standard Environmental Records</u>								
Federal								
NPL	Y	1	0	0	0	0	0	0
PROPOSED NPL	Y	1	0	0	0	0	0	0
DELETED NPL	Y	.5	0	0	0	0	-	0
SEMS	Y	.5	0	0	0	0	-	0
ODI	Y	.5	0	0	0	0	-	0
SEMS ARCHIVE	Y	.5	0	0	0	0	-	0
CERCLIS	Y	.5	0	0	0	0	-	0
IODI	Y	.5	0	0	0	0	-	0
CERCLIS NFRAP	Y	.5	0	0	0	0	-	0
CERCLIS LIENS	Y	PO	0	-	-	-	-	0
RCRA CORRACTS	Y	1	0	0	0	0	0	0
RCRA TSD	Y	.5	0	0	0	0	-	0
RCRA LQG	Y	.25	0	0	0	-	-	0
RCRA SQG	Y	.25	0	0	0	-	-	0
RCRA CESQG	Y	.25	0	0	0	-	-	0
RCRA NON GEN	Y	.25	0	0	0	-	-	0
FED ENG	Y	.5	0	0	0	0	-	0
FED INST	Y	.5	0	0	0	0	-	0
ERNS 1982 TO 1986	Y	PO	0	-	-	-	-	0
ERNS 1987 TO 1989	Y	PO	0	-	-	-	-	0
ERNS	Y	PO	0	-	-	-	-	0
FED BROWNFIELDS	Y	.5	0	0	0	0	-	0
FEMA UST	Y	.25	0	0	0	-	-	0
REFN	Y	.25	0	0	0	-	-	0
BULK TERMINAL	Y	.25	0	0	0	-	-	0
SEMS LIEN	Y	PO	0	-	-	-	-	0
SUPERFUND ROD	Y	1	0	0	0	0	0	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
State								
UNREG TANK	Y	.25	0	0	0	-	-	0
SHWS	Y	1	1	0	0	3	1	5
DELISTED SHWS	Y	1	0	0	0	0	0	0
SITE CLEANUP	Y	.25	0	0	0	-	-	0
SWF/LF	Y	.5	0	0	0	0	-	0
WASTE	Y	.5	0	0	0	0	-	0
LUST	Y	.5	0	0	0	0	-	0
UST	Y	.25	0	0	0	-	-	0
AST	Y	.25	0	0	0	-	-	0
DELISTED LUST	Y	.5	0	0	0	0	-	0
DELISTED TANK	Y	.25	0	0	0	-	-	0
AUL	Y	.5	0	0	0	0	-	0
BROWNFIELDS	Y	.5	0	0	0	0	-	0
Tribal								
INDIAN LUST	Y	.5	0	0	0	0	-	0
INDIAN UST	Y	.25	0	0	0	-	-	0
DELISTED ILST	Y	.5	0	0	0	0	-	0
DELISTED IUST	Y	.25	0	0	0	-	-	0
County	No County standard environmental record sources available for this State.							
<u>Additional Environmental Records</u>								
Federal								
PFAS NPL	Y	.5	0	0	0	0	-	0
FINDS/FRS	Y	PO	1	-	-	-	-	1
TRIS	Y	PO	8	-	-	-	-	8
PFAS TRI	Y	.5	0	0	0	0	-	0
HMIRS	Y	.125	0	0	-	-	-	0
NCDL	Y	.125	0	0	-	-	-	0
TSCA	Y	.125	0	0	-	-	-	0
HIST TSCA	Y	.125	0	0	-	-	-	0
FTTS ADMIN	Y	PO	0	-	-	-	-	0
FTTS INSP	Y	PO	0	-	-	-	-	0
PRP	Y	PO	0	-	-	-	-	0
SCRD DRYCLEANER	Y	.5	0	0	0	0	-	0
ICIS	Y	PO	0	-	-	-	-	0
FED DRYCLEANERS	Y	.25	0	0	0	-	-	0
DELISTED FED DRY	Y	.25	0	0	0	-	-	0
FUDS	Y	1	0	0	0	0	0	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
MLTS	Y	PO	0	-	-	-	-	0
HIST MLTS	Y	PO	0	-	-	-	-	0
MINES	Y	.25	0	0	0	-	-	0
ALT FUELS	Y	.25	0	0	0	-	-	0
SSTS	Y	.25	0	0	0	-	-	0
PCB	Y	.5	0	0	0	0	-	0
State								
SPILLS	Y	.125	0	0	-	-	-	0
BEA	Y	1	0	0	0	0	0	0
PFAS	Y	.5	0	0	0	0	-	0
DRYCLEANERS	Y	.25	0	0	0	-	-	0
DELISTED DRYCLEANERS	Y	.25	0	0	0	-	-	0
LIEN	Y	PO	0	-	-	-	-	0
Tribal	No Tribal additional environmental record sources available for this State.							
County	No County additional environmental record sources available for this State.							
Total:			10	0	0	3	1	14

* PO – Property Only

* 'Property and adjoining properties' database search radii are set at 0.25 miles.

Executive Summary: Site Report Summary - Project Property

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Elev Diff (ft)</i>	<i>Page Number</i>
1	FINDS/FRS	HICKSON KERLEY INC	13020 WASHBURN RD OTTER LAKE MI 48464	-	0.00 / 0.00	0	16
1	SHWS	Kerley Industries	13020 Washburn Otter Lake MI	-	0.00 / 0.00	0	16
1	TRIS	HICKSON KERLEY INC.	13020 WASHBURN RD. OTTER LAKE MI 48464	-	0.00 / 0.00	0	16
1	TRIS	HICKSON KERLEY INC.	13020 WASHBURN RD. OTTER LAKE MI 48464	-	0.00 / 0.00	0	18
1	TRIS	HICKSON KERLEY INC.	13020 WASHBURN RD. OTTER LAKE MI 48464	-	0.00 / 0.00	0	20
1	TRIS	HICKSON KERLEY INC.	13020 WASHBURN RD. OTTER LAKE MI 48464	-	0.00 / 0.00	0	21
1	TRIS	HICKSON KERLEY INC.	13020 WASHBURN RD. OTTER LAKE MI 48464	-	0.00 / 0.00	0	23
1	TRIS	HICKSON KERLEY INC.	13020 WASHBURN RD. OTTER LAKE MI 48464	-	0.00 / 0.00	0	24
1	TRIS	HICKSON KERLEY INC.	13020 WASHBURN RD. OTTER LAKE MI 48464	-	0.00 / 0.00	0	26
1	TRIS	HICKSON KERLEY INC.	13020 WASHBURN RD. OTTER LAKE MI 48464	-	0.00 / 0.00	0	28

Executive Summary: Site Report Summary - Surrounding Properties

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Elev Diff (ft)</i>	<i>Page Number</i>
2	SHWS	Marathon Otter Lake Oil Field	No Address Entered Otter Lake MI 48463	WSW	0.26 / 1,368.99	13	29
3	SHWS	Handy 1 (PN 28384)	MI	NW	0.40 / 2,117.22	-17	29
4	SHWS	Handy 1-B (PN 28664)	MI	NW	0.42 / 2,228.94	-16	30
5	SHWS	Marathon-Otter Lake Oil Field	No Address Entered Otter Lake MI	ENE	0.54 / 2,827.61	-11	30

Executive Summary: Summary by Data Source

Standard

State

SHWS - Part 201 Site List

A search of the SHWS database, dated Jun 10, 2019 has found that there are 5 SHWS site(s) within approximately 1.00 miles of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
Kerley Industries	13020 Washburn Otter Lake MI	-	0.00 / 0.00	<u>1</u>
Marathon Otter Lake Oil Field	No Address Entered Otter Lake MI 48463	WSW	0.26 / 1,368.99	<u>2</u>

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
Handy 1 (PN 28384)	MI	NW	0.40 / 2,117.22	<u>3</u>
Handy 1-B (PN 28664)	MI	NW	0.42 / 2,228.94	<u>4</u>
Marathon-Otter Lake Oil Field	No Address Entered Otter Lake MI	ENE	0.54 / 2,827.61	<u>5</u>

Non Standard

Federal

FINDS/FRS - Facility Registry Service/Facility Index

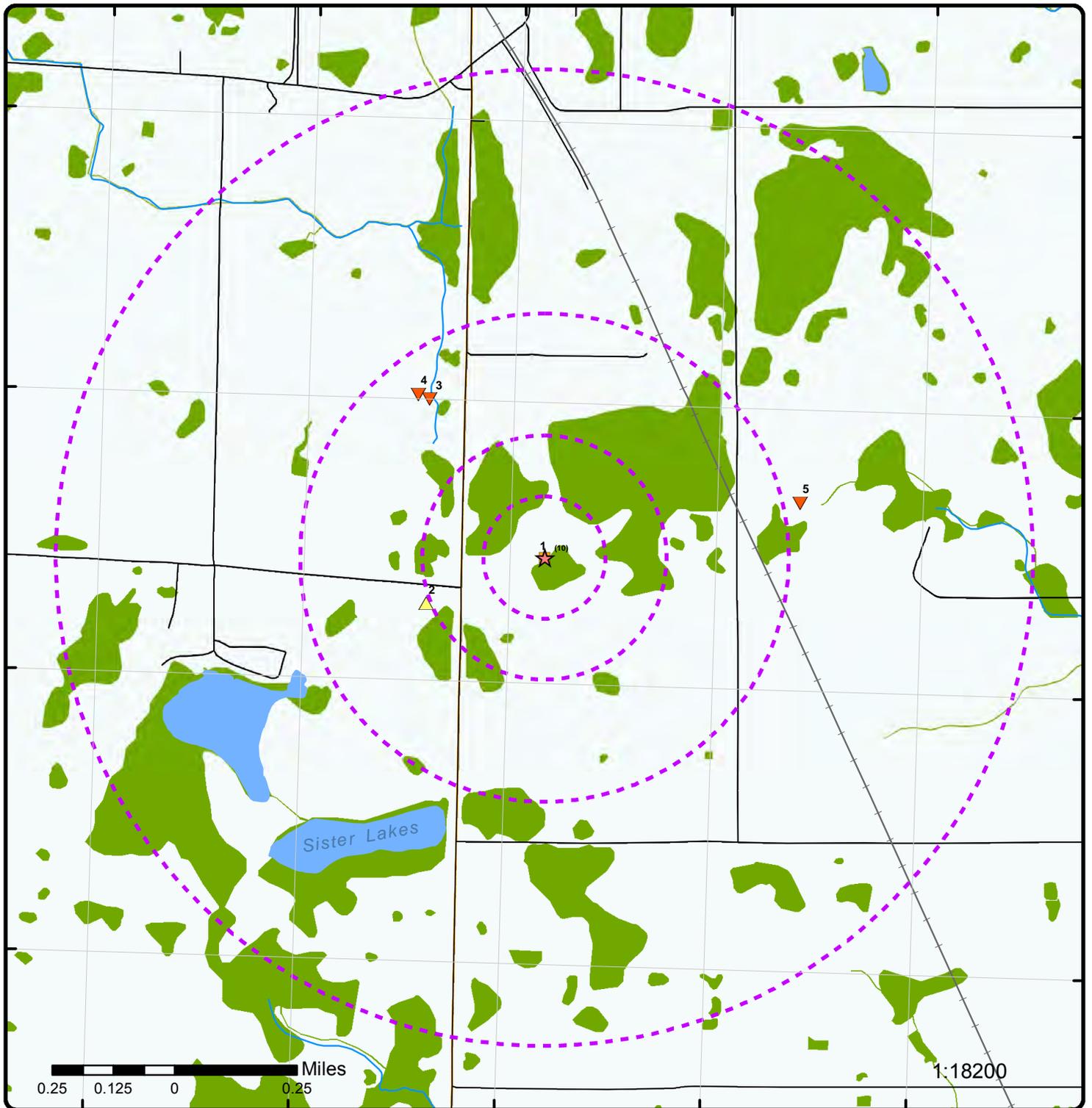
A search of the FINDS/FRS database, dated Apr 23, 2019 has found that there are 1 FINDS/FRS site(s) within approximately 0.02 miles of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
HICKSON KERLEY INC	13020 WASHBURN RD OTTER LAKE MI 48464	-	0.00 / 0.00	<u>1</u>

TRIS - Toxics Release Inventory (TRI) Program

A search of the TRIS database, dated Dec 31, 2017 has found that there are 8 TRIS site(s) within approximately 0.02 miles of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
HICKSON KERLEY INC.	13020 WASHBURN RD. OTTER LAKE MI 48464	-	0.00 / 0.00	<u>1</u>
HICKSON KERLEY INC.	13020 WASHBURN RD. OTTER LAKE MI 48464	-	0.00 / 0.00	<u>1</u>
HICKSON KERLEY INC.	13020 WASHBURN RD. OTTER LAKE MI 48464	-	0.00 / 0.00	<u>1</u>
HICKSON KERLEY INC.	13020 WASHBURN RD. OTTER LAKE MI 48464	-	0.00 / 0.00	<u>1</u>
HICKSON KERLEY INC.	13020 WASHBURN RD. OTTER LAKE MI 48464	-	0.00 / 0.00	<u>1</u>
HICKSON KERLEY INC.	13020 WASHBURN RD. OTTER LAKE MI 48464	-	0.00 / 0.00	<u>1</u>
HICKSON KERLEY INC.	13020 WASHBURN RD. OTTER LAKE MI 48464	-	0.00 / 0.00	<u>1</u>
HICKSON KERLEY INC.	13020 WASHBURN RD. OTTER LAKE MI 48464	-	0.00 / 0.00	<u>1</u>



1:18200

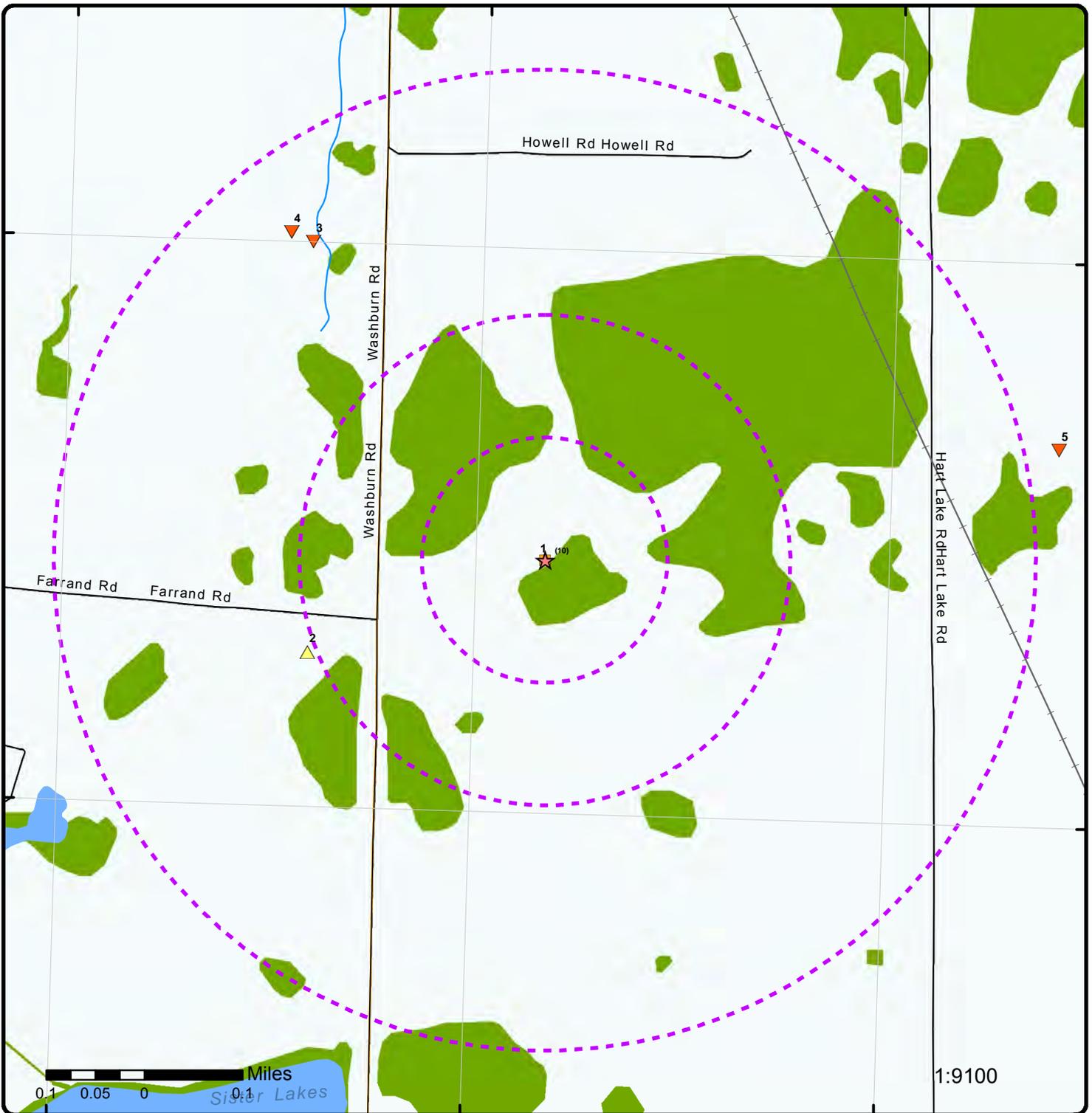
Map : 1 Mile Radius

Order No: 20190829106

Address: 13020 Washburn Rd, Otter Lake, MI, 48464



Project Property	Rails	State Boundary	FWS Special Designation Areas
Buffer Outline	Major Highways	National Priority List Sites	State Brownfield Sites
Eris Sites with Higher Elevation	Major Highways Ramps	National Wetland	State Brownfield Areas
Eris Sites with Same Elevation	Major Roads	Indian Reserve Land	State Superfund Areas:Dept. of Defense
Eris Sites with Lower Elevation	Major Roads Ramps	Historic Fill	State Superfund Areas:NPL
Eris Sites with Unknown Elevation	Secondary Roads	100 Year Flood Zone	WQARF Areas
County Boundary	Secondary Roads Ramps	500 Year Flood Zone	Federal Lands: Dept. of Defense (owned/administered areas)
	Local Roads and Ramps		



1:9100

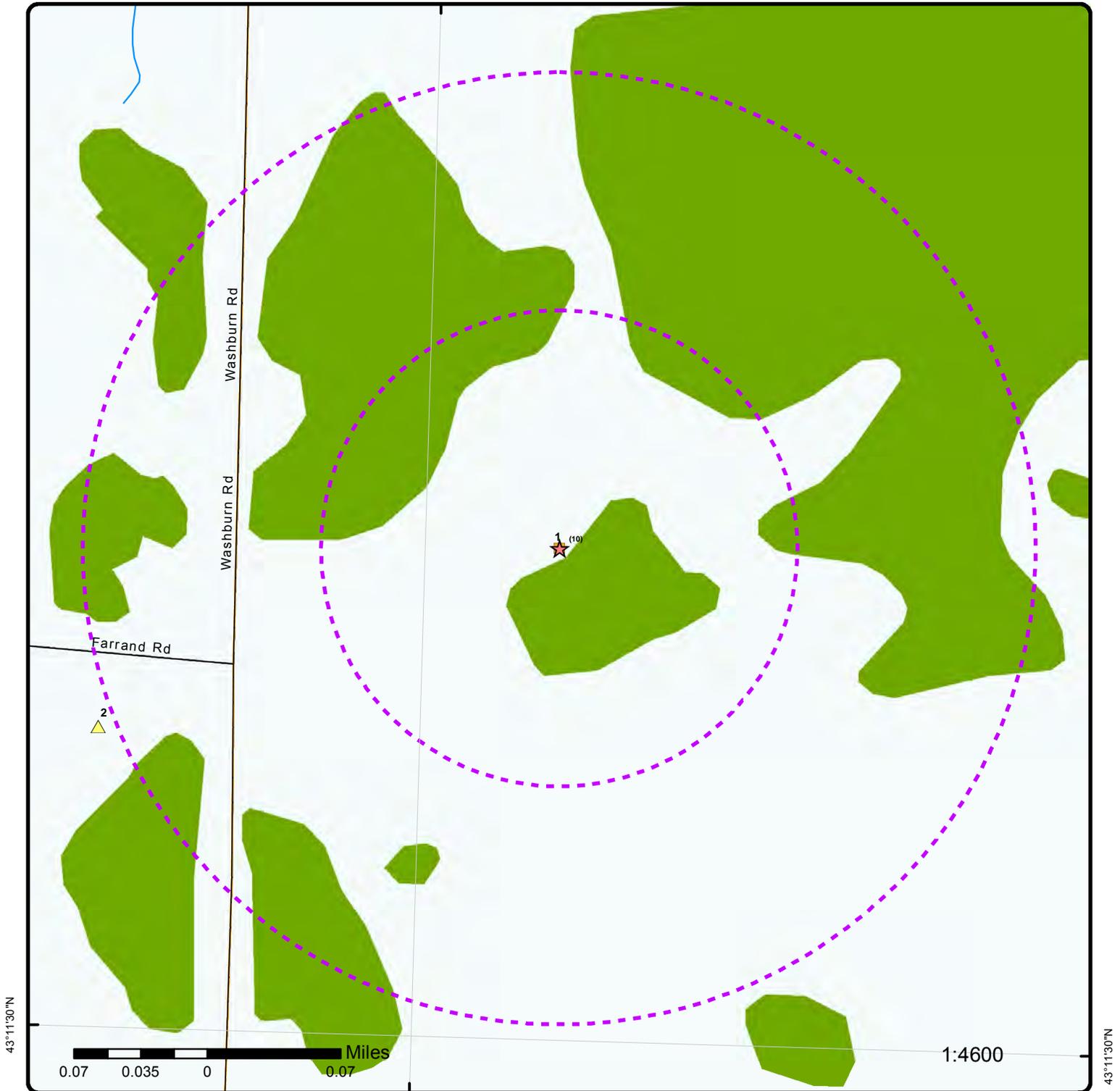
Map : 0.5 Mile Radius

Order No: 20190829106

Address: 13020 Washburn Rd, Otter Lake, MI, 48464



Project Property	Rails	State Boundary	FWS Special Designation Areas
Buffer Outline	Major Highways	National Priority List Sites	State Brownfield Sites
Eris Sites with Higher Elevation	Major Highways Ramps	National Wetland	State Brownfield Areas
Eris Sites with Same Elevation	Major Roads	Indian Reserve Land	State Superfund Areas:Dept. of Defense
Eris Sites with Lower Elevation	Major Roads Ramps	Historic Fill	State Superfund Areas:NPL
Eris Sites with Unknown Elevation	Secondary Roads	100 Year Flood Zone	WQARF Areas
County Boundary	Secondary Roads Ramps	500 Year Flood Zone	Federal Lands: Dept. of Defense (owned/administered areas)
	Local Roads and Ramps		



Map : 0.25 Mile Radius

Order No: 20190829106

Address: 13020 Washburn Rd, Otter Lake, MI, 48464



Project Property	Rails	State Boundary	FWS Special Designation Areas
Buffer Outline	Major Highways	National Priority List Sites	State Brownfield Sites
Eris Sites with Higher Elevation	Major Highways Ramps	National Wetland	State Brownfield Areas
Eris Sites with Same Elevation	Major Roads	Indian Reserve Land	State Superfund Areas:Dept. of Defense
Eris Sites with Lower Elevation	Major Roads Ramps	Historic Fill	State Superfund Areas:NPL
Eris Sites with Unknown Elevation	Secondary Roads	100 Year Flood Zone	WQARF Areas
County Boundary	Secondary Roads Ramps	500 Year Flood Zone	Federal Lands: Dept. of Defense (owned/administered areas)
	Local Roads and Ramps		

83°28'W

83°27'30"W

83°27'W

43°12'30"N

43°12'N

43°11'30"N

43°11'N

43°12'N

43°11'30"N

43°11'N



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Aerial (2015)

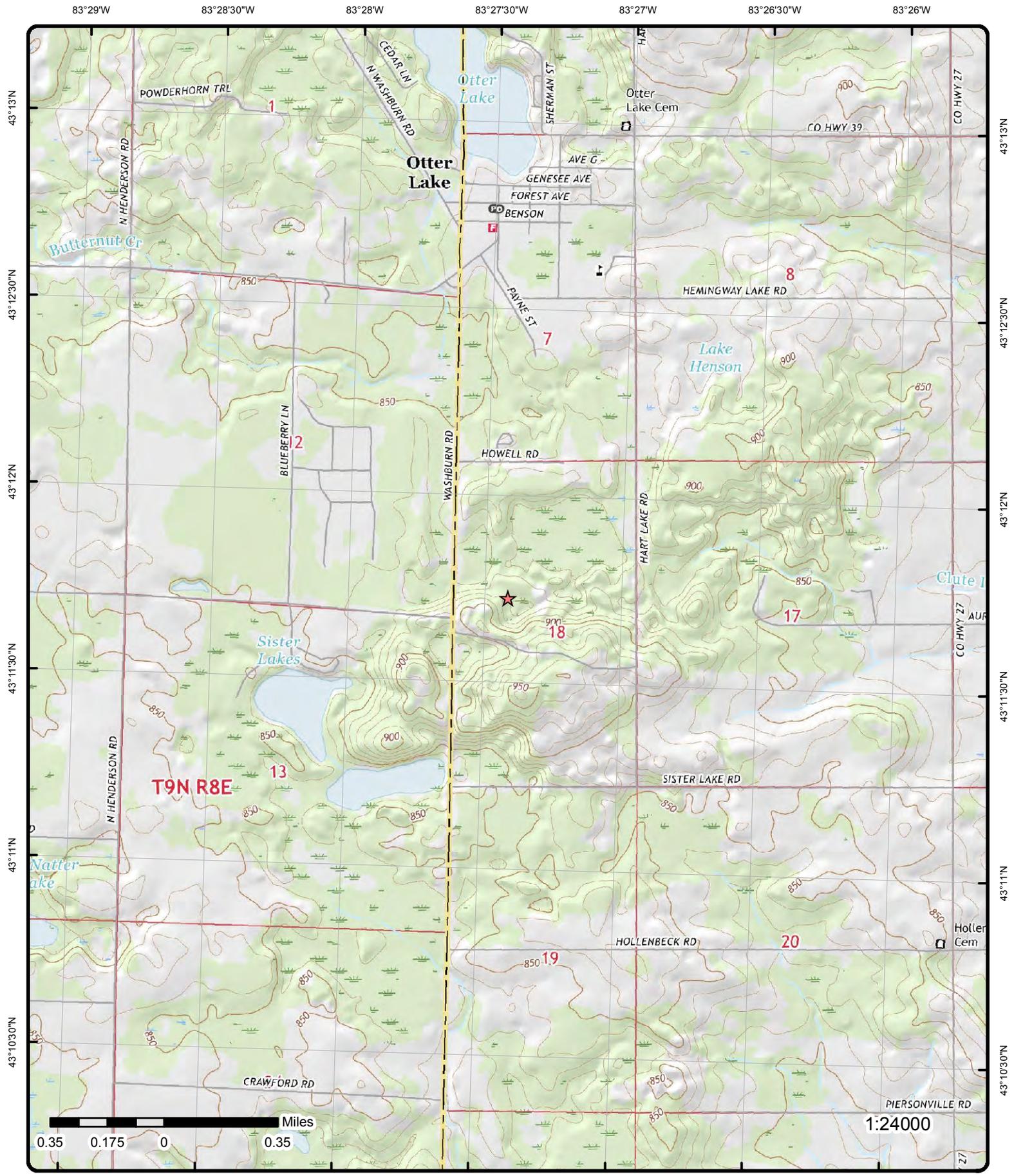
Address: 13020 Washburn Rd, Otter Lake, MI, 48464

Source: ESRI World Imagery

Order No: 20190829106



© ERIS Information Inc.



Topographic Map (2017)

Address: 13020 Washburn Rd, Otter Lake, MI, 48464

Quadrangle(s): Columbiaville, MI

Source: USGS Topographic Map

Order No: 20190829106



© ERIS Information Inc.

Detail Report

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
<u>1</u>	1 of 10	-	0.00 / 0.00	876.33 / 0	HICKSON KERLEY INC 13020 WASHBURN RD OTTER LAKE MI 48464	FINDS/FRS

Registry ID: 110001294974
FIPS Code: 26087
HUC Code:
Site Type Name: STATIONARY
Location Description:
Supplemental Location:
Create Date: 01-MAR-2000 00:00:00
Update Date: 31-DEC-2015 10:42:00
Interest Types: TRI REPORTER
SIC Codes: 2819, 2873
SIC Code Descriptions: INDUSTRIAL INORGANIC CHEMICALS, NOT ELSEWHERE CLASSIFIED, NITROGENOUS FERTILIZERS
NAICS Codes: 325311
NAICS Code Descriptions: NITROGENOUS FERTILIZER MANUFACTURING.
Conveyor:
Federal Facility Code:
Federal Agency Name:
Tribal Land Code:
Tribal Land Name:
Congressional Dist No.:
Census Block Code:
EPA Region Code: 05
County Name: LAPEER
US/Mexico Border Ind:
Latitude: 43.194927
Longitude: -83.460265
Reference Point:
Coord Collection Method:
Accuracy Value:
Datum: NAD83
Source:
Facility Detail Rprt URL: http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110001294974
Program Acronyms:

TRIS:48464KRLYG13020

<u>1</u>	2 of 10	-	0.00 / 0.00	876.33 / 0	Kerley Industries 13020 Washburn Otter Lake MI	SHWS
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Facility ID: 44000044
Data Source: Part 201
Latitude: 43.19510
Longitude: -83.45983
Facility Name: Kerley Industries
County: Lapeer
Township: Otter Lake
District: Lansing
Baseline Assess No:

<u>1</u>	3 of 10	-	0.00 / 0.00	876.33 / 0	HICKSON KERLEY INC. 13020 WASHBURN RD. OTTER LAKE MI 48464	TRIS
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TRI Facility ID: 48464KRLYG13020
BIA Code:

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
FRS ID:					County:	LAPEER
Year:	1992				Latitude:	43.196136
Federal Facility:	NO				Longitude:	-83.453285
Tribe:						
--Details--						
SRS ID:						
Primary SIC:		2873				
SIC 2:						
SIC 3:						
SIC 4:						
SIC 5:						
SIC 6:						
Primary NAICS:		325311				
NAICS 2:						
NAICS 3:						
NAICS 4:						
NAICS 5:						
NAICS 6:						
Document No:		1392060065404				
Chemical:		AMMONIA				
CAS No/Compound ID:		007664417				
Clean Air Act?:		NO				
Classification:		NON-PBT				
Metal:		NO				
Metal Category:		0				
Carcinogen:		NO				
Form Type:		R				
Unit of Measure:		Pounds				
5.1 Fugitive Air:		250				
5.2 Stack Air:		149				
5.3 Water:		0				
5.4.1 UIC Class I:		0				
5.4.2 UIC Class II-V:		0				
5.5.1A RCRA C Landfills:		0				
5.5.1B Other Landfills:		0				
5.5.2 Land Treatment:		0				
5.5.3 Surface Impoundment:		0				
5.5.3A RCRA C Surface Imp:		0				
5.5.3B Other Surface Imp:		0				
5.5.4 Other Disposal:		0				
On-Site Release Total:		399				
6.1 POTW - Transfers for Rel:		0				
6.1 POTW - Transfers for Treat:		0				
6.1 POTW - Total Transfers:		0				
6.2 M10:		0				
6.2 M41:		0				
6.2 M62:		0				
6.2 M71:		0				
6.2 M81:		0				
6.2 M82:		0				
6.2 M72:		0				
6.2 M63:		0				
6.2 M66:		0				
6.2 M67:		0				
6.2 M64:		0				
6.2 M65:		0				
6.2 M73:		0				
6.2 M79:		0				
6.2 M90:		0				
6.2 M94:		0				
6.2 M99:		0				
Off-Site Release Total:		0				
6.2 M20:		0				
6.2 M24:		0				
6.2 M26:		0				
6.2 M28:		0				
6.2 M93:		0				

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
<hr/>						
Off-Site Recycled Total:	0					
6.2 M56:	0					
6.2 M92:	0					
Off-Site Recovery Total:	0					
6.2 M40:	0					
6.2 M50:	0					
6.2 M54:	0					
6.2 M61:	0					
6.2 M69:	0					
6.2 M95:	0					
Off-Site Treated Total:	0					
Total Releases:	399					
8.1 Releases:	648					
8.1A On-Site Contained Rel:	0					
8.1B On-Site Other Rel:	0					
8.1C Off-Site Contained Rel:	0					
8.1D Off-Site Other Releases:	0					
8.2 On-Site Energy Recovery:	0					
8.3 Energy Recovery Off-Site:	0					
8.4 On-Site Recycling:	0					
8.5 Recycling Off-Site:	0					
8.6 On-Site Treatment:	0					
8.7 Treatment Off-Site:	0					
Production Waste:	648					
8.8 One-Time Release:	0					
8.9 Production Ratio:	.93					
Parent Company Name:	HICKSON KERLEY INC					
Parent Company DB No:	174179119					
Industry Sector Code:						
Industry Sector:						
5.4 Underground:						
5.5.1 Landfills:						
Prod Ratio or Activity:						

<u>1</u>	4 of 10	-	0.00 / 0.00	876.33 / 0	HICKSON KERLEY INC. 13020 WASHBURN RD. OTTER LAKE MI 48464	TRIS
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TRI Facility ID:	48464KRLYG13020	BIA Code:	
FRS ID:		County:	LAPEER
Year:	1994	Latitude:	43.196136
Federal Facility:	NO	Longitude:	-83.453285
Tribe:			

--Details--

SRS ID:	
Primary SIC:	2873
SIC 2:	2819
SIC 3:	
SIC 4:	
SIC 5:	
SIC 6:	
Primary NAICS:	325311
NAICS 2:	
NAICS 3:	
NAICS 4:	
NAICS 5:	
NAICS 6:	
Document No:	1394080363219
Chemical:	AMMONIA
CAS No/Compound ID:	007664417
Clean Air Act?:	NO
Classification:	NON-PBT
Metal:	NO
Metal Category:	0
Carcinogen:	NO

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Form Type:		R				
Unit of Measure:		Pounds				
5.1 Fugitive Air:	250					
5.2 Stack Air:	99					
5.3 Water:	0					
5.4.1 UIC Class I:	0					
5.4.2 UIC Class II-V:	0					
5.5.1A RCRA C Landfills:	0					
5.5.1B Other Landfills:	0					
5.5.2 Land Treatment:	0					
5.5.3 Surface Impoundment:	0					
5.5.3A RCRA C Surface Imp:	0					
5.5.3B Other Surface Imp:	0					
5.5.4 Other Disposal:	0					
On-Site Release Total:	349					
6.1 POTW - Transfers for Rel:	0					
6.1 POTW - Transfers for Treat:	0					
6.1 POTW - Total Transfers:	0					
6.2 M10:	0					
6.2 M41:	0					
6.2 M62:	0					
6.2 M71:	0					
6.2 M81:	0					
6.2 M82:	0					
6.2 M72:	0					
6.2 M63:	0					
6.2 M66:	0					
6.2 M67:	0					
6.2 M64:	0					
6.2 M65:	0					
6.2 M73:	0					
6.2 M79:	0					
6.2 M90:	0					
6.2 M94:	0					
6.2 M99:	0					
Off-Site Release Total:	0					
6.2 M20:	0					
6.2 M24:	0					
6.2 M26:	0					
6.2 M28:	0					
6.2 M93:	0					
Off-Site Recycled Total:	0					
6.2 M56:	0					
6.2 M92:	0					
Off-Site Recovery Total:	0					
6.2 M40:	0					
6.2 M50:	0					
6.2 M54:	0					
6.2 M61:	0					
6.2 M69:	0					
6.2 M95:	0					
Off-Site Treated Total:	0					
Total Releases:	349					
8.1 Releases:	199					
8.1A On-Site Contained Rel:	0					
8.1B On-Site Other Rel:	0					
8.1C Off-Site Contained Rel:	0					
8.1D Off-Site Other Releases:	0					
8.2 On-Site Energy Recovery:	0					
8.3 Energy Recovery Off-Site:	0					
8.4 On-Site Recycling:	0					
8.5 Recycling Off-Site:	0					
8.6 On-Site Treatment:	0					
8.7 Treatment Off-Site:	0					
Production Waste:	199					
8.8 One-Time Release:	0					
8.9 Production Ratio:	.49					
Parent Company Name:	HICKSON KERLEY INC					
Parent Company DB No:	174179119					

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
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Industry Sector Code:
 Industry Sector:
 5.4 Underground:
 5.5.1 Landfills:
 Prod Ratio or Activity:

<u>1</u>	5 of 10	-	0.00 / 0.00	876.33 / 0	HICKSON KERLEY INC. 13020 WASHBURN RD. OTTER LAKE MI 48464	TRIS
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TRI Facility ID:	48464KRLYG13020	BIA Code:	
FRS ID:		County:	LAPEER
Year:	1988	Latitude:	43.196136
Federal Facility:	NO	Longitude:	-83.453285
Tribe:			

--Details--

SRS ID:	
Primary SIC:	2873
SIC 2:	
SIC 3:	
SIC 4:	
SIC 5:	
SIC 6:	
Primary NAICS:	325311
NAICS 2:	
NAICS 3:	
NAICS 4:	
NAICS 5:	
NAICS 6:	
Document No:	1388025590252
Chemical:	AMMONIA
CAS No/Compound ID:	007664417
Clean Air Act?:	NO
Classification:	NON-PBT
Metal:	NO
Metal Category:	0
Carcinogen:	NO
Form Type:	R
Unit of Measure:	Pounds
5.1 Fugitive Air:	250
5.2 Stack Air:	71
5.3 Water:	0
5.4.1 UIC Class I:	0
5.4.2 UIC Class II-V:	0
5.5.1A RCRA C Landfills:	0
5.5.1B Other Landfills:	0
5.5.2 Land Treatment:	0
5.5.3 Surface Impoundment:	0
5.5.3A RCRA C Surface Imp:	0
5.5.3B Other Surface Imp:	0
5.5.4 Other Disposal:	0
On-Site Release Total:	321
6.1 POTW - Transfers for Rel:	0
6.1 POTW - Transfers for Treat:	0
6.1 POTW - Total Transfers:	0
6.2 M10:	0
6.2 M41:	0
6.2 M62:	0
6.2 M71:	0
6.2 M81:	0
6.2 M82:	0
6.2 M72:	0
6.2 M63:	0
6.2 M66:	0
6.2 M67:	0

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
6.2 M64:		0				
6.2 M65:		0				
6.2 M73:		0				
6.2 M79:		0				
6.2 M90:		0				
6.2 M94:		0				
6.2 M99:		0				
Off-Site Release Total:		0				
6.2 M20:		0				
6.2 M24:		0				
6.2 M26:		0				
6.2 M28:		0				
6.2 M93:		0				
Off-Site Recycled Total:		0				
6.2 M56:		0				
6.2 M92:		0				
Off-Site Recovery Total:		0				
6.2 M40:		0				
6.2 M50:		0				
6.2 M54:		0				
6.2 M61:		0				
6.2 M69:		0				
6.2 M95:		0				
Off-Site Treated Total:		0				
Total Releases:		321				
8.1 Releases:		0				
8.1A On-Site Contained Rel:		0				
8.1B On-Site Other Rel:		0				
8.1C Off-Site Contained Rel:		0				
8.1D Off-Site Other Releases:		0				
8.2 On-Site Energy Recovery:		0				
8.3 Energy Recovery Off-Site:		0				
8.4 On-Site Recycling:		0				
8.5 Recycling Off-Site:		0				
8.6 On-Site Treatment:		0				
8.7 Treatment Off-Site:		0				
Production Waste:		0				
8.8 One-Time Release:		0				
8.9 Production Ratio:						
Parent Company Name:		HICKSON KERLEY INC				
Parent Company DB No:		174179119				
Industry Sector Code:						
Industry Sector:						
5.4 Underground:						
5.5.1 Landfills:						
Prod Ratio or Activity:						

<u>1</u>	6 of 10	-	0.00 / 0.00	876.33 / 0	HICKSON KERLEY INC. 13020 WASHBURN RD. OTTER LAKE MI 48464	TRIS
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TRI Facility ID:	48464KRLYG13020	BIA Code:	
FRS ID:		County:	LAPEER
Year:	1990	Latitude:	43.196136
Federal Facility:	NO	Longitude:	-83.453285
Tribe:			

--Details--

SRS ID:

Primary SIC: 2873

SIC 2:

SIC 3:

SIC 4:

SIC 5:

SIC 6:

Primary NAICS: 325311

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
NAICS 2:						
NAICS 3:						
NAICS 4:						
NAICS 5:						
NAICS 6:						
Document No:		1390045391226				
Chemical:		AMMONIA				
CAS No/Compound ID:		007664417				
Clean Air Act?:		NO				
Classification:		NON-PBT				
Metal:		NO				
Metal Category:		0				
Carcinogen:		NO				
Form Type:		R				
Unit of Measure:		Pounds				
5.1 Fugitive Air:		250				
5.2 Stack Air:		857				
5.3 Water:		0				
5.4.1 UIC Class I:		0				
5.4.2 UIC Class II-V:		0				
5.5.1A RCRA C Landfills:		0				
5.5.1B Other Landfills:		0				
5.5.2 Land Treatment:		0				
5.5.3 Surface Impoundment:		0				
5.5.3A RCRA C Surface Imp:		0				
5.5.3B Other Surface Imp:		0				
5.5.4 Other Disposal:		0				
On-Site Release Total:		1107				
6.1 POTW - Transfers for Rel:		0				
6.1 POTW - Transfers for Treat:		0				
6.1 POTW - Total Transfers:		0				
6.2 M10:		0				
6.2 M41:		0				
6.2 M62:		0				
6.2 M71:		0				
6.2 M81:		0				
6.2 M82:		0				
6.2 M72:		0				
6.2 M63:		0				
6.2 M66:		0				
6.2 M67:		0				
6.2 M64:		0				
6.2 M65:		0				
6.2 M73:		0				
6.2 M79:		0				
6.2 M90:		0				
6.2 M94:		0				
6.2 M99:		0				
Off-Site Release Total:		0				
6.2 M20:		0				
6.2 M24:		0				
6.2 M26:		0				
6.2 M28:		0				
6.2 M93:		0				
Off-Site Recycled Total:		0				
6.2 M56:		0				
6.2 M92:		0				
Off-Site Recovery Total:		0				
6.2 M40:		0				
6.2 M50:		0				
6.2 M54:		0				
6.2 M61:		0				
6.2 M69:		0				
6.2 M95:		0				
Off-Site Treated Total:		0				
Total Releases:		1107				
8.1 Releases:		0				
8.1A On-Site Contained Rel:		0				
8.1B On-Site Other Rel:		0				

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
8.1C Off-Site Contained Rel:	0					
8.1D Off-Site Other Releases:	0					
8.2 On-Site Energy Recovery:	0					
8.3 Energy Recovery Off-Site:	0					
8.4 On-Site Recycling:	0					
8.5 Recycling Off-Site:	0					
8.6 On-Site Treatment:	0					
8.7 Treatment Off-Site:	0					
Production Waste:	0					
8.8 One-Time Release:	0					
8.9 Production Ratio:						
Parent Company Name:		HICKSON KERLEY INC				
Parent Company DB No:		174179119				
Industry Sector Code:						
Industry Sector:						
5.4 Underground:						
5.5.1 Landfills:						
Prod Ratio or Activity:						

<u>1</u>	7 of 10	-	0.00 / 0.00	876.33 / 0	HICKSON KERLEY INC. 13020 WASHBURN RD. OTTER LAKE MI 48464	TRIS
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TRI Facility ID:	48464KRLYG13020	BIA Code:	
FRS ID:		County:	LAPEER
Year:	1989	Latitude:	43.196136
Federal Facility:	NO	Longitude:	-83.453285
Tribe:			

--Details--

SRS ID:

Primary SIC: 2873

SIC 2:

SIC 3:

SIC 4:

SIC 5:

SIC 6:

Primary NAICS: 325311

NAICS 2:

NAICS 3:

NAICS 4:

NAICS 5:

NAICS 6:

Document No: 1389035419148

Chemical: AMMONIA

CAS No/Compound ID: 007664417

Clean Air Act?: NO

Classification: NON-PBT

Metal: NO

Metal Category: 0

Carcinogen: NO

Form Type: R

Unit of Measure: Pounds

5.1 Fugitive Air: 250

5.2 Stack Air: 95

5.3 Water: 0

5.4.1 UIC Class I: 0

5.4.2 UIC Class II-V: 0

5.5.1A RCRA C Landfills: 0

5.5.1B Other Landfills: 0

5.5.2 Land Treatment: 0

5.5.3 Surface Impoundment: 0

5.5.3A RCRA C Surface Imp: 0

5.5.3B Other Surface Imp: 0

5.5.4 Other Disposal: 0

On-Site Release Total: 345

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
6.1 POTW - Transfers for Rel:	0					
6.1 POTW - Transfers for Treat:	0					
6.1 POTW - Total Transfers:	0					
6.2 M10:	0					
6.2 M41:	0					
6.2 M62:	0					
6.2 M71:	0					
6.2 M81:	0					
6.2 M82:	0					
6.2 M72:	0					
6.2 M63:	0					
6.2 M66:	0					
6.2 M67:	0					
6.2 M64:	0					
6.2 M65:	0					
6.2 M73:	0					
6.2 M79:	0					
6.2 M90:	0					
6.2 M94:	0					
6.2 M99:	0					
Off-Site Release Total:	0					
6.2 M20:	0					
6.2 M24:	0					
6.2 M26:	0					
6.2 M28:	0					
6.2 M93:	0					
Off-Site Recycled Total:	0					
6.2 M56:	0					
6.2 M92:	0					
Off-Site Recovery Total:	0					
6.2 M40:	0					
6.2 M50:	0					
6.2 M54:	0					
6.2 M61:	0					
6.2 M69:	0					
6.2 M95:	0					
Off-Site Treated Total:	0					
Total Releases:	345					
8.1 Releases:	0					
8.1A On-Site Contained Rel:	0					
8.1B On-Site Other Rel:	0					
8.1C Off-Site Contained Rel:	0					
8.1D Off-Site Other Releases:	0					
8.2 On-Site Energy Recovery:	0					
8.3 Energy Recovery Off-Site:	0					
8.4 On-Site Recycling:	0					
8.5 Recycling Off-Site:	0					
8.6 On-Site Treatment:	0					
8.7 Treatment Off-Site:	0					
Production Waste:	0					
8.8 One-Time Release:	0					
8.9 Production Ratio:						
Parent Company Name:		HICKSON KERLEY INC				
Parent Company DB No:		174179119				
Industry Sector Code:						
Industry Sector:						
5.4 Underground:						
5.5.1 Landfills:						
Prod Ratio or Activity:						

1 8 of 10 - 0.00 / 0.00 876.33 / 0 HICKSON KERLEY INC. 13020 WASHBURN RD. OTTER LAKE MI 48464 TRIS

TRI Facility ID: 48464KRLYG13020 BIA Code:
FRS ID: County: LAPEER
Year: 1993 Latitude: 43.196136

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Federal Facility: Tribe:	NO			Longitude:	-83.453285	
--Details--						
SRS ID:						
Primary SIC:	2873					
SIC 2:	2819					
SIC 3:						
SIC 4:						
SIC 5:						
SIC 6:						
Primary NAICS:	325311					
NAICS 2:						
NAICS 3:						
NAICS 4:						
NAICS 5:						
NAICS 6:						
Document No:	1393070331590					
Chemical:	AMMONIA					
CAS No/Compound ID:	007664417					
Clean Air Act?:	NO					
Classification:	NON-PBT					
Metal:	NO					
Metal Category:	0					
Carcinogen:	NO					
Form Type:	R					
Unit of Measure:	Pounds					
5.1 Fugitive Air:	250					
5.2 Stack Air:	136					
5.3 Water:	0					
5.4.1 UIC Class I:	0					
5.4.2 UIC Class II-V:	0					
5.5.1A RCRA C Landfills:	0					
5.5.1B Other Landfills:	0					
5.5.2 Land Treatment:	0					
5.5.3 Surface Impoundment:	0					
5.5.3A RCRA C Surface Imp:	0					
5.5.3B Other Surface Imp:	0					
5.5.4 Other Disposal:	0					
On-Site Release Total:	386					
6.1 POTW - Transfers for Rel:	0					
6.1 POTW - Transfers for Treat:	0					
6.1 POTW - Total Transfers:	0					
6.2 M10:	0					
6.2 M41:	0					
6.2 M62:	0					
6.2 M71:	0					
6.2 M81:	0					
6.2 M82:	0					
6.2 M72:	0					
6.2 M63:	0					
6.2 M66:	0					
6.2 M67:	0					
6.2 M64:	0					
6.2 M65:	0					
6.2 M73:	0					
6.2 M79:	0					
6.2 M90:	0					
6.2 M94:	0					
6.2 M99:	0					
Off-Site Release Total:	0					
6.2 M20:	0					
6.2 M24:	0					
6.2 M26:	0					
6.2 M28:	0					
6.2 M93:	0					
Off-Site Recycled Total:	0					
6.2 M56:	0					

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
6.2 M92:		0				
Off-Site Recovery Total:		0				
6.2 M40:		0				
6.2 M50:		0				
6.2 M54:		0				
6.2 M61:		0				
6.2 M69:		0				
6.2 M95:		0				
Off-Site Treated Total:		0				
Total Releases:		386				
8.1 Releases:		635				
8.1A On-Site Contained Rel:		0				
8.1B On-Site Other Rel:		0				
8.1C Off-Site Contained Rel:		0				
8.1D Off-Site Other Releases:		0				
8.2 On-Site Energy Recovery:		0				
8.3 Energy Recovery Off-Site:		0				
8.4 On-Site Recycling:		0				
8.5 Recycling Off-Site:		0				
8.6 On-Site Treatment:		0				
8.7 Treatment Off-Site:		0				
Production Waste:		635				
8.8 One-Time Release:		0				
8.9 Production Ratio:		.8				
Parent Company Name:		HICKSON KERLEY INC				
Parent Company DB No:		174179119				
Industry Sector Code:						
Industry Sector:						
5.4 Underground:						
5.5.1 Landfills:						
Prod Ratio or Activity:						

<u>1</u>	9 of 10	-	0.00 / 0.00	876.33 / 0	HICKSON KERLEY INC. 13020 WASHBURN RD. OTTER LAKE MI 48464	TRIS
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TRI Facility ID:	48464KRLYG13020	BIA Code:	
FRS ID:		County:	LAPEER
Year:	1987	Latitude:	43.196136
Federal Facility:	NO	Longitude:	-83.453285
Tribe:			

--Details--

SRS ID:

Primary SIC: 2873

SIC 2:

SIC 3:

SIC 4:

SIC 5:

SIC 6:

Primary NAICS:

NAICS 2:

NAICS 3:

NAICS 4:

NAICS 5:

NAICS 6:

Document No: 1387010340964

Chemical: AMMONIA

CAS No/Compound ID: 007664417

Clean Air Act?: NO

Classification: NON-PBT

Metal: NO

Metal Category: 0

Carcinogen: NO

Form Type: R

Unit of Measure: Pounds

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
5.1 Fugitive Air:	0					
5.2 Stack Air:	50					
5.3 Water:	0					
5.4.1 UIC Class I:	0					
5.4.2 UIC Class II-V:	0					
5.5.1A RCRA C Landfills:	0					
5.5.1B Other Landfills:	0					
5.5.2 Land Treatment:	0					
5.5.3 Surface Impoundment:	0					
5.5.3A RCRA C Surface Imp:	0					
5.5.3B Other Surface Imp:	0					
5.5.4 Other Disposal:	0					
On-Site Release Total:	50					
6.1 POTW - Transfers for Rel:	0					
6.1 POTW - Transfers for Treat:	0					
6.1 POTW - Total Transfers:	0					
6.2 M10:	0					
6.2 M41:	0					
6.2 M62:	0					
6.2 M71:	0					
6.2 M81:	0					
6.2 M82:	0					
6.2 M72:	0					
6.2 M63:	0					
6.2 M66:	0					
6.2 M67:	0					
6.2 M64:	0					
6.2 M65:	0					
6.2 M73:	0					
6.2 M79:	0					
6.2 M90:	0					
6.2 M94:	0					
6.2 M99:	0					
Off-Site Release Total:	0					
6.2 M20:	0					
6.2 M24:	0					
6.2 M26:	0					
6.2 M28:	0					
6.2 M93:	0					
Off-Site Recycled Total:	0					
6.2 M56:	0					
6.2 M92:	0					
Off-Site Recovery Total:	0					
6.2 M40:	0					
6.2 M50:	0					
6.2 M54:	0					
6.2 M61:	0					
6.2 M69:	0					
6.2 M95:	0					
Off-Site Treated Total:	0					
Total Releases:	50					
8.1 Releases:	0					
8.1A On-Site Contained Rel:	0					
8.1B On-Site Other Rel:	0					
8.1C Off-Site Contained Rel:	0					
8.1D Off-Site Other Releases:	0					
8.2 On-Site Energy Recovery:	0					
8.3 Energy Recovery Off-Site:	0					
8.4 On-Site Recycling:	0					
8.5 Recycling Off-Site:	0					
8.6 On-Site Treatment:	0					
8.7 Treatment Off-Site:	0					
Production Waste:	0					
8.8 One-Time Release:	0					
8.9 Production Ratio:						
Parent Company Name:		HICKSON KERLEY INC				
Parent Company DB No:		174179119				
Industry Sector Code:						
Industry Sector:						

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
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5.4 Underground:
 5.5.1 Landfills:
 Prod Ratio or Activity:

<u>1</u>	10 of 10	-	0.00 / 0.00	876.33 / 0	HICKSON KERLEY INC. 13020 WASHBURN RD. OTTER LAKE MI 48464	TRIS
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TRI Facility ID:	48464KRLYG13020	BIA Code:	
FRS ID:		County:	LAPEER
Year:	1991	Latitude:	43.196136
Federal Facility:	NO	Longitude:	-83.453285
Tribe:			

--Details--

SRS ID:
Primary SIC: 2873
SIC 2:
SIC 3:
SIC 4:
SIC 5:
SIC 6:
Primary NAICS: 325311
NAICS 2:
NAICS 3:
NAICS 4:
NAICS 5:
NAICS 6:
Document No: 1391055501338
Chemical: AMMONIA
CAS No/Compound ID: 007664417
Clean Air Act?: NO
Classification: NON-PBT
Metal: NO
Metal Category: 0
Carcinogen: NO
Form Type: R
Unit of Measure: Pounds
5.1 Fugitive Air: 250
5.2 Stack Air: 939
5.3 Water: 0
5.4.1 UIC Class I: 0
5.4.2 UIC Class II-V: 0
5.5.1A RCRA C Landfills: 0
5.5.1B Other Landfills: 0
5.5.2 Land Treatment: 0
5.5.3 Surface Impoundment: 0
5.5.3A RCRA C Surface Imp: 0
5.5.3B Other Surface Imp: 0
5.5.4 Other Disposal: 0
On-Site Release Total: 1189
6.1 POTW - Transfers for Rel: 0
6.1 POTW - Transfers for Treat: 0
6.1 POTW - Total Transfers: 0
6.2 M10: 0
6.2 M41: 0
6.2 M62: 0
6.2 M71: 0
6.2 M81: 0
6.2 M82: 0
6.2 M72: 0
6.2 M63: 0
6.2 M66: 0
6.2 M67: 0
6.2 M64: 0
6.2 M65: 0

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
6.2 M73:		0				
6.2 M79:		0				
6.2 M90:		0				
6.2 M94:		0				
6.2 M99:		0				
Off-Site Release Total:		0				
6.2 M20:		0				
6.2 M24:		0				
6.2 M26:		0				
6.2 M28:		0				
6.2 M93:		0				
Off-Site Recycled Total:		0				
6.2 M56:		0				
6.2 M92:		0				
Off-Site Recovery Total:		0				
6.2 M40:		0				
6.2 M50:		0				
6.2 M54:		0				
6.2 M61:		0				
6.2 M69:		0				
6.2 M95:		0				
Off-Site Treated Total:		0				
Total Releases:		1189				
8.1 Releases:		1438				
8.1A On-Site Contained Rel:		0				
8.1B On-Site Other Rel:		0				
8.1C Off-Site Contained Rel:		0				
8.1D Off-Site Other Releases:		0				
8.2 On-Site Energy Recovery:		0				
8.3 Energy Recovery Off-Site:		0				
8.4 On-Site Recycling:		0				
8.5 Recycling Off-Site:		0				
8.6 On-Site Treatment:		0				
8.7 Treatment Off-Site:		0				
Production Waste:		1438				
8.8 One-Time Release:		0				
8.9 Production Ratio:		1.22				
Parent Company Name:		HICKSON KERLEY INC				
Parent Company DB No:		174179119				
Industry Sector Code:						
Industry Sector:						
5.4 Underground:						
5.5.1 Landfills:						
Prod Ratio or Activity:						

2 1 of 1 WSW 0.26 / 1,368.99 889.75 / 13 Marathon Otter Lake Oil Field
No Address Entered
Otter Lake MI 48463 SHWS

Facility ID: 25000693 County: Lapeer
Data Source: Part 201 Township:
Latitude: 43.19395 District: Lansing
Longitude: -83.46165 Baseline Assess No:
Facility Name: Marathon Otter Lake Oil Field

3 1 of 1 NW 0.40 / 2,117.22 859.49 / -17 Handy 1 (PN 28384)
MI SHWS

Facility ID: 25000554 County: Genesee
Data Source: Part 201 Township: temptownship
Latitude: 43.20001 District: Southeast MI
Longitude: -83.46176 Baseline Assess No:
Facility Name: Handy 1 (PN 28384)

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
4	1 of 1	NW	0.42 / 2,228.94	860.52 / -16	Handy 1-B (PN 28664) MI	SHWS
Facility ID: 25000555 Data Source: Part 201 Latitude: 43.20014 Longitude: -83.46221 Facility Name: Handy 1-B (PN 28664)		County: Genesee Township: temptownship District: Southeast MI Baseline Assess No:				

5	1 of 1	ENE	0.54 / 2,827.61	864.85 / -11	Marathon-Otter Lake Oil Field No Address Entered Otter Lake MI	SHWS
Facility ID: 44000171 Data Source: Part 201 Latitude: 43.19725 Longitude: -83.44662 Facility Name: Marathon-Otter Lake Oil Field		County: Lapeer Township: District: Lansing Baseline Assess No:				

Unplottable Summary

Total: 2 Unplottable sites

DB	Company Name/Site Name	Address	City	Zip	ERIS ID
HIST MLTS	KERLEY IND., INC.	P. O. OBX 221	OTTER LAKE MI	48464	847207322
WASTE	CRYSTAL EXPLORATION CO	1300 WASHBURN RD	OTTER LAKE MI	48464	858695172

Unplottable Report

Site: *KERLEY IND., INC.*
P. O. OBX 221 OTTER LAKE MI 48464

HIST MLTS

Site: *CRYSTAL EXPLORATION CO*
1300 WASHBURN RD OTTER LAKE MI 48464

WASTE

WDS ID: 458736
Site ID: MIG000003025
Legal Name: CRYSTAL EXPLORATION CO
County: LAPEER

Detail(s)

Out of Business: FALSE
Phone:
Email:

Contact Type: Part 111 or 121 site contact
First Name: NO
Last Name: CONTACT NAME NOT OBTAINED

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ERIS updates databases as set out in ASTM Standard E1527-13, Section 8.1.8 Sources of Standard Source Information:

"Government information from nongovernmental sources may be considered current if the source updates the information at least every 90 days, or, for information that is updated less frequently than quarterly by the government agency, within 90 days of the date the government agency makes the information available to the public."

Standard Environmental Record Sources

Federal

National Priority List:

NPL

National Priorities List (Superfund)-NPL: EPA's (United States Environmental Protection Agency) list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. The NPL, which EPA is required to update at least once a year, is based primarily on the score a site receives from EPA's Hazard Ranking System. A site must be on the NPL to receive money from the Superfund Trust Fund for remedial action.

Government Publication Date: Jun 11, 2019

National Priority List - Proposed:

PROPOSED NPL

Includes sites proposed (by the EPA, the state, or concerned citizens) for addition to the NPL due to contamination by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.

Government Publication Date: Jun 11, 2019

Deleted NPL:

DELETED NPL

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.

Government Publication Date: Jun 11, 2019

SEMS List 8R Active Site Inventory:

SEMS

The Superfund Program has deployed the Superfund Enterprise Management System (SEMS), which integrates multiple legacy systems into a comprehensive tracking and reporting tool. This inventory contains active sites evaluated by the Superfund program that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The Active Site Inventory Report displays site and location information at active SEMS sites. An active site is one at which site assessment, removal, remedial, enforcement, cost recovery, or oversight activities are being planned or conducted.

Government Publication Date: Jun 11, 2019

Inventory of Open Dumps, June 1985:

ODI

The Resource Conservation and Recovery Act (RCRA) provides for publication of an inventory of open dumps. The Act defines "open dumps" as facilities which do not comply with EPA's "Criteria for Classification of Solid Waste Disposal Facilities and Practices" (40 CFR 257).

Government Publication Date: Jun 1985

SEMS List 8R Archive Sites:

SEMS ARCHIVE

The Superfund Enterprise Management System (SEMS) Archived Site Inventory displays site and location information at sites archived from SEMS. An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time.

Government Publication Date: Jun 11, 2019

CERCLIS:

Superfund is a program administered by the United States Environmental Protection Agency (EPA) to locate, investigate, and clean up the worst hazardous waste sites throughout the United States. CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The EPA administers the Superfund program in cooperation with individual states and tribal governments; this database is made available by the EPA.

Government Publication Date: Oct 25, 2013

EPA Report on the Status of Open Dumps on Indian Lands:

IODI

Public Law 103-399, The Indian Lands Open Dump Cleanup Act of 1994, enacted October 22, 1994, identified congressional concerns that solid waste open dump sites located on American Indian or Alaska Native (AI/AN) lands threaten the health and safety of residents of those lands and contiguous areas. The purpose of the Act is to identify the location of open dumps on Indian lands, assess the relative health and environment hazards posed by those sites, and provide financial and technical assistance to Indian tribal governments to close such dumps in compliance with Federal standards and regulations or standards promulgated by Indian Tribal governments or Alaska Native entities.

Government Publication Date: Dec 31, 1998

CERCLIS - No Further Remedial Action Planned:

CERCLIS NFRAP

An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. The Archive designation means 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). 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.

Government Publication Date: Oct 25, 2013

CERCLIS Liens:

CERCLIS LIENS

A Federal Superfund lien exists at any property where EPA has incurred Superfund costs to address contamination ("Superfund site") and has provided notice of liability to the property owner. A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Jan 30, 2014

RCRA CORRACTS-Corrective Action:

RCRA CORRACTS

RCRA Info 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. At these sites, the Corrective Action Program ensures that cleanups occur. EPA and state regulators work with facilities and communities to design remedies based on the contamination, geology, and anticipated use unique to each site.

Government Publication Date: Jun 3, 2019

RCRA non-CORRACTS TSD Facilities:

RCRA TSD

RCRA Info 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. This database includes Non-Corrective Action sites listed as treatment, storage and/or disposal facilities of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Government Publication Date: Jun 3, 2019

RCRA Generator List:

RCRA LQG

RCRA Info 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. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Large Quantity Generators (LQGs) generate 1,000 kilograms per month or more of hazardous waste or more than one kilogram per month of acutely hazardous waste.

Government Publication Date: Jun 3, 2019

RCRA Small Quantity Generators List:

RCRA SQG

RCRA Info is the 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. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Small Quantity Generators (SQGs) generate more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste per month.

Government Publication Date: Jun 3, 2019

RCRA Conditionally Exempt and Very Small Quantity Generators List:

[RCRA CESQG](#)

RCRA Info is the 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. A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Conditionally Exempt and Very Small Quantity Generators (VSQG and CESQG) generate 100 kilograms or less per month of hazardous waste, or one kilogram or less per month of acutely hazardous waste. Additionally, VSQG and CESQG may not accumulate more than 1,000 kilograms of hazardous waste at any time.

Government Publication Date: Jun 3, 2019

RCRA Non-Generators:

[RCRA NON GEN](#)

RCRA Info 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. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Non-Generators do not presently generate hazardous waste.

Government Publication Date: Jun 3, 2019

Federal Engineering Controls-ECs:

[FED ENG](#)

Engineering controls (ECs) encompass a variety of engineered and constructed physical barriers (e.g., soil capping, sub-surface venting systems, mitigation barriers, fences) to contain and/or prevent exposure to contamination on a property. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Sep 20, 2018

Federal Institutional Controls- ICs:

[FED INST](#)

Institutional controls are non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. Although it is EPA's (United States Environmental Protection Agency) expectation that treatment or engineering controls will be used to address principal threat wastes and that groundwater will be returned to its beneficial use whenever practicable, ICs play an important role in site remedies because they reduce exposure to contamination by limiting land or resource use and guide human behavior at a site.

Government Publication Date: Sep 20, 2018

Emergency Response Notification System:

[ERNS 1982 TO 1986](#)

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1982-1986

Emergency Response Notification System:

[ERNS 1987 TO 1989](#)

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1987-1989

Emergency Response Notification System:

[ERNS](#)

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Mar 21, 2019

The Assessment, Cleanup and Redevelopment Exchange System (ACRES) Brownfield Database:

[FED BROWNFIELDS](#)

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressures off greenspaces and working lands. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Jan 11, 2019

FEMA Underground Storage Tank Listing:

[FEMA UST](#)

The Federal Emergency Management Agency (FEMA) of the Department of Homeland Security maintains a list of FEMA owned underground storage tanks.

Government Publication Date: Dec 31, 2017

Petroleum Refineries:

REFN

List of petroleum refineries from the U.S. Energy Information Administration (EIA) Refinery Capacity Report. Includes operating and idle petroleum refineries (including new refineries under construction) and refineries shut down during the previous year located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, and other U.S. possessions. Survey locations adjusted using public data.

Government Publication Date: Jul 17, 2018

Petroleum Product and Crude Oil Rail Terminals:

BULK TERMINAL

List of petroleum product and crude oil rail terminals made available by the U.S. Energy Information Administration (EIA). Includes operable bulk petroleum product terminals located in the 50 States and the District of Columbia with a total bulk shell storage capacity of 50,000 barrels or more, and/or the ability to receive volumes from tanker, barge, or pipeline; also rail terminals handling the loading and unloading of crude oil that were active between 2017 and 2018. Petroleum product terminals comes from the EIA-815 Bulk Terminal and Blender Report, which includes working, shell in operation, and shell idle for several major product groupings. Survey locations adjusted using public data.

Government Publication Date: Jan 18, 2019

LIEN on Property:

SEMS LIEN

The EPA Superfund Enterprise Management System (SEMS) provides LIEN information on properties under the EPA Superfund Program.

Government Publication Date: Jun 11, 2019

Superfund Decision Documents:

SUPERFUND ROD

This database contains a listing of decision documents for Superfund sites. Decision documents serve to provide the reasoning for the choice of (or) changes to a Superfund Site cleanup plan. The decision documents include Records of Decision (ROD), ROD Amendments, Explanations of Significant Differences (ESD), along with other associated memos and files. This information is maintained and made available by the US EPA (Environmental Protection Agency).

Government Publication Date: Jun 11, 2019

State

Tank Facilities Not Currently Registered:

UNREG TANK

A list of tanks known to the Department of Licensing and Regulatory Affairs in Michigan which do not require registration.

Government Publication Date: Dec 12, 2017

Part 201 Site List:

SHWS

A Part 201 Facility is an area, place, or property where a hazardous substance in excess of the concentrations that satisfy the cleanup criteria for unrestricted residential use has been released, deposited, disposed of, or otherwise comes to be located. This list is maintained by the Remediation and Redevelopment Division in Department of Environmental Quality (DEQ). This database is state equivalent CERCLIS.

Government Publication Date: Jun 10, 2019

Delisted Hazardous and BEA Sites:

DELISTED SHWS

This list is comprised of sites that were once included in the inventory of facilities (Part 201, BEA) list but have been removed. After the Department of Environmental Quality (DEQ) has determined that a BEA Part 201 site has been remediated, the site is removed from the inventory of facilities. This database is state equivalent CERCLIS.

Government Publication Date: Jun 10, 2019

State Sites Cleanup List of Sites:

SITE CLEANUP

Public Act 380 of 1996 amended Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, PA 451 of 1994, by adding Section 20108c and creating the State Sites Cleanup Fund (SSCUF) and the State Sites Cleanup Program (SSCUP). Its intent was to fund environmental cleanups at contaminated sites where the state is a liable party as an owner or operator of the site, as defined in Section 20126 of Part 201. This list is maintained by the Department of Environmental Quality (DEQ).

Government Publication Date: Feb 6, 2019

Solid Waste Facilities and Landfills:

SWF/LF

An inventory of solid waste and landfill facilities maintained by the Department of Environmental Quality (DEQ). This list contains all disposal area types and status types.

Government Publication Date: Apr 23, 2019

Waste Data System:

WASTE

The Waste Data System (WDS) tracks activities at sites regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs. This list of sites is provided by the Michigan Department of Environmental Quality (DEQ).

Government Publication Date: May 13, 2019

Leaking Underground Storage Tank:

LUST

At the time of a release, the owner/operator is responsible for the corrective actions mandated by Part 213, Leaking Underground Storage Tanks, of the Natural Resources and Environmental Protection Act, 1994 of PA 451, as amended (NREPA). Owners/operators are required to hire consultants that meet the qualifications in Section 21325 of Part 213 to perform corrective actions, and to submit specific reports required by the statute. The Remediation Division of the Department of Environmental Quality (DEQ) is charged with selectively auditing the final assessment reports and closure reports.

Government Publication Date: Jul 8, 2019

Underground Storage Tank:

UST

List of Underground Storage Tank (UST) locations made available by the Michigan Department of Licensing and Regulatory Affairs. Active UST facilities are those where there is at least one tank at the facility that is not closed in place or removed, and is regulated under Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). There may be closed tanks and/or active non-regulated tanks (such as heating oil tanks) at Active facilities. Closed UST facilities are those at which all tanks at the facility that are regulated under Part 211 are closed; there may be non-regulated active tanks at closed facilities, such as heating oil tanks or tanks with a capacity smaller than the regulatory threshold.

Government Publication Date: May 7, 2019

Aboveground Storage Tanks:

AST

The Aboveground Storage Tank (AST) Program in the Department of Licensing and Regulatory Affairs (LARA) regulates the following: storage and handling of flammable and combustible liquids with flash point less than 200 degrees Fahrenheit, storage and handling of liquefied petroleum gases compressed natural gas vehicular systems. The regulatory authority is from the Fire Prevention Code, 1941 PA 207, as amended, and the rules promulgated under the act.

Government Publication Date: May 7, 2019

Delisted Leaking Underground Storage Tank:

DELISTED LUST

This list is comprised of sites that were once included in the Leaking Underground Storage Tank list but have been removed. After the Department of Environmental Quality (DEQ) has determined that a Leaking Underground Storage Tank (LUST) site has been excluded from the DEQ STID Database, the site is removed from the inventory of facilities.

Government Publication Date: Jul 8, 2019

Delisted Storage Tank:

DELISTED TANK

This list is comprised of sites that were once included in the Storage Tank list but have been removed. After the Department of Environmental Quality (DEQ) has determined that an Storage Tank site has been excluded from the DEQ STID Database, the site is removed from the inventory of facilities.

Government Publication Date: May 7, 2019

Engineering and Institutional Controls:

AUL

A list of Engineering and Institutional Controls. According to U.S. Environmental Protection Agency (EPA), these engineering and institutional controls are usually legal controls intended to influence human activities in such a way as to prevent or reduce exposure to hazardous wastes or hazardous constituents that are left on a site following active cleanup work. Institutional controls, however, are not intended to be used as secured abandonment (i.e., physically securing a site and preventing exposure while making little or no effort to ensure that chemicals of concerns do not migrate to and beyond the property boundary). Institutional controls may not be appropriate as the sole remedy for off-site releases. EPA's expectation is for sites to be remediated to allow for reasonable beneficial reuse. U.S. EPA has developed guidance on the use of institutional controls at Superfund and RCRA corrective action sites, and the guidance should be consulted for additional information concerning their applicability and use.

Government Publication Date: Dec 12, 2018

Brownfield Redevelopment Financing Act Sites:

BROWNFIELDS

List of sites included in the Michigan Department of Environmental Quality (DEQ)'s reporting on Brownfield Redevelopment Financing Act activities from 2003-2012. In Michigan, the Brownfield Redevelopment Financing Act (Act 381) of 1996 authorizes municipalities to create brownfield redevelopment authorities to facilitate the implementation of brownfield plans and to create brownfield redevelopment zones in order to promote the revitalization, redevelopment, and reuse of certain properties.

Government Publication Date: Dec 31, 2017

Tribal

Leaking Underground Storage Tanks on Indian Lands:

INDIAN LUST

LUSTs on Tribal/Indian Lands in Region 5, which includes Michigan, Minnesota, and Wisconsin.

Government Publication Date: Oct 16, 2017

Underground Storage Tanks (USTs) on Indian Lands:

INDIAN UST

USTs on Tribal/Indian Lands in Region 5, which includes Michigan, Minnesota, and Wisconsin.

Government Publication Date: Oct 16, 2017

Delisted Tribal Leaking Storage Tanks:

DELISTED ILST

Leaking Underground Storage Tank facilities which have been removed from the Regional Tribal LUST lists made available by the EPA.

Government Publication Date: Oct 14, 2017

Delisted Tribal Underground Storage Tanks:

DELISTED IUST

Underground Storage Tank facilities which have been removed from the Regional Tribal UST lists made available by the EPA.

Government Publication Date: Oct 14, 2017

County

No County standard environmental record sources available for this State.

Additional Environmental Record Sources

Federal

PFOA/PFOS Contaminated Sites:

PFAS NPL

List of sites where PFOA or PFOS contaminants have been found in drinking water or soil. Made available by the Federal Environmental Protection Agency (EPA).

Government Publication Date: Nov 15, 2018

Facility Registry Service/Facility Index:

FINDS/FRS

The US Environmental Protection Agency (EPA)'s Facility Registry System (FRS) is a centrally managed database that identifies facilities, sites or places subject to environmental regulations or of environmental interest. FRS creates high-quality, accurate, and authoritative facility identification records through rigorous verification and management procedures that incorporate information from program national systems, state master facility records, data collected from EPA's Central Data Exchange registrations and data management personnel.

Government Publication Date: Apr 23, 2019

Toxics Release Inventory (TRI) Program:

TRIS

The EPA's Toxics Release Inventory (TRI) is a database containing data on disposal or other releases of over 650 toxic chemicals from thousands of U.S. facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment. One of TRI's primary purposes is to inform communities about toxic chemical releases to the environment.

Government Publication Date: Dec 31, 2017

Perfluorinated Alkyl Substances (PFAS) Releases:

PFAS TRI

List of Toxics Release Inventory (TRI) facilities at which the reported chemical is a Per- or polyfluorinated alkyl substance (PFAS) included in the Environmental Protection Agency (EPA)'s consolidated PFAS Master List of PFAS Substances. The EPA's Toxics Release Inventory (TRI) is a database containing data on disposal or other releases of over 650 toxic chemicals from thousands of U.S. facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment.

Government Publication Date: Dec 31, 2017

Hazardous Materials Information Reporting System:

HMIRS

US DOT - Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) Incidents Reports Database taken from Hazmat Intelligence Portal, U.S. Department of Transportation.

Government Publication Date: Jan 8, 2019

National Clandestine Drug Labs:

NCDL

The U.S. Department of Justice ("the Department") provides this data 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.

Government Publication Date: Jul 18, 2018

Toxic Substances Control Act:

[TSCA](#)

The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.

The CDR enables EPA to collect and publish information on the manufacturing, processing, and use of commercial chemical substances and mixtures (referred to hereafter as chemical substances) on the TSCA Chemical Substance Inventory (TSCA Inventory). This includes current information on chemical substance production volumes, manufacturing sites, and how the chemical substances are used. This information helps the Agency determine whether people or the environment are potentially exposed to reported chemical substances. EPA publishes submitted CDR data that is not Confidential Business Information (CBI).

Government Publication Date: Jun 30, 2017

Hist TSCA:

[HIST TSCA](#)

The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.

The 2006 IUR data summary report includes information about chemicals manufactured or imported in quantities of 25,000 pounds or more at a single site during calendar year 2005. In addition to the basic manufacturing information collected in previous reporting cycles, the 2006 cycle is the first time EPA collected information to characterize exposure during manufacturing, processing and use of organic chemicals. The 2006 cycle also is the first time manufacturers of inorganic chemicals were required to report basic manufacturing information.

Government Publication Date: Dec 31, 2006

FTTS Administrative Case Listing:

[FTTS ADMIN](#)

An administrative case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

FTTS Inspection Case Listing:

[FTTS INSP](#)

An inspection case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

Potentially Responsible Parties List:

[PRP](#)

Early in the cleanup process, the Environmental Protection Agency (EPA) conducts a search to find the potentially responsible parties (PRPs). EPA looks for evidence to determine liability by matching wastes found at the site with parties that may have contributed wastes to the site.

Government Publication Date: Jun 11, 2019

State Coalition for Remediation of Drycleaners Listing:

[SCRD DRYCLEANER](#)

The State Coalition for Remediation of Drycleaners (SCRD) was established in 1998, with support from the U.S. Environmental Protection Agency (EPA) Office of Superfund Remediation and Technology Innovation. Coalition members are states with mandated programs and funding for drycleaner site remediation. Current members are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Government Publication Date: Nov 08, 2017

Integrated Compliance Information System (ICIS):

[ICIS](#)

The Integrated Compliance Information System (ICIS) is a system that provides information for the Federal Enforcement and Compliance (FE&C) and the National Pollutant Discharge Elimination System (NPDES) programs. The FE&C component supports the Environmental Protection Agency's (EPA) Civil Enforcement and Compliance program activities. These activities include Compliance Assistance, Compliance Monitoring and Enforcement. The NPDES program supports tracking of NPDES permits, limits, discharge monitoring data and other program reports.

Government Publication Date: Nov 18, 2016

Drycleaner Facilities:

[FED DRYCLEANERS](#)

A list of drycleaner facilities from the Integrated Compliance Information System (ICIS). The Environmental Protection Agency (EPA) tracks facilities that possess NAIC and SIC codes that classify businesses as drycleaner establishments.

Government Publication Date: May 29, 2018

Delisted Drycleaner Facilities:

DELISTED FED DRY

List of sites removed from the list of Drycleaner Facilities (sites in the EPA's Integrated Compliance Information System (ICIS) with NAIC or SIC codes identifying the business as a drycleaner establishment).

Government Publication Date: May 29, 2018

Formerly Used Defense Sites:

FUDS

Formerly Used Defense Sites (FUDS) are properties that were formerly owned by, leased to, or otherwise possessed by and under the jurisdiction of the Secretary of Defense prior to October 1986, where the Department of Defense (DoD) is responsible for an environmental restoration. This list is published by the U.S. Army Corps of Engineers.

Government Publication Date: Oct 23, 2018

Material Licensing Tracking System (MLTS):

MLTS

A list of sites that store radioactive material subject to the Nuclear Regulatory Commission (NRC) licensing requirements. This list is maintained by the NRC. As of September 2016, the NRC no longer releases location information for sites. Site locations were last received in July 2016.

Government Publication Date: Nov 1, 2018

Historic Material Licensing Tracking System (MLTS) sites:

HIST MLTS

A historic list of sites that have inactive licenses and/or removed from the Material Licensing Tracking System (MLTS). In some cases, a site is removed from the MLTS when the state becomes an "Agreement State". An Agreement State is a State that has signed an agreement with the Nuclear Regulatory Commission (NRC) authorizing the State to regulate certain uses of radioactive materials within the State.

Government Publication Date: Jan 31, 2010

Mines Master Index File:

MINES

The Master Index File (MIF) contains mine identification numbers issued by the Department of Labor Mine Safety and Health Administration (MSHA) for mines active or opened since 1971. Note that addresses may or may not correspond with the physical location of the mine itself.

Government Publication Date: May 3, 2019

Alternative Fueling Stations:

ALT FUELS

List of alternative fueling stations made available by the US Department of Energy's Office of Energy Efficiency & Renewable Energy. Includes Biodiesel stations, Ethanol (E85) stations, Liquefied Petroleum Gas (Propane) stations, Ethanol (E85) stations, Natural Gas stations, Hydrogen stations, and Electric Vehicle Supply Equipment (EVSE). The National Renewable Energy Laboratory (NREL) obtains information about new stations from trade media, Clean Cities coordinators, a Submit New Station form on the Station Locator website, and through collaborating with infrastructure equipment and fuel providers, original equipment manufacturers (OEMs), and industry groups.

Government Publication Date: Jun 26, 2019

Registered Pesticide Establishments:

SSTS

List of active EPA-registered foreign and domestic pesticide-producing and device-producing establishments based on data from the Section Seven Tracking System (SSTS). The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Section 7 requires that facilities producing pesticides, active ingredients, or devices be registered. The list of establishments is made available by the EPA.

Government Publication Date: Sep 1, 2018

Polychlorinated Biphenyl (PCB) Notifiers:

PCB

Facilities included in the national list of facilities that have notified the United States Environmental Protection Agency (EPA) of Polychlorinated Biphenyl (PCB) activities. Any company or person storing, transporting or disposing of PCBs or conducting PCB research and development must notify the EPA and receive an identification number.

Government Publication Date: Mar 20, 2019

State

Pollution Emergency Alerting (PEAS):

SPILLS

The PEAS listing maintained by the Department of Environmental Quality (DEQ) points out the environmental damages/pollution, such as tanker accidents, pipeline breaks, and releases of reportable quantities of hazardous substances. Inconsistencies which existed in the data as it came from the source have not been interpreted or fixed, the data is provided as it was received from the DEQ.

Government Publication Date: Jan 23, 2019

Baseline Environmental Assessment:

BEA

A Michigan Baseline Environmental Assessment (BEA) from the Department of Environmental Quality (DEQ) allows people to purchase or begin operating at a facility without being held liable for existing contamination. BEAs are used to gather enough information about the property being transferred so that existing contamination can be distinguished from any new releases that might occur after the new owner or operator takes over the property.

Government Publication Date: Jun 10, 2019

Michigan PFAS Sites:

PFAS

A list of sites where Per- and Polyfluoroalkyl substances (PFAS) are being investigated, made available by the Michigan Department of Environment, Great Lakes, and Energy (EGLE). PFAS sites are where one or more groundwater sample exceeds the Part 201 cleanup criteria for groundwater used as drinking water, which is 70 parts per trillion of perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA), individually or combined. Site investigations get started for a variety of reasons. At some sites, like Superfund sites, EGLE staff have been overseeing environmental cleanup efforts for many years, and may add PFAS sampling to ongoing sampling if PFAS was known or suspected to have been used at the site. Other sites were sampled due to historical information, such as Carl's Retreading, which was where tires burned for many days and firefighting foam containing PFAS was used. EGLE is committed to continuing to do all of these types of sampling efforts.

Government Publication Date: Jun 19, 2019

Dry Cleaning Facilities:

DRYCLEANERS

A listing of dry cleaning facilities registered with the Air Condition Division in the Michigan Department of Environmental Quality (DEQ).

Government Publication Date: Jan 15, 2019

Delisted Drycleaners List:

DELISTED DRYCLEANERS

List of sites removed from the drycleaning facilities database made available by the Michigan Department of Environmental Quality (DEQ).

Government Publication Date: Jan 15, 2019

Perfected Liens List:

LIEN

A list of perfected liens on properties pursuant to Section 20138 of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), MCL 324.20101 et seq. This list is made available by the Department of Environmental Quality (DEQ), Remediation and Redevelopment Division (RRD).

Government Publication Date: Nov 2, 2018

Tribal

No Tribal additional environmental record sources available for this State.

County

No County additional environmental record sources available for this State.

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

Appendix E
Aerial Photograph Documentation



Year: 2018
Source: NAIP
Scale: 1" to 500'
Comments:

Site Address: 13020 Washburn Rd Otter Lake MI
Approx Center: 43.19540 / -83.45691



Order No: 20190829106



www.erisinfo.com | 1.866.517.5204



Year: 2016
Source: NAIP
Scale: 1" to 500'
Comments:

Site Address: 13020 Washburn Rd Otter Lake MI
Approx Center: 43.19540 / -83.45691



Order No: 20190829106



www.erisinfo.com | 1.866.517.5204



Year: 2014
Source: NAIP
Scale: 1" to 500'
Comments:

Site Address: 13020 Washburn Rd Otter Lake MI
Approx Center: 43.19540 / -83.45691



Order No: 20190829106



www.erisinfo.com | 1.866.517.5204



Year: 2012
Source: NAIP
Scale: 1" to 500'
Comments:

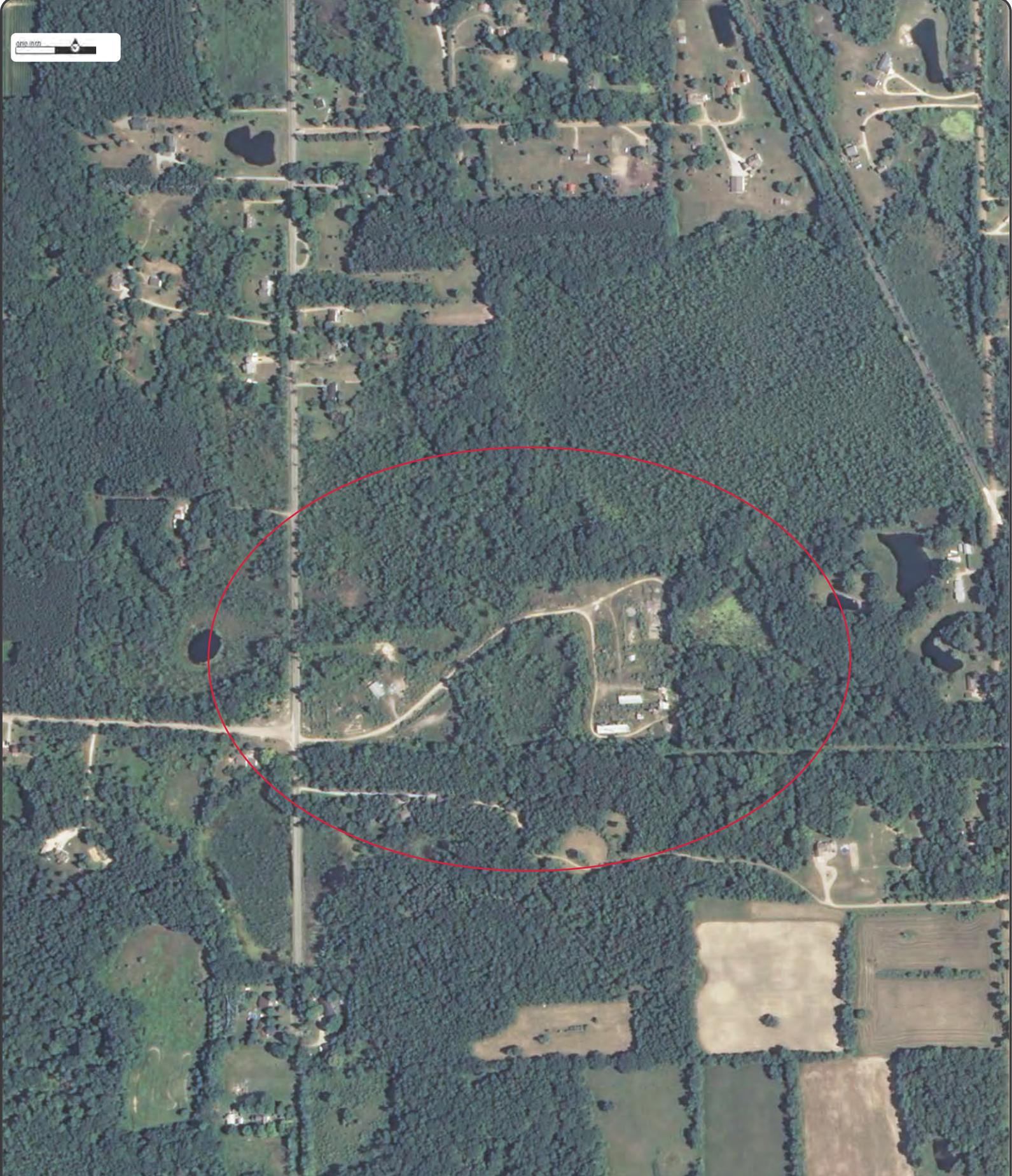
Site Address: 13020 Washburn Rd Otter Lake MI
Approx Center: 43.19540 / -83.45691



Order No: 20190829106



www.ERISinfo.com | 1.866.517.5204



Year: 2010
Source: NAIP
Scale: 1" to 500'
Comments:

Site Address: 13020 Washburn Rd Otter Lake MI
Approx Center: 43.19540 / -83.45691



Order No: 20190829106



www.erisinfo.com | 1.866.517.5204



Year: 2009
Source: NAIP
Scale: 1" to 500'
Comments:

Site Address: 13020 Washburn Rd Otter Lake MI
Approx Center: 43.19540 / -83.45691



Order No: 20190829106



www.erisinfo.com | 1.866.517.5204



Year: 2005
Source: NAIP
Scale: 1" to 500'
Comments:

Site Address: 13020 Washburn Rd Otter Lake MI
Approx Center: 43.19540 / -83.45691



Order No: 20190829106



www.erisinfo.com | 1.866.517.5204



Year: 1999
Source: USGS
Scale: 1" to 500'
Comments:

Site Address: 13020 Washburn Rd Otter Lake MI
Approx Center: 43.19540 / -83.45691

Order No: 20190829106



www.erisinfo.com | 1.866.517.5204



Year: **1993**
 Source: **NAPP**
 Scale: **1" to 500'**
 Comments: *BEST COPY AVAILABLE*

Site Address: 13020 Washburn Rd Otter Lake MI
 Approx Center: 43.19540 / -83.45691



Order No: 20190829106



www.erisinfo.com | 1.866.517.5204



Year: 1982
Source: NHAP
Scale: 1" to 500'
Comments:

Site Address: 13020 Washburn Rd Otter Lake MI
Approx Center: 43.19540 / -83.45691



Order No: 20190829106



www.erisinfo.com | 1.866.517.5204



Year: 1978
Source: USGS
Scale: 1" to 500'
Comments:

Site Address: 13020 Washburn Rd Otter Lake MI
Approx Center: 43.19540 / -83.45691



Order No: 20190829106



www.erisinfo.com | 1.866.517.5204



Year: 1964
Source: ASCS
Scale: 1" to 500'
Comments:

Site Address: 13020 Washburn Rd Otter Lake MI
Approx Center: 43.19540 / -83.45691

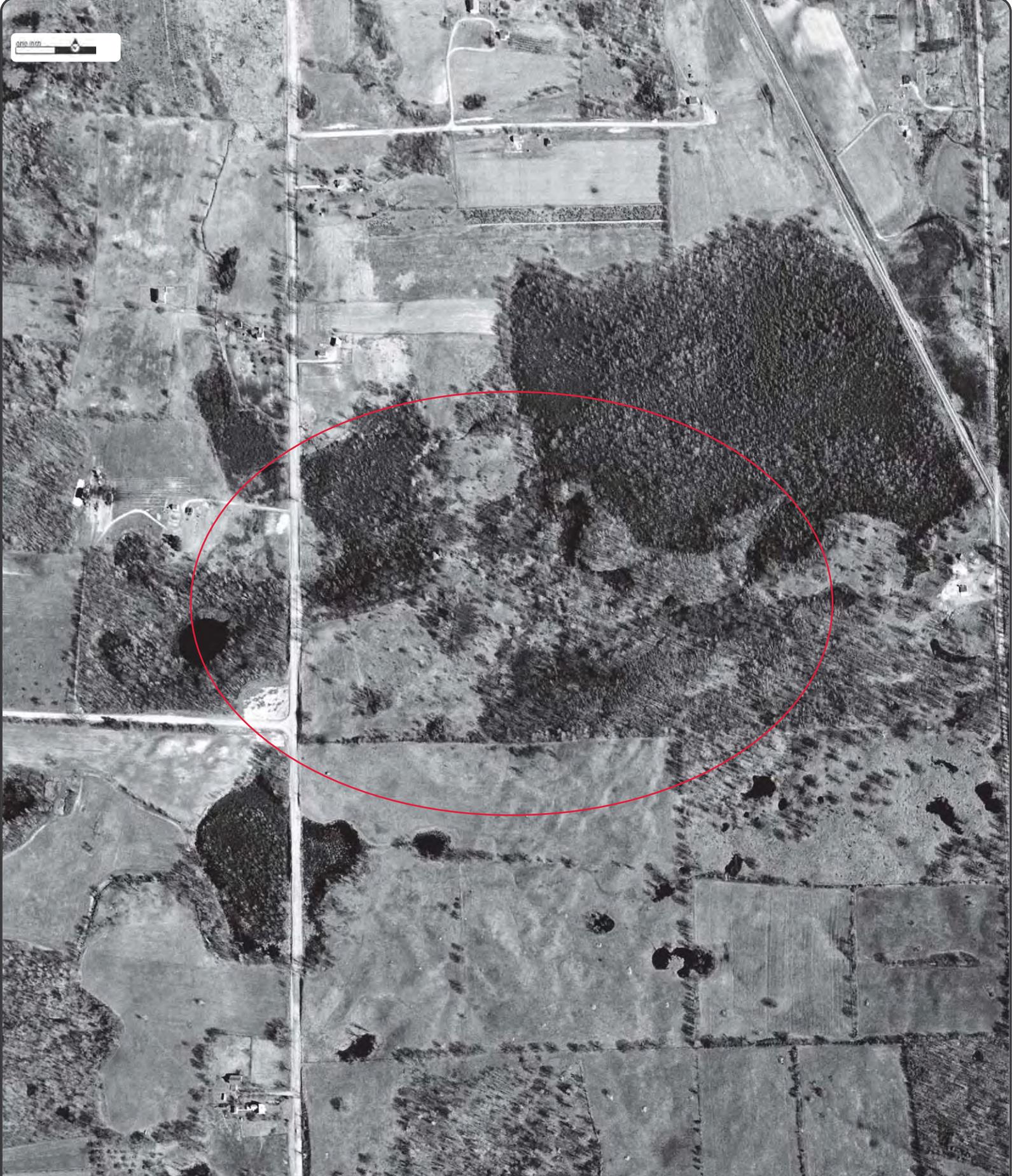


Order No: 20190829106



www.erisinfo.com | 1.866.517.5204

0 100 200



Year: 1959
Source: USGS
Scale: 1" to 500'
Comments:

Site Address: 13020 Washburn Rd Otter Lake MI
Approx Center: 43.19540 / -83.45691

Order No: 20190829106



www.erisinfo.com | 1.866.517.5204

0 100 200



Year: 1954
Source: USGS
Scale: 1" to 500'
Comments:

Site Address: 13020 Washburn Rd Otter Lake MI
Approx Center: 43.19540 / -83.45691

Order No: 20190829106



www.erisinfo.com | 1.866.517.5204



Year: 1941
Source: ASCS
Scale: 1" to 500'
Comments:

Site Address: 13020 Washburn Rd Otter Lake MI
Approx Center: 43.19540 / -83.45691



Order No: 20190829106



www.erisinfo.com | 1.866.517.5204



Year: 1938
Source: ASCS
Scale: 1" to 500'
Comments:

Site Address: 13020 Washburn Rd Otter Lake MI
Approx Center: 43.19540 / -83.45691



Order No: 20190829106



www.erisinfo.com | 1.866.517.5204